



Addendum No. 1 to Mitigated Negative Declaration

Cactus Avenue Corridor Groundwater Wells Project

State Clearinghouse #2020030267

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APPENDICES

Appendix A – CalEEMod Results

Appendix B - Biological Resources Assessment Addendum

Appendix C - Cultural Resources Assessment Addendum

Acronyms

Acronym	Definition
Basin Plan	Santa Ana Basin Water Quality Control Plan
BMPs	Best Management Practices
CCE	Cactus Corridor East
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dB	decibel
dBA	a-weighted decibel
EIR	Environmental Impact Report
EMWD	Eastern Municipal Water District
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GSP	Groundwater Sustainability Plan
IEBL	Inland Empire Brine Line
IS/MND	Initial Study/Mitigated Negative Declaration
L _{eq}	Equivalent average sound level
LOS	level of service
MARB	March Air Reserve Base
MLD	Most Likely Descendant
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric tons
MVU	Moreno Valley Electric Utility
NPDES	National Pollutant Discharge Elimination System
O&M	operations and maintenance
PM	particulate matter
PPV	peak particle velocity
PRC	Public Resources Code
RWQCB	Regional Water Quality Control Board

SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SWPPP	Storm Water Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
VdB	vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compound

1. INTRODUCTION

This document is Addendum No. 1 to the Cactus Avenue Corridor Groundwater Wells Project Mitigated Negative Declaration (State Clearinghouse [SCH] No. 2020030267) (referred to hereafter as the “MND”). The Addendum to the MND has been prepared pursuant to the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 15164.

1.1 Project Background

On May 20, 2020 Eastern Municipal Water District (EMWD) adopted the MND and Mitigation Monitoring and Reporting Program for the Cactus Avenue Corridor Groundwater Wells Project (Approved Project). In June 2020, EMWD determined the need to include additional facilities/options in the Approved Project. An Addendum to the MND has been identified as the appropriate CEQA documentation to address these proposed changes (see *Section 1.3*, below).

1.1.1 Original Approved Project

The MND analyzed the environmental impacts of construction and operation of groundwater extraction wells, raw water pipelines, a water treatment and blending facility, and treated water pipelines in the Perris North Groundwater Basin, shown in **Figure 1-1**. A total of up to six extraction wells were included in the Approved Project. Up to four of these wells would be constructed generally north of March Air Reserve Base (MARB) (North Sub-Area), each of which would be approximately 250 gallons per minute (gpm). Up to two wells would be constructed generally east of MARB (East Sub-Area), each with a capacity of 650 gpm. The MND evaluated various sites (optional sites) for the proposed wells.

The Approved Project’s treatment and blending facility would be constructed and operated at one of three evaluated sites (see **Figure 1-1**). The treatment/blending facility would treat, blend, and disinfect raw water from the extraction wells before delivering it into a large diameter transmission pipeline in the potable water system for conveyance to other parts of EMWD’s service area. The treated water from the extraction wells would be blended with imported water from Metropolitan Water District of Southern California to drinking water standards, disinfected, and then delivered to a transmission pipeline in the potable water system that would convey the water to other parts of EMWD’s service area. Brine generated by the treatment facility would be disposed of either through the sanitary sewer system or hauled to a collection facility for disposal into the Inland Empire Brine Line (IEBL).

Approximately 32,600 linear feet of pipeline would be constructed to convey raw water from the extraction wells to the proposed treatment facility, and to convey treated water from the treatment facility to the distribution system. These pipelines would be located primarily within easements, roadway rights of way, and EMWD owned land. The MND evaluated multiple alignment options that may be implemented depending on the final selection of sites for the extraction wells and treatment facilities (see **Figure 1-1**).

1.1.2 Proposed Modified Project

The following are summaries of new project elements that modify the original Approved Project. These modified elements, together with the Approved Project, constitute the “Modified Project.” A detailed listing of the new elements can be found in *Section 2 Project Description*.

Additional Extraction Well

The Modified Project would result in the construction of an additional well on an EMWD owned site located on the east side of Perris Boulevard north of Bay Avenue. Construction of this well would raise the overall number of Project wells to seven. This site is also the proposed site for Treatment Plant Option 1 and Cactus Corridor Well 4, Option 1. The additional well, “Cactus Corridor Well 5, Option 1” would be similar in size and depth to Cactus Corridor Well 4, Option 1 and would be constructed in a manner consistent with the other extraction wells in the North Sub-Area. **Figure 1-2** and **Figure 1-3** show the proposed location for this new well.

New Optional Locations for Cactus Corridor East Well 2

EMWD has identified two additional optional well sites for Cactus Corridor East (CCE) Well 2: (1) Pedorena Park (herein referred to as “CCE Well 2, Option 3”), and (2) a vacant triangular parcel south of the Iris Avenue/Wedow Drive intersection (herein referred to as “CCE Well 2, Option 4”). **Figure 1-2** and **Figure 1-3** show the locations for both wells. These wells would have similar size and depths as described for CCE Well 2, Options 1 and 2. Additionally, both options assume in-street pipeline alignments to connect to existing EMWD pipeline infrastructure. It should be noted that these are optional sites for Well 2. When implemented, only one well would be constructed from CCE Well 2, Options 1-4.

Modified Pipeline Alignments

A revised pipeline alignment for the Victoriano Park well option (CCE Well 2, Option 1) is also proposed in the Modified Project. Instead of the approved in-street pipeline alignment from Victoriano Park northeast within Los Cabos Drive to Kitching Street (where it would tie into existing water infrastructure), the Modified Project’s alignment would redirect the pipeline southeast within Los Cabos Drive to Iris Avenue, and then west within Iris Avenue to Kitching Street, and then north within Kitching Street to tie into existing water infrastructure near the Kitching Street/Los Cabos Drive intersection.

In total, the revised pipeline alignment represents an overall increase in pipeline length of 2,219 linear feet if Victoriano Park (CCE Well 2, Option 1) is selected, an increase in 962 linear feet if Pedorena Park (CCE Well 2, Option 3) is selected, or an increase in 1,045 linear feet if the Iris Avenue/Wedow Drive site (CCE Well 2, Option 4) is selected. No changes would occur if Parque Armistad (CCE Well 2, Option 2) is selected.

Figure 1-2 shows the proposed Modified Project together with the Approved Project, while **Figure 1-3** shows only components of the Modified Project that differ from the Approved Project.

1.2 Purpose of Addendum

Addendum No.1 addresses potential environmental effects of the construction and operation of the Modified Project as shown in **Figure 1-2** (and discussed in greater detail in Section 2). The MND and Addendum No.1, together with the other documents incorporated by reference herein, serve as the environmental review of the Cactus Avenue Corridor Groundwater Wells Project (Modified Project), as required pursuant to the provisions of CEQA, the CEQA Guidelines, 14 California Code of Regulations (CCR) Section 15164 et seq. The environmental analysis in this Addendum and all feasible mitigation measures identified in the MND would be incorporated into the resolutions approving the Modified Project.

Figure 1-1: Original Approved Project Evaluated in MND

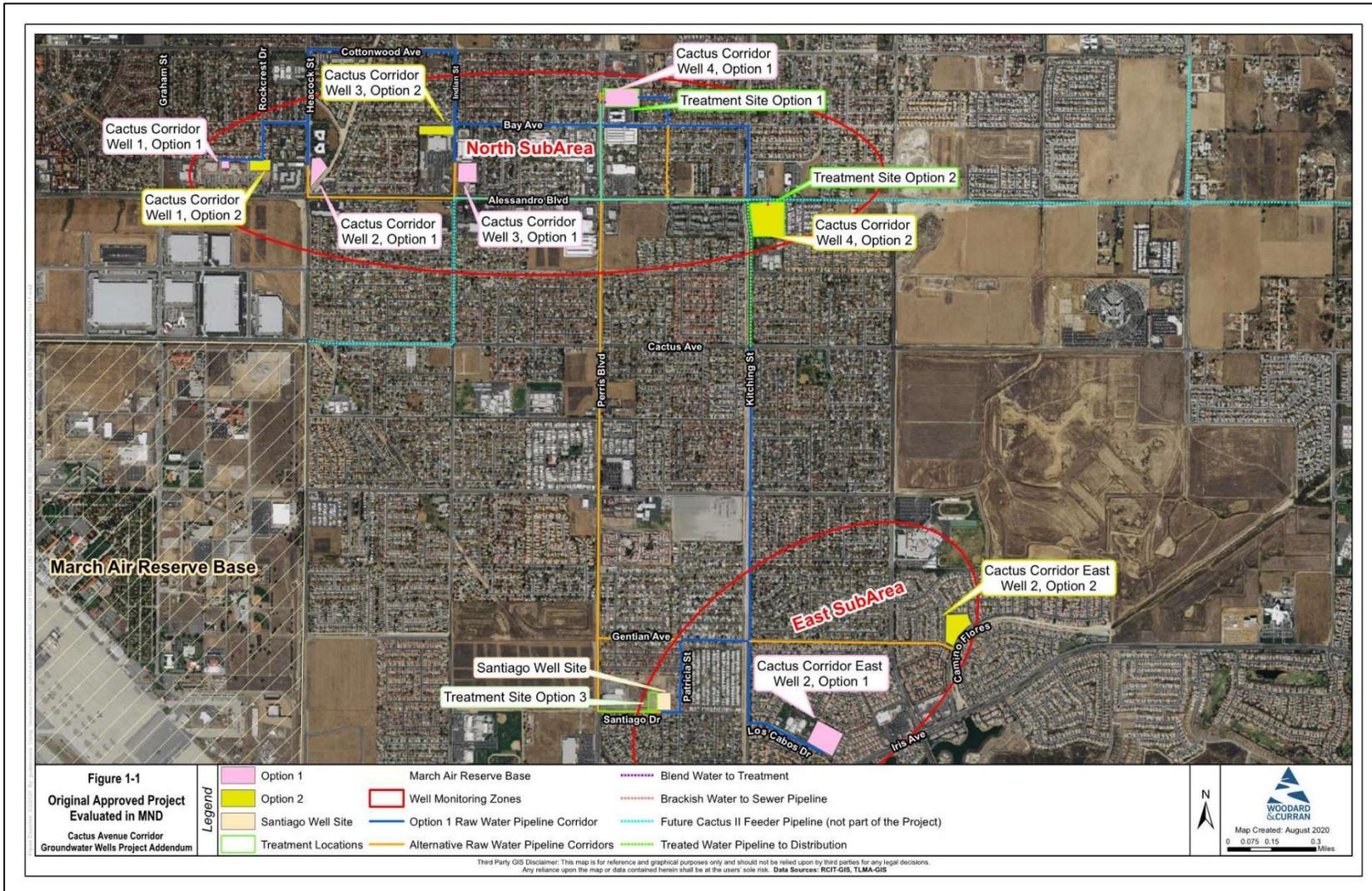


Figure 1-2: Modified Project (Approved Project and Modified Elements)

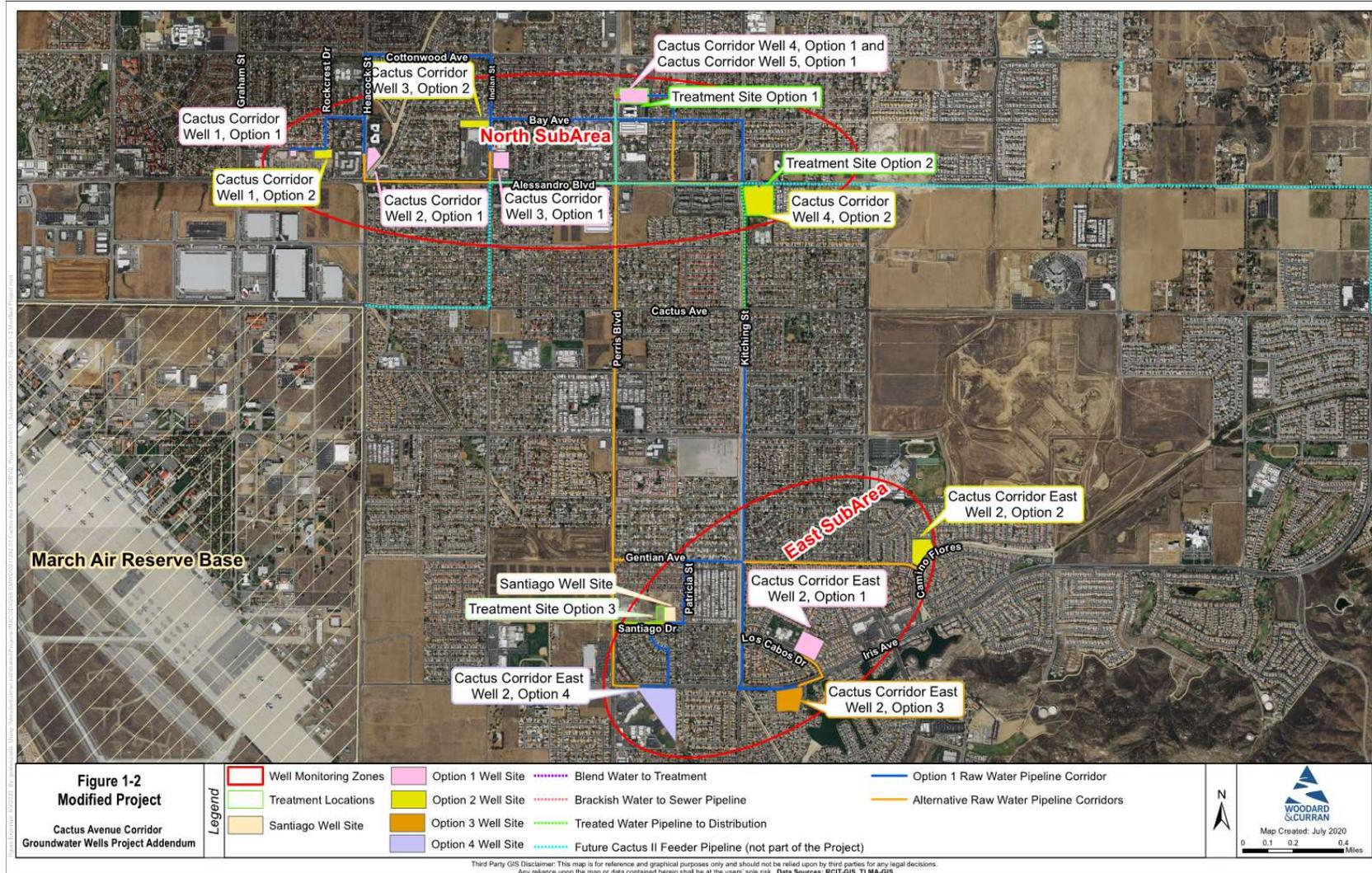
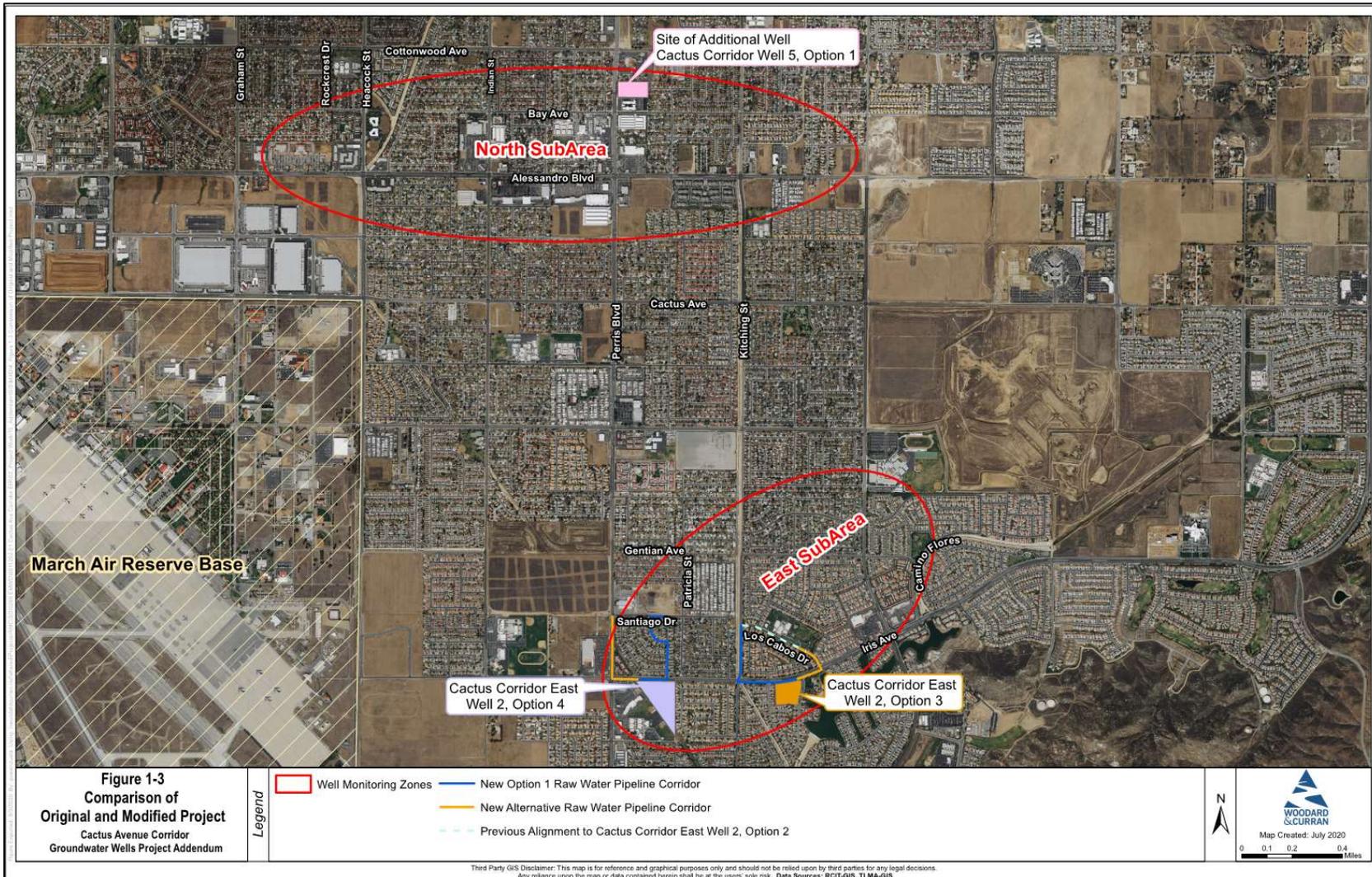


Figure 1-3: Changes from the Approved Project in the Modified Project



1.3 Basis for Addendum

Section 15164 of the CEQA Guidelines states: “The lead agency or responsible agency shall prepare an addendum to a previously certified Environmental Impact Report (EIR) if some changes or additions are necessary but none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR have occurred.” Pursuant to Section 15162 of the CEQA Guidelines, no subsequent EIR may be required for the project unless the lead agency determines, on the basis of substantial evidence, that one or more of the following conditions are met:

- A. When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:
 - (1) Substantial changes are proposed in the project which would require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
 - (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which would require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
 - (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
 - (a) The project would have one or more significant effects not discussed in the previous EIR or negative declaration;
 - (b) Significant effects previously examined would be substantially more severe than shown in the previous EIR;
 - (c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - (d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

- B. If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.
- C. Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening of that approval. If after the project is approved, any of the conditions described in subdivision a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.

EMWD has assessed the proposed project modifications in light of the requirements defined under Section 15162 of the CEQA Guidelines. As discussed in this Addendum, none of the conditions requiring preparation of a subsequent negative declaration under Section 15162 of the CEQA Guidelines are satisfied.

1.4 Evaluation of Environmental Impacts

This Addendum uses an Environmental Checklist Form, pursuant to Section 15063(d)(3) of the CEQA Guidelines, that compares the anticipated environmental effects of the proposed Modified Project with those disclosed in the MND, and reviews whether any of the conditions requiring preparation of a Subsequent EIR or MND pursuant to Section 15162 of the CEQA Guidelines are met, and whether there are new significant impacts resulting from the proposed Modified Project. The Environmental Checklist Form is used to review the potential environmental effects of the proposed Modified Project for each of the following areas:

- Aesthetics;
- Agriculture Resources;
- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Greenhouse Gas Emissions;
- Energy;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning;
- Noise;
- Public Services;
- Recreation;
- Transportation and Traffic;

- Tribal Cultural Resources;
- Utilities and Service Systems; and
- Wildfire Risk Emergency Planning.

The following resource areas were found to have No Impact in the MND, and the Modified Project would also result in a finding of No Impact. Therefore, these resource areas are not analyzed further in this Addendum:

- Scenic resources within the viewshed of a State scenic highway;
- Forestry Resources;
- Rupture of an earthquake fault;
- Soils capable of supporting alternative waste disposal systems;
- Safety hazards or excessive noise within two miles of an airport;
- Mineral Resources;
- Population and Housing,
- Sufficient water supplies; and
- Wildfire hazards on lands classified as very high fire hazard severity zones.

Impact Terminology

The responses to each of the Environmental Checklist questions addressed in this Addendum use CEQA terminology as specified below:

Reduced Impact. The impacts of the Modified Project would be less than those of the original Approved Project.

No New Impact/No Impact. The Modified Project would result in no impact or no new impact compared to the original Approved Project.

New Mitigation Required. The Modified Project would result in a new or substantially greater impact compared to the original Approved Project and new mitigation would be required to reduce the impact to a less than significant level.

New Potentially Significant Impact. The Modified Project would result in a new impact or substantially greater impact compared to the Original Approved Project. A subsequent MND or EIR would be required.

1.5 Summary of Findings

The environmental evaluation in this Addendum has concluded that major revisions of the MND due to new significant environmental effects or a substantial increase in the severity of previously identified significant effects are not required. There are no substantial changes proposed in the Modified Project; no substantial changes in the circumstances under which the Modified Project would be undertaken; and no new information of substantial importance which was unknown or could not have been known at the time the MND was certified. The impacts of the Modified Project are consistent with the impacts of the original Approved Project in the MND. There are no new significant impacts resulting from implementation of the Modified Project, nor are there any substantial

increases in the severity of any previously identified environmental impacts, and no new mitigation measures would be required. The environmental analysis in this Addendum and all feasible mitigation measures identified in the MND would be incorporated into the resolutions approving the Modified Project.

2. PROJECT DESCRIPTION

2.1 Purpose of Project

The overall goal of the Project is described in *Section 2.2 Project Purpose* of the MND. As with the original approved project, the proposed Modified Project is expected to produce approximately 4,100 AFY, which equates to approximately 2.7 percent of the total demand, off-setting the equivalent volume of imported supply.

2.2 Description of Modified Project

The proposed Modified Project would increase the number of extraction wells in the North Sub-Area from four to five (total of seven overall for the Project) to ensure adequate yield from the groundwater basin to meet the supply goals of the proposed Project. The additional extraction well is proposed at the site currently identified for Treatment Plant Option 1 and Cactus Corridor Well 4, Option 1. The Modified Project also evaluates two new location options for CCE Well 4 in the East Sub-Area. The two new location options are Pedorena Park and a vacant parcel on Iris Avenue at the intersection with Wedow Drive. The Modified Project also includes raw water pipeline alignments from the new well location options. Finally, the Modified Project includes a proposed in-street pipeline realignment for CCE Well 2, Option 1 at Victoriano Park.

2.2.1 Extraction Wells

The Modified Project proposes to construct one new extraction well in the North Sub-Area, and evaluates two optional well sites for another previously evaluated well in the East Sub-Area.

The new well, Cactus Corridor Well 5, Option 1 would be located within the site currently identified for Treatment Plant Option 1 and Cactus Corridor Well 4, Option 1 (**Figure 2-1**). The design and construction of this new well would be similar to the other wells in the North Sub-Area, which would be drilled to a depth of approximately 1,000 feet and expected to generate 250 gpm. Pipeline connections to existing in-street water infrastructure would be located in Perris Boulevard, as shown in **Figure 2-1**. A 24-inch product water pipeline would convey treated/blended water to existing EMWD pipelines in Perris Boulevard.

The well sites in the East Sub-Area are analyzed to provide options for the ultimate location of CCE Well 2. Currently, the MND identifies two options (1) Victoriano Park and (2) Parque Armistad. The two additional optional sites presented by this Modified Project include Pedorena Park and a vacant 10-acre site south of the Iris Avenue/Wedow Drive intersection.

Pedorena Park is approximately five acres in size and contains landscaping trees, paved walking paths, picnic benches and grills, a restroom building, playground structure, tennis courts, basketball courts, and surface parking. The western half of the park is an open, grassy field. The existing surrounding setting at Pedorena Park is primarily residential.

The site is bordered by Iris Avenue and the back side of residences shielded by a five-to-six foot block wall to the north; the back sides of one- and two- story residences shielded by a hedge and five-to-six foot block wall to the west and south; and Rancho Del Lago Road and a community center to the east. The closest residential property line to a proposed well drilling site would be 50 feet.

The Iris Avenue/Wedow Drive optional well site is approximately 10 acres and consists of sparse ruderal vegetation. The existing surrounding setting is a mixture of residential and commercial land uses. To the west, opposite an approximately six-foot block wall is a shopping center. Val Verde Academy, a public 3rd through 12th grade school, is also located on the western border of the proposed site. The site is bordered to the east by the back side of one- and two-story residences shielded by six- to eight-foot wooden fences. If the site is selected, the well would be located in the northwest corner of the site; the closest residential property lines would be approximately 100 feet from the well drilling site, opposite Iris Avenue.

The design and construction of the wells at these optional sites would be similar to the other wells in the East Sub-Area, as described in the MND. The wells would be assumed to be drilled to a depth of approximately 1,000 feet and anticipated to generate 600 gpm.

With an increase from six total extraction wells to seven, annual volume of potable water that would be produced from the new extraction wells is estimated at 4,113 acre-feet per year (AFY) ($[250 \times 5] + [650 \times 2] \times 525,600 \text{ minutes per year} \div 325,851 \text{ gallons per acre foot} = 4,113 \text{ AFY}$). The Modified Project represents an increase of 403 AFY (9.8% increase) of total potable water over the original Approved Project. The groundwater extraction wells would be expected to have a lifespan of 30 years.

As described in the MND for the original Approved Project (*Section 2.6.1*), each well would have a minimum permanent footprint of approximately 20,000 square feet (150 feet by 150 feet). To minimize long-term noise from the pumps and to provide security, each well would be enclosed within a 20-foot by 20-foot, 15-foot tall concrete masonry unit (CMU) block well house, surrounded by an eight-foot perimeter CMU wall, and sited at least 50 feet from the nearest existing land uses. A well blow-off pond would be constructed at each well site, as well as discharge connection to either storm drain or sewer, depending on water quality.

Well Construction

Wells of the Modified Project would be constructed as described in the MND for the original Approved Project (*Section 2.6.1*) consisting of a well drilling phase and a well equipping phase. Well drilling would last nine months per well, including two weeks of continuous (24-hours/day) drilling operation and additional nighttime construction activities (for well development and testing) occurring over an additional 12 weeks. The well equipping phase consists of developing the site with the blow off pond and the building, mechanical and electrical components for the well, and would last approximately 12 months per well (does not include treatment).

Construction of the new well (Cactus Corridor Well 5 Option 1) in the North Sub-Area is assumed to temporarily disturb 100 percent of the site and would be constructed immediately before or after the other well at the site. Construction of CCE Well 2 Option 3 at Pedrorena Park would involve a temporary construction disturbance footprint of 25,500 square feet (150 feet by 170 feet). Construction of CCE Well 2 Option 4 south of Iris Avenue/Wedow Drive intersection is assumed to temporarily disturb 100 percent of the site.

Based on the wells' approximate depth (1,100 feet) and permanent footprint (approximately 150 feet by 150 feet, minimum), and the typical borehole diameter of 32 inches, it is estimated that approximately 230 cubic yards (cy) of drill cuttings would be exported from each well site. However, it should be noted that additional material exported would only result from one new well in the Cactus Corridor North Sub-Area when compared with quantities analyzed for the Approved Project. Selection of one of the optional sites in the East Sub-Area would not increase overall material export when compared with quantities provided in the MND for the Approved Project. In addition to material generated by the well drilling, additional material would be associated with construction of the well foundation and pump house. Material exported for the new well, foundation and pump station would total approximately 300 cy. This would raise the amount of export analyzed in the MND for the Approved Project from 1,800 cy to 2,100 cy.

The estimated amount of material export from construction of the well blow-off pond at each well site is 2,000 cy (i.e. 12,000 cy of export in total for all seven of the Project's wells). No additional material exported would result from the Modified Project because Cactus Corridor Well 4 and Cactus Corridor Well 5 would share the same blow-off pond. Material from drilling activities would be disposed to the nearest landfill.

Portable, steel liquid container tanks (i.e. Baker Tanks) would be used for onsite dewatering clarification during construction of the Modified Project wells, which would not differ from the analysis for the original Approved Project. There are three options for disposal of dewatering and well testing water:

- Discharge to land per Regional Water Quality Control Board (RWQCB) National Pollutant Discharge Elimination System (NPDES) Permit/Waste Discharge Requirements for construction dewatering; or
- Discharge to storm drain per RWQCB NPDES Permit and Riverside County Flood Control and Water Conservation District requirements; or
- Discharge to EMWD sewer.

2.2.2 Pipeline Alignment

The pipeline in the vicinity of CCE Well 2 Option 1 and Option 3 would be realigned under the Modified Project (**Figure 2-2**). The revised alignment would be constructed within the roadway right-of-way. The portion of the Approved Project's alignment along Los Cabos Drive between CCE Well 2 Option 1 and Kitching Street would not be used under the

Modified Project. If the Option 1 location is used in final Project design and construction, the Modified Project would include a 12-inch pipeline from CCE Well 2 southeast to Iris Avenue, then west along Iris Avenue to Kitching Street where it would turn north to meet the original alignment described in the MND at the intersection of Kitching Street and Los Cabos Drive. If the CCE Well 2 Option 3 location is selected, the alignment would run from CCE Well 2 along Iris Avenue to Kitching Street, and then north to meet the original alignment described in the MND at the intersection of Kitching Street and Los Cabos Drive. If the CCE Well 2 Option 4 location is selected, the alignment would run eastward from CCE Well 2 along Iris Avenue, then north along Wedow Drive, then northwest along Nan Avenue to Santiago Drive where it would meet the raw water pipeline corridor on Santiago Drive that was analyzed under the MND. Alternatively, if Well 2 Option 4 location is selected, the alignment would run westward from CCE Well 2 along Iris Avenue, then north along Perris Boulevard where it would meet the raw water pipeline corridor on Perris Boulevard that was analyzed under the MND. In total, the modified alignment represents an overall increase in pipeline length of 2,219 linear feet if Victoriano Park/Option 1 location is selected, 962 linear feet if Pedrorena Park/Option 3 location is selected, and 1,045 linear feet if Iris Avenue/Wedow Drive/Option 4 location is selected.

Pipeline Construction

Pipelines would be constructed the same way as described in the MND: in existing roadways using an open cut method, except at crossings of existing facilities, utilities, and storm channels, such as the storm channel at the intersection of Iris Avenue and Kitching Street. Pipelines installed using open cut methods would include a typical trenching depth of 7 feet. The estimated trench width would be equal to 2 feet plus the pipeline diameter, for a width of up to 5 feet. When trenchless techniques are required, pipelines would be constructed using “bore and jack” methods, which are described in the MND (*Section 2.6.3*). Using this technique, ground surface disturbance would not occur, except at the pits.

As described in the MND (*Section 2.6.3*), construction of the pipelines would occur in four phases: trenching; pipe installation and backfill; testing; and pavement restoration. The pipelines would be constructed at an average rate of 150 linear feet per day, consistent with the rate of construction analyzed in the MND. The Modified Project would therefore increase the total duration of pipeline construction by about three weeks if Victoriano Park/CCE Well 2 Option 1 is chosen, by about one week if Pedrorena Park/CCE Well 2 Option 3 is chosen, and by about three weeks if CCE Well 2 Option 4 is chosen. Overall, the total duration of pipeline construction would increase from approximately 10 months to up to 11 months.

As described in the MND for the original Approved Project, approximately 35 percent of the excavated material would be re-used onsite as fill during the pavement restoration phase. Thus, the Modified Project would increase the total estimated volume of material export from construction of the pipelines from 22,500 cy by about 1,100 cy if Victoriano Park/ CCE Well 2, Option 1 location is chosen, by about 500 cy if Pedrorena Park/CCE Well 2, Option 3 location is chosen, or by about 530 cy if CCE Well 2, Option 4 location

is chosen. After construction is complete, all pipeline construction areas would be restored to pre-construction conditions (i.e., no permanent disturbance footprint).

Figure 2-2: Cactus Corridor East Well 2, Options 3 and 4 and Revised Alignment



2.2.3 Construction Equipment and Staging

The construction equipment required for well construction and the pipeline alignment of the Modified Project would be the same as for the original Approved project and is listed in **Table 2-1**.

Table 2-1: Construction Equipment

Equipment	Number Required for Each Well	Number Required for Pipeline
Backhoe/Loader	1	1
Drilling Rig	1	-
Crane	1	1
Utility Truck	1	1
Water Truck	1	1
Welder	1	1
Compressor	1	1
Pump	1	1
Pick-up Trucks	2	2
Concrete Pumper	1	-
Generator	1	1
Hydraulic Excavator	-	1
Auger Boring Machine	-	1
Dump Truck	-	2
Concrete Saw	-	1
Pavement Breaker	-	1
Sweeper	-	1
Paver	-	1

2.2.4 Construction Schedule

In total, construction of the Project, including the modified elements, is estimated to take 22 months, with anticipated commencement in July 2021 and completion in March 2023, which is the same as the original Approved Project. Construction of all three Project components (wells, pipelines and treatment facility) would occur simultaneously, including those components included in this Addendum. The additional extraction well, Cactus Corridor Well 5 Option 1, would require an additional two weeks of continuous drilling immediately before or after the two-week continuous drilling phase for the other proposed well at the same site, Cactus Corridor Well 4 Option 1. This additional two weeks of drilling would occur within the overall 22-month Project construction schedule. Well development and testing for all seven wells would be performed over a 12-week period. The well equipping phase, including development of the blow off ponds, well housing, mechanical and electrical components, would last approximately 12 months for all seven wells. Increasing the total number of extraction wells from six to seven is not expected to require a substantial change in the construction crew or equipment fleet that would already be deployed for the original Approved Project.

2.2.5 Project Operation and Maintenance

Once operational, the volume of water pumped from each well is estimated to be 250 gpm for the additional well (Cactus Corridor Well 5, Option 1) and 650 gpm for the well at either Pedrona Park (CCE Well 2, Option 3) or at Iris Avenue/Wedow Drive (CCE Well 2, Option 4), which are the same volumes described in the MND. It should be noted that the 650 gpm from CCE Well 2 Option 3 or 4 would not result in additional pumping beyond what was analyzed in the MND for CCE Well 2 Option 1 or 2. Operation of the pumps would involve the same energy usage per well (kilowatt hours per day [kWh/day]) as described in the MND, as shown in **Table 2-2**. As described for the original Approved Project, each well site would be provided with a portable generator connection for emergency scenarios at a minimum. Emergency generators may be installed at the well sites at a later date. Operations and maintenance (O&M) activities would be the same as those described in the MND and involve monthly site visits from EMWD operators to inspect the site.

Table 2-2: Energy Consumption

Equipment	Qty	hp	hrs/day	kWh/day	Comments
Cactus Corridor Wells (North Sub-Area) – including Well 5, Option 1	5	50–75	24	4,400–6,800	Range depends on the type of well pump provided (vertical vs submerged)
Cactus Corridor East Wells (East Sub-Area)	2	200–250	24	7,100–9,000	Range depends on the type of well pump provided (vertical vs submerged)

As was the case under the original Approved Project, the pipelines of the Modified Project would not be associated with long-term energy usage or additional EMWD O&M activities. The anticipated volume of raw water to be conveyed in the pipelines once they are complete would depend on the actual well flow and is estimated at 300 to 2,900 gpm, an increase over the estimated at 250 to 2,300 gpm described in the MND due to the addition of one new extraction well (Cactus Corridor Well 5, Option 1).

2.2.6 Environmental Commitments

The following environmental commitments are EMWD construction best management practices (BMPs) that would be implemented as part of the Modified Project are the same as those applied to the original Approved Project and listed in *Section 2.7* of the MND.

- Temporary sound walls would be required for well drilling construction due to 24-hour operation of the drilling rig for noise control
- Block wall buildings would be designed and constructed for the well facilities and treatment/blending facilities for noise control, aesthetics (to blend in with surrounding aesthetics and buildings) and for security purposes
- The chlorination facilities would use onsite sodium hypochlorite generation or bulk sodium hypochlorite (chlorine bleach) to minimize the use of hazardous materials

- Permanent exterior security lighting would be shielded downward to avoid light spill onto surrounding properties
- The design and construction of the facilities would be based on a soils report and geotechnical investigation to minimize geological risk
- Groundwater encountered during construction would be discharged to land or the storm drain in accordance with applicable permits or discharged to EMWD's sewer for treatment and reuse
- All construction work within public roadways would require the contractor to prepare and implement a traffic control plan
- All construction work would require the contractor to implement fire hazard reduction measures, such as having fire extinguishers located onsite, use of spark arrestors on equipment and using a spotter during welding activities
- Construction would comply with South Coast Air Quality Management District (SCAQMD) Rule 403 Fugitive Dust Control requirements
- Specifications would require the contractor to prepare a Stormwater Pollution Prevention Plan (SWPPP). Construction would implement BMPs to control water quality of stormwater discharges offsite, according to the SWPPP, such as site management "housekeeping," erosion control, sediment control, tracking control and wind erosion control.

2.3 Permits and Discretionary Approvals

Anticipated permits for the Modified Project are identified in **Table 2-3** and are the same as anticipated for the original Approved Project (as listed in *Section 2.8* of the MND).

Table 2-3: Permits and Approvals

Agency	Permit/Approval
City of Moreno Valley	Encroachment Permit
South Coast Air Quality Management District	Permit to Construct, Permit to Operate, Dust Control Permits
Riverside County Flood Control and Water Conservation District	Encroachment Permit
California Division of Drinking Water	Amended Water Supply Permit
Riverside County Department of Environmental Health	Well Drilling Permit
State Water Resources Control Board	NPDES Construction General Permit for Storm Water Discharges
Regional Water Quality Control Board	NPDES permit for dewatering and test water discharges during construction

3. ENVIRONMENTAL DETERMINATION

EMWD previously adopted the Final Initial Study and Mitigated Negative Declaration, and Mitigation Monitoring and Reporting Program for the Cactus Avenue Corridor Groundwater Wells Project (Approved Project) on May 20, 2020. Based on all available information in light of the entire record, the analysis in this Addendum, and pursuant to Section 15162 of the State CEQA Guidelines, EMWD has determined:

- There are no substantial changes proposed in the project which would require major revisions of the previous environmental document due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- Substantial changes have not occurred with respect to the circumstances under which the project is undertaken which would require major revisions of the previous environmental document due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- There is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous environmental document was adopted, that shows any of the following:
 - The project would have one or more significant effects not discussed in the previous environmental document;
 - Significant effects previously examined will be substantially more severe than shown in the previous environmental document;
 - Mitigation measures previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - Mitigation measures or alternatives which are considerably different from those analyzed in the previous environmental document would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Based on a review of the Modified Project, none of the situations described in Section 15162 of the State CEQA Guidelines apply. No changed circumstances have occurred, and no new information of substantial importance has become known, which would result in new significant or substantially increased adverse impacts as a result of the Modified Project. Therefore, this Addendum has been prepared in accordance with Section 15164 of the State CEQA Guidelines. Public review of this Addendum is not required under CEQA.

New or More Severe Environmental Effects Compared to MND

The potential impacts of the Modified Project on the environmental factors in the checklist below were evaluated in this Addendum. None were found to involve new significant environmental effects or a substantial increase in the severity of environmental effects either due to a change in the project, change in circumstances, or new information of substantial importance. As indicated by the checklist and discussion in Section 4 of this Addendum, the proposed project modifications would not result in new or more severe environmental effects and no new mitigation would be required.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial evaluation:

- I find that no substantial changes are proposed in the project, there are no substantial changes in the circumstances under which the project will be undertaken, and there is no new information of substantial importance that was unknown when the project was approved. Major revisions to the previous approved ND or MND or certified EIR are not required due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Therefore, the previously adopted ND or MND or previously certified EIR adequately addresses the potential impacts of the project without modification.
- I find that no substantial changes are proposed in the project, there are no substantial changes in the circumstances under which the project will be undertaken, and there is no new information of substantial importance that was unknown when the project was approved. Major revisions to the previous approved ND or MND or certified EIR are not required due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. The previously adopted ND or MND or previously certified EIR adequately addresses the potential impacts of the project. However, minor changes require the preparation of an ADDENDUM.

-
- [] I find that substantial changes are proposed in the project, there are substantial changes in the circumstances under which the project will be undertaken, or there is new information of substantial importance that was unknown when the project was approved. Major revisions to the previous approved ND or MND or certified EIR are required due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. However, all new potentially significant environmental effects or substantial increases in the severity of previously identified significant effects are reduced to below a level of significance through the incorporation of mitigation measures agreed to by the project applicant. Therefore, a SUBSEQUENT MND is required.
 - [] I find that substantial changes are proposed in the project, there are substantial changes in the circumstances under which the project will be undertaken, or there is new information of substantial importance that was unknown when the project was approved. Major revisions to the previous approved environmental document are required due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. However, only minor changes or additions or changes would be necessary to make the previously certified EIR adequate. Therefore, a SUPPLEMENTAL EIR is required.
 - [] I find that substantial changes are proposed in the project, there are substantial changes in the circumstances under which the project will be undertaken, or there is new information of substantial importance that was unknown when the project was approved. Major revisions to the previous approved environmental document are required due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Therefore, a SUBSEQUENT EIR is required.



January 11, 2021

Signature

Date

Alfred Javier

Dir. of Env. and Reg. Compliance

Printed Name

Title

4. ENVIRONMENTAL CHECKLIST

The following includes the environmental checklist review pursuant to CEQA. The analysis herein evaluates the adequacy of the environmental impact findings and mitigation in the original approved IS/MND relative to impacts and mitigation of the Modified Project.

4.1 Aesthetics

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
--	---	--	--	---------------------------

Except as provided in Public Resources Code Section 21099, would the Project:

- | | | | | |
|---|-----|-----|-------|-----|
| a) Have a substantial adverse effect on a scenic vista? | [] | [] | [X] | [] |
| c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). 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] | [] |

As explained in *Section 1.4 Evaluation of Environmental Impacts*, resource areas that were found to have No Impact in the MND, and for which the Modified Project would also result in a finding of No Impact, are not analyzed further in this Addendum. This includes checklist question (b) under Aesthetics.

a) No New Impact

Approved Project

The MND found that the pipelines would be underground and the area of temporary disturbance would be restored to its original condition, thus having no long-term impact on scenic vistas. The well housings and treatment facility would be consistent in height to the surrounding, existing buildings that currently obstruct scenic vistas at the Project sites. Therefore, the MND found that the Approved Project would not substantially adversely impact local scenic vistas of surrounding foothills and mountains, and impacts would be less than significant.

Modified Project

The Modified Project revised pipeline alignment in the vicinity of Pedrorena Park, Victoriano Park, and East Well 2 Option 4 would be underground and would have no long-term impact on scenic vistas. The additional extraction well at the Treatment Plant Option 1 site would be consistent in size and design to Cactus Corridor Well 4 Option 1 and would not add a substantial additional obstruction of a scenic vista at the site beyond what was analyzed in the Approved Project IS/MND. Pedrorena Park, similar to Victoriano Park and Parque Amistad, is surrounded by existing residential development and the Iris Avenue/Wedow Drive site is surrounded by existing residential, commercial, and education land uses similar to the Approved Project, the extraction well housing would be consistent in height with the existing development. There would be no new impacts as a result of the Modified Project and no new mitigation would be required.

c) No New Impact

Approved Project

The MND found that all permanent Approved Project structures would be designed to be consistent with the existing visual character of the surrounding area in accordance with the Environmental Commitments specified in *Section 2.7 Environmental Commitments* of the MND, and **Mitigation Measure AES-1: Design of Aboveground Structures**. Construction activities would temporarily impact the visual character and quality of the Project sites; however, once the construction is complete all construction related visual impacts would be removed. The public views in the Project area include those from roadways and from public parks and schools. Therefore, Project impacts on visual character and public views would be less than significant with mitigation incorporated.

Modified Project

The Modified Project would include an additional well at the Treatment Plant Option 1 site, an additional well option site at Pedrorena Park, an additional well option site at the vacant parcel at Iris Avenue and Wedow Drive and the revised pipeline alignment between either Pedrorena or Victoriano Park, or East Well 2 Option 4 and the treatment/blending facility. Construction activities would temporarily impact the visual character and quality of the Modified Project sites; once construction is complete all

construction related visual impacts would be removed. The proposed pipeline would be constructed underground within existing roadways and therefore would not permanently impact the visual quality of the area. Cactus Corridor Well 5 Option 1 at Approved Project Treatment Plant Option 1 would not impact the visual quality of the area beyond what would result from construction of the Approved Project treatment plant and well at this location. CCE Well 2 Option 3 at Pedrona Park and CCE Well 2 Option 4 would have a permanent effect on public views; however, the well would comply with the commitments explained in *Section 2.7 Environmental Commitments* and previously adopted **Mitigation Measure AES-1** in the MND. With incorporation of the previously adopted Mitigation Measures from the MND, impacts would be less than significant and no new impact would occur as a result of the Modified Project, and no new mitigation would be required.

d) No New Impact

Approved Project

The MND found that most construction activities for the Approved Project would occur during the day and not require lighting. Well construction would require up to two weeks of continuous drilling and additional nighttime construction activities over the following 12 weeks. During these nighttime construction activities, lights would be required for construction and security. Once construction is complete, permanent exterior security lights would be required but would be shielded downward to avoid light spillage onto surrounding properties. All nighttime lighting and operational lighting would comply with the Mount Palomar Nighttime Lighting Policy and incorporate **Mitigation Measure AES-2: Low Illumination Nighttime Construction Lighting** and **Mitigation Measure AES-3: Lighting Fixtures** to minimize impacts on neighboring properties in accordance with Riverside County Ordinance No. 655. Impacts from the Approved Project were found to be less than significant with the incorporation of mitigation measures.

Modified Project

The Modified Project would include the same construction methods for the Cactus Corridor Well 5 Option 1 and CCE Well 2 Option 3 and Option 4. All nighttime construction would conform to the Mount Palomar Nighttime Lighting Policy because the Project area is within the 45-mile zone radius of the Palomar Observatory and must comply with Zone B regulations. All nighttime and operational lighting would also incorporate **Mitigation Measure AES-2** and **Mitigation Measure AES-3**, which were previously adopted in the MND, and be shielded and directed downward to minimize impacts on neighboring properties in accordance with Riverside County Ordinance No. 655. With incorporation of the previously adopted Mitigation Measures from the MND, impacts would be less than significant and no new impact would occur as a result of the Modified Project and no new mitigation would be required.

Mitigation Measures:

To mitigate possible visible impacts to public views and lighting during construction and operation, EMWD shall implement **Mitigation Measures AES-1, AES-2, and AES-3**

which were previously adopted in the MND for the Approved Project. The impacts of the Modified Project are the same as the Approved Project: less than significant with mitigation incorporated. No new mitigation is required for the Modified Project.

4.2 Agriculture Resources

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
--	---	--------------------------------	--------------------------------	-----------------------

Would the Project:

- | | | | | |
|--|-----|-----|-------|-----|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | [] | [] | [X] | [] |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | [] | [] | [X] | [] |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | [] | [] | [X] | [] |

As explained in *Section 1.4 Evaluation of Environmental Impacts*, resource areas that were found to have No Impact in the MND, and for which the Modified Project would also result in a finding of No Impact, are not analyzed further in this Addendum. This includes environmental checklist questions (c) and (d) under Agricultural Resources.

a) No New Impact

Approved Project

The MND found that none of the proposed Project sites (well sites, treatment facility sites, or pipeline alignments) are classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The MND found the proposed Project would not convert farmland to non-agricultural use; therefore, the impact would be less than significant.

Modified Project

The Modified Project would add a new extraction well at the Approved Project Treatment Plant Option 1 site and two new extraction well site options and associated pipeline alignments. None of the Modified Project sites are located on land classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (CDOC, 2016). The Modified Project would not convert farmland to non-agricultural use, consistent with the Approved Project IS/MND. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

b) No New Impact

Approved Project

The MND found that none of the proposed well sites, treatment facility sites, or pipeline alignments were located on land zoned for agricultural use or protected by a Williamson Act Contract. Therefore, there would be no impact.

Modified Project

None of the Modified Project sites are located on land zoned for agricultural use or a Williamson Act contract (see **Table 4-7**). Therefore, there would be no new impact as a result of the Modified Project and no new mitigation would be required.

e) No New Impact

Approved Project

The MND found that the Project would not induce changes in the environment that would result in conversion of agricultural land to non-agricultural use. While the Project would extract groundwater from the Perris North Sub-Basin, it would not affect groundwater levels for private wells or impede the ability of farmers to pump groundwater for irrigation use. As explained in the MND, water levels have been slowly rising in the Perris North Sub-Basin due to increased sales of EMWD recycled and municipal water; reduced groundwater extraction, primarily due to urbanization and less agricultural water use; incidental recharge from EMWD recycled water facilities; and, for the portions of the Perris North Sub-Basin downstream of Lake Perris, seepage from Lake Perris. The proposed groundwater extraction would be conducted in a manner consistent with the EMWD Groundwater Sustainability Plan (GSP), which is currently under development with an implementation date of January 2022, and thus would not substantially decrease the groundwater supplies. The MND found that the Project would have a less than significant impact.

Modified Project

Implementation of the Modified Project would extract groundwater from the Perris North Sub-Basin in a manner consistent with that analyzed in the MND (i.e., consistent with the GSP). Although operation of the Modified Project would increase the amount of

groundwater produced compared to the Approved Project by 403 AFY (9.8 percent), it would not substantially decrease the groundwater supplies that would result in the unplanned conversion of agricultural land to non-agricultural use. Therefore, there would be no new impact as a result of the Modified Project and no new mitigation would be required.

Mitigation Measures: None required or recommended.

4.3 Air Quality

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
--	---	--	--	---------------------------

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 emissions (such as those leading to odors or adversely affecting a substantial number of people? | [] | [] | [X] | [] |

a) No New Impact

Approved Project

The MND concluded that the Project would not lead to unplanned population, housing or employment growth that exceeded the forecasts used in the development of the applicable air quality plans, and thus impacts would be less than significant.

Modified Project

The Modified Project would add a new extraction well at the Approved Project Treatment Plant Option 1 site, which, as explained in “b” below, is not expected to result in a considerable amount of air pollution emissions. The two new location options for CCE Well 2 and the revised pipeline alignments of the Modified Project would provide the Project with more site flexibility, but would not necessarily change the overall amount of construction and operation activities associated with the Project. The Modified Project would have no effect on unplanned growth, similar to the Approved Project. Therefore, no new impact would occur as a result of the Modified Project and no new mitigation would be required.

b) No New Impact

Approved Project

The MND conducted air emissions modeling using the California Emissions Estimator Model (CalEEMod) version 2016.3.2, to estimate the Approved Project’s criteria air pollutant emissions (Appendix A of the MND). Model emissions scenarios were based on Project-specific information, found in *Chapter 2 Project Description* of the MND. As discussed in the MND, regional and localized air quality thresholds have been established by the SCAQMD and were used to evaluate the significance of the Projects’ air pollutant emissions. The MND found that NO_x emissions during construction have the potential to exceed SCAQMD mass daily thresholds. The MND found that all operational criteria air pollutant emissions would not exceed applicable thresholds. The MND concluded that less than significant impacts would occur with **Mitigation Measure AIR-1** incorporated, which would require that EMWD incorporate off-road equipment into the Project’s construction vehicle fleet that meets US Environmental Protection Agency (EPA) certified Tier 4 final engines.

Modified Project

For the Modified Project, air emissions modeling was conducted using methods similar to the Approved Project. As with the Approved Project, in instances where Project-specific information was not available (e.g. construction equipment horsepower, length of worker trips, soil moisture content), the analysis relied on CalEEMod default values for construction activities. The new model evaluates the activities associated with the proposed Modified Project, including all of the elements of the Approved Project and the modified project elements. CalEEMod results can be found in **Appendix A**.

The Modified Project additional site Options 3 and 4 for CCE Well 2 would not result in a change in Project construction or operational air pollutant emissions compared to the Approved Project because the MND analyzed emissions from either Option 1 or Option 2. Therefore, the addition of the new optional sites for CCE Well 2 at Pedrorena Park (Option 3) or Iris Avenue/Wedow Drive (Option 4), was not modeled.

Construction

The Modified Project includes the construction of one additional well in the North Sub-Area. This well would be constructed at a depth of up to approximately 1,100 feet, similar to the other proposed wells in the North Sub-Area. No additional site clearing, preparation or grading was assumed to be needed because the site would already accommodate Cactus Corridor Well 4 Option 1 and Treatment Plant Option 1 and these construction phases were already analyzed in the MND for this site. New construction emissions would only result from the drilling phase and wellhead construction phase for Cactus Corridor Well 5 Option 1.

As stated in the MND, in total, construction of the Project is estimated to take 22 months, with anticipated commencement in July 2021 and completion in March 2023. Construction of all three Project components (wells, pipelines and treatment facility) is expected to occur simultaneously. For the purposes of estimating air pollution, it was assumed that the construction schedule, would be adjusted for the Modified Project and is summarized in the following table.

Table 4-1: Project Construction Schedule Changes Due to Modified Project

Phase Name	Start Date	Approved Project IS/MND End Date	Modified Project End Date	Total Days	Notes
Treatment Plant					
Site Preparation	7/1/2021	8/13/2021	8/13/2021	32	No Change
Grading	8/16/2021	9/23/2021	9/23/2021	29	No Change
Building Construction	9/24/2021	11/1/2022	11/1/2022	288	No Change
Paving	11/2/2022	12/2/2022	12/2/2022	23	No Change
Architectural Coating	9/24/2021	12/30/2022	12/30/2022	331	No Change
Well Sites					
Site Preparation	7/1/2021	12/31/2021	12/31/2021	132	No Change – Although there would be a new well, it would be located on the same property as a proposed treatment plant and would not require more site preparation
Drilling, Well installation	1/3/2022	3/27/2022	4/10/2022	94	Extended by 14 workdays for new well drilling under Modified Project
Pump installation	3/28/2022	3/31/2023	3/31/2023	265	No Change - Engineering estimates provide 12 months to equip all wells. Emissions calculations assume crew working 5 days per week during this time would be adequate to install the additional pump.
Pipeline					
Trenching/Resurfacing	7/1/2021	5/3/2022	6/16/2022	273	Extended by 33 workdays for Modified Project's net additional pipeline length, assuming longest potential alignment option length, to be accommodated at same 150 linear feet per day rate

Construction of the treatment facility is the same as described in the MND and would occur in a single phase lasting 18 months. The extraction wells would be constructed the same as described in the MND, in two phases: a well drilling phase (separated into site preparation and drilling in the above table for modelling purposes), and a well equipping phase (pump installation). Well drilling would last approximately nine months, including two weeks of continuous drilling operation and additional nighttime construction activities (for well development and testing) occurring over an additional 12 weeks. Well drilling is assumed to require drill operation for 24 hours/day to prevent borehole collapse. Continuous drilling of the new well would occur immediately before or after the other well located on the same site. The well equipping phase consists of developing the site such as construction of the blow off pond, the building, mechanical and electrical components for the well and would last approximately 12 months for all wells (does not include treatment).

Construction of the pipelines would occur in the same manner as described in the MND, in four phases: trenching; pipe installation and backfill; testing; and pavement restoration.

The pipelines would be constructed at an average rate of 150 linear feet per day, depending on the pipe size being installed on a given day, extent of the existing utilities and traffic control, and permitted work hours. The Modified Project would therefore increase the total duration of pipeline construction by about three weeks if Victoriano Park/CCE Well 2 Option 1 is chosen, by about one week if Pedrorena Park/CCE Well 2 Option 3 is chosen, and by about three weeks if CCE Well 2 Option 4 is chosen. Overall, the total duration of pipeline construction would increase from approximately 10 months to up to 11 months.

The following tables summarize the estimated criteria pollutant emissions associated with construction of the Modified Project (e.g. original Approved Project plus modified project elements), along with a significance determination.

**Table 4-2: Mitigated Modified Project (Approved Project and Modified Elements)
Maximum Daily Construction Emissions (pounds/day)**

Emissions Source	ROG	NO_x	CO	SO_x	PM₁₀	PM_{2.5}
Construction Equipment	9	94	106	<1	4	4
Offsite emissions	0	<1	2	<1	2	<1
Fugitive dust (with required fugitive dust controls)	--	--	--	--	0	0
Total Maximum Daily Emissions	9	94	108	<1	6	4
<i>SCAQMD Regional Thresholds</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Threshold exceeded?	No	No	No	No	No	No
New Impact?	No	No	No	No	No	No

**Table 4-3: Mitigated Modified Project (Approved Project and Modified Elements)
Maximum Daily Construction Emissions Compared to LSTs (pounds/day)**

Emissions Source	ROG	NO_x	CO	SO_x	PM₁₀	PM_{2.5}
Well Sites	1	11	12	<1	0	0
<i>Well Sites LST (one-acre LST)</i>	--	<i>118</i>	<i>602</i>	--	<i>4</i>	<i>3</i>
Threshold exceeded?	No	No	No	No	No	No
Pipeline	1	11	26	<1	0	0
<i>Pipeline LST (one-acre LST)</i>	--	<i>118</i>	<i>602</i>	--	<i>4</i>	<i>3</i>
Threshold exceeded?	No	No	No	No	No	No
Treatment facility	4	47	33	<1	2	2
<i>Treatment facility LST (onsite stationary emissions only, five-acre LST)</i>	--	<i>270</i>	<i>1,577</i>	--	<i>13</i>	<i>8</i>
Threshold exceeded?	No	No	No	No	No	No
New Impact?	No	No	No	No	No	No

Table 4-4: Annual Modified Project (Approved Project and Modified Elements) Construction Emissions Compared to De Minimis Thresholds (tons/year)

Emissions Source	Ozone (VOC/ROG)	CO	PM₁₀	PM_{2.5}
Approved Project Construction Emissions	1	10	1	1
Modified Project Construction Activities	<1	1	<1	<1
Total	1	11	1	1
<i>De Minimis Threshold</i>	10	100	100	70
Threshold Exceeded?	No	No	No	No
New Impact?	No	No	No	No

Table 4-2 through **Table 4-4** above show that, with mitigation, emissions thresholds would not be exceeded during construction of the Modified Project. These modeling results incorporate actions required under SCAQMD dust control BMPs and previously adopted **Mitigation Measure AIR-1** from the MND. No maximum daily emissions of criteria pollutants would differ from the values estimated in the MND because the well drilling phase would be extended by two weeks to accommodate the new well, the pipeline construction phase would be extended by a month to accommodate new alignments, and the remainder of the construction activities would overlap on the same schedule as analyzed under the MND. As no emission thresholds would be exceeded during construction of Modified Project, no new construction impacts would occur and no new mitigation would be required.

Operations

The Modified Project includes one additional well in the North Sub-Area. This well would be operated similar to the other proposed wells in the North Sub-Area. Operational energy consumption for the new Cactus Corridor Well 5 Option 1 well was estimated as follows. The original Approved Project North Sub-Area Cactus Corridor wells had an estimated energy demand of 3,500-5,400 kWh/day for four wells. Dividing 5,400 kWh/day by four is 1,350 kWh/day per well. Thus, the additional Well 5 Option 1 would have an annual energy demand of $1,350 \times 365 = 492,750$ kWh/year for the new well pump. The new well's location is on the same site as Cactus Corridor Well 4 Option 1 and Treatment Plant Option 1, which were included in the MND. It was assumed no additional lighting would be needed as a result of adding one additional well. It was assumed the new well would require an emergency generator of the same type and used on the same schedule as the wells that were included in the MND.

No additional brine truck trips or an increase in the truck disposal would be needed for operation of the additional well because disposal from the additional well would be incorporated into the disposal that was modeled for the MND. The MND estimated that brine disposal would be required every four days and require six trucks. The treatment facility discussed in the MND would utilize a 30,000-gallon brine holding tank, and the six wells would contribute 6,500 gallons of brine per day. Assuming that the six wells

contribute brine equally, each well would contribute 1,083 gallons per day (6,500/6 = 1,083 gallons¹). Therefore, the tank would fill at a rate of 7,583 gallons per day (6,500 from the Approved Project six wells plus an additional 1,083 from the Modified Project additional well). Accordingly, the brine holding tank would be filled in just under four days (30,000/7,583 = 3.96 days). Therefore, no additional trucks or increased disposal schedule would be needed under the Modified Project.

Table 4-5 provides the operational emissions in pounds per day of the Modified Project compared to SCAQMD thresholds. Increases in emissions during operation of the Modified Project would be minimal and would not exceed SCAQMD thresholds. As no emission thresholds would be exceeded with the Modified Project, no new impact would occur and no new mitigation would be required.

Table 4-5: Maximum Daily Modified Project (Approved Project and Modified Elements) Operational Emissions Compared to SCAQMD Thresholds

Emissions Source	(NO_x)	(VOC)	CO	SO_x	PM₁₀	PM_{2.5}
Operational Emissions of Approved Project (pounds/day)	1	<1	1	<1	<1	<1
Operational Emissions of Modified Project Activities (pounds/day)	<1	<1	<1	<1	<1	<1
SCAQMD Mass Daily Threshold (pounds/day)	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
New Impact?	No	No	No	No	No	No

c) No New Impact

Approved Project

As discussed in the MND, SCAQMD has developed Localized Significance Thresholds (LSTs) in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or State ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area, distance to the sensitive receptor, and project size. LSTs only apply to emissions within a fixed stationary location; they are not applicable to mobile sources. The use of LSTs is voluntary, to be implemented at the discretion of local agencies (SCAQMD 2008). The MND found that there would be a less than significant impact on nearby sensitive receptors with mitigation incorporated.

¹ It is unlikely the new well would contribute 1,083 gallons of brine per day. The new well would be located in the North Cactus Corridor, and thus would be of a smaller design and would pump less than the wells located in the East Corridor.

Modified Project

Near the sites of the modified project elements, sensitive receptors include The Val Verde Academy, Mary Mcleod Bethune Elementary School, single and multi-family residences, Ortega Family Child Care Home, and the Angelview Board & Care Nursing Facility. Previously adopted **Mitigation Measure AIR-1**, along with best management practices such as vehicle idling reductions, would be incorporated into the Modified Project. These measures would reduce potential impacts on the sensitive receptors by utilizing Tier 4 engines or engines that are certified to meet or exceed the emission ratings for EPA Tier 4 final or interim engines such that average daily NO_x emissions are lower than SCAQMD Regional Mass Emissions Thresholds of 100 pounds per day. Tier 4 engines would be used on at least 55 percent of the construction equipment and vehicles. Emissions would be lower than SCAQMD LSTs (see **Table 4-3**). Therefore, no new impact would occur under the Modified Project and no new mitigation would be required.

d) No New Impact

Approved Project

The MND found that emissions of sulfur compounds from the use of oil and diesel fuel during construction, would result in unpleasant odors, but that such impacts would be temporary. Once operational, the proposed wells and treatment/blending facilities would not be expected to generate nuisance odors that are more typically associated with land uses such as a landfills or rendering plants.

Modified Project

The Modified Project would add a new extraction well at the Approved Project Treatment Plant Option 1 site, new extraction well site options at Pedrorena Park and Iris Avenue/Wedow Drive, and a revised pipeline alignment in the immediate vicinity of Pedrorena Park and Victoriano Park. The Modified Project would be associated with similar, temporary construction odor impacts and no long-term operational odor impacts as identified for the original Approved Project. Therefore, no new impact would occur as a result of the Modified Project and no new mitigation would be required.

Mitigation Measures:

To mitigate possible visible impacts related to criteria pollutant emissions during construction, EMWD shall implement **Mitigation Measure AIR-1** which was previously adopted in the MND for the Approved Project. The impacts of the Modified Project are the same as the Approved Project: less than significant with mitigation incorporated. No new mitigation is required for the Modified Project

4.4 Biological Resources

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
--	---	--	--	---------------------------

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 Game 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, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | [] | [] | [X] | [] |
| c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | [] | [] | [X] | [] |

-
- | | | | | |
|--|-----|-----|-------|-----|
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native 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] | [] |

A Biological Resources Assessment Addendum (BRAA) was prepared for the modified elements of the Project in August 2020 (the full Report is found in **Appendix B**). The revised pipeline alignment and two new optional well sites are located within the original five-mile database search radius of the original Biological Resources Assessment (BRA) prepared for the Approved Project in March 2020.

a) No New Impact

Approved Project

The MND found ten sensitive plant species and 30 sensitive wildlife species within five miles of the Approved Project area. However, sensitive species are not expected to occur within the Approved Project area because the proposed sites are located on highly disturbed, urban developed land. Out of the 40 plant and wildlife species identified, only two wildlife species were determined to have a low potential to occur within the Approved Project area, burrowing owl (BUOW, *Athene cunicularia*) and California horned lark (*Eremophila alpestris actia*). However, the potential habitat at Cactus Corridor Well 2 Option 1, near a highly travelled urban transportation corridor, is low quality and has high levels of existing disturbance. Therefore, there is a low potential of these species being present. No horned larks, BUOW or signs of either species being present were observed at the Approved Project sites. The Approved Project sites have shrubs or trees that could provide suitable nesting habitat for several common avian species; however, the sites consist of low-quality habitat because of the existing disturbances and proximity to heavily travelled roadways. In addition, the Approved Project would be located in the County of Riverside Stephen's Kangaroo Rat Plan and Fee Area. The BRA determined the Approved Project area does not have the suitable grassland, coastal shrub and sagebrush habitat needed to support the Stephen's Kangaroo Rat. Construction activities

would primarily occur in areas that are highly disturbed that are surrounded by development. Such high levels of disturbance would likely deter wildlife and nesting birds from using the site long-term. Nonetheless, **Mitigation Measure BIO-1** and **BIO-2** would be implemented to avoid direct impacts on BUOW and nesting birds and impacts would be less than significant.

Modified Project

For the Modified Project, the BRAA identified there are no additional special status species within the area of the modified project elements, beyond what was addressed in the Approved Project BRA. Sensitive plant and wildlife species typically have very specific habitat requirements which are not found within the Modified Project area. Due to the lack of specific habitat types or suitable substrates as well as high levels of historic and existing disturbance, sensitive plant species are not expected to occur on the sites of the modified project elements. Special status wildlife species are not expected to occur due to lack of suitable habitat and no species were observed during the reconnaissance field survey. Low quality or marginal foraging and/or nesting habitat for two sensitive wildlife species, BUOW and California horned lark occurs within and adjacent to the Modified Project sites. No suitable habitat for special-status species is present at CCE Well 2 Option 3 site. Undeveloped areas at CCE Well 2 Option 4 site contain marginally suitable habitat that are dominated by low-growing, non-native ruderal species. In addition, small mammal burrows too small for BUOW use were observed in a small bare area near the intersection of Perris Boulevard and Iris Avenue. Overall, the sites of the modified project elements do not contain suitable habitat for either of these species because of the low habitat quality and the high levels of disturbance. No horned larks, BUOW, or signs of either species were observed. The sites of the modified project elements lack suitable habitat to support Stephen's Kangaroo Rat. Therefore, no impacts on special status wildlife species are expected. The level of impact of the Modified Project would be equal to the Approved Project with the implementation of previously adopted **Mitigation Measures BIO-1** and **BIO-2**. Therefore, no new impact would occur and no new mitigation would be required.

b) No New Impact

Approved Project

The MND found one sensitive plant community, sycamore alder riparian woodland, was identified approximately five miles from the Project area. However, it is not present on any of the Project sites nor are the sites suitable to support such communities due to the high level of disturbance and development. In addition, there are no sensitive riparian or natural communities, as defined by local ordinance and the CNDDDB, present on the Project sites. There are also no riparian/riverine habitats present. The MND found the Project area is within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP); however, there are no riparian/riverine habitats protected by the MSHCP on the Project sites and, therefore, no MSHCP actions are required. Lastly, the MND found there are no jurisdictional features located within the

Project area that are under jurisdiction of the US Army Corps of Engineers (USACE), RWQCB, or California Department of Fish and Wildlife (CDFW). Therefore, there would be no impact associated with the Approved Project.

Modified Project

The area of the modified project elements does not contain riparian habitat or other sensitive natural communities. In addition, the sites of the modified project elements are not located within designated study areas for MSHCP covered natural communities. Therefore, no new impacts would be expected and no new mitigation would be required.

c) No New Impact

Approved Project

The MND found the Project would not be located anywhere with jurisdictional drainages or wetlands. An earthen retention basin was observed at Treatment Site Option #3/CCE Santiago Well Site; however, no riparian vegetation such as shrubs, persistent emergents, emergent mosses, lichens, or trees was present in or around the site. In addition, no vernal pools or fairy shrimp habitat were observed in the Project sites, nor could the Project sites support vernal pools or vernal pool species. Therefore, the MND found no impact would occur on jurisdictional wetlands, vernal pools, and fairy shrimp habitat.

Modified Project

The area of the modified project elements consists of urban developed land and non-native grasslands. The BRAA identified a single, potentially jurisdictional feature within CCE Well 2 Option 3 along Kitching Street: a large trapezoidal concrete channel. However, no hydric soils are present within the channel, nor is riparian vegetation including trees, shrubs, persistent emergent, emergent mosses, or lichens, present in or around the channel. The Project would use trenchless jack-and-bore construction methods to cross underneath the channel crossing. No other waters or wetlands were found to have the potential to occur. Therefore, no new impacts on jurisdictional waters and wetlands would occur. In addition, no riparian/riverine habitat, vernal pools, or fair shrimp habitat are present within the areas of the modified project elements. The areas of the modified project elements consist of moderately well-drained soils and developed land, which could not support these habitats. Therefore, no new impacts would occur and no new mitigation would be required.

d) No New Impact

Approved Project

The MND found there are no mapped essential habitat connectivity areas in the immediate vicinity of the Project sites. There are two mapped habitat connectivity areas located within five miles of the Project area; however, the MND found that these two areas

would not be impacted by the Project. Therefore, there would be no impacts on wildlife movement.

Modified Project

The Modified Project would not be located in or within the immediate vicinity of essential habitat connectivity areas. Therefore, no new impact would occur and no new mitigation would be required.

e) No New Impact

Approved Project

The MND found there are no other biological resources protected by local policies or ordinances within the Approved Project area. Therefore, there would be no impact.

Modified Project

There are no other biological resources protected by local policies or ordinances within the Modified Project area. Therefore, no new impacts would occur and no new mitigation would be required.

f) No New Impact

Approved Project

The MND found the Project would be located in the Western Riverside MSHCP and portions of the Project sites would be located within the BUOW study area. There is low potential for BUOW to occur because the Project sites are highly disturbed, surrounded by urban development, and no BUOW or their signs were observed during the field survey. **Mitigation Measure BIO-1** would be implemented to ensure minimal impact on BUOW. In addition, the MND found the Project would not be located within a Criteria Cell or Public/Quasi Public conserved lands. Therefore, the MND found the Project would have a less than significant impact with mitigation incorporated.

Modified Project

A portion of CCE Well 2 Option 4 is located within a habitat assessment/survey area for BUOW but not within a designated survey area identified for any other MSHCP covered species. The other elements of the Modified Project are not located within a habitat assessment or survey area. To ensure minimal impact on BUOW, **Mitigation Measure BIO-1**, which was previously adopted as part of the MND, would be implemented. The modified project element sites are not be located within a criteria cell or within Public/Quasi Public conserved lands. Therefore, no new impacts would occur and no new mitigation would be required.

Mitigation Measures:

To mitigate possible impacts to BUOW and nesting birds during construction, EMWD shall implement **Mitigation Measure BIO-1** and **BIO-2** which were previously adopted in the MND for the Approved Project. The impacts of the Modified Project are the same as the Approved Project: less than significant with mitigation incorporated. No new mitigation is required for the Modified Project

4.5 Cultural Resources

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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Would the Project:

- | | | | | |
|--|-----|-----|-------|-----|
| a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5? | [] | [] | [X] | [] |
| b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5? | [] | [] | [X] | [] |
| c) Disturb any human remains, including those interred outside of dedicated cemeteries? | [] | [] | [X] | [] |

a) No New Impact

Approved Project

The MND found no historical structures overlap with the Approved Project area. However, if previously unknown historical resources are encountered during Project ground-disturbing activities, implementation of **Mitigation Measures CUL-1** through **CUL-6** would result in no impact on historic properties or resources.

Modified Project

A Cultural Resources Assessment Addendum (CRAA) was prepared in August 2020, which included a cultural resources records search and pedestrian field survey of the sites of the modified project elements. The CRAA determined no cultural resources were

identified in the area of the modified project elements (the full Report can be found in **Appendix C**). Implementation of previously adopted **Mitigation Measures CUL-1** through **CUL-6** would ensure no new impact would occur on historic properties or resources, and no additional mitigation measures would be needed.

b) No New Impact

Approved Project

The MND found no archaeological resources have been recorded within or immediately adjacent to the Project area and because of the high degree of existing development of the Project area, no archaeological resources are anticipated to be encountered. If ground-disturbing activities expose previously unrecorded resources, implementation of **Mitigation Measures CUL-1** through **CUL-6** would result in less than significant impacts on cultural or archaeological resources.

Modified Project

The CRAA determined there are no previously recorded archaeological resources in the area of the modified project elements and because of the high degree of existing development no archaeological resources are anticipated to be encountered. With the implementation of previously adopted **Mitigation Measures CUL-1** through **CUL-6** no new impacts on cultural or archaeological resources would occur and no new mitigation would be required.

c) No New Impact

Approved Project

The MND found that implementation of **Mitigation Measure CUL-7** would ensure proper procedures are in place if human remains are discovered during construction. With **Mitigation Measure CUL-7**, the impacts would be less than significant.

Modified Project

The Modified Project would implement **Mitigation Measure CUL-7**, which was previously adopted as part of the MND, to ensure unanticipated discovered human remains are properly handled. Therefore, no new impact would occur and no new mitigation would be required.

Mitigation Measures:

To mitigate possible visible impacts on cultural or historical resources and human remains during construction, EMWD shall implement **Mitigation Measure CUL-1** through **CUL-7** which were previously adopted in the MND for the Approved Project. The impacts of the Modified Project are the same as the Approved Project: less than significant with mitigation incorporated. No new mitigation is required for the Modified Project.

4.6 Energy

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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Would the Project:

- | | | | | |
|---|-----|-----|-----|-----|
| a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | [] | [] | [X] | [] |
| b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | [] | [] | [X] | [] |

a) No New Impact

Approved Project

The MND found that both construction and operation of the Project would require the consumption of energy resources, including electricity and fossil fuels. Electric supplies for the Approved Project would be provided by Moreno Valley Electric Utility (MVU) and Southern California Edison (SCE). The Project's construction fleet would be required to comply with the California Air Resources Board (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulations, which would limit vehicle idling time to five minutes, restrict adding vehicles to construction fleets with older-tier engines, and establish a schedule for retiring older, less fuel-efficient engines from the construction fleet. So as not to incur unnecessary costs, EMWD is incentivized to use the most energy efficient pumps, compressors, and other equipment possible to minimize operational costs. As such, the MND found construction and operation of the Project would not result in wasteful, inefficient, or unnecessary consumption of energy and impacts would be less than significant.

Modified Project

The Modified Project would use the same construction fleet, energy providers, and types of pumps planned for in the MND. Therefore, no wasteful, inefficient, or unnecessary consumption of energy would occur. There would be no new impacts as a result of the Modified Project and no new mitigation would be required.

b) No New Impact

Approved Project

The MND found that the Project would not significantly increase the amount of new vehicle trips for operational activities, including vehicle trips for operation and maintenance, brine disposal, and chemical deliveries. Additionally, the MND found the Project would not involve land use changes that would indirectly result in an increase in vehicle trips or vehicle miles travelled. The MND also found that the Approved Project would not involve wasteful or inefficient energy consumption. Therefore, the Approved Project would not conflict with the City of Moreno Valley Energy Efficiency and Climate Action Strategy, which was developed to keep Citywide greenhouse gas (GHG) emissions in line with State reduction targets, and thus would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Modified Project

As discussed in *Section 4.3 Air Quality*, the Modified Project would not add any additional vehicle trips for Project operation and maintenance. The Modified Project would also not involve wasteful or inefficient energy consumption. Therefore, the Modified Project would not conflict with the City strategy to keep Citywide GHG emissions in line with State reduction targets, and thus would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. There would be no new impacts as a result of the Modified Project and no new mitigation would be required.

Mitigation Measures: None required or recommended.

4.7 Geology and Soils

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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Would the Project:

- | | | | | |
|---|-----|-----|-------|-----|
| a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| ii) Strong seismic ground shaking? | [] | [] | [X] | [] |
| iii) Seismic-related ground failure, including liquefaction? | [] | [] | [X] | [] |
| iv) Landslides? | [] | [] | [X] | [] |
| b) Result in substantial soil erosion or the loss of top soil? | [] | [] | [X] | [] |
| c) 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] | [] |
| d) 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] | [] |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | [] | [] | [X] | [] |

As explained in *Section 1.4 Evaluation of Environmental Impacts*, resource areas that were found to have No Impact in the MND, and for which the Modified Project would also result in a finding of No Impact, are not analyzed further in this Addendum. This includes checklist questions a.i) and e).

a.ii) No New Impact

Approved Project

The MND found the Project components would likely be subject to seismic ground shaking in a measurable seismologic event because of its close proximity to the San Jacinto Fault Zone. The MND found the Project facilities would be designed per EMWD's Engineering Standards and Specifications and other applicable standards to ensure structural resiliency. Because building and construction codes related to seismic shaking would be followed, there would be less potential for structural damage or loss due to seismic ground shaking. Even if structural damage does occur during a seismic event it would be isolated to the various Project facilities and Project areas; the Project would not exacerbate a risk of seismic-related damage to other existing resources in the vicinity. Impacts would be less than significant.

Modified Project

The Modified Project would hold the same risk of structural damage or loss due to seismic ground shaking as the Approved Project because the Modified Project is within the same fault zone area. The Modified Project facilities would also be built under the same standards and guidelines. Even if structural damage does occur during a seismic event, the Modified Project would not exacerbate a risk of seismic-related damage to other existing resources in the vicinity because all damages would be isolated to the Modified Project sites. Therefore, no new impact related to seismic ground shaking would occur from the Modified Project and no new mitigation would be required.

a.iii) No New Impact

Approved Project

The MND found that a soils and geotechnical report, which would be prepared for all Project components by a California licensed geotechnical engineer, would determine whether there is a liquefaction risk and provide recommendations for materials and design that should be incorporated into the specifications for each Project facility and component. Therefore, the MND found there would be less than significant impacts associated with the Project.

Modified Project

The soils and geotechnical report would also be prepared for the facilities proposed under the Modified Project, which would determine whether there is a liquefaction risk and recommendations for materials and design would be incorporated into the specifications. The Modified Project facilities would also be designed in accordance with EMWD's Engineering Standards and Specifications and the other standards and guidelines described under "a.ii" in the MND, which would help ensure structural resiliency during earthquakes and other ground instability events, such as liquefaction. Therefore, no new impacts would occur and no new mitigation would be required.

a.iv) No New Impact

Approved Project

The MND determined the potential for the Project to exacerbate the risk of landslides in the Project area, or be impacted by a landslide, is low. In addition, the MND found the Project facilities are not in a region known to have unstable soils. Therefore, the MND found the Project would have a less than significant impact related to landslide.

Modified Project

The Modified Project, like the Approved Project would not be in a region known to have unstable soils such as the Badlands or near the mountain slopes in the City of Moreno Valley. Therefore, there are no new impacts related to landslides or soil instability resulting from the Modified Project and no new mitigation would be required.

b) No New Impact

Approved Project

The MND found that the Project would temporarily undergo soil-disturbing activities during construction that would expose soil. BMPs would be identified in the SWPPP to control erosion and sediment in stormwater discharges during construction. Once construction is complete, areas would be returned to pre-Project conditions or be paved or landscaped to avoid further soil erosion. Therefore, the MND found impacts would be less than significant from the Project.

Modified Project

The Modified Project, like the Approved Project would involve soil-disturbing activities such as excavation during construction, which would expose soil. In addition, the Modified Project would disturb one acre or more in total and would require an NPDES Construction General Permit, similar to the Approved Project. BMPs would be identified in the SWPPP to control erosion and sediment in stormwater discharges during construction. Once construction is complete, all pipeline disturbance areas would be returned to pre-Project conditions and all wells and the treatment/blending facility sites would be paved or landscaped. Therefore, no new impacts would occur as a result of the Modified Project and no new mitigation would be required.

c) No New Impact

Approved Project

The MND determined the Project would extract groundwater in a sustainable manner that would not impact land subsidence. No Project facilities would be located in areas known for subsidence and collapse. In addition, risks associated with lateral spreading and liquefaction were determined to be less than significant because the Project would be extracting groundwater, which would help regulate groundwater levels and minimize the

potential risk of liquefaction. Therefore, the Project is not expected to be susceptible to risks associated with land subsidence or collapse; impacts would be less than significant.

Modified Project

Because the Modified Project would be within the same area as the Approved Project, no Modified Project facilities would be located in areas known for subsidence and collapse. The Modified Project would increase groundwater production by approximately 9.8 percent to 4,113 AFY; however, groundwater would still be required to be produced in a sustainable manner and be consistent with the GSP (currently under development) for the Perris North Sub-Basin. Therefore, no new impact would occur from the Modified Project and no new mitigation would be required.

d) No New Impact

Approved Project

The MND determined none of the Project sites would be located in areas with expansive soils. With the development of the geotechnical report, expansive soils would be identified, and design specifications would be implemented to avoid damage to the Project facilities. In addition, the Project would be designed in accordance with EMWD's Engineering Standards and Specifications, as well as other State and International building standards and guidelines, which would ensure structural resiliency and minimize the potential effects of expansive soils. Therefore, the impact would be less than significant.

Modified Project

The Modified Project would be located within areas with no known expansive soils. The geotechnical report that would be completed would identify expansive soils and provide design specifications to avoid potential damage to the Modified Project facilities. The Modified Project would also be designed in accordance to EMWD's Engineering Standards and Specifications and other State and International building standards and guidelines. Therefore, no new impacts associated with expansive soils would occur for the Modified Project and no new mitigation measures would be required.

f) No New Impact

Approved Project

The MND found there is low potential for encountering fossils, and therefore, impacts on paleontological resources would not be expected. Well drilling would have negligible impacts on paleontological resources or unique geologic features because the well drill auger has a small diameter which would limit disturbances to intact Pleistocene sediments. "Bore and jack" drilling would also have negligible impacts on paleontological resources or unique geological features because this type of ground disturbance does not typically remove observable geologic sediments. Fossiliferous deposits have the potential to occur at greater depths than the anticipated Project ground disturbance. To

ensure proper procedures are in place in the event of an unanticipated fossil discovery, **Mitigation Measure GEO-1: Unanticipated Fossil Discovery** would be implemented during all construction phases of the Project. With implementation of **Mitigation Measure GEO-1**, the potential impacts on paleontological resources would be less than significant.

Modified Project

The Modified Project sites are all located in urbanized, previously developed or disturbed land. The Modified Project sites are located in close proximity to the Approved Project sites and have the same potential risk for fossiliferous deposits during anticipated ground disturbance and well drilling. The Modified Project would implement previously adopted **Mitigation Measure GEO-1** in case of unanticipated fossil discovery. Therefore, no new impacts on paleontological resources would occur with the Modified Project and no new mitigation would be required.

Mitigation Measures:

To mitigate unanticipated fossil discovery during construction, EMWD shall implement **Mitigation Measure GEO-1** which was previously adopted in the MND for the Approved Project. The impacts of the Modified Project are the same as the Approved Project: less than significant with mitigation incorporated. No new mitigation is required for the Modified Project.

4.8 Greenhouse Gas Emissions

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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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] | [] |

a) No New Impact

Approved Project

The MND provided an analysis of the total amount of metric tons of CO₂e anticipated from construction and operational activities of the Approved Project. As discussed in the MND, the Project area is within the limits of the City of Moreno Valley, and therefore the City of Moreno Valley's *Energy Efficiency and Climate and Strategy*, the County of Riverside *Climate Action Plan (CAP)*, and SCAQMD thresholds were relied upon for determining what is considered a significant level of GHG emissions. The County's CAP has set a threshold of 3,000 metric tons of carbon dioxide equivalents (MTCO₂e) to identify small projects that are considered less than significant and would not require mitigation, and this threshold was used to evaluate the Approved Project. Total MTCO₂e for the Project was found to be 2,366, and therefore had less than significant impacts.

Modified Project

The Modified Project includes two new extraction well site options for East Well 2, which would not change the estimated Project construction and operational GHG emissions. However, the Modified Project's new Well 5 Option 1 and all modified pipeline alignments associated with the new well and new well site options, would have the potential to change the estimated GHG emissions. As previously discussed in *Section 4.3 Air Quality*, emissions modeling for the new well drilling phase, well construction phase, new pipeline alignment, and the new energy requirements for operating the well and its emergency backup generator were estimated for the Modified Project in CalEEMod version 2016.3.2

(see **Appendix A**). The model results of the overall Modified Project (e.g. Approved Project and modified project elements) are provided in **Table 4-6** below.

Table 4-6: Modified Project GHG Emissions per Year (MTCO_{2e}/year)

Source	Approved Project (MTCO _{2e})	Additional Emissions from Modified Project Elements (MTCO _{2e})
Energy	1,422	105
Stationary	6	1
Mobile	844	N/A
Area	Negligible	N/A
Construction (amortized over 30 years)	96	5
Total	2,368	111
Combined Total	2,479	
Threshold	3,000	
<i>Exceed Threshold?</i>	<i>No</i>	
New Impact?	No	

Note: CalEEMod's default CO_{2e} intensity factor for Southern California Edison is 702.44 lb/MWhr. However, recent information provided by SCE (2019) specifies a CO_{2e} intensity factor of 467.38 lb/MWhr for SCE, which was used in this analysis.

The Modified Project would emit an additional 111 MTCO_{2e} per year, for a total potential emission of 2,479 MTCO_{2e} per year. This is below the 3,000 MTCO_{2e} per year threshold; therefore, there would be no new GHG emission impacts as a result of the Modified Project and no new mitigation would be required.

b) No New Impact

Approved Project

The MND found the Project would not interfere with existing City, County, or regional programs intended to reduce energy and improve water use efficiency. It would not result in emissions higher than the Riverside County CAP significance screening thresholds. Therefore, it would not conflict with a GHG reduction plan, policy or regulation and impacts would be less than significant.

Modified Project

The additional emissions from the Modified Project would not increase total emissions that would exceed the County of Riverside CAP 3,000 MTCO_{2e}/year screening threshold. Therefore, the Modified Project would not conflict with or obstruct a State or local plan for reducing the emissions of greenhouse gases and no new impacts would occur.

Mitigation Measures: None required or recommended.

4.9 Hazards and Hazardous Materials

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
Would the Project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	[]	[]	[X]	[]
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	[]	[]	[X]	[]
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	[]	[]	[X]	[]
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	[]	[]	[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]	[]

As explained in *Section 1.4 Evaluation of Environmental Impacts*, resource areas that were found to have No Impact in the MND, and for which the Modified Project would also result in a finding of No Impact, are not analyzed further in this Addendum. This includes checklist question e) for Hazards and Hazardous Materials.

a) No New Impact

Approved Project

The MND found the routine use of hazardous materials during construction and operation of the Project would be minimized through compliance with existing federal, State and local regulations, which are identified in the MND. During construction, construction machinery and associated chemicals would be required. During operation, chemicals would be routinely used, stored, and delivered for the treatment/blending facility. With conformance to appropriate regulations and BMPs, the MND found impacts would be less than significant and no mitigation would be required.

Modified Project

For the Modified Project, the use of construction machinery and chemicals during construction would be the same as for the Approved Project, except at Treatment Plant Option 1 where well drilling would be prolonged by two weeks due to the additional extraction well. The Modified Project new extraction well site options and revised pipeline alignments would not substantially change routine use of hazardous materials during construction. During operation, additional chemicals would need to be transported to the Treatment Plant Option 1 site for the additional extraction well. However, no additional chemical deliveries would be needed for the additional Modified Project facilities. EMWD would be required to be in compliance with all applicable federal, State, and local regulations pertaining to hazardous materials and would use appropriate BMPs addressed in the SWPPP. Therefore, no new impacts would occur for the Modified Project related to routine transport, use, or disposal of hazardous materials and no new mitigation would be needed.

b) No New Impact

Approved Project

During construction, implementation of **Mitigation Measure HAZ-1** would minimize the risk of accidental hazardous material exposure. During operations, the Approved Project would comply with various existing regulations (see response to “a” in the MND) that would minimize the risk of accidental hazardous material release. In addition, a Hazardous Materials Business Plan, Emergency Response Plan, and Risk Management Plan would need to be prepared and implemented based on the State of California Accidental Release Prevention (CalARP) requirements. Safety measures would be put in place to ensure proper storage containers, safety labeling, materials needed to readily absorb spills, and training for site workers. The MND found the development of a Hazardous Materials Management and Spill Prevention and Control Plan would ensure

Project-specific contingencies are in place to protect the environment and public surrounding the Approved Project sites from accidental release of hazardous materials. Therefore, impacts from hazardous materials to the public or the environment from potential accidents would be less than significant. with the implementation of mitigation.

Modified Project

The Modified Project would also implement **Mitigation Measure HAZ-1**, which was previously adopted as part of the MND, to minimize the risk of hazardous material exposure during construction. The Modified Project would require the development of all preventative plans that would apply to the Approved Project, and comply with the same existing regulations. During operation, the same safety measures would be put in place. Therefore, no new impact would occur and no new mitigation would be necessary.

c) No New Impact

Approved Project

The MND found there are existing schools located within one-quarter mile of the Project sites and pipeline locations. Both treatment facility option sites are located within one-quarter mile of multiple schools and would store chemicals and require transportation of hazardous chemicals to the facility once a month. Facilities would be compliant with local regulations, and there would be less than significant impacts related to hazardous material release associated with long-term Project O&M activities. For operation of pipelines and extraction wells, no hazardous materials would be handled or emitted on a regular basis. During construction, there would be emissions of toxic air pollutants, such as diesel particulate matter, within one-quarter mile of schools; however, emissions would be below SCAQMD LST thresholds and less than significant. With the implementation of **Mitigation Measure HAZ-1**, the MND found impacts of the Project would be reduced to less than significant.

Modified Project

The Modified Project consists of alternative extraction well site options and alternative pipeline alignments, which would not result in a change in the potential for hazardous materials release. The potential for hazardous material release during construction at the additional well at the Treatment Plant Option 1 site would be slightly elevated due to the longer construction duration. Previously adopted **Mitigation Measure HAZ-1** would be implemented to minimize risk of hazardous materials exposure during construction. Emissions of toxic air pollutants, such as diesel particulate matter, would be below SCAQMD LST thresholds and less than significant, as explained in *Section 4.3 Air Quality*. The Modified Project would not change the potential for hazardous materials release from O&M activities, as compared to the Approved Project. The Modified Project would not create a new impact and no new mitigation is required.

d) No New Impact

Approved Project

The MND found none of the Project locations are proposed on a site that is included on a list of hazardous materials sites per Government Code Section 65962.5. Recent and currently-active clean-up sites in the Project area are summarized in the MND. Because soil and groundwater at the cleanup sites have been remediated and closed, or are being remediated and monitored, no significant hazards to the public would be expected. Additionally, none of the Approved Project facilities would be located on a clean-up site undergoing or awaiting remediation. Therefore, impacts would be less than significant.

Modified Project

The Modified Project proposes a new site location for CCE Well 2 Option 3 at Pedrorena Park, a new site location for CCE Well 2 Option 4 at Iris Avenue and Wedow Drive, and new pipeline alignments to convey raw water from the East Well 2 Option 4 site to the treatment/blending facility as well as an additional extraction well at Approved Treatment Plant Option 1. All Modified Project sites are within the observed Approved Project area and none of the sites are included on a list of hazardous materials site per Government Code Section 65962.5. There are no additional recent and currently active clean-up sites to be found near the Modified Project area. Additionally, none of the Modified Project facilities would be located on a clean-up site undergoing or awaiting remediation. Therefore, no new impacts would occur and no new mitigation would be required

f) No New Impact

Approved Project

The MND determined construction of the Project components would temporarily alter, block, or impair roads such that they would conflict with the adopted emergency response plan and emergency evacuation plan. Coordination with local emergency responders would be required regarding lane closures. Implementation of **Mitigation Measure TRA-1** would ensure coordination with local emergency responders regarding lane closures. As explained in the MND, during operation, Project facilities would require monthly site visits for the wells and treatment facility as well as a monthly chemical delivery. These minimal operational activities would not interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, with implementation of mitigation measures impacts would be less than significant.

Modified Project

The Modified Project includes an additional extraction well at Approved Treatment Plant Option 1, additional well site options at Pedrorena Park and the intersection of Iris Avenue and Wedow Drive, and new pipeline alignments. The additional extraction well at Approved Treatment Plant Option 1 would be incorporated into the overall construction timeline at the site and would not prolong lane closures during construction. CCE Well 2 Option 3 as well as the new pipeline alignment would temporarily impact Iris Avenue and

Las Cabos Drive. East Well 2 Option 4 would temporarily impact Iris Avenue and Wedow Drive. The new pipeline alignments would prolong lane closures during construction by up to one month. However, as with the Approved Project impacts would be reduced to less than significant with implementation of previously adopted **Mitigation Measure TRA-1** which requires coordination with local emergency responders regarding lane closures. Therefore, no new impact would occur and no new mitigation would be required.

g) No New Impact

Approved Project

The MND found the Project would not involve the installation or maintenance of infrastructure that is typically associated with fire risk (see *Section 4.18 Wildfire Risk*). In addition, the Approved Project is located within the Moreno Valley Local Responsibility (LRA) and designated as a non-Very High Fire Hazard Severity Zone (VHFHSZ). Therefore, there would be a less than significant impact on exposing people or structures to a significant risk of loss, injury or death involving wildland fires.

Modified Project

Similar to the Approved Project, the Modified Project would also not involve the installation or maintenance of infrastructure that is typically associated with fire risk. The Modified Project is also located within the Moreno Valley LRA and designated as a non-VHFHSZ. Therefore, no new impact would occur, and no new mitigation would be required.

Mitigation Measures:

To mitigate unanticipated exposure to hazardous materials and physical interference with evacuations and emergencies during construction and operation, EMWD shall implement **Mitigation Measure HAZ-1** and **TRA-1** which were previously adopted in the MND for the Approved Project. Impacts of the Modified Project are the same as the Approved Project: less than significant with mitigation incorporated. No new mitigation is required for the Modified Project.

4.10 Hydrology and Water Quality

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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:				
i) result in substantial erosion or siltation on- or off-site;	[]	[]	[X]	[]
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	[]	[]	[X]	[]

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- | | | | | |
|--|-----|-----|-------|-----|
| iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | [] | [] | [X] | [] |
| iv) impede or redirect flood flows? | [] | [] | [X] | [] |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation? | [] | [] | [X] | [] |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | [] | [] | [X] | [] |

a) No New Impact

Approved Project

The MND found that the Project would not violate water quality standards or waste discharge requirements, nor significantly degrade surface water quality. The Project would disturb an area greater than one acre in size and would therefore be subject to the NPDES Stormwater Construction General Permit during Project construction. As part of the Permit conditions, EMWD would be required to prepare a SWPPP, which would identify BMPs to control sediment and other construction-related pollutants in stormwater discharges. Contractors would be required to comply with the Construction General Permit throughout construction. Well test water and dewatering produced during construction would be either discharged to land in accordance with RWQCB Waste Discharge Requirements for construction dewatering, discharged to the local storm drain system per Riverside County Flood Control and Water Conservation District requirements, or discharged to the EMWD sewer system. Implementation of the Project would reduce the migration of groundwater contaminants and would help remediate areas of concern in the Perris North Basin. No adverse impacts on water quality would be expected.

Modified Project

The Modified Project would remain greater than one acre and would be required to obtain an NPDES Stormwater Construction General Permit, similar to the Approved Project. Dewatering and well test water produced during construction would be discharged consistent with the permits and requirements identified in the MND. Compliance with these permits and implementation of BMPs would ensure the Project would not violate

water quality standards or waste discharge requirements, nor significantly degrade surface water quality. Operation of the Modified Project would consist of extracting and treating groundwater from the Perris North Groundwater Management Zone in a manner similar to what was analyzed in the MND, which would be beneficial to the groundwater quality. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

b) No New Impact

Approved Project

The MND found that the Project would not substantially decrease groundwater supplies or interfere with groundwater recharge. The Project would extract and treat approximately 3,700 AFY of contaminated groundwater for beneficial use and would offset the use of imported water supplies. The Project is part of EMWD's ongoing groundwater management in the basin and would produce water in a sustainable manner consistent with the San Jacinto Groundwater Management Plan and the GSP currently in preparation. Therefore, the MND found that the Project would have a less than significant impact on groundwater supplies and recharge

As stated in *Section 2.2.1*, the Modified Project would increase the total number of wells from six to seven and would produce an estimated 4,113 AFY, which is a 403 AFY increase (9.8 percent increase) over the Approved Project. However, implementation of the Modified Project would be consistent with the San Jacinto Groundwater Management Plan and the GSP currently under development. Therefore, the Modified Project would not substantially decrease groundwater supplies or interfere with groundwater recharge and would have a less than significant impact. There would be no new impacts as a result of the Modified Project and no new mitigation would be necessary.

c.i, ii, iii, and iv) No New Impact

Approved Project

The MND found that the Project would not substantially alter drainage patterns of the sites or Project area, cause substantial erosion, substantially increase surface runoff, generate runoff in excess of the existing storm drainage systems, or be a source of polluted runoff. While construction may result in exposure of soil that may be subject to erosion and sedimentation, ground disturbing activities would be temporary and reduced to less than significant with implementation of BMPs and the SWPPP as required by the NPDES Stormwater Construction General Permit. The pipeline components of the Project would not increase total impervious surface area because they would be constructed in existing roadways and restored to prior conditions after construction. Project facilities would have relatively minor above ground surface profiles and would be designed in accordance with Riverside County drainage design requirements and applicable NPDES municipal storm water permit requirements to control water quality in site runoff and would not impede or redirect flood flows.

Modified Project

The Modified Project would add a new extraction well at the Approved Project Treatment Plant Option 1 site. This site was analyzed for construction of the central treatment/blending facility and one extraction well under the MND. Addition of a second well at the site would not substantially increase the impervious surface area or alter the drainage pattern beyond what was analyzed for the Approved Project in the MND. The Modified Project would add a new CCE Well 2 Option 3 site option at Pedrona Park, and a new CCE Well 2 Option 4 site option on a vacant lot at the intersection of Iris Avenue and Wedow Drive. The well sites at the two new CCE Well 2 options are currently covered by bare dirt, grass and, at CCE Well 2 Option 3, a tennis court. Changes in drainage patterns from construction of CCE Well 2 were analyzed under the MND as CCE Well 2 Options 1 and 2 and found to be less than significant. Only one site would be selected for construction of the CCE Well 2 extraction well. Therefore, impacts associated with adding additional site Options 3 and 4 for CCE Well 2 would not be greater than what was already analyzed in the MND. The Modified Project would include associated revised pipeline alignments for each of the new CCE Well 2 site options which would occur within existing paved roadways and would not result in changes in drainage patterns. Implementation of the Modified Project would be similar to the Approved Project and would not impede or redirect flows beyond what was analyzed in the MND. Implementation of BMPs and the SWPPP during ground disturbing activities as required by the NPDES Stormwater Construction General Permit would reduce potential impacts to less than significant. Similar to the MND findings, the Modified Project would not cause substantial erosion, increase surface runoff, generate runoff in excess of the existing storm drainage systems, or be a source of polluted runoff. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

d) No New Impact

Approved Project

The MND found that the Project would unlikely become inundated by flood, seiche or tsunami and the potential for release of pollutants is low. The Pacific Ocean is located approximately 40 miles west of the Project area and there are no significant documented seiche hazards for any water bodies within Riverside County. In addition, no Project well or treatment facility site would be located in a Federal Emergency Management Agency (FEMA) 100- or 500-year floodplain. There is no associated risk of floods inundating pipelines because they would be installed belowground. Although the well sites would not house sources of pollutants that could be released in the event of inundation, the treatment/blending facility would. Therefore, the Project would implement the requirements of CalARP to ensure safe handling, transport, and storage of hazardous materials. Impacts of the Project would be less than significant.

Modified Project

Similar to the Approved Project, the Modified Project is located approximately 40 miles east of the Pacific Ocean and would have no risk of tsunami inundation. Although the

Modified Project sites are closer to the Moreno Valley Ranch community 35-acre lake, potential for a damaging seiche to be generated at this lake is considered low because there are no documented seiche hazards for any water bodies within Riverside County. The only 100- or 500-year floodplain that falls within the Modified Project area is the storm channel that travels along Kitching Street which was identified in the MND and is sized to contain the 100-year flood. Areas outside of the storm channels themselves, including the two additional CCE Well 2 site options, are unlikely to become inundated and the potential for release of pollutants is low. The Modified Project would be implemented similarly to the Approved Project and would implement CalARP requirements to ensure safe handling, transport, and storage of hazardous materials. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

e) No New Impact

Approved Project

The MND found that the Project would not conflict with applicable water quality control plans or groundwater management plans. The RWQCB Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) sets water quality thresholds that are intended to reduce pollutant discharge and ensure that water bodies are of sufficient quality to meet their designated beneficial uses. During construction, pollutant discharge would be minimized via compliance with the NPDES Stormwater Construction General Permit and SWPPP as well as NPDES permits for construction dewatering and well test water discharges as applicable. During operation, pollutant discharge would be avoided because groundwater would be conveyed for use in EMWD's service area after extraction and treatment rather than discharged to downstream water bodies. Therefore, the Project would not conflict with the water quality standards outlined in the Basin Plan. In addition, the Project would not conflict with the San Jacinto Groundwater Basin GSP. The GSP would establish sustainability indicators for the groundwater basin; however, no indicators or thresholds have been established to date. Therefore, the MND found the Project would not conflict with applicable water quality control plans or groundwater management plans, and impacts would be less than significant.

Modified Project

Implementation of the Modified Project would be similar to construction and operation of the Approved Project analyzed in the MND. Construction of the Modified Project would comply with the NPDES Stormwater Construction General Permit and NPDES permits to avoid pollutant discharge. Similar to the Approved Project, the Modified Project would not discharge extracted or treated water to downstream water bodies. The Modified Project would also be consistent with the GSP which is currently under development. Therefore, the Modified Project would have a less than significant impact on applicable water quality control plans and groundwater implementation plans. No new impacts would occur as a result of the Modified Project and no new mitigation would be required.

Mitigation Measures: None required or recommended.

4.11 Land Use and Planning

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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Would the Project:

- | | | | | |
|--|-----|-----|-------|-----|
| a) Physically divide an established community? | [] | [] | [X] | [] |
| b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | [] | [] | [X] | [] |

a) No New Impact

Approved Project

The MND found that the pipelines would be constructed in existing roadway rights of way and roadways would be restored to pre-construction condition. All well and treatment facility sites currently consist of vacant, disturbed land or public parks with landscaped open space that are accessible by existing public roadways. The Project would not develop new roads that would divide an established community or permanently interfere with the pedestrian, bicycle or vehicle circulation. Therefore, the MND found that the Project would have a less than significant impact related to physically dividing an established community.

Modified Project

The Modified Project pipeline alignments would be constructed in existing roadways and the optional well sites would be constructed within vacant sites or public parks that are accessible by existing public roads, similar to the MND. The Modified Project would not construct new roads that would divide an established community or permanently interfere with the pedestrian, bicycle, or vehicle circulation of the neighborhoods or communities. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

b) No New Impact

Approved Project

The MND found that the Project would not conflict with the City of Moreno Valley’s zoning policies. Under the City of Moreno Valley’s zoning ordinance, facilities such as wells and

treatment facilities are permitted at the proposed Project sites. In addition, the Project would be implemented entirely within disturbed lands. Therefore, the MND found that the Project would not conflict with applicable land use plans, policies, or regulations intended to avoid or mitigate an environmental effect and no impact would occur.

Modified Project

All new well sites of the Modified Project are located on vacant, disturbed land and a park with the following zoning and land use designations.

Table 4-7: Zoning and Land Use

Site	Land Use ¹	Zoning ²
<i>North Sub-Area</i>		
Well 5, Option 1/Treatment Facility Option 1	Residential/Office	Office
<i>East Sub-Area</i>		
East Well 2, Option 3	Open Space	Open Space/Park
East Well 2, Option 4	Residential: Maximum of 2 dwelling units per acre	Suburban Residential
¹ City of Moreno Valley, 2019a ² City of Moreno Valley, 2019b		

Development of a 20,000 square foot well site would prevent other activities such as recreation, office, or commercial use at the Modified Project sites. Nonetheless, construction of wells at the Modified Project sites would be permitted under the City of Moreno Valley zoning ordinance. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

Mitigation Measures: None required or recommended.

4.12 Noise

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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]	[]

a) No New Impact

Approved Project

The MND analyzed the potential for temporary noise impacts from construction of the wells, pipelines, and treatment/blending facility. As discussed in the MND, most of the well construction, pipeline construction, and treatment/blending construction would occur during daytime hours as allowable per City noise standards. Pipelines would be constructed typically at least 25 feet from noise sensitive receptors, while the wells would be constructed at least 50 feet from noise sensitive receptors. Truck trips associated with construction of the Project would generate noise along haul routes. Although EMWD is exempt from other jurisdictional agencies' noise ordinances, the proximity of construction activities for the Approved Project could potentially cause disruption to nearby residents, businesses, and parks. This impact would be reduced to a less-than-significant level with the implementation of **Mitigation Measure NOI-1**, which requires that EMWD and its contractor implement construction noise reduction measures.

Well drilling would require up to two weeks of 24-hour drilling for each well. The MND assumed drilling activities would occur at a minimum distance of 50 feet between the drilling rig and property boundary of the nearest noise sensitive receptor. At this distance, well drilling activities (consisting of a drill rig, pickup truck, and backhoe) would be expected to generate noise levels up to 90.2 dBA Leq with no shielding present. The MND applied **Mitigation Measure NOI-2** to the Approved Project, which requires the use of noise barriers during 24-hour well construction activities to achieve at least 25 dBA of noise attenuation. With the use of all feasible sound barriers, the noise from well drilling activities associated with the Approved Project would be reduced to 65.2 dBA Leq at a distance of 50 feet, which is close to what the City and County consider acceptable noise levels for residential land uses. At a distance of 200 feet from the source, such a sound barrier would reduce construction noise levels to 53.1 dBA Leq, which is within the range of what the City and County consider acceptable nighttime noise levels for residential land uses. With mitigation incorporated, the MND found that temporary noise impacts would be less than significant.

The MND found permanent noise from operation of the wells would be reduced through implementation of design standards (i.e., wells would be enclosed within a CMU well house surrounded by a 6-foot CMU wall, and would be sited at least 50 feet from the nearest adjacent land use), which would reduce operational noise from well facilities. Pipeline operation would not result in a permanent increase in ambient noise because facilities would be underground. Operation and maintenance activities at the treatment plant would not involve activities that would result in a significant increase in ambient noise. The MND found that operational noise generated by the Project would have a less-than-significant impact with mitigation incorporated.

Modified Project

The Modified Project would add well sites/well site options and pipeline alignments to the Project. The proposed well sites included in the Modified Project are described in *Section 1.1.2 Proposed Modified Project*. The section provides information on surrounding receptors and existing attenuation features. Key details related to sensitive receptors near each proposed well site are summarized below:

- Cactus Corridor Well 5, Option 1: The site is adjacent to residences and a school (Riverside County Education Academy). The well would be located at least 200 feet from residential property lines and at least 100 feet from the property boundary of Riverside County Education Academy (similar to Cactus Corridor Well 4, Option 1 which would be constructed at the same site and was analyzed in the Approved Project IS/MND).
- CCE Well 2, Option 3 (Pedrorena Park): The site is adjacent to residences and a community center. The well would be located at the park such that the distance to the nearest residential property line would be at least 50 feet.
- CCE Well 2, Option 4 (Iris Avenue/Wedow Drive): The site is adjacent to residential and commercial land uses as well as a school (Val Verde Academy), which is

located adjacent to the southwest boundary of the site. The well would be constructed in the northwest corner of the site such that the closest residential property line would be approximately 100 feet from the well drilling site. The well would be constructed approximately 300 feet from the school.

Extraction wells would be constructed using the same construction fleet and techniques described in the MND; therefore, the potential for noise generation during construction of the Modified Project is the same as that of the Approved Project. All of the well sites included in the Modified Project would also allow for at least 50 feet between well drilling activities and the property boundary of the nearest sensitive receptor, consistent with the siting described in the MND. Noise levels generated by well-drilling activities associated with the Modified Project would be expected to have the potential to produce the same noise level as the Approved Project. The Modified Project would also include implementation of previously adopted **Mitigation Measure NOI-2** to reduce well drilling noise. Under the Modified Project, two wells, Cactus Corridor Well 4 Option 1 and Cactus Corridor Well 5 Option 1, would be constructed at the same site. Although the well drilling at this site would require a total of 4 weeks of 24-hour well drilling for two wells, well-drilling activities would not occur simultaneously and would not result in a louder noise level than that evaluated in the MND.

Similar to the pipeline alignments evaluated in the MND, the potential Modified Project alignments would pass through residential areas and open spaces (i.e., existing parks), typically at least 25 feet from the nearest receptor. Pipeline construction for the Modified Project would proceed at the same rate as for the Approved Project and would occur during daytime hours in accordance with City of Moreno Valley noise standards. Noise-generating activities during pipeline construction would be the same as those assessed in the MND for the Approved Project.

Truck trips associated with construction of the Modified Project would be comparable to the Approved Project. The Modified Project would not result in more truck trips per day, longer trips, or in a significantly longer construction duration; therefore the noise impacts from truck trips would not be greater than the impacts discussed in the MND.

Mitigation Measure NOI-1, which requires that EMWD and its contractor implement construction noise reduction measures and was previously adopted as part of the MND, would also apply to the Modified Project. With implementation of the same mitigation specified in the MND, temporary, construction noise impacts associated with the Modified Project would be similar to the impacts of the Approved Project.

Operation of the Modified Project would not differ from operation of the Approved Project. Wells constructed at any of the proposed Modified Project sites would follow the same design standards discussed in the MND. Pipeline operation would not generate noise, consistent with pipelines evaluated in the MND). The Modified Project would not require additional maintenance or inspection trips beyond those analyzed in the MND, therefore no additional vehicle noise would be generated, and the permanent ambient noise impact from operation of the Modified Project would remain less than significant.

With incorporation of previously adopted **Mitigation Measure NOI-1** and **Mitigation Measure NOI-2** from the MND, impacts would be less than significant. No new impact would occur as a result of the Modified Project and no new mitigation would be required.

b) No New Impact

Approved Project

The MND found that the construction of the Project may generate low levels of temporary vibration noise during construction. As discussed in the MND, the construction equipment to be used for the Approved Project, as listed in **Table 3-19**, would generate groundborne vibration lower than 0.2 inches/second peak particle velocity (PPV), the threshold for potential damage to buildings, at a distance of 25 feet. The Approved Project pipeline construction would be at least 25 feet from noise receptors, the well drilling sites would be 50 feet from noise receptors, and the treatment/blending facility construction would be at least 40 feet from noise receptors. Therefore, the potential for the Approved Project to damage nearby buildings through groundborne vibration was found to be less than significant.

As discussed in the MND, groundborne noise (measured in vibration decibels, or VdB) at levels above 80 VdB can cause human annoyance when events are infrequent. For construction at the Approved Project, groundborne noise from the most impactful piece of equipment (the drilling rig) would attenuate to below 80 VdB at a distance of 43 feet from the source. Vibration noise from trucks would attenuate to below 80 VdB at a distance of 40 feet from the source. Sensitive receptors are located at least 50-feet from the Approved Project well drilling rig sites, so the impact would be less than significant. Vibration noise from trucks at the pipeline sites would be infrequent, short in duration, and would not occur at the same location for an extended period of time. Finally, construction vehicles at the treatment/blending construction site would be located at least 40 feet from receptors, and thus result in groundborne noise lower than the significance threshold. Once operational, the Approved Project would not generate groundborne vibration or noise. Vibration and vibration noise would not be damaging or excessive. Therefore, the MND found the Project would have a less-than-significant impact in terms of groundborne vibration and noise.

Modified Project

The Modified Project would add a second well (Cactus Corridor Well 5 Option 1) at Treatment Plan Option 1 / Cactus Corridor Well 4 Option 1. The Modified Project would also add two new well site options (CCE Well 2, Option 3 and CCE Well 2, Option 4). Although two wells would be constructed at the same site, well-drilling activities would not occur simultaneously. The duration of well drilling activity would increase, but the level of noise and groundborne vibration would not increase. The Modified Project wells would use the same construction fleet as shown in **Table 3-19** of the MND. The well drilling rig and trucks would occur at least 50 feet from adjacent land uses, consistent with the siting analyzed in the MND; therefore, there would be no increase in groundborne vibration or

noise impacts due to construction activities for the additional well and CCE 2 well site options.

For the pipeline construction component of the Modified Project, loaded trucks could cause occasional groundborne vibration above 80 VdB at receptors within 40 feet of the construction sites. However, groundborne noise associated with Modified Project pipeline construction would be infrequent, temporary, and would move along the pipeline alignment and would not expose receptors to vibration for the entire construction duration. Groundborne noise impacts along the proposed Modified Project pipeline alignments would be the same as impacts evaluated for the pipeline alignments in the Approved Project.

Operation of the Modified Project would not differ from operation of the Approved Project. Once operational, pipelines and extraction wells would not generate groundborne vibration or noise.

The Modified Project would not generate excessive groundborne noise or vibration levels either during construction or operation. The impact would be less than significant, and the Modified Project would have no new impact nor require additional mitigation.

c) No New Impact

Approved Project

As discussed in the MND, the March Air Reserve Base (MARB)/March Inland Port is the only airport in the vicinity of the Approved Project site. The Approved Project sites are outside of the airport noise contours and, therefore, there would be no impact related to exposure of residents or workers to excessive aircraft noise.

Modified Project

The Modified Project elements would be located approximately 1.5 miles from the MARB/March Inland Port. All components of the Modified Project would be located outside the 60-CNEL noise contour for the airport. Therefore, the Modified Project would not expose residences or workers to excessive aircraft noise and there would be no impact.

Mitigation Measures:

To mitigate possible temporary construction noise impacts of the Modified Project, EMWD shall implement **Mitigation Measure NOI-1** and **Mitigation Measure NOI-2** which were previously adopted in the MND for the Approved Project. Impacts of the Modified Project are the same as the Approved Project: less than significant with mitigation incorporated. No new mitigation is required for the Modified Project.

4.13 Public Services

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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Would the Project:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental 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 following public services:	[]	[]	[X]	[]
i) Fire protection?	[]	[]	[X]	[]
ii) Police protection?	[]	[]	[X]	[]
iii) Schools?	[]	[]	[X]	[]
iv) Parks?	[]	[]	[X]	[]
v) Other public facilities?	[]	[]	[X]	[]

a.i, ii, iii, and v.) No New Impact

Approved Project

The MND found that the Project would not require the construction of new or physically altered fire protection facilities, police protection facilities, schools, or other public facilities that would result in adverse physical impacts. Additionally, the Project would not substantially change response times or service ratios for fire protection services, police protection, or schools. Fire, police or other emergency response services required during construction would be temporary and provided by existing Riverside County Fire Department and Riverside County Sherriff’s Department facilities. Operation of the Project would not directly or indirectly induce unplanned population or employment growth or result in an influx of students that would require construction of new or expansion of existing fire departments, police departments, or schools. No additional or increased

facilities would be needed to maintain response times, service ratios, or other performance measures. As a result, no impact would occur.

Modified Project

Implementation of the Modified Project would be consistent with the analysis in the MND and would rely on existing Riverside County Fire Department facilities and the existing Riverside County Police Department for fire protection, police protection and emergency services during temporary construction activities. Construction of the Modified Project would not include new homes or businesses, and operation would not directly or indirectly induce population or employment growth or result in an influx of students. Operation of the Modified Project would not necessitate construction of new or expansion of existing fire protection facilities, police stations, schools, or other public facilities to maintain response times, service ratios, or other measures of performance. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

a.iv.) No New Impact

Approved Project

The MND analyzed impacts on three parks that were selected as options for installation of extraction wells: Bayside Park (Cactus Corridor Well 3 Option 2), Victoriano Park, and Parque Amistad (CCE Well 2 Option 1 and Option 2), as shown in **Figure 1-1**. Installation would result in replacement of up to approximately 20,000 square feet (one-half acre) of public park area for each of the groundwater extraction wells. Impacts resulting from temporary construction activities would be mitigated to less than significant with adherence to standard EMWD BMPs. Impacts were evaluated against the City of Moreno Valley's General Plan policy 4.2.7 which establishes the City level of service (LOS) standard as 3 acres of developed parkland for every 1,000 residents, which is the minimum parkland dedication allowed by the Quimby Act for residential subdivisions. Impacts were also evaluated against the 3 acres/1,000 residents service ratio recognized by the City as the National Recreation and Park Association recommendation that urban cities strive to reach a goal of 10 acres per 1,000 of population counting local, regional and state/federal parkland and facilities within the agencies' sphere of influence. As analyzed in the MND, the Project would not significantly reduce the City's park acreage or impact the service ratios established by the General Plan or National Recreation and Park Association. In total, implementation of the Project would replace up to one acre of park land within the City of Moreno Valley. Construction and operation of the Project does not propose new housing or employment that would result in an increase in the demand for park facilities in the area or a further reduction in the park service ratio. As a result, a less than significant impact on parks would occur.

Modified Project

The Modified Project would add a new extraction well at the Approved Project Treatment Plant Option 1 site and a new CCE Well 2 extraction well site option (Option 3) within a

vacant parcel at the intersection of Iris Avenue and Wedow Drive. These new components of the Modified Project would have no impact on park or recreation facilities. The Modified Project also includes a revised pipeline alignment within Kitching Street, Iris Avenue, and Los Cabos Drive for the CCE Well 2 Option 3 site and a revised pipeline alignment within Perris Boulevard, Santiago Drive, Wedow Drive, and Iris Avenue for the CCE Well 2 Option 4 site. Neither of these pipeline alignments would permanently impact park or recreation facilities.

Modified Project CCE Well 2 Option 3 site is proposed at Pedrorena Park, which is five and one-half acres in size and includes picnic areas, restrooms, four tennis courts, a basketball court, a children's play structure, a parking lot, and open green space (City of Moreno Valley 2010). There are several locations within Pedrorena Park where East Well 2 could be located if Option 3 is chosen, according to conceptual well site options (EMWD 2020). If the well is constructed in an open grassy area, it would occupy one-half acre of the park's approximately five and one-half acres leaving approximately five acres available. If the well is constructed in place of an existing tennis court, a replacement tennis court would be built in an area that is currently occupied by open, grassy space, which would also result in a decrease of the park's open grassy area. A standard tennis court is 2,808 square feet, or 0.06 acres (Tennis Companion, 2020). Construction of both East Well 2 and a new tennis court within Pedrorena Park would occupy 0.56 acres of the park's approximately five and one-half acres. However, replacing open green space with a new tennis court would not count against the total area available for recreation and five acres of Pedrorena Park would still be available for recreational purposes if the well were to be constructed at the site of the existing tennis court.

Although the Pedrorena Park well site is a new option, only one site will be chosen for the CCE Well 2 among Option 1 (Victoriano Park), Option 2 (Parque Amistad), Option 3 (Pedrorena Park) and Option 4 (Iris Avenue/Wedow Drive). Therefore, the maximum total displacement of parkland by the Project would remain at up to one acre, consistent with the MND, however, with the addition of the CCE Well 2 Option 4 location (a vacant lot), there is a possibility that no parkland would be displaced. Because the Modified Project would not require conversion of parkland beyond what was analyzed in the MND, and could potentially result in no lost parkland if Option 4 is chosen, impacts to the established service ratios in the City of Moreno Valley General Plan and National Recreation and Park Association would be less than significant. There would be no new impacts as a result of the Modified Project and no new mitigation would be required.

Mitigation Measures: None required or recommended.

4.14 Recreation

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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Would the Project:

- | | | | | |
|--|-----|-----|-------|-----|
| 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? | [] | [] | [X] | [] |
| b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | [] | [] | [X] | [] |

a) No New Impact

Approved Project

The MND found that the Project would not permanently increase the use of parks and recreational facilities. Although three parks were identified as optional locations for an extraction well (Cactus Corridor Well 3 Option 2 [Bayside Park], CCE Well 2 Option 1 [Victoriano Park], CCE Well 2 Option 2 [Parque Amistad]), the proposed well footprint would occupy approximately one-half acre of open, landscaped area of the parks and would not involve removal of recreational facilities or equipment. Construction of the wells would have a temporary impact on access to and use of the recreational amenities, but impacts would be minimized through adherence to standard EMWD BMPs (see *Section 2.7 Environmental Commitments* of the MND). Operation of the wells would not interfere with regular use of the parks and park facilities. Implementation of the Project does not include residential housing and would not induce population growth that would permanently increase the use of the parks and recreational facilities. Therefore, the Project would have a less than significant impact.

Modified Project

The Modified Project would add a new extraction well at the Approved Project Treatment Plant Option 1 site and a new East Well 2 Option 3 extraction well site option within a

vacant parcel at the intersection of Iris Avenue and Wedow Drive. These new components of the Modified Project would have no impact on park or recreation facilities. The Modified Project also includes a revised pipeline alignment within Kitching Street, Iris Avenue, and Los Cabos Drive for the CCE Well 2 Option 3 site and a revised pipeline alignment within Perris Boulevard, Santiago Drive, Wedow Drive, and Iris Avenue for the CCE Well 2 Option 4 site. Neither of these pipeline alignments would permanently impact park or recreation facilities. There are several locations within Pedrorena Park where CCE Well 2 could be located if Option 3 is chosen. If the well is constructed in an open grassy area, it would occupy one-half acre of the park's approximately five and one-half acres, leaving approximately five acres of space area available for recreation (see *Section 4.13 a.iv.* for further explanation).

Although the Modified Project includes another park as a potential well extraction site option, only one site would be developed between CCE Well 2 Option 1 (Victoriano Park), CCE Well 2 Option 2 (Parque Amistad), CCE Well 2 Option 3 (Pedrorena Park) and CCE Well 2 Option 4 (vacant lot at Iris Avenue and Wedow Drive) Location of the extraction well at Pedrorena Park would be similar to the siting of extraction well in Victoriano Park or Parque Amistad and would not remove any recreational park space beyond what was analyzed in the MND. Construction of the well would not involve net loss of recreational facilities or equipment and impacts would be minimized through adherence to standard EMWD BMPs (see *Section 2.7 Environmental Commitments* of the MND). If CCE Well 2 Option 4 is chosen, impacts on recreational facilities could be reduced in comparison to impacts analyzed in the MND. Ongoing operation and maintenance activities associated with the extraction well would be minimal and would not interfere with regular use of the parks and park facilities. To minimize operational noise generated from the 24-hour pumping, the well would be enclosed within a concrete masonry unit well house and a six-foot tall concrete masonry unit wall would surround each well house. As with the Approved Project, the Modified Project would not impact existing park service ratio objectives nor increase the use of parks or other recreational facilities. Therefore, there would be no new impacts as a result of the Modified Project and no mitigation would be required.

b) No New Impact

Approved Project

The MND found that implementation of proposed Project would not require construction or expansion of recreational facilities which could have an adverse physical impact on the environment. As a result, no impact would occur.

Modified Project

The Modified Project would be implemented in a manner consistent with the MND and would not require construction of new or expansion of existing recreational facilities which could have an adverse physical impact on the environment. Therefore, there would be no new impact as a result of the Modified Project and no new mitigation would be required.

Mitigation Measures: None required or recommended.

4.15 Transportation and Traffic

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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Would the Project:

- | | | | | |
|--|-----|-----|-------|-----|
| a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle 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 (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | [] | [] | [X] | [] |
| d) Result in inadequate emergency access? | [] | [] | [X] | [] |

a) No New Impact

Approved Project

The MND found that construction of the Approved Project would not conflict with regional transportation plans or the City of Moreno Valley General Plan. All construction activities would occur within roadway rights of way, areas adjacent to the roadways, and within select parcels. Construction impacts would be temporary and limited to the 22-month construction period. Although construction-related traffic impacts would be temporary, closures of roadways, bicycle lanes, and sidewalks may be necessary. Implementation of **Mitigation Measure TRA-1** would require development and implementation of a Traffic Control Plan which would ensure that potential traffic related impacts would be less than significant. Operation of the Approved Project would not have a permanent impact on circulation. Therefore, the MND found that the Approved Project would have a less than significant impact with mitigation incorporated.

Modified Project

Construction of the Modified Project components, including the additional extraction well at Treatment Plant Site Option 1, new optional sites for CCE Well 2, and associated pipeline alignments would occur within roadway rights of way, areas adjacent to the roadways, and the vacant land parcels or park sites, similar to the Approved Project. Construction of an additional extraction well at the treatment/blending facility site and the modified pipeline alignments would be incorporated into the total 22-month construction period analyzed in the MND. **Mitigation Measure TRA-1**, which was previously adopted as part of the MND, would be implemented to reduce potential construction related circulation impacts to a less than significant level. Operation of the Modified Project would be similar to the Approved Project and would not have a permanent impact on traffic circulation. Therefore, there would be no new impacts and no new mitigation required as a result of the Modified Project.

b) No New Impact

Approved Project

CEQA Guidelines Section 15064.3, subdivision (b) outlines criteria for analyzing transportation impacts in terms of vehicle miles traveled (VMT), the amount and distance of automobile travel, for land use projects and transportation projects. The MND found that the Project would not significantly increase VMT in the Project area. Construction of the Approved Project would require trips associated with worker transportation, delivery of construction supplies and equipment, and hauling materials to and from the site; these trips would be temporary. Operation of the Project would require monthly visits to well sites and biweekly visits to the treatment facility site, but these trips would be incorporated into EMWD's existing operation and maintenance program. Construction and operation of the Project would not cause a notable increase in VMT that would exceed a City or County threshold of significance and would be consistent with CEQA Guidelines Section 15064.3, subdivision (b). Therefore, the MND found that the Project would have a less than significant impact related to VMT increases.

Modified Project

Although the Modified Project would require temporary vehicle trips during construction, only the new extraction well at Treatment Plant Option 1 site would result in a small amount of additional VMT compared to the Approved Project. VMT for CCE Well 2 was analyzed in the MND through the Option 1 and Option 2 sites. Only one of the CCE Well 2 sites would be chosen for construction, and addition of new site options Option 3 and Option 4 would not change the analysis that was conducted in the MND. Therefore, construction of the Modified Project would not cause a notable increase in VMT that would exceed a city or county threshold of significance. Operation of the new extraction well at the Approved Project Treatment Plant Option 1 site and, operation of either the CCE Well 2 Option 3 or Option 4 would require the monthly visits, similar to the trips identified for wells in the MND. However, operation and maintenance of the Modified Project extraction wells would be incorporated into EMWD's existing operation and maintenance program,

consistent with the MND. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

c) No New Impact

Approved Project

The MND found that impacts of the Project would be less than significant with mitigation incorporated. While construction of the Project may require some incompatible uses on roadways as the result of heavy construction equipment, these potential hazards would be temporary and roadways would be restored to pre-construction conditions once construction is complete. The MND found implementation of **Mitigation Measure TRA-1** would reduce potential impacts from the Project to less than significant.

Modified Project

As with the Approved Project, construction of the Modified Project may require incompatible roadway uses (such as transportation of heavy construction equipment) that may result in potential hazards. Implementation of previously adopted **Mitigation Measure TRA-1** would ensure that vehicle ingress and egress from construction sites and staging areas occurs safely and reduces potential impacts to less than significant. Construction would restore roadways to their prior conditions once pipeline installation is complete and would not result in hazardous geometric design features. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

d) No New Impact

Approved Project

The MND found that the Project would have a less than significant impact with implementation of **Mitigation Measure TRA-1**. Construction of the Project may require lane closures that have the potential to hinder emergency vehicle access. In order to prevent Project construction from interfering with emergency responders, implementation of **Mitigation Measure TRA-1** and traffic control measures would require that emergency crews are able to access Project sites and surrounding areas and are informed of construction locations. With this mitigation measure incorporated, impacts would be reduced to less than significant.

Modified Project

Construction activities of the Modified Project would be consistent with those analyzed in the MND and may require lane closures that could hinder emergency vehicle access. Implementation of **Mitigation Measure TRA-1**, which was previously adopted as part of the MND, would require emergency crews have access to and be informed of all Project construction sites. Implementation of previously adopted **Mitigation Measure TRA-1** would reduce potential impacts to less than significant. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

Mitigation Measures:

To mitigate possible impacts to circulation and emergency access during construction, EMWD shall implement **Mitigation Measure TRA-1**, which was previously adopted in the MND for the Approved Project. The Modified Project impacts are the same as the Approved Project: less than significant with mitigation incorporated. No new mitigation is required for the Modified Project.

4.16 Tribal Cultural Resources

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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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:

- | | | | | |
|---|-----|-----|-------|-----|
| i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | [] | [] | [X] | [] |
| ii) 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. | [] | [] | [X] | [] |

a) No New Impact

Approved Project

The MND found there are no cultural resources, Native American or historical, within the Project area. Most of the Approved Project area includes areas highly disturbed by urban development, which makes the possibility of encountering intact surface tribal cultural resources low. However, the lack of surface evidence of archaeological remains does not mean there is no potential for cultural resources to be found below the surface. There is potential for construction ground-disturbing activities to expose previously unrecorded tribal cultural resources. No archaeological resources have been previously recorded within or immediately adjacent to the Project area. Therefore, there is a relatively low potential for encountering substantial prehistoric archaeological remains during construction. To avoid or lessen potential the risk of impacting tribal cultural resources, **Mitigation Measures CUL-1** through **CUL-7** would be implemented to require agreements and monitoring plans be established prior to any ground-disturbing activities and require appropriate treatment of any inadvertently uncovered artifacts. Proper procedures would also be put in place if human remains are discovered during construction. Therefore, impacts on tribal cultural resources would be less than significant with the incorporation of mitigation.

Modified Project

The elements of the modified project are proposed within the same area as the Approved Project. No cultural resources, Native American or historical, were found in the CRAA. The Modified Project would be sited on highly disturbed, developed areas, which makes the possibility of encountering intact surface tribal cultural resources very low. Previously adopted **Mitigation Measures CUL-1** through **CUL-7** from the MND would also be implemented for the Modified Project to avoid or lessen potential risk of impacting tribal cultural resources. Therefore, no new impacts would occur and no new mitigation would be required.

Mitigation Measures:

To minimize impacts in the event of the discovery of unanticipated tribal resources during construction, EMWD shall implement **Mitigation Measures CUL-1** through **CUL-7** which were previously adopted in the MND for the Approved Project. Impacts of the Modified Project are the same as the Approved Project: less than significant with mitigation incorporated. No new mitigation is required for the Modified Project

4.17 Utilities and Service Systems

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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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] | [] |
| c) Result in a determination by the wastewater treatment provider which serves 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] | [] |

As explained in *Section 1.4 Evaluation of Environmental Impacts*, resource areas that were found to have No Impact in the MND, and for which the Modified Project would also result in a finding of No Impact, are not analyzed further in this Addendum. This includes checklist questions (b) and (e) under Utilities and Service Systems.

a) No New Impact

Approved Project

The MND found that the environmental impacts of the Project's proposed new water production and associated conveyance and treatment facilities were mitigated to less than significant. Although the Project involves expansion of EMWD's water service infrastructure, the purpose of the Project is to offset imported water and increase water supply reliability. The Project would serve existing and planned communities and would not induce unplanned population or employment growth that would result in the construction of new or expanded water, wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities. The Project would not require improvements to the existing municipal storm water drain or electrical system because increases in runoff and electrical use would be minor. The impacts of the Project were evaluated throughout the MND and were mitigated to a less than significant level.

Modified Project

The Modified Project would serve existing and planned communities and would not result in expansion to EMWD's water service infrastructure beyond what was analyzed in the MND and this Addendum. Similar to the Approved Project, the Modified Project would not induce unplanned population or employment growth that would result in the construction of new or expanded wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities. Construction activities of the pipeline and extraction wells would be similar to those analyzed in the MND and would result in similar increases in runoff and electrical use. The impacts of the Modified Project are evaluated throughout this Addendum and would be less than significant with mitigation incorporated. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

c) No New Impact

Approved Project

The MND found that the amount of wastewater discharged into the sanitary sewer system - brackish or backwash water from the central treatment and blending facility - would be small compared to the approximately 43 million gallons per day (mgd) of wastewater EMWD treats throughout its service area. Operation of the Project would not induce unplanned population or employment growth that would result in or require expansion of existing wastewater collection or treatment services. Therefore, the MND found that the Project would have a less than significant impact.

Modified Project

The minimal amount of additional wastewater that would be discharged into the sanitary sewer system associated with adding one additional well would not be substantially greater than what was analyzed in the MND. The addition of site Options 3 and 4 for CCE Well 2 would not change the amount of wastewater discharge analyzed in the MND. In

addition, implementation of the Modified Project would not induce unplanned population or employment growth that would require expansion of existing wastewater collection or treatment services. Therefore, the Modified Project would have a less than significant impact on wastewater treatment. There would be no new impacts as a result of the Modified Project and no new mitigation would be required.

d) No New Impact

Approved Project

The MND found that the Project would have a less than significant impact to local landfill capacity. While operation of the Project would not produce long-term solid waste, soil and asphalt waste would be generated during construction of underground pipes, wells, and treatment/blending facilities. Excavated soil would be reused onsite to the extent feasible, but approximately 41,800 cubic yards (cy) of material would need to be disposed at a permitted landfill in accordance with local, state, and federal disposal requirements. Excess construction debris is reasonably anticipated to be within the permitted capacity of the Moreno Valley and Riverside County landfills after onsite backfill and adherence with mandatory construction waste diversion requirements. Impacts would be less than significant, and no mitigation would be required.

Modified Project

Construction activities of the Modified Project extraction wells would be similar to those identified in the MND. Therefore, the estimated amount of material export from construction of each of the extraction wells and associated well blow-off pond is consistent with the MND (*Section 2.2.1 Extraction Wells*). As stated in *Section 2.2.2 Pipeline Alignment*, the Modified Project would increase the total estimated volume of material export from construction of the pipelines from 22,500 cy by about 1,100 cy if CCE Well 2 Option 1 is chosen, by about 500 cy if CCE Well 2 Option 3 is chosen, or by about 530 cy if CCE Well 2 Option 4 is chosen. Although approximately 35 percent of the excavated material would be re-used onsite as fill during the pavement restoration phase, the Modified Project would still result in a minimal increase of excess construction debris. However, the amount of solid waste to dispose of would not be significantly greater than what was analyzed in the MND and would be within the permitted capacity of the Moreno Valley and Riverside County landfills. Solid waste generation would be limited to temporary construction activities and would result in a less than significant impact. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

e) No New Impact

Approved Project

The MND found that construction and operation of the Project would comply with local, State, and federal regulations related to solid waste. While operation of the Project is not anticipated to generate long term solid waste, construction activities would create debris.

Excavated soil would be backfilled to the extent possible, but construction contractor(s) would be required to dispose of excess construction debris in accordance with existing reduction statutes (AB 939 and AB 341) and regulations. Therefore, impacts would be less than significant, and no mitigation would be required.

Modified Project

Similar to the Approved Project, generation of solid waste debris for the Modified Project would be limited to temporary construction activities and operation would produce minimal long-term solid waste. While excavated soil would be used as backfill to the extent possible, excess construction debris would require disposal to a landfill. Construction contractor(s) would be required to dispose of excess construction debris in accordance with the same local, State, and federal statutes and regulations identified in the MND. Therefore, impacts related to compliance with local, State, and federal reduction statutes and regulations would be less than significant. There would be no new impacts as a result of the Modified Project and no new mitigation would be required.

Mitigation Measures: No additional mitigation measures required or recommended.

4.18 Wildfire Risk

<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
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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] []

As explained in *Section 1.4 Evaluation of Environmental Impacts*, resource areas that were found to have No Impact in the MND, and for which the Modified Project would also result in a finding of No Impact, are not analyzed further in this Addendum. This includes check list question (b), (c), and (d) under Wildfire Risk

a) No New Impact

Approved Project

The MND found that temporary sidewalk and lane closures during construction could impair implementation of or physically interfere with the City of Moreno Valley Emergency Operations Plan (EOP) and Local Hazard Mitigation Plan (LHMP). Implementation of **Mitigation Measure TRA-1** would require EMWD to develop a Traffic Control Plan which would reduce conflict between Project construction activities and the EOP and LHMP. Therefore, the Approved Project would have a less than significant impact on adopted emergency response or evacuation plans with mitigation incorporated.

Modified Project

The Modified Project would add a new extraction well at the Approved Project Treatment Plant Option 1 site and two extraction well site options and associated pipeline alignments. While construction equipment staging would be located within vacant areas, construction activities would occur within easements and public rights of way and have impacts to the EOP and LHMP similar to the Approved Project. Implementation of previously adopted **Mitigation Measure TRA-1** would require EMWD to develop a Traffic Control Plan, which would reduce conflict between Project construction activities and the EOP and LHMP by requiring coordination with emergency services (police, fire, and others); requiring identification of roadways and access points for emergency services; and requiring that disruptions to or closures of these locations be minimized. All surfaces would be returned to pre-construction conditions after excavation, and implementation of the Modified Project would not add any additional vehicle trips for operation and maintenance. Therefore, there would be no new impacts as a result of the Modified Project and no new mitigation would be required.

Mitigation Measures:

To mitigate possible impacts to emergency access during construction, EMWD shall implement **Mitigation Measure TRA-1**, which was previously adopted in the MND for the Approved Project. The Modified Project impacts are the same as the Approved Project: less than significant with mitigation incorporated. No new mitigation is required for the Modified Project.

4.19 Mandatory Findings of Significance

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No New Impact/No Impact</i>	<i>Reduced Impact</i>
--	---	--------------------------------	--------------------------------	-----------------------

Does the Project:

- | | | | | |
|---|-----|-----|-------|-----|
| a) 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 population 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 prehistory? | [] | [] | [X] | [] |
| b) Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a Project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | [] | [] | [X] | [] |
| c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | [] | [] | [X] | [] |

a) No New Impact

With the implementation of mitigation measures, the Modified Project would have a less than significant impact on the environment. Potential construction impacts on burrowing owl, horned larks, and common avian species such as mourning doves and house finches would be reduced to a less than significant level through the implementation of mitigation

measures previously adopted in the MND, **Mitigation Measures BIO-1** and **BIO-2**. No cultural or archaeological resources were identified within the area that would be directly impacted by the Modified Project activities plus a one-half mile buffer; however, there is a potential for previously unknown cultural material to exist at Modified Project sites. With the implementation of **Mitigation Measures CUL-1** through **CUL-7**, which were previously adopted in the MND, potentially significant impacts on cultural resources would be reduced to less than significant. The Modified Project site overlies Holocene deposits, which have low paleontological sensitivity, overlying Pleistocene sediments at a depth of approximately 11 feet, which have high paleontological sensitivity. Impacts on paleontological resources are not anticipated because Fossiliferous deposits have the potential to occur at greater depths than most of the Modified Project ground disturbance. To ensure proper procedures are in place in the event of an unanticipated fossil discovery, previously adopted **Mitigation Measure GEO-1** would be implemented during all construction phases of the Modified Project. **Mitigation Measure GEO-1** would ensure any unanticipated fossil discovered onsite would be preserved, and potential impacts on paleontological resources would be less than significant.

With the incorporation of mitigation measures from the MND, the Modified Project would not result in an increase in the degradation of environmental resources or increase the severity of degradation identified in the MND. The Modified Project would have a less-than-significant impact with mitigation incorporated. There would be no new impact and no new mitigation would be required.

b) No New Impact

The MND evaluated cumulative impacts based on the *List-of-Projects Method*: a list of past, present, and probable future projects producing related or cumulative impacts (including, if necessary, those projects outside the control of the lead agency). The same method is used to evaluate the Modified Project. The Modified Project is currently being considered as one project of several within an EMWD grant application to the State Water Resources Control Board called the Perris North Groundwater Program. The other projects would result in the construction and operation of groundwater monitoring wells, extraction wells, treatment and distribution facilities also within the Perris North Basin. These projects are the Well 204 Project, Perris North Groundwater Monitoring Project, and the Well 65/66 Project. This same suite of projects was used to assess cumulative impacts in the Approved Project IS/MND.

The differences between the Modified Project and the Approved Project are incremental. The Modified Project would add one additional extraction well, up to 2,220 net additional feet of pipeline, and two new potential well sites (which provide new location options but would not increase the total number of wells in the project). As discussed in this Addendum, the Modified Project would not have a greater impact than the Approved Project for any environmental impact. Therefore, the Modified Project's contribution to cumulative impacts (such as fugitive dust, construction noise, traffic control, storm water control, handling/storage of hazardous materials, regulations related to protections for plants/wildlife/waters of the State and U.S, operational vehicle trips, etc.) would remain

less than significant. In addition, many of the potential short-term construction related impacts such as air quality, transportation, noise, hazards, biological resources, greenhouse gases, hydrology, and aesthetics would occur in individual localized areas within a discrete period of time, and potential for overlapping cumulative impacts among individual projects together with the Modified Project is minor. Therefore, these projects are not be expected to create impacts that are individually limited, but cumulatively considerable.

In addition to, and separate from, the Perris North Groundwater Program, EMWD is undertaking the Cactus II Feeder pipeline project, which will convey MWD water to EMWD's potable system. Turnout 2 for the Cactus II Feeder pipeline project is located at the same site as the proposed Project Option #1 Treatment Facility site. The Approved Project IS/MND evaluated the potential need for additional equipment storage/staging if construction of the Turnout and the Option #1 Treatment Facility Site (if selected) were to occur at same time. The Modified Project would add a second extraction well at this site, which could also require additional storage/staging at another EMWD property if the site cannot accommodate all equipment. As discussed in the MND, other existing EMWD property would be utilized, as necessary, for staging and intermediate storage for the installation of the water pipelines, or the contractor would be responsible for securing suitable temporary equipment storage/staging site(s) prior to construction, as well as implementing applicable environmental commitments at the staging area(s). Therefore, the cumulative effect is not expected to be considerable.

The Modified Project would not have impacts that are individually limited, but cumulatively considerable. The impacts of the Modified Project have been analyzed in accordance with the CEQA Guidelines; each topic has been found to have either no impact, a less than significant impact, or a less than significant impact with previously adopted mitigation from the MND incorporated. The Modified Project is of a limited scale, and, taken in sum with other projects in the area, would not produce cumulatively considerable impacts to the environment or human beings. Therefore, cumulative impacts of the Modified Project would be less than significant. There would be no new impacts and no new mitigation would be required.

c) No New Impact

The environmental evaluation in this Addendum found that the Modified Project would either have no impact, less-than-significant impacts, or less-than-significant impacts with previously adopted mitigation from the MND incorporated. Potential impacts on air quality, aesthetics, noise, hazardous materials, and traffic would all be reduced to less-than-significant levels with the implementation of applicable previously adopted mitigation measures (**Mitigation Measures AIR-1, AES-1, AES-2, AES-3, NOI-1, NOI-2, HAZ-1, and TRA-1**) that were included in the MND for the Approved Project. Therefore, the Modified Project would not result in any environmental effects that would cause substantial adverse effects on human beings directly or indirectly. The Modified Project would not result in a new or increased adverse effect to human beings. Impacts would

not be more severe than those identified in the MND, and no additional mitigation would be necessary.

5. ADDITIONAL REFERENCES

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Appendix A – CalEEMod Results

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

Cactus Corridor Addendum Model Run with Tier 4 Engines
South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	20.00	1000sqft	0.46	20,000.00	0
Other Non-Asphalt Surfaces	427.00	1000sqft	9.80	427,000.00	0
Other Asphalt Surfaces	19.00	1000sqft	0.44	19,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	467.38	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	30.00	14.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	PhaseEndDate	8/11/2021	4/10/2022
tblConstructionPhase	PhaseStartDate	7/1/2021	3/28/2022
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	LoadFactor	0.46	0.46
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

tblOffRoadEquipment	OffRoadEquipmentType		Pavers
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Sweepers/Scrubbers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblProjectCharacteristics	CO2IntensityFactor	702.44	467.38
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	115.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	24.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	15.00
tblTripsAndVMT	HaulingTripNumber	0.00	52.00
tblTripsAndVMT	WorkerTripNumber	35.00	15.00
tblTripsAndVMT	WorkerTripNumber	35.00	15.00
tblTripsAndVMT	WorkerTripNumber	35.00	15.00
tblTripsAndVMT	WorkerTripNumber	35.00	15.00
tblTripsAndVMT	WorkerTripNumber	35.00	15.00

2.0 Emissions Summary

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	1-1-2022	3-31-2022	0.1758	0.1758
4	4-1-2022	6-30-2022	0.7783	0.7783
		Highest	0.7783	0.7783

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0372	5.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	2.2600e-003	6.3300e-003	8.2200e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	1.0510	1.0510	1.5000e-004	0.0000	1.0547
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0394	6.3800e-003	0.0142	1.0000e-005	0.0000	3.5000e-004	3.5000e-004	0.0000	3.5000e-004	3.5000e-004	0.0000	1.0626	1.0626	1.8000e-004	0.0000	1.0670

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0372	5.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	2.2600e-003	6.3300e-003	8.2200e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	1.0510	1.0510	1.5000e-004	0.0000	1.0547
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0394	6.3800e-003	0.0142	1.0000e-005	0.0000	3.5000e-004	3.5000e-004	0.0000	3.5000e-004	3.5000e-004	0.0000	1.0626	1.0626	1.8000e-004	0.0000	1.0670

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Well Sites - Well Drilling	Grading	3/28/2022	4/10/2022	7	14	
2	Pipeline install	Trenching	5/3/2022	6/16/2022	5	33	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 10.7

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Well Sites - Well Drilling	Bore/Drill Rigs	1	24.00	221	0.50
Well Sites - Well Drilling	Cranes	1	24.00	231	0.29
Well Sites - Well Drilling	Welders	1	18.00	46	0.45
Well Sites - Well Drilling	Air Compressors	1	18.00	78	0.48
Well Sites - Well Drilling	Pumps	1	18.00	84	0.74
Well Sites - Well Drilling	Generator Sets	1	18.00	84	0.74
Pipeline install	Air Compressors	1	6.00	78	0.48
Pipeline install	Concrete/Industrial Saws	1	6.00	81	0.73
Pipeline install	Cranes	1	4.00	231	0.29
Pipeline install	Dumpers/Tenders	2	6.00	16	0.38
Pipeline install	Excavators	1	6.00	158	0.38
Pipeline install	Generator Sets	1	6.00	84	0.74
Pipeline install	Off-Highway Trucks	1	2.00	402	0.38
Pipeline install	Pavers	1	6.00	130	0.42
Pipeline install	Pumps	1	6.00	84	0.74
Pipeline install	Sweepers/Scrubbers	1	6.00	64	0.46
Pipeline install	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Pipeline install	Welders	1	6.00	46	0.45
Well Sites - Well Drilling	Excavators	2	8.00	158	0.38
Well Sites - Well Drilling	Graders	1	8.00	187	0.41
Well Sites - Well Drilling	Rubber Tired Dozers	1	8.00	247	0.40
Well Sites - Well Drilling	Scrapers	2	8.00	367	0.48
Well Sites - Well Drilling	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Well Sites - Well Drilling	14	15.00	0.00	15.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Well Sites - Well Drilling	14	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Well Sites - Well Drilling	14	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Well Sites - Well Drilling	14	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Well Sites - Well Drilling	14	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Pipeline install	13	33.00	0.00	52.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Well Sites - Well Drilling - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0607	0.0000	0.0607	0.0252	0.0000	0.0252	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0573	0.5525	0.4673	1.0600e-003		0.0241	0.0241		0.0228	0.0228	0.0000	92.3722	92.3722	0.0230	0.0000	92.9473
Total	0.0573	0.5525	0.4673	1.0600e-003	0.0607	0.0241	0.0848	0.0252	0.0228	0.0479	0.0000	92.3722	92.3722	0.0230	0.0000	92.9473

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

3.2 Well Sites - Well Drilling - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.8500e-003	4.4000e-004	1.0000e-005	5.2000e-004	1.0000e-005	5.2000e-004	1.3000e-004	1.0000e-005	1.4000e-004	0.0000	0.5561	0.5561	4.0000e-005	0.0000	0.5571
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0500e-003	1.4600e-003	0.0169	5.0000e-005	0.0257	4.0000e-005	0.0258	6.4300e-003	4.0000e-005	6.4700e-003	0.0000	4.8425	4.8425	1.2000e-004	0.0000	4.8456
Total	2.1000e-003	3.3100e-003	0.0174	6.0000e-005	0.0263	5.0000e-005	0.0263	6.5600e-003	5.0000e-005	6.6100e-003	0.0000	5.3986	5.3986	1.6000e-004	0.0000	5.4027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0260	0.0000	0.0260	0.0108	0.0000	0.0108	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0573	0.5525	0.4673	1.0600e-003		0.0241	0.0241		0.0228	0.0228	0.0000	92.3721	92.3721	0.0230	0.0000	92.9472
Total	0.0573	0.5525	0.4673	1.0600e-003	0.0260	0.0241	0.0500	0.0108	0.0228	0.0335	0.0000	92.3721	92.3721	0.0230	0.0000	92.9472

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

3.2 Well Sites - Well Drilling - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.8500e-003	4.4000e-004	1.0000e-005	5.2000e-004	1.0000e-005	5.2000e-004	1.3000e-004	1.0000e-005	1.4000e-004	0.0000	0.5561	0.5561	4.0000e-005	0.0000	0.5571
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0500e-003	1.4600e-003	0.0169	5.0000e-005	0.0257	4.0000e-005	0.0258	6.4300e-003	4.0000e-005	6.4700e-003	0.0000	4.8425	4.8425	1.2000e-004	0.0000	4.8456
Total	2.1000e-003	3.3100e-003	0.0174	6.0000e-005	0.0263	5.0000e-005	0.0263	6.5600e-003	5.0000e-005	6.6100e-003	0.0000	5.3986	5.3986	1.6000e-004	0.0000	5.4027

3.3 Pipeline install - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0362	0.3020	0.3504	6.3000e-004		0.0151	0.0151		0.0145	0.0145	0.0000	54.3196	54.3196	0.0101	0.0000	54.5718
Total	0.0362	0.3020	0.3504	6.3000e-004		0.0151	0.0151		0.0145	0.0145	0.0000	54.3196	54.3196	0.0101	0.0000	54.5718

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

3.3 Pipeline install - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9000e-004	6.4300e-003	1.5100e-003	2.0000e-005	4.5000e-004	2.0000e-005	4.7000e-004	1.2000e-004	2.0000e-005	1.4000e-004	0.0000	1.9279	1.9279	1.4000e-004	0.0000	1.9313
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.5200e-003	0.0176	6.0000e-005	5.9700e-003	4.0000e-005	6.0200e-003	1.5900e-003	4.0000e-005	1.6300e-003	0.0000	5.0224	5.0224	1.3000e-004	0.0000	5.0256
Total	2.3200e-003	7.9500e-003	0.0191	8.0000e-005	6.4200e-003	6.0000e-005	6.4900e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	6.9503	6.9503	2.7000e-004	0.0000	6.9569

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0362	0.3020	0.3504	6.3000e-004		0.0151	0.0151		0.0145	0.0145	0.0000	54.3196	54.3196	0.0101	0.0000	54.5717
Total	0.0362	0.3020	0.3504	6.3000e-004		0.0151	0.0151		0.0145	0.0145	0.0000	54.3196	54.3196	0.0101	0.0000	54.5717

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

3.3 Pipeline install - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9000e-004	6.4300e-003	1.5100e-003	2.0000e-005	4.5000e-004	2.0000e-005	4.7000e-004	1.2000e-004	2.0000e-005	1.4000e-004	0.0000	1.9279	1.9279	1.4000e-004	0.0000	1.9313
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.5200e-003	0.0176	6.0000e-005	5.9700e-003	4.0000e-005	6.0200e-003	1.5900e-003	4.0000e-005	1.6300e-003	0.0000	5.0224	5.0224	1.3000e-004	0.0000	5.0256
Total	2.3200e-003	7.9500e-003	0.0191	8.0000e-005	6.4200e-003	6.0000e-005	6.4900e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	6.9503	6.9503	2.7000e-004	0.0000	6.9569

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0372	5.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123
Unmitigated	0.0372	5.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.4800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0301					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.5000e-004	5.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123
Total	0.0372	5.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.4800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0301					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.5000e-004	5.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123
Total	0.0372	5.0000e-005	5.9500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123

7.0 Water Detail

7.1 Mitigation Measures Water

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Cactus Corridor Addendum Model Run with Tier 4 Engines - South Coast Air Basin, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	24	115	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	2.2600e-003	6.3300e-003	8.2200e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	1.0510	1.0510	1.5000e-004	0.0000	1.0547
Total	2.2600e-003	6.3300e-003	8.2200e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	1.0510	1.0510	1.5000e-004	0.0000	1.0547

11.0 Vegetation

Appendix B - Biological Resources Assessment Addendum



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August 18, 2020
Project No: 19-08223

Rosalyn Prickett, AICP
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**Subject: Biological Resources Assessment Addendum for the Cactus Avenue Corridor Project,
Riverside County, California**

Dear Ms. Prickett:

This report documents the findings of a Biological Resources Assessment Addendum conducted by Rincon Consultants, Inc. (Rincon), for the Eastern Municipal Water District's (EMWD) proposed Cactus Avenue Corridor Project ("project"). Rincon prepared a Biological Resources Assessment (BRA) for the project in March 2020. The original project description, potential impacts to sensitive biological resources, and recommended measures to reduce those impacts to a less-than-significant level are discussed in the BRA. Since then, revised project activities and work locations have been identified, including a new extraction well site option at Pedrorena Park (East Well 2 Option 3) and approximately 3,500 linear feet of associated pipelines, and an additional extraction well site option (East Well 2 Option 4) and approximately 4,400 linear feet of associated 12-inch raw water pipeline alignment alternatives in the City of Moreno Valley (City), California (collectively, "new project sites"). The purpose of this Addendum is to document existing site conditions at the new project sites via desktop review and field survey, and evaluate potential impacts to sensitive biological resources at these locations relative to those previously analyzed in the BRA. The East Well 2 Option 3 site and associated 3,500 linear feet of interconnecting pipelines (collectively referred to below as the East Well 2 Option 3 components) and the East Well Option 4 site and associated 4,400 linear feet of pipeline alignment alternatives (collectively referred to below as the East Well Option 4 components) includes the proposed limits of work and an additional 25-foot buffer around these sites. The report also contains the results of a habitat assessment for burrowing owl (*Athene cunicularia*; BUOW) and includes an analysis of potential project-related impacts to a new 10.6-acre project site (East Well 2 Option 4) and an additional 500-foot buffer around the East Well 2 Option 4 site. These project components are hereinafter referred to as the "study area".

Project Location and Description

The new project sites are located in the City in western Riverside County, California (Figures 1a and 1b), in Township 3 south, Range 3 west, Sections 19, 20, and 29 of the United States Geological Survey (USGS) *Sunnymead, CA* 7.5-minute topographic quadrangle. The revised project elements include two newly proposed extraction well sites, one at Pedrorena Park (East Well 2 Option 3) and one east of Perris Boulevard and south of the intersection of Iris Avenue and Wedow Drive (East Well 2 Option 4),



and interconnecting pipelines spanning approximately 3,500 linear feet of developed area at one location (associated with East Well 2 Option 3) and approximately 4,400 linear feet at another location (associated with East Well 2 Option 4) throughout the city. Figure 1a shows the East Well 2 Option 3 components and Figure 1b shows the East Well 2 Option 4 components. The new project sites are generally characterized by developed, disturbed, and non-native grassland areas with surrounding lands used for residential, recreational, commercial, educational, and light industrial purposes. Descriptions of the additional project elements are provided below.

Extraction Wells

East Well 2 Option 3

A new location option for extraction well East Well 2 is proposed for Pedrorena Park and would be constructed as part of the project. The extraction well would be constructed in two phases: a well drilling phase and a well equipping phase. Construction of the extraction well is expected to result in temporary disturbance of 100 percent of the selected parcel site. The well site would be designed to utilize the existing grade of the parcel where applicable. The well would be constructed with an accompanying overflow (i.e., blow-off) pond. Portable, steel liquid container tanks (i.e., Baker Tanks) would be used for onsite dewatering clarification.

East Well 2 Option 4

The triangular, vacant parcel south of the Iris Avenue and Wedow Drive intersection was identified as a new alternative site for Cactus Corridor East Well 2. If selected, a well would be constructed that is consistent in size and depth with Cactus Corridor East Well 2 Option 1 and 2 (at Victoriano Park or Parque Amistad). The well would be located in the northwest corner of the site where the closest residential property lines would be approximately 100 feet from the well drilling site, opposite Iris Avenue. The proposed well option at Iris Avenue and Wedow Drive is referred to as Cactus Corridor East Well 2 Option 4 in this Addendum.

Pipelines

East Well 2 Option 3

Approximately 3,500 linear feet of revised alignment pipelines would be constructed to convey raw water from the extraction well to the proposed treatment plant. This pipeline alignment option would be located primarily within easements, roadway rights of way, and EMWD-owned land. This pipeline alignment option generally extends southeast along Los Cabos Drive south of Victoriano Park (site of East Well 2 Option 1), west along Iris Avenue, and north along Kitching Street as shown on Figure 1a.

East Well 2 Option 4

Two options for another new alignment are currently under consideration. Under the first option, the alignment would run from Cactus Corridor East Well 2 Option 4 east on Iris Avenue, then north along Wedow Drive, then northwest along Nan Avenue to Santiago Drive where it would meet the raw water pipeline corridor that was analyzed by the BRA. Alternatively, under the second option, the alignment would run west from Cactus Corridor East Well 2 Option 4 along Iris Avenue, then north along Perris



Boulevard where it would meet the raw water pipeline corridor on Perris Boulevard that was analyzed by the BRA. These two options are shown on Figure 1b.

The revised pipelines would be installed using open cut trench construction, as well as trenchless boring techniques. Open cut excavation would be used in existing roadways, except at crossings of existing facilities, utilities, and storm channels, where trenchless “jack and bore” methods would be used. Pipelines installed using open cut methods would include a trenching depth of up to seven feet. The estimated trench width would be equal to two feet plus the pipeline diameter, for a width of up to five feet. When trenchless techniques are required, pipelines would be constructed using jack and bore methods. For this construction method, pits would be dug on either side of the surface feature to be avoided (e.g., storm channel or existing utilities). The pits are typically 10-15 feet wide and 10-20 feet long for the receiving pit and up to 50 feet long for the jacking pit. The depth would depend on the feature to be avoided.

Methodology

Regulatory Overview

Regulated or sensitive resources studied and analyzed herein include special status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees.

Environmental Statutes

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes:

- California Environmental Quality Act (CEQA)
- Federal Endangered Species Act (ESA)
- California Endangered Species Act (CESA)
- Federal Clean Water Act (CWA)
- California Fish and Game Code (CFGF)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- City of Moreno Valley Municipal Code (City of Moreno Valley 1997)
- Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)(2003)

Guidelines for Determining CEQA Significance

The following threshold criteria, as defined by the CEQA Guidelines Appendix G Initial Study Checklist, were used to evaluate potential environmental effects. Based on these criteria, the proposed project would have a significant effect on biological resources if it would:



- 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.*
- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*
- c) *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal areas, 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.*
- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*
- 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.*

Literature Review

Prior to the field visit, a literature review was conducted to establish the environmental and regulatory setting of the new project site. The literature review included the U.S. Department of Agriculture (USDA) *Soil Survey for the Western Riverside Area* (2020a), *Sunnymead, CA* USGS 7.5-minute topographic quadrangle, literature detailing the habitat requirements of subject species, and aerial photographs (Google Earth 2020) and topographic maps (USGS 1979). The MSHCP, species accounts, and other reference materials were reviewed for habitat assessment requirements as well as habitat suitability elements for special status species. The primary objective of the habitat assessment was to evaluate the study area's potential to support special status species as well as to determine the applicability of other MSHCP and CEQA requirements as they pertain to the proposed project.

The California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDDB; CDFW 2020a), Biogeographic Information and Observation System (BIOS; CDFW 2020b) and United States Fish and Wildlife Service (USFWS) Critical Habitat Portal (USFWS 2020a) and Information, Planning, and Consultation (IPaC; USFWS 2020b) system were reviewed to determine if any special status wildlife, plant or vegetation communities were previously recorded within five miles of the study area. Map review of the U.S. Forest Service (USFS)-managed National Wild and Scenic River System was performed to assess whether wild or scenic rivers occurred in the study area (USFS 2020). The National Wetlands Inventory (NWI; USFWS 2020c) was reviewed to determine if any wetland and/or non-wetland waters had been previously documented and mapped on or in the vicinity of the proposed study area. Other resources reviewed included the California Native Plant Society (CNPS) online *Inventory of Rare and Endangered Plants of California* (2020), and CDFW *Special Vascular Plants, Bryophytes, and Lichens List* (2020c).



Field Reconnaissance Survey

Two field reconnaissance surveys of the study area were conducted to document existing site conditions and the potential presence of sensitive biological resources, including special status plant and wildlife species, sensitive plant communities, jurisdictional waters and wetlands, and habitat for nesting birds. Rincon Senior Biologist Ryan Gilmore conducted a reconnaissance survey of the East Well 2 Option 3 components on July 1, 2020, between the hours of 0700-0900. Rincon Senior Biologist Jared Reed conducted a reconnaissance survey of the East Well 2 Option 4 components on August 4, 2020 between the hours of 0645-0945. The biologists surveyed the respective study areas on foot and visually inspected the areas with the aid of binoculars (8 x 40) as necessary.

Identification of potentially jurisdictional aquatic resources during the reconnaissance surveys included any potential wetlands and non-wetland waters that may constitute waters of the U.S., waters of the State, streambeds, and/or riparian/riverine or vernal pool resources. During the surveys, the biologists noted general site characteristics, documented vegetation, and took representative photographs (Appendix A). On July 1, 2020, survey conditions included a temperature of 72 degrees Fahrenheit (°F), clear skies, and winds of 0-3 miles per hour (mph). On August 4, 2020, survey conditions included a temperature of 67°F, clear skies, and winds of 0-3 mph.

BUOW Habitat Assessment

The BUOW habitat assessment and focused burrow survey were conducted for the East Well 2 Option 4 site on August 4, 2020, between the hours of 0645-0945. Rincon Senior Biologist Jared Reed walked the entire 10.6-acre Cactus Corridor East Well 2 Option 4 site and 500-foot buffer, where accessible, to identify potential burrows and BUOW sign. Areas of focus included all topographic relief areas characterized by low growing vegetation, grasslands, shrub lands with low density shrub cover, earthen berms, and any large debris piles. Access to adjacent properties was not granted. Therefore, these areas were surveyed with binoculars to the maximum extent feasible from the edge of the project site boundary. The survey included a systematic search for burrows and BUOW sign by walking through potential habitat within the East Well 2 Option 4 site and 500-foot buffer. Survey transects were spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines did not exceed 30 meters (approximately 100 feet) and were reduced to account for differences in terrain, vegetation density, and ground surface visibility. Burrow openings large enough to provide entry for BUOWs were carefully checked for prey remains, cast pellets, white-wash, feathers, or any other indication of BUOW presence. Potential burrows, BUOW individuals, and/or sign (if observed) were recorded and mapped using Global Positions System (GPS) coordinates.

Existing Conditions

Physical Characteristics

The study area is located in arid western Riverside County, which is characterized by long, hot, dry summers and short, relatively wet winters. Average temperatures range from 65 to 96 degrees Fahrenheit (°F) during the summer and 41 to 65°F during the winter. The average annual precipitation in the region is 6-11 inches (United States Climate Data 2020).



Current land use at the East Well 2 Option 3 site consists of developed areas, schools, and public parks. Areas of similar land use are located in the surrounding vicinity. The location of East Well 2 Option 3 is within Pedronena Park, a public park maintained by the City. The proposed pipeline alignment associated with East Well 2 Option 3 is along the following developed roadways: Iris Avenue, Kitching Street, and Los Cabos Drive.

The East Well 2 Option 4 site is a vacant lot. The surrounding setting is a mixture of residential and commercial land uses. To the west, opposite an approximately six-foot block wall is a shopping center. Val Verde Academy, a public third through twelfth grade school, is also located on the western border of the proposed site. The site is bordered to the east by the back side of one- and two-story residences shielded by six- to eight-foot wooden fences. The well would be located in the northwest corner of the site where the closest residential property lines would be approximately 100 feet from the well drilling site, opposite Iris Avenue. Both associated pipeline alignments are located in developed roadways. The first pipeline alignment option is along Iris Avenue, Wedow Drive, Nan Avenue and Santiago Drive. The second pipeline alignment option is along Iris Avenue and Perris Boulevard.

Watershed and Drainages

The study area is located in the same watershed as described in the original BRA: the Santa Ana River watershed, which is drained by the Santa Ana River and the San Jacinto River. A formal jurisdictional delineation of waters and wetlands was not completed. The East Well 2 Option 3 pipeline alignment crosses a concrete storm channel located along Kitching Street. This channel is potentially subject to the jurisdiction of the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW. The project would use trenchless jack-and-bore construction methods to cross underneath this channel crossing. No drainages, vernal pools or features containing surface water are located in the East Well 2 Option 4 site or associated pipeline alignment options. The California Aqueduct Pipeline, however, is located along the west side of the East Well 2 Option 4 site.

The project sites are underlain by moderately well-drained soils. No areas with standing water were observed within either of the proposed project sites.

Topography and Soils

Topography at the project sites is relatively level. The elevation ranges from 1,500 feet above mean sea level (msl) in the northwest corner of the East Well 2 Option 3 and associated pipeline alignment and gradually decreases to approximately 1,493 feet above msl in the southeast corner. At the East Well 2 Option 4 site and associated pipeline alignment, the elevation ranges from 1,492 feet above msl in the south corner and gradually increases to 1,513 feet above msl at the intersection of Perris Boulevard and Santiago Drive.

The Natural Resources Conservation Service (NRCS) Web Soil Survey identifies six soil map units within the project sites (NRCS 2020a)(Figures 2a and 2b). These six map units can be organized into five soil series, four of which are described in greater detail in the original BRA: Greenfield, Pachappa, Domino and Hanford soils. The fifth soil series underlying the project sites is Exeter soils. Based on Rincon's observations of soil surface conditions during the reconnaissance surveys, the soils on site are generally consistent with those mapped by the NRCS Web Soil Survey with the exception of developed areas that have removed these soils on the ground surface. Exeter sandy loam, 0 to 2 percent slopes is found in the south corner of the East Well 2 Option 4 site. Greenfield sandy loam with 0-2 percent slopes comprises



the majority of the East Well 2 Option 4 site and is also found along Kitching Street and the north portion of Perris Boulevard, a small portion of Wedow Drive and most of Nan Avenue in the study area. Pachappa fine sandy loam with 0-2 percent slopes, eroded is found only on the southwest corner of the study area at the intersection of Kitching Street and Iris Avenue. Hanford coarse sandy loam with 0-2 percent slopes is found in the south portion of Perris Boulevard near its intersection with Iris Avenue. Domino fine sandy loam (eroded) and silt loam (saline-alkali) is mapped within the East Well 2 Option 3 site and in the northwest portion of the pipeline alignment option along Los Cabos Drive. Hanford fine sandy loam, 0 to 2 percent slopes is mapped in the west and northeast portions of the East Well 2 Option 4 site and intermittently along both associated pipeline alignment options. No soils present at the project site are designated as hydric.

Vegetation Communities/Land Cover Types

One vegetation community, non-native annual grassland, and two land cover types, developed land and disturbed areas, occur within the study area (Figures 3a and 3b). A list of plant species observed within the study area is included as Appendix B.

Developed

Developed land cover is the dominant land cover type found in the study area and consists of development such as asphalt roads, graveled access roads, parking areas, storage and residential areas. These areas have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported.

Disturbed

Disturbed areas are found in portions of the East Well 2 Option 4 site and consist of areas which have undergone disking activities and dirt roads. These areas only contain sparse ruderal vegetation, such as prickly lettuce (*Lactuca serriola*), horseweed (*Erigeron canadensis*) and jimson weed (*Datura wrightii*).

Non-Native Annual Grassland (42200)

Non-native annual grassland is the only natural vegetation community found within the project site. This community is typically dominated by a dense cover of annual grasses that usually include wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), and soft chess (*Bromus hordeaceus*). On the project site, non-native annual grassland areas contained these annual grasses and also included Russian thistle (*Salsola tragus*), common fiddleneck (*Amsinckia intermedia*), prickly lettuce and horseweed. This vegetation community consists of approximately 2.8 acres, or approximately 26 percent, of the East Well 2 Option 4 site. It is located in the central portion of the triangular parcel where recent disking had not occurred.

General Wildlife

The study area provides limited habitat for wildlife species that commonly occur within urban communities in Riverside County. Common urban-adapted avian species such as common raven (*Corvus corax*), American crow (*Corvus brachyrhynchos*), rock pigeon (*Columba livia*), black phoebe (*Sayornis nigricans*), Eurasian collared-dove (*Streptopelia decaocto*), Anna's hummingbird (*Calypte anna*), cliff swallow (*Petrochelidon pyrrhonota*), mourning dove (*Zenaida macroura*), house finch (*Haemorhous*



mexicanus), lesser goldfinch (*Spinus psaltria*), ring-billed gull (*Larus delawarensis*), northern mockingbird (*Mimus polyglottos*), house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*) and desert cottontail (*Sylvilagus audubonii*) were observed on site during both surveys. No sensitive species were observed within the study area.

Sensitive Biological Resources Impact Analysis and Recommended Measures

Based on review of aerial photographs and the field reconnaissance survey, Rincon evaluated the potential presence of sensitive biological resources on and adjacent to the site.

Special Status Species

For the purposes of this analysis, special status species are defined and their potential to occur analyzed as described in the original BRA. The revised pipeline alignment and extraction well site are located within the original five-mile database search radius described in the original BRA, which identified ten sensitive plant species and 30 sensitive wildlife species. No additional special status species were identified within the revised project locations. No special status species were determined to have potential to occur within the study area. Sensitive plant and wildlife species typically have very specific habitat requirements, which are not found in the study area.

Special Status Plant Species

The new project sites are located within a highly disturbed area and developed urban transportation corridor. Additionally, proposed locations for the extraction well and pipeline alignment contain non-native annual grassland, are disturbed and developed, and surrounded by residential development. Due to the lack of specific habitat types or suitable substrates as well as the high levels of historic and existing developments, sensitive plant species are not expected to occur in the study area. Therefore, impacts to sensitive plant species are not expected. As discussed in the BRA, due to the lack of specific habitat types or suitable substrates as well as the high levels of historic and existing disturbance, sensitive plant species are not expected to occur on the site. The severity of the impact of the revised project components would be equal to that identified in the original BRA and no additional measures are recommended.

Special Status Wildlife Species

The new project sites are located within a highly disturbed area, a developed urban transportation corridor and residential development, though some non-native annual grassland exists in East Well 2 Option 4. Because of the lack of specific habitats as well as high levels of historic and existing disturbance, the sites are not suitable for most special status wildlife species. Special status wildlife species are not expected to occur due to lack of suitable habitat (e.g., riparian, scrub, woodland). No special status wildlife species were observed during the reconnaissance field survey. As discussed in the BRA the literature review identified 30 special status wildlife species recorded within five miles of the site. Twenty-eight of these species are not expected to occur due to lack of suitable habitat (e.g., riparian, scrub, woodland).



No suitable habitat for special-status species is present at the East Well 2 Option 3 components as these areas are comprised of develop land. Low quality or marginal foraging and/or nesting habitat for two sensitive wildlife species, BUOW and California horned lark (*Eremophila alpestris actia*), occurs within and adjacent to the East Well 2 Option 4 components. Undeveloped areas at the East Well 2 Option 4 site that contain marginally suitable habitat are largely dominated by low-growing, non-native ruderal species. California horned lark are typically ground nesters and are capable of nesting on bare ground which is present within the site. Small mammal burrows too small for BUOW use were observed in a small bare area on the north side of Iris Avenue near its intersection with Perris Boulevard. As discussed in the BRA, the potential for these species to occur is low given the low habitat quality, the site's location within a heavily travelled urban transportation corridor, and high levels of existing disturbance which would likely deter individuals from long-term use of the site. No horned larks, BUOW, or signs of either species (e.g., pellets or white wash) were observed during the reconnaissance field survey. Notwithstanding, implementation of a BUOW Preconstruction Clearance Survey and associated measures, as identified in the original BRA and described below, would ensure potential impacts to BUOW remain at a less-than-significant level. The severity of the impact of the revised project components would be equal to that identified in the original BRA.

- **BUOW Preconstruction Clearance Survey.** A qualified wildlife biologist shall conduct a pre-construction survey of the impact areas to confirm presence/absence of BUOW individuals no more than 30 days prior to construction. The survey methodology will be consistent with the methods outlined in the CDFW *Staff Report on Burrowing Owl Mitigation* (2012). If no active breeding or wintering owls are identified, no further mitigation is required.

If burrowing owls are determined to be occupying the site, the following mitigation measures shall be implemented in accordance with the CDFW *Staff Report on Burrowing Owl Mitigation* (2012):

- A qualified wildlife biologist shall be onsite during initial ground-disturbing activities in potential BUOW habitat.
- No ground-disturbing activities shall be permitted within a buffer no less than 200 meters (656 feet) from an active burrow, depending on the level of disturbance, unless otherwise authorized by CDFW. Occupied burrows will not be disturbed during the nesting season (February 1 to August 31), unless a qualified biologist verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival.
- During the nonbreeding (winter) season (September 1 to January 31), ground-disturbing work can proceed near active burrows as long as the work occurs no closer than 50 meters (165 feet) from the burrow, depending on the level of disturbance, and the site is not directly affected by the project activity. A smaller buffer may be established in consultation with CDFW. If active winter burrows are found that would be directly affected by ground-disturbing activities, owls can be excluded from winter burrows according to recommendations made in the *Staff Report on Burrowing Owl Mitigation* (2012).
- BUOW shall not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed based on the recommendations made in the *Staff Report on Burrowing Owl Mitigation* (2012). The plan shall include, at a minimum:
 - Confirmation by site surveillance that the burrow(s) is empty of BUOW and other species
 - Type of scope to be used and appropriate timing of scoping

- Occupancy factors to look for and what shall guide determination of vacancy and excavation timing
 - Methods for burrow excavation
 - Removal of other potential owl burrow surrogates or refugia onsite
 - Methods for photographic documentation of the excavation and closure of the burrow
 - Monitoring of the site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use to avoid take
 - Methods for assuring the impacted site shall continually be made inhospitable to BUOW and fossorial mammals
- Compensatory mitigation for lost breeding and/or wintering habitat shall be implemented onsite or off-site through implementation of a Mitigation Land Management Plan based on the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012) guidance. The plan shall include the following components, at a minimum:
- Temporarily disturbed habitat on the project site shall be restored, if feasible, to pre-project conditions, including decompacting soil and revegetating;
 - Permanent impacts to nesting, occupied and satellite burrows and/or BUOW habitat shall be mitigated such that the habitat acreage, number of burrows and BUOW impacted are replaced based on a site-specific analysis which includes conservation of similar vegetation communities comparable to or better than that of the impact area, and with sufficiently large acreage, and presence of fossorial mammals;
 - Mitigation land acreage shall not exceed the size of the project site;
 - Permanently protect mitigation land through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission. If the project is located within the service area of a CDFW approved BUOW conservation bank, the project operator may purchase available BUOW conservation bank credits.
 - Fund the maintenance and management of mitigation land through the establishment of a long-term funding mechanism such as an endowment. Mitigation lands shall be on, adjacent or proximate to the impact site where possible and where habitat is sufficient to support BUOW present.

Nesting Birds

Shrubs and trees located within the study area could provide suitable nesting habitat for several common avian species that were observed during the July 1 and August 4, 2020, reconnaissance surveys. Bird nests and eggs are protected by CFGC 3503 and the MBTA. Common species such as mourning dove and house finch have the potential to nest in shrubs, even in highly disturbed settings. No nests or birds exhibiting nesting behaviors were observed during the reconnaissance site visits. Implementation of a Preconstruction Nesting Bird Survey, as identified in the original BRA and described below, would reduce potential impacts to nesting birds to a less-than-significant level. The severity of the impact of the revised project components would be equal to that identified in the original BRA.

- **Preconstruction Nesting Bird Survey.** If project activities must occur during the avian nesting season (February to September), a survey for active nests must be conducted by a qualified biologist, one to two weeks prior to the activities. If active nests are identified and present onsite, clearing and



construction within 50-250 feet of the nest, depending on the species involved (50 feet for common urban-adapted native birds and up to 250 feet for raptors), shall be postponed until the nest is vacated and juveniles have fledged, and there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest site shall be established in the field by a qualified biologist with flagging and stakes or construction fencing. Construction personnel shall be instructed regarding the ecological sensitivity of the fenced area. If construction must occur within this buffer, it shall be conducted at the discretion of a qualified biological monitor to assure that indirect impacts to nesting birds are avoided.

Sensitive Plant Communities

The study area does not contain riparian habitat or other sensitive natural communities. Therefore, no impacts are expected. As discussed in the BRA, sensitive natural communities and riparian habitat are not present in the study area. The severity of the impact of the revised project components is equal to that identified in the original BRA and no additional measures are recommended.

Jurisdictional Waters and Wetlands

The study area consists of non-native annual grassland, disturbed and developed areas. The majority of surrounding land use includes residential and commercially developed areas intermixed with small isolated areas of open space, vacant, and public lands. The NWI identified a single potential jurisdictional feature along the west side of Kitching Street and outside of the East Well 2 Option 3 site; however, this feature is a large trapezoidal concrete channel. The channel crosses under the street at the intersection with Iris Avenue and continues southeast within the residential areas outside of the study area. This feature diverts surface water runoff into underground stormwater channels. This channel is potentially subject to the jurisdiction of the USACE, RWQCB, or CDFW. However, no hydric soils are present within the channel. No riparian vegetation, including trees, shrubs, persistent emergents, emergent mosses, or lichens, were observed in or around the channel. The project would use trenchless jack-and-bore construction methods to cross underneath this channel crossing should the East Well 2 Option 3 site and associated pipeline alignment be selected. Therefore, no impacts to jurisdictional waters and wetlands are expected as a result of the proposed project. No other waters or wetlands potentially subject to the jurisdiction of the USACE, RWQCB, or CDFW are located within the study area. As discussed in the BRA, impacts to jurisdictional waters and wetlands are not expected. The severity of the impact of these additional project components would be equal to that identified in the original BRA and no additional measures are recommended.

Riparian/Riverine, Vernal Pool and Fairy Shrimp Habitat

Based upon the definition of these resources, as described in the BRA, and the findings of Rincon's reconnaissance survey on July 1 and August 4, 2020, no riparian/riverine habitat, vernal pools, or fairy shrimp habitat are present within the study area. Undeveloped portions of the study area are underlain by moderately well-drained soils. The study area is not conducive to supporting riparian/riverine habitat, vernal pools, or vernal pool species. Therefore, no impacts to riparian/riverine habitat, vernal pools, or vernal pool species are expected. As discussed in the BRA, impacts to riparian/riverine habitat, vernal pools, or vernal pool species are not expected. The severity of the impact of the additional project components is equal to that identified in the original BRA and no additional measures are recommended pursuant to the MSHCP.



Wildlife Movement

According to the Regional Conservation Authority (RCA) MSHCP Information App, the study area is not located within an MSHCP Criteria Area, Public-Quasi Public Reserve Lands or within a Core or Linkage (Riverside County 2020). The CDFW BIOS (2020b) does not include any mapped essential habitat connectivity areas in the immediate vicinity of the study area. As discussed in the BRA, the closest mapped essential habitat connectivity areas are located approximately 1.0 mile to the southeast near the Perris Reservoir and approximately 4.8 miles to the northwest in the vicinity of Box Springs Mountain Reserve Park. The proposed project would be confined to the existing developed and disturbed areas, and the non-native annual grassland identified above. Additionally, the study area is separated from these habitat connectivity areas by existing development, residential areas, heavily traveled transportation corridors (including March Air Reserve Base and Interstate 215), and is not expected to serve as a significant wildlife migratory corridor. Therefore, no impacts to wildlife movement are expected. The severity of the impact of the additional project components is equal to that identified in the original BRA and no additional measures are recommended.

Resources Protected by Local Policies and Ordinances

As identified in the BRA, the project site is located within the County of Riverside Stephen's Kangaroo Rat Plan and Fee Area. County of Riverside Ordinance No. 663 (Stephen's Kangaroo Rat Mitigation Fee Ordinance) requires that all proposed development projects located within the fee area are reviewed to determine the most appropriate course of action to ensure the survival of the species through one or more of the following: (1) on-site mitigation of impacts to the Stephens' Kangaroo Rat through the reservation or addition of lands included within or immediately adjacent to a potential habitat reserve site, or (2) payment of the Mitigation Fee or (3) any combination of (1) and (2) consistent with the intent and purpose of the ordinance. The revised project sites lack suitable grassland, coastal scrub and sagebrush habitat to support Stephen's Kangaroo Rat and is located directly adjacent to urban roadways. In addition, vacant areas at the project sites are highly fragmented and surrounded by urban development. Therefore, the revised project components would not result in impacts to or loss of suitable habitat for Stephen's Kangaroo Rat and would not be subject to on-site mitigation or payment of the Mitigation Fee. Furthermore, pursuant to Section 10(d) of Riverside County Amending Ordinance No. 663.10 (Riverside County 1996), project components would likely qualify as exempt from payment of the Mitigation Fee. No other resources protected by local policies or ordinances are present on the site. As discussed in the BRA, payment of the Mitigation Fee and impacts to resources protected by local ordinances are not necessary or expected. The severity of the impact of the additional project components is equal to that identified in the original BRA and no additional measures are recommended.

Conservation Plans

As identified in the BRA, the original study area is located within the boundaries of the Western Riverside MSHCP. A portion of the East Well 2 Option 4 site is located within a habitat assessment/survey area for BUOW, but not within a designated survey area identified for any other MSHCP covered species. The proposed project is not located within a criteria cell or within Public/Quasi Public conserved lands. Public/Quasi-Public conserved lands are located approximately 1.0 mile southeast of the project site in the Lake Perris State Recreation Area (Riverside County 2020). Based on



the study area's distance and separation from Public/Quasi-Public lands and the existing development between them, the revised alignment is not expected to impact these conserved areas. The severity of the impact of the revised project components is equal to that identified in the original BRA and no additional measures are recommended.

Thank you for the opportunity to provide this Biological Resources Assessment Addendum. Please contact the undersigned with any questions.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Jared Reed".

Jared Reed
Senior Biologist / Project Manager

A handwritten signature in black ink, appearing to read "Steven J. Hongola".

Steven J. Hongola
Principal Biologist

Attachments

References

Figures

Appendix A Project Site Photographs

Appendix B Observed Plant Species List



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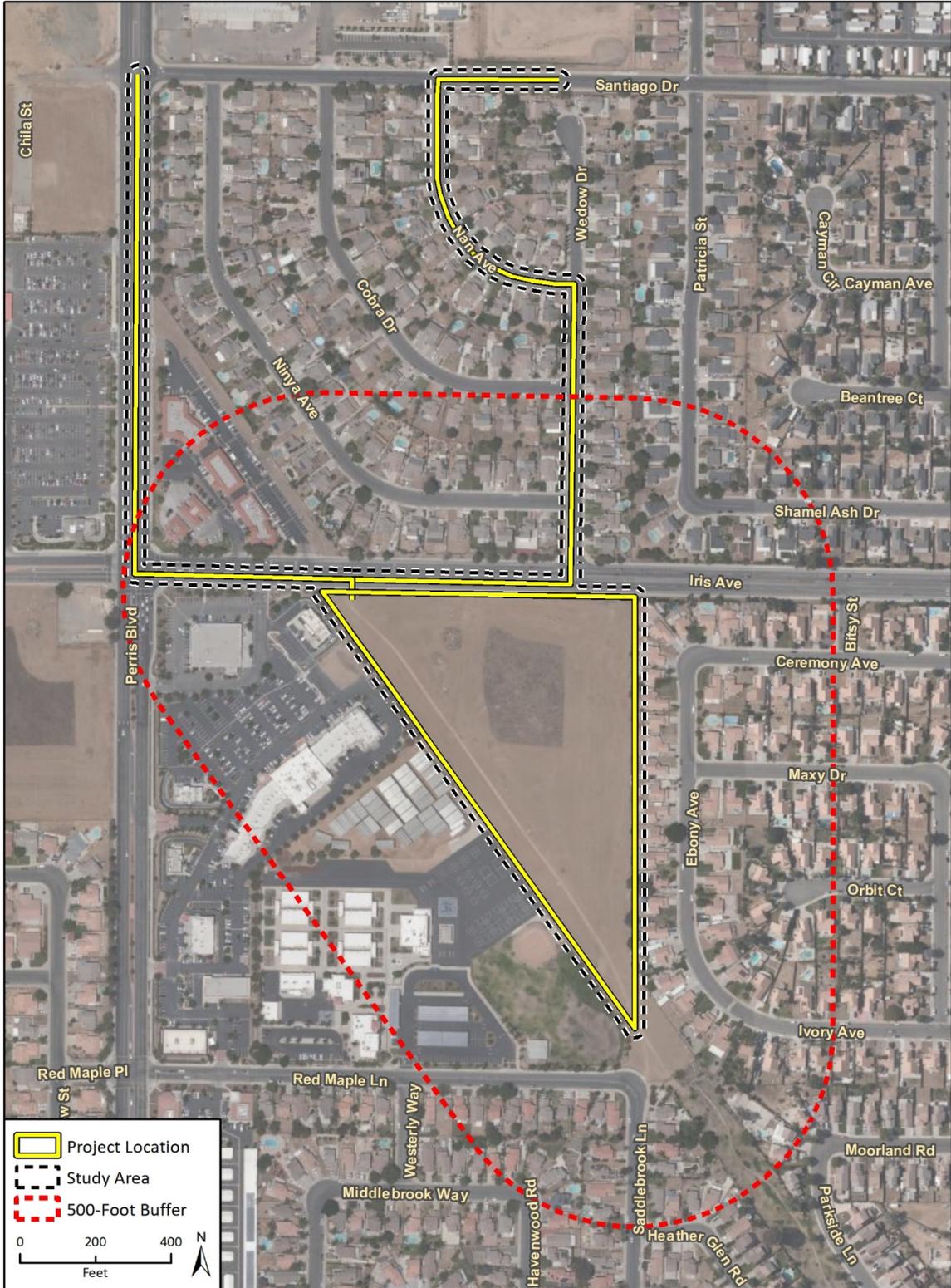
Figure 1a East Well 2 Option 3 Project Location



Imagery provided by Microsoft Bing and its licensors © 2020.

Fig 1 Project Location B10 Addendum

Figure 2b East Well 2 Option 4 Project Location



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Fig 1 Project Location B10 Addendum No.2

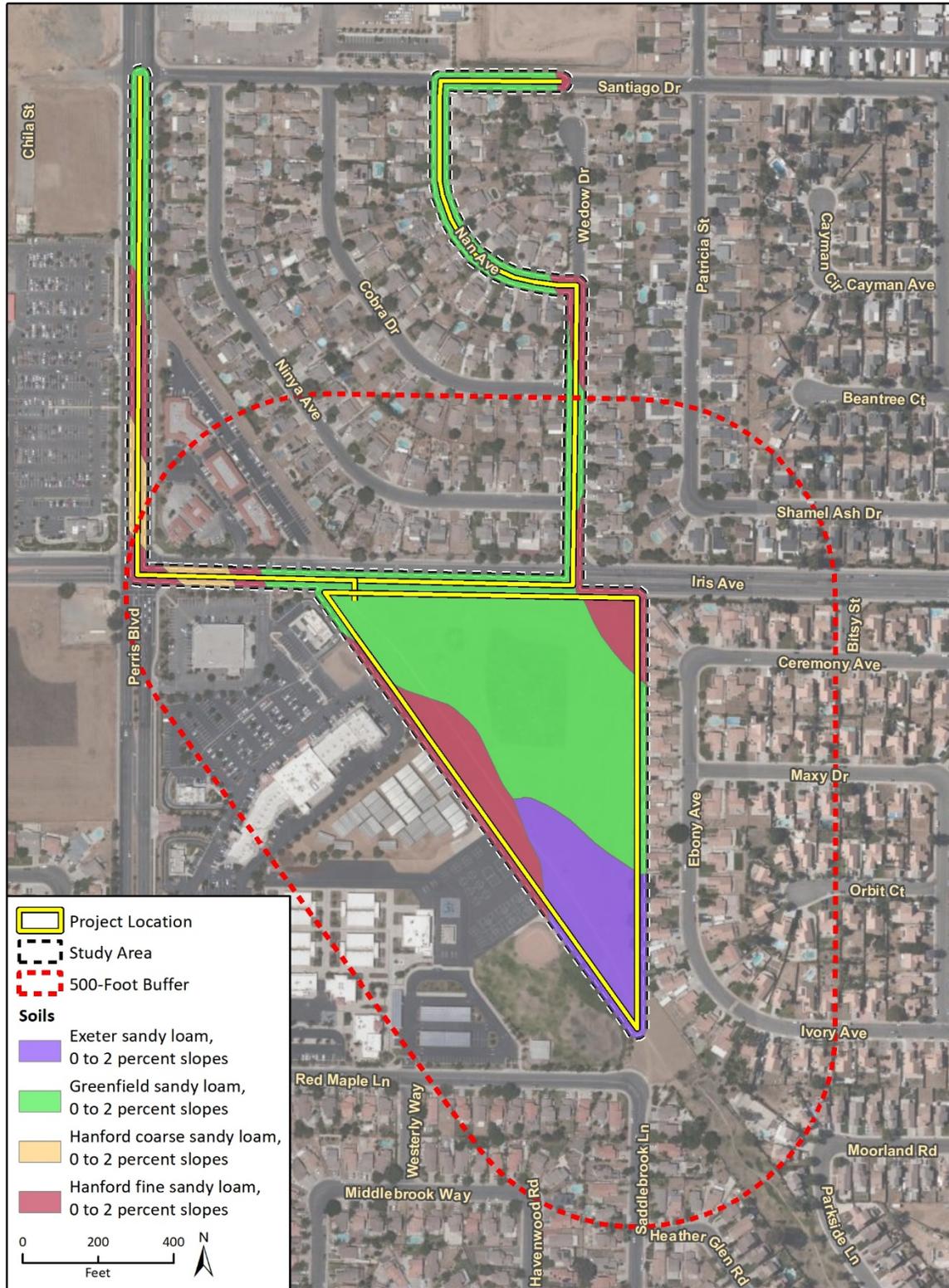
Figure 3a East Well 2 Option 3 Soils Map



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Additional data provided by SSURGO Web Soil Survey, 2019.

Fig 3 Soils Map BMD Address.htm

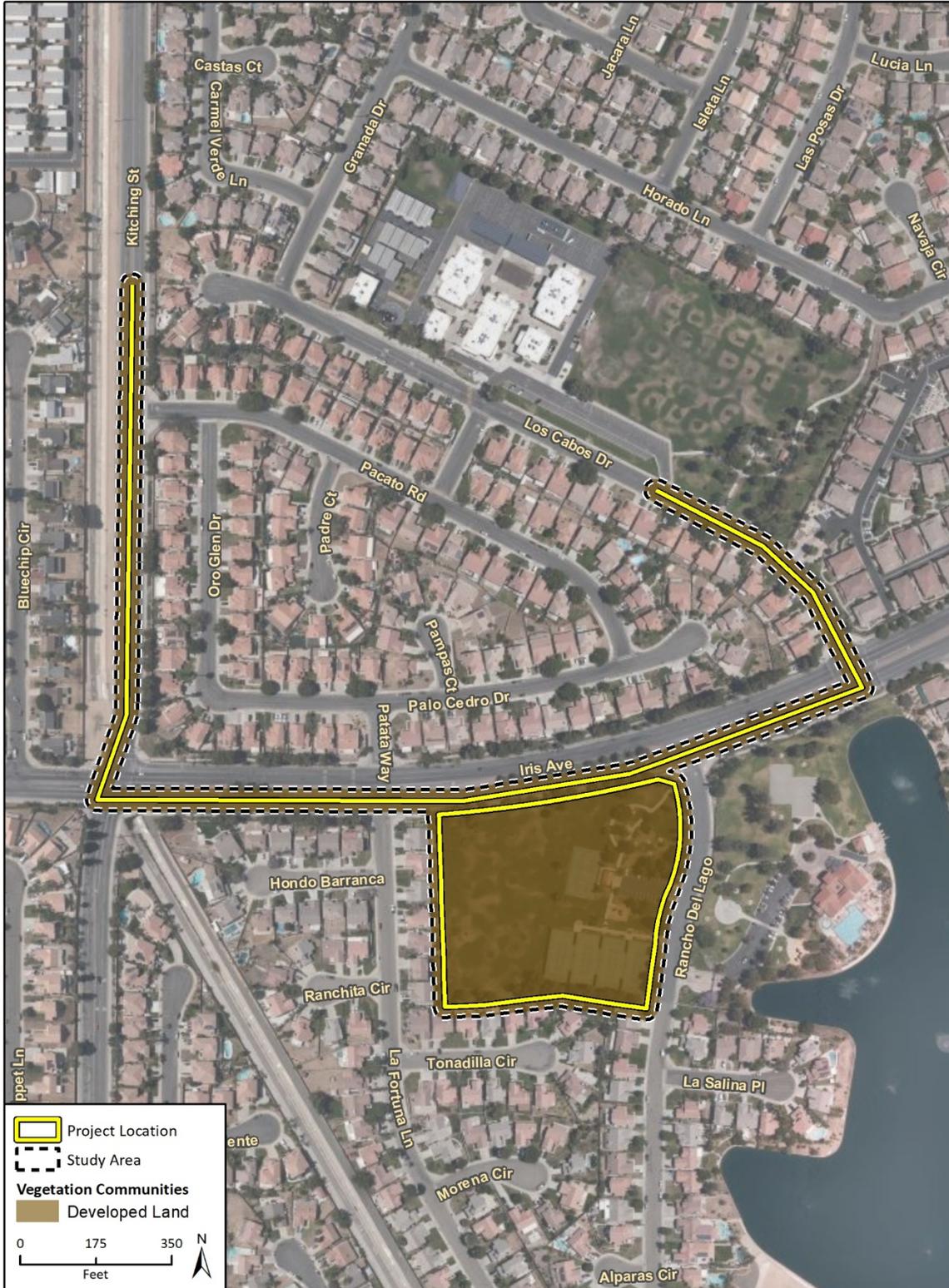
Figure 4b East Well 2 Option 4 Soils Map



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Soils data provided by SSURGO, 2020.

Fig 2 Soils Map B10 Addendum No2

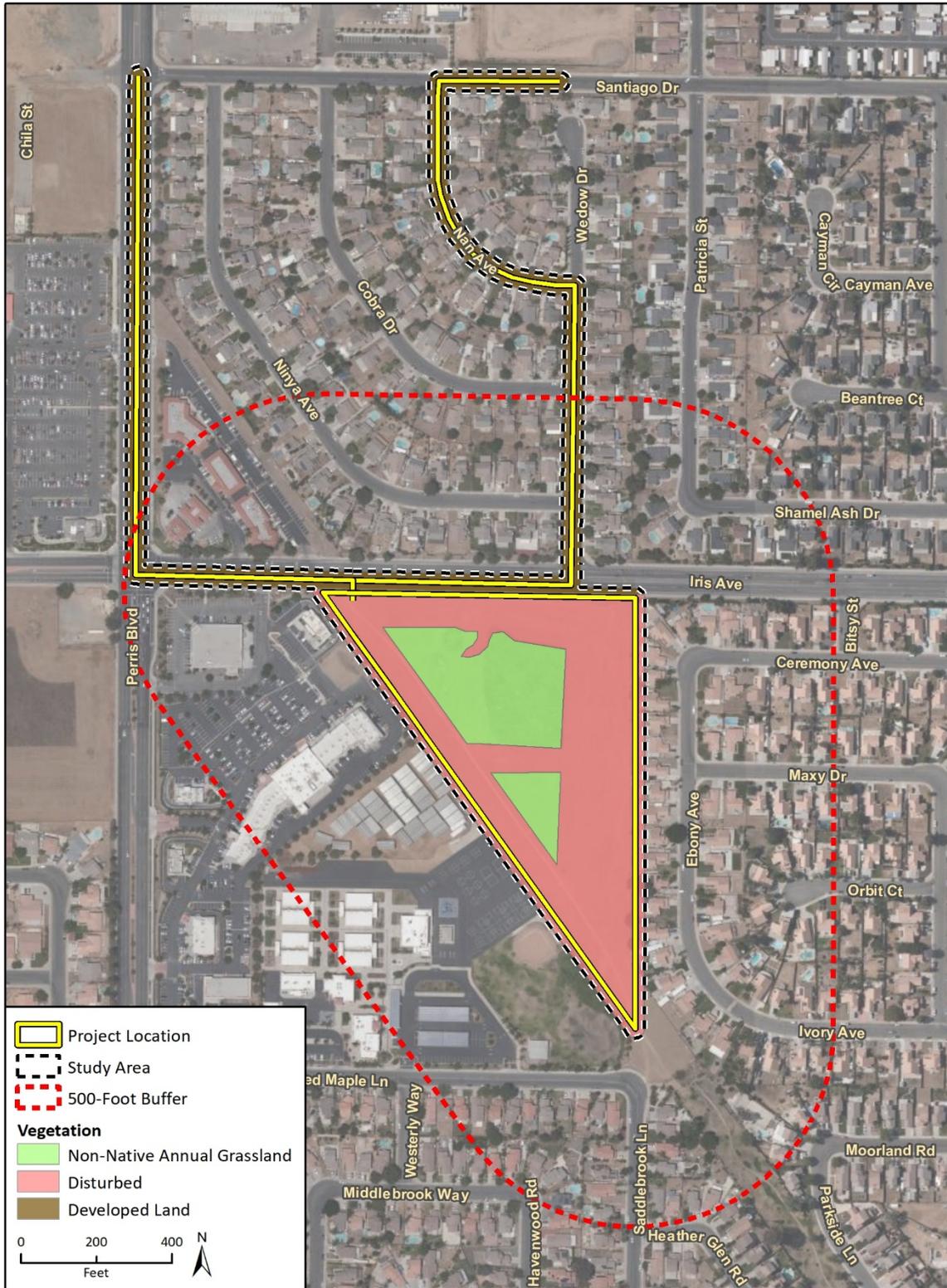
Figure 5a East Well 2 Option 3 Vegetation Communities



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Additional data provided by SSURGO Web Soil Survey, 2019.

Fig 3 Vegetation Communities Map BIO Addendum

Figure 6b East Well 2 Option 4 Vegetation Communities



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Fig 3 Vegetation Communities Map BIO Addendum No.7

Appendix A

Project Site Photographs



Photograph 1. East Well 2 Option 3 site at Pedrorena Park. View to the south.



Photograph 2. Pipeline alignment associated with East Well 2 Option 3 along Iris Avenue. View to the west.



Photograph 3. View of concrete channel at intersection of Iris Avenue and Kitching Street associated with East Well 2 Option 3. View to the northwest.



Photograph 4. View of intersection of Iris Avenue and Kitching Street associated with East Well 2 Option 3. View to the northwest.



Photograph 5. View of intersection of Iris Avenue and Kitching Street associated with East Well 2 Option 3. View to the south. Note channel.



Photograph 6. Disturbed area in south portion of East Well 2 Option 4 site. View to the north.



Photograph 7. Non-native annual grassland in East Well 2 Option 4 site. View facing southwest.



Photograph 8. South view of developed area at Wedow Drive and Iris Avenue intersection associated with East Well 2 Option 4.



Photograph 9. Small mammal burrows in bare area north of Iris Avenue near alternative pipeline alignment associated with East Well 2 Option 4.



Photograph 10. Disturbed area in west portion of East Well 2 Option 4 site. View to the northwest.

Appendix B

Observed Plant Species List



Observed Plant Species List

Scientific Name	Common Name	Native Status
<i>Acacia</i> sp.	acacia	Non-Native
<i>Agonis flexuosa</i>	peppermint tree	Non-Native
<i>Amaranthus albus</i>	tumbleweed	Non-Native
<i>Amsinckia</i> sp.	fiddleneck	Native
<i>Avena</i> sp.	wild oat	Non-Native
<i>Bromus</i> sp.	brome	Non-Native
<i>Centaurea solstitialis</i>	yellow star-thistle	Non-Native
<i>Convolvulus arvensis</i>	bindweed	Non-Native
<i>Croton setiger</i>	doveweed	Native
<i>Datura wrightii</i>	jimson weed	Native
<i>Digitaria</i> sp.	crabgrass	Non-Native
<i>Erigeron canadensis</i>	horseweed	Native
<i>Heliotropium curassavicum</i>	alkali heliotrope	Native
<i>Heterotheca grandiflora</i>	telegraph weed	Native
<i>Hirschfeldia incana</i>	short-pod mustard	Non-Native
<i>Lactuca serriola</i>	prickly lettuce	Non-Native
<i>Lupinus</i> sp.	lupine	Native
<i>Malva parviflora</i>	cheeseweed	Non-Native
<i>Oncosiphon piluliferum</i>	stinknet	Non-Native
<i>Polygonum</i> sp.	knotweed	Non-Native
<i>Pinus canariensis</i>	Canary Island pine	Non-Native
<i>Pinus halepensis</i>	Aleppo pine	Non-Native
<i>Platanus hispanica</i>	London plane sycamore	Non-Native
<i>Portulaca oleracea</i>	common purslane	Non-Native
<i>Salsola tragus</i>	Russian thistle	Non-Native
<i>Schinus molle</i>	Peruvian pepper tree	Non-Native
<i>Sisymbrium</i> sp.	sisymbrium	Non-Native
<i>Sonchus oleraceus</i>	common sow-thistle	Non-Native
<i>Taraxacum officinale</i>	common dandelion	Non-Native
<i>Ulmus parvifolia</i>	Chinese elm	Non-Native
<i>Washingtonia robusta</i>	Mexican fan palm	Non-Native

Appendix C - Cultural Resources Assessment Addendum



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August 18, 2020

Rincon Project No: 19-08223

Rosalyn Prickett, AICP
Senior Water Resources Planner
Woodard & Curran, Inc.
9665 Chesapeake Drive, Suite 320
San Diego, California 92123

Subject: Cultural Resources Assessment Addendum for the Cactus Avenue Corridor Project, City of Moreno Valley, Riverside County, California

Dear Ms. Prickett:

This letter report documents the findings of a revised Cultural Resources Assessment Addendum (CRAA) conducted by Rincon Consultants, Inc. (Rincon), for the Eastern Municipal Water District's (EMWD) proposed Cactus Avenue Corridor Project (project). Rincon prepared a Cultural Resources Assessment (CRA) for the project in March 2020 (Granger and Clark 2020). The original project description, potential impacts to cultural resources, and recommended measures are discussed in the CRA. Since the submittal of the CRA, revised project activities and work locations have been identified, including a new extraction well site option at Pedorenna Park (East Well 2 Option 3) and approximately 3,500 linear feet of associated pipeline, and an additional extraction well site option (East Well 2 Option 4) and approximately 4,400 linear feet of associated 12-inch raw water pipeline alignment alternatives in the City of Moreno Valley (City), California (collectively, "new project sites"). The purpose of this revised CRAA is to document the results of the tasks performed by Rincon following the revision to project components described above, specifically: a secondary review of the cultural resources records search initially performed for the CRA, and a pedestrian field survey of the new well sites and revised pipeline alignments. This study includes an evaluation of project impacts under the California Environmental Quality Act (CEQA), Section 106 of the National Historic Preservation Act (NHPA), and the National Environmental Policy Act in the event a federal nexus is established for the project (i.e., federal funding and/or permitting).

Project Location and Description

The project is located in the city of Moreno Valley in western Riverside County, California. The revised project elements include two newly proposed extraction well sites, one at Pedorenna Park (East Well 2 Option 3) and one east of Perris Boulevard and south of the intersection of Iris Avenue and Wedow Drive (East Well 2 Option 4), and interconnecting pipelines spanning approximately 3,500 linear feet of developed area at one location (associated with East Well 2 Option 3) and approximately 4,400 linear feet at another location (associated with East Well 2 Option 4) throughout the city. Figure 1 in Appendix A shows the location of East Well 2 Option 3 components and Figure 2 in Appendix A shows the location of East Well 2 Option 4 components. The modified project site is generally characterized by developed, disturbed and non-native grassland areas with surrounding lands used for residential, recreational,



commercial, educational and light industrial purposes. Descriptions of the additional project elements are provided below.

Extraction Well

East Well 2 Option 3

A new location option for extraction well East Well 2, termed *East Well 2 Option 3*, is proposed for Pedrorena Park and would be constructed as part of the project. The extraction well would be constructed in two phases: a well drilling phase and a well equipping phase. Construction of the extraction well is expected to result in temporary disturbance of 100 percent of the selected parcel site. The well site would be designed to utilize the existing grade of the parcel where applicable. The well would be constructed with an accompanying overflow (i.e., blow-off) pond. Portable, steel liquid container tanks (i.e., Baker Tanks) would be used for onsite dewatering clarification.

East Well 2 Option 4

The triangular, vacant parcel south of the Iris Avenue and Wedow Drive intersection was identified as a new alternative site for Cactus Corridor East Well 2, termed *East Well 2 Option 4*. If selected, a well would be constructed that is consistent in size and depth with Cactus Corridor East Well 2 Option 1 and 2 (at Victoriano Park or Parque Amistad). The well would be located in the northwest corner of the site where the closest residential property lines would be approximately 100 feet from the well drilling site, opposite Iris Avenue. The proposed well option at Iris Avenue and Wedow Drive is referred to as Cactus Corridor East Well 2 Option 4 in this Addendum.

Pipelines

East Well 2 Option 3

Approximately 3,500 linear feet of revised alignment pipelines would be constructed to convey raw water from the extraction well to the proposed treatment plant. This pipeline alignment option would be located primarily within easements, roadway rights of way, and EMWD-owned land. This pipeline alignment option generally extends southeast along Los Cabos Drive south of Victoriano Park (site of East Well 2 Option 1), west along Iris Avenue, and north along Kitching Street as shown on Figure 1 in Appendix A.

East Well 2 Option 4

Two options for another new alignment are currently under consideration. Under the first option, the alignment would run from Cactus Corridor East Well 2 Option 4 east on Iris Avenue, then north along Wedow Drive, then northwest along Nan Avenue to Santiago Drive where it would meet the raw water pipeline corridor that was analyzed by the BRA. Alternatively, under the second option, the alignment would run west from Cactus Corridor East Well 2 Option 4 along Iris Avenue, then north along Perris Boulevard where it would meet the raw water pipeline corridor on Perris Boulevard that was analyzed by the BRA. These two options are shown on Figure 2 in Appendix A.

The revised pipelines would be installed using open cut trench construction, as well as trenchless boring techniques. Open cut excavation would be used in existing roadways, except at crossings of existing facilities, utilities, and storm channels, where trenchless "jack and bore" methods would be used. Pipelines installed using open cut methods would include a trenching depth of up to seven feet. The



estimated trench width would be equal to two feet plus the pipeline diameter, for a width of up to five feet. When trenchless techniques are required, pipelines would be constructed using jack and bore methods. For this construction method, pits would be dug on either side of the surface feature to be avoided (e.g., storm channel or existing utilities). The pits are typically 10-15 feet wide and 10-20 feet long for the receiving pit and up to 50 feet long for the jacking pit. The depth would depend on the feature to be avoided.

Area of Potential Effects

36 Code of Federal Regulations (CFR) 800.16(d) defines a project Area of Potential Effects (APE) as the “geographic area or areas within which a project may directly or indirectly cause changes in the character or use of historic properties if any such property exists.” The APE generally depicts all areas expected to be affected by the proposed project, including construction staging areas. For this CRAA, the new APE encompasses the project disturbance footprint associated with the installation of the pipeline, along with a 10-foot-wide buffer on either side of the alignment. The revised APE includes the alternative well extraction sites, East Well 2 Option 3 and East Well 2 Option 4, as shown on Figure 1 and Figure 2 of Appendix A. The APE for the new project components encompasses approximately 20 acres.

The APE must also be considered as a three-dimensional space and includes any ground disturbance associated with the project. Pipelines would be constructed in existing roadways using an open cut method, except at crossings of existing facilities, utilities, and storm channels. Pipelines installed using open cut methods would include trenching to a depth of seven feet. When trenchless techniques are required, pipelines would be constructed using jack and bore technologies, which may reach depths of up to 40 feet below the ground surface. Finally, the vertical depth of the revised APE for the proposed well locations is estimated to reach 1,100 feet below ground surface. Because most of the project elements will be subterranean, no indirect effects (i.e., visual, auditory, or atmospheric) are anticipated for the proposed project.

Cultural Resources Records Search

On January 6, 2020, Rincon conducted a search of the California Historical Resources Information System at the Eastern Information Center (EIC) located at the University of California, Riverside. The search was performed to identify previously recorded cultural resources, as well as previously conducted cultural resources studies within the project site and a 0.5-mile radius. The records search also included a review of the National Register of Historic Places, the California Register of Historical Resources (CRHR), the Office of Historic Preservation Historic Properties Directory, the California Inventory of Historic Resources, and the Archaeological Determinations of Eligibility list.

The EIC records search identified 60 cultural resources studies previously completed within a 0.5-mile radius of the revised APE between 1953 and 2019 (Table 1). Of these, one previous study (RI-01843) intersects the revised APE at the East Well 2 Option 3 site.



Table 1 Cultural Resources Studies Previously Conducted within a 0.5-mile Radius of the APE

Report Number	Author(s)	Year	Title	Relationship to APE
RI-00002	Rogers, Malcom J.	1953	<i>Miscellaneous Field Notes – Riverside County, San Diego Museum of Man</i>	Outside
RI-00026	Akin, Margie	1971	<i>A Survey of the Archaeological Resources of the Santa Ana and San Jacinto River Basins</i>	Outside
RI-00130	Clough, Helen	1974	<i>Filed Notes for the Archaeological Survey of PL984 Water Systems Additions</i>	Outside
RI-00133	King, Thomas F., Marry Brown, Gerrit Fenenge, and Claudia Nissley	1974	<i>Archaeological Impact Evaluation: Southern California Edison Company’s Devers-Vista 220 kV Transmission Line, Riverside County, California</i>	Outside
RI-00137	O’Connell, James F., Philip J. Wilke, Thomas F. King, and Carol L. Mix	1974	<i>Perris Reservoir Archaeology, Late Prehistoric Demographic Change in Southeastern California</i>	Outside
RI-00161	Greenwood, Roberta S.	1975	<i>Paleontological, Archaeological, Historical, and Cultural Resources, West Coast-Midwest Pipeline Project, Long Beach to Colorado River</i>	Outside
RI-00182	Weaver, Richard A.	1975	<i>Environmental Impact Evaluation: Archaeology of Brodiaea Avenue, Pl 984, Water Systems Addition, Riverside County, California</i>	Outside
RI-00535	Bean, Lowell J., Sylvia Brakke Vane, Matthew C. Hall, Harry Lawton, Richard Logan, Lee Gooding Massey, John Oxendine, Charles Rozaire, and David P. Whistler	1979	<i>Cultural Resources and the Devers-Mira 500 kV Transmission Line Route (Valley to Mira Loma Section)</i>	Outside
RI-00742	Wilke, Philip J.	1979	<i>Environmental Impact Evaluation: An Archaeological Assessment of 17.64 Acres Considered for Change of Zone (CZ 2707), Southeast of Sunnymead, Riverside County, California</i>	Outside
RI-01312	Meighan, Clement W.	1975	<i>Historical Resources in Three Southern California Counties</i>	Outside
RI-01665	Wirth Associates	1983	<i>Devers-Serrano-Villa Park Transmission System Supplement to the Cultural Resources Technical Report - Public Review Document and Confidential Appendices</i>	Outside
RI-01843	Scientific Resource Surveys	1984	<i>Cultural Resource Survey Report on Wolfskill Ranch</i>	Within East Well 2 Option 3
RI-01955	Heller, Rod, Tim Tetherow, and C. White	1977	<i>An Overview of the Sundesert Nuclear Project Transmission System Cultural Resource Investigation</i>	Outside



Report Number	Author(s)	Year	Title	Relationship to APE
RI-01978	Brock, James	1985	<i>Letter Report: Archaeological Field Reconnaissance of Proposed Post Office Site in Sunnymead, California</i>	Outside
RI-02050	Perault, Gordon	1985	<i>Preliminary Historic Inventory - March Air Force Base, California</i>	Outside
RI-02171	McCarthy, Daniel F.	1987	<i>Cultural Resources Inventory for the City of Moreno Valley, Riverside County, California</i>	Outside
RI-03490	McIntosh, Beverly C.	1991	<i>The Juan Bautista De Anza Trail Past, Present and Future, Baja to Riverside, California</i>	Outside
RI-03604	Jones, Carleton S.	1992	<i>The Development of Cultural Complexity Among the Luiseno: A Thesis Presented to the Department of Anthropology, California State University, Long Beach in Partial Fulfillment of the Requirements for the Degree, Master of Arts</i>	Outside
RI-03693	Foster, John M., James J. Schmidt, Carmen A. Weber, Gwendolyn R. Romani, and Roberta S. Greenwood	1991	<i>Cultural Resource Investigation: Inland Feeder Project, Metropolitan Water District of Southern California</i>	Outside
RI-03921	Moffit, S.A. and M. C. Hall	1995	<i>Cultural Resources Survey of Proposed Arco Pipeline Company Rectifier and Block Valve Sites, Located In Riverside and San Bernardino Counties, California</i>	Outside
RI-04762	Barker, Leo R. and Ann E Huston, Editors	1990	<i>Death Valley to Deadwood; Kennecott To Cripple Creek. Proceedings of the Historic Mining Conference, January 23-27, 1989, Death Valley National Monument</i>	Outside
RI-04813	National Park Service	1993	<i>California Citrus Heritage Recording Project: Photographs, Written Historical and Descriptive Data, Reduced Copies of Measured Drawings For: Arlington Height Citrus Landscape, Gage Irrigation Canal, National Orange Company Packing House, Victoria Bridge, and Union Pacific Railroad Bridge</i>	Outside
RI-04992	McKenna et al.	2004	<i>An Architectural Evaluation of Structures Located Within Assessor Parcel Numbers 482-090009-0, -010-0, and 033-0, Within the City of Moreno Valley, Riverside County, California</i>	Outside
RI-05035	McKenna et al.	2005	<i>Letter Report: Monitoring at the Site of the Proposed Indian Middle School in the City Of Perris, Riverside County, California</i>	Outside
RI-05088	Cultural Systems Research, Inc.	2005	<i>Ethnographic Overview Inland Feeder Pipeline Project</i>	Outside
RI-05286	Jackson, Adrianna	2000	<i>Letter Report: Records Search Results for Sprint PCS Facility RV54XC486A (Boxing Club Site), Moreno Valley, Riverside County, California</i>	Outside



Report Number	Author(s)	Year	Title	Relationship to APE
RI-05294	White, Laurie	2000	<i>Letter Report: Records Search Results for Sprint PCS Facility RV37XC917C (SCE Alessandro Substation), City of Moreno Valley, Riverside County, California</i>	Outside
RI-05795	Kyle, Carolyn E.	2004	<i>Cultural Resource Assessment for AT&T Wireless Facility 950-031029A located at 24899 Alessandro Boulevard, City of Moreno Valley, Riverside County, California</i>	Outside
RI-06081	Billat, Lorna	2004	<i>Letter Report: Proposed Cellular Tower Project in Riverside County, California, Site Name/Number: CA-8868A/Lasselle</i>	Outside
RI-06269	Alexandrowicz, John S.	2006	<i>An Historical Resources Identification of Alessandro Pointe Project, Tract 34681, 25817 Alessandro Boulevard, City of Moreno Valley, Riverside County, California</i>	Outside
RI-06278	Ahmet, Koral and Evelyn N. Chandler	2005	<i>Cultural Resources Survey for a Proposed Bikeway in Moreno Valley, Riverside County, California</i>	Outside
RI-07127	Jordan, Stacey C.	2007	<i>Archaeological Survey Report for Southern California Edison Company: Conversion of Overhead to Underground Project on the Rule 20C, Riverside County, California (WO#65777281, AL#6-7227)</i>	Outside
RI-07499	Bonner, Wayne H. and Marnie Aislin-Kay	2007	<i>Letter Report: Cultural Resource Records Search Results and Site Visit for Royal Street Communications, LLC Candidate LA2360B (Motel 7), 23581 Alessandro Boulevard, Moreno Valley, Riverside County, California</i>	Outside
RI-07573	Sanka, Jennifer M.	2008	<i>Phase I Cultural Resources Assessment and Paleontological Records Review, APN 486-070-007, Moreno Valley, Riverside County, California</i>	Adjacent
RI-07645	Rosenberg, Seth A. and Brian F. Smith	2005	<i>An Archaeological Survey for the Alessandro Plaza Project, City of Moreno Valley, County of Riverside, California</i>	Outside
RI-08235	Workman, James E.	2001	<i>Cupules, A Type of Petroglyphic Rock Art. A Study of the Pitted Boulders in the San Jacinto Wildlife Area and the Lake Perris State Recreational Area</i>	Outside
RI-08244	McKenna, Jeanette A.	2009	<i>A Phase I Cultural Resources Investigation of the Proposed Moreno Valley Unified School District K-12 School Site at Indian Street and Cactus Avenue, City of Moreno Valley, Riverside County, California.</i>	Outside
RI-08554	Hogan, Michael, Bai "Tom" Tang, John Goodman, and Daniel Ballester	2011	<i>California Living Moreno Valley Project</i>	Outside
RI-08654	Bonner, Wayne H., Sarah A. Williams, and Kathleen A. Crawford	2011	<i>Cultural Resources Search and Site Visit Results for T-Mobile USA Candidate IE24173B</i>	Outside
RI-08688	Bonner, Wayne H.	2011	<i>Letter Report: Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate IE24226-A</i>	Outside



Report Number	Author(s)	Year	Title	Relationship to APE
RI-08802	Tang, Bai "Tom", Michael Hogan, Deirdre Encarnacion, and Daniel Ballester	2012	<i>Phase I Archaeological Assessment: Moreno Master Drainage Plan Revision</i>	Outside
RI-08944	Tang, Bai "Tom" and Michael Hogan	2013	<i>Historical/Archeological Resources Survey Report, Assessor's Parcel No. 486-280-043, City of Moreno Valley, Riverside County, California</i>	Outside
RI-08945	Tang, Bai "Tom" and Michael Hogan	2013	<i>Historical/Archaeological Resources Survey Report, Desilting Basin Site, Boulder Ridge Family Apartments Project, City of Moreno Valley, Riverside County, California</i>	Outside
RI-09077	McKenna, Jeanette A.	2014	<i>A Phase I Cultural Resources Survey for the Proposed Walmart Supercenter on Approximately 22.28 Acres of Land in the City of Moreno Valley, Riverside County, California</i>	Outside
RI-09311	Wills, Carrie D.	2014	<i>Cultural Resource Records Search and Site Visit Results for Verizon Wireless Candidate 'Gentian', 16015 North Perris Boulevard, Moreno Valley, Riverside County, California</i>	Outside
RI-09345	McKenna, Jeanette	2015	<i>Results of an Archaeological/Paleontological Monitoring Program at the Moreno Valley Unified School District's Bayside Charter Campus in the City of Moreno Valley, Riverside County, California</i>	Outside
RI-09510	Tang, Bai "Tom"	2016	<i>Update to Historical/Archaeological Resources Survey Assessor's Parcel No. 486-280-043 (Rocas Grandes Project), City of Moreno Valley, Riverside County, California CRM TECH Contract No. 2980</i>	Outside
RI-09681	Wills, Carrie D. and Sarah A. Williams	2016	<i>Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate IE95361A (Alessandro Substation), 15901 Kitching Street, Moreno Valley, Riverside County, California</i>	Outside
RI-09718	Brunzell, David	2016	<i>Cultural Resources Assessment of the Toby (MCE Design) Project, City of Moreno Valley, Riverside County, California (BCR Consulting Project No. TRF 1608)</i>	Outside
RI-09828	Wilk, Elizabeth	2015	<i>Addendum to FCC Form 620: Gogh/Ensite #25674 (284941), 15091 Kitching Street, Moreno Valley, Riverside County, California 92551, EBI Project #6115003214/ E-106 File Number 0006967049, FCC_2015_1005_009</i>	Outside
RI-10018	Belcourt, Tria	2016	<i>Re: Letter Report for Cultural and Paleontological Records Searches for the Brodiaea Site, located in the City of Moreno Valley, Riverside County, California</i>	Outside
RI-10095	Dooley, Colleen	2002	<i>Cingular Wireless Cultural Resource Assessment</i>	Outside
RI-10150	Brunzell, David	2016	<i>Cultural Resources Assessment the Alessandro Apartments Project, City of Moreno Valley, Riverside County, California</i>	Outside



Report Number	Author(s)	Year	Title	Relationship to APE
RI-10273	Garrison, Andrew J. and Brian F. Smith	2014	<i>Phase I Cultural Resources Survey for the Brodiaea Commerce Center Project, City of Moreno Valley, County of Riverside</i>	Outside
RI-10445	Clark, Fatima and Kyle Garcia	2014	<i>Cultural Resources Assessment for the Proposed Isla Verde Residential Project, City of Moreno Valley, County of Riverside, California</i>	Outside
RI-10498	Brunzell, David	2018	<i>Cultural Resources Assessment Moreno Valley Storage Project, City of Moreno Valley, Riverside County, California</i>	Outside
RI-10691	Curl, Alan	1979	<i>Phase I Survey of the City of Riverside Final Report</i>	Outside
RI-10700	Perez, Don	2015	<i>Cultural Resources Survey Gogh / Ensite #25674 (284941)</i>	Outside
RI-10827	Williams, Sarah A. and Carrie D. Wills	2019	<i>Cultural Resource Records Search and Site Visit Results for AT&T Mobility Candidate CSL02876 (Iris Plaza), 16110 Perris Boulevard, Moreno Valley, Riverside County, California (EBI Project Number 6119000825)</i>	Outside

Source: Eastern Information Center January 2020

Sixteen cultural resources have been documented within a 0.5-mile radius of the revised APE (Table 2). These include five prehistoric archaeological sites, two prehistoric isolated artifacts or features, three historic-period archaeological sites, and six historic-period built-environment (buildings and structures) resources. The prehistoric sites, most of which represent bedrock milling features, are clustered at the base of a set of unnamed hills lying northeast of the new project APE. None of the previously recorded cultural resources are located in the revised APE.

Table 2 Previously Identified Cultural Resources within a 0.5-mile Radius of the Revised APE

Resource Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Status ¹	Relationship to Revised APE
P-33-000857 (CA-RIV-857)	Prehistoric Site	Seven bedrock milling features	2013 (D. Ballester and D. Perez), 1975 (R. Weaver), 1987 (C. Prior, M. Conroy, B. Neiditch)	Not evaluated for CRHR or NRHP	Outside
P-33-002994 (CA-RIV-2994)	Prehistoric Site	Ten bedrock milling features with an associated hand stone	1984 (Roger Mason)	Not evaluated for CRHR or NRHP	Outside
P-33-003159 (CA-RIV-3159)	Prehistoric Site	Three bedrock milling features	2015 (D. Ballester), 2013 (D. Ballester and D. Perez), 1987 (C. Prior, M. Conroy, B. Neiditch)	Not evaluated for CRHR or NRHP	Outside
P-33-003341 (CA-RIV-3341)	Prehistoric Site	Three bedrock milling features	2013 (D. Ballester and D. Perez), 1987 (C. Prior, M. Conroy, B. Neiditch)	Not evaluated for CRHR or NRHP	Outside
P-33-003342 (CA-RIV-3342)	Prehistoric Site	One bedrock milling feature (no longer extant)	2013 (D. Ballester and D. Perez), 1987 (Barry R. Neiditch)	Not evaluated for CRHR or NRHP	Outside



Resource Number	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Status ¹	Relationship to Revised APE
P-33-007276	Historic Building	25780 Alessandro Blvd (single-family residence)	1983 (J. Warner)	Appears eligible for the CRHR and/or NRHP	Outside
P-33-007279	Historic Building	24771 Bay Avenue, (single-family residence with associated outbuildings)	1983 (J. Warner)	Appears eligible for the CRHR and/or NRHP	Outside
P-33-007280	Historic Building	24685 Cottonwood Avenue (single family residence)	1983 (J. Warner)	Recommended ineligible for the CRHR and NRHP	Outside
P-33-007290	Historic Building	15168 Perris Boulevard (single-family residence with associated outbuildings)	1983 (J. Warner)	Property recognized as historically significant by local government	Outside
P-33-015301	Prehistoric Isolate (artifact)	Pestle fragment	2005 (Evelyn Chandler)	Not evaluated for CRHR or NRHP	Outside
P-33-015454 (CA-RIV-8149)	Historic Site	Building foundations, septic tank, and refuse scatter	2006 (John Alexandrowicz)	Not evaluated for CRHR or NRHP	Outside
P-33-016788	Prehistoric Isolate (feature)	Four prehistoric milling features (out of context)	2007 (J. Sanka)	Not evaluated for CRHR or NRHP	Outside
P-33-023936	Historic Structure	Barron/Lanz Holdings (Ranch/Farm, Loading Dock)	2014 (Jeanette McKenna)	Recommended ineligible for the CRHR and NRHP	Outside
P-33-024195 (CA-RIV-11896)	Historic Site	Multi-family property	2015 (Jeanette McKenna)	Not evaluated for CRHR or NRHP	Outside
P-33-028200	Historic Structure	Canal/Aqueduct	2018 (Salvadore Z. Boites)	Recommended ineligible for the CRHR and NRHP	Outside
P-33-028824 (CA-RIV-12934)	Historic Site	Building foundation, power pole, and isolated glass	2019 (Riordan Goodwin)	Not evaluated for CRHR or NRHP	Outside

¹NRHP = National Register of Historic Places; CRHR = California Register of Historical Resources
Source: Eastern Information Center, January 2020

Historical Imagery Review

An aerial photograph of East Well 2 Option 3 from 1966 depicts the area as being dominated by agricultural fields with sparse areas of residential development to the northwest (NETRonline 2020). At that time, the runway and buildings associated with March Field are present west of the APE near the East Well 2 Option 3 site. Aerial imagery and topographic maps also indicate much of the land surrounding the East Well 2 Option 3 site transitioned from agricultural land to residential development



in the 1980s and 1990s. Based on analysis of available aerial photographs and topographic maps, Pedrorena Park and the surrounding roadways that comprised the APE near the East Well 2 Option 3 site were constructed sometime between 1985 and 1997 (NETRonline 2020).

Aerial imagery of the East Well 2 Option 4 site from 1966 through 2016 depicts the area as being vacant with much of the surrounding land being developed between 1978 and 2005 (NETRonline 2020). A residential development is visible east of the site in the 1978 aerial imagery. A school was constructed to the southwest of the East Well 2 Option 4 site sometime between 2002 and 2005.

Pedestrian Field Survey

Rincon Archaeologist Lindsay Porras, MA, RPA, conducted a pedestrian field survey of the East Well 2 Option 3 APE (including proposed pipeline alignment) on July 3, 2020 and the East Well 2 Option 4 APE (including proposed pipeline alignments) on August 7, 2020. Areas of exposed ground surface were inspected for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic-era debris (e.g., metal, glass, ceramics).

The East Well 2 Option 3 site is located within Pedrorena Park and consists of landscaped turf areas for sport fields, ornamental plantings, paved walkways, play equipment, tennis courts, and picnic areas (Figures 3 and 4, Appendix A). The roadways are paved, include curb and gutter, and landscaped parkways (Figure 5, Appendix A). Ground visibility was poor (less than 5%) as the park is a developed recreational area the proposed pipeline alignment associated with East Well 3 Option 3 is located entirely within paved roadways. No cultural resources were observed.

The East Well 2 Option 4 site is located within a relatively flat, undeveloped, and cleared field with dry grasses, sparse scrub and invasive weeds (Figure 6, Appendix A). Ground visibility varied from excellent (100%) to poor (less than 5%). A dirt access roads travels through the well site from the access point in the southern end and extends north to Iris Ave. Underground utilities observed include an EMWD sewer line and a State of California Santa Ana Valley water pipeline. These utilities are adjacent to the dirt access road. Several modern and non-diagnostic concrete and building material refuse piles exist in the northwest and north central portion of the well site. The proposed pipeline alignments associated with East Well 2 Option 4 are located entirely within paved roadways. No cultural resources were observed.

Findings and Recommendations

Based on the results of the cultural resources records search and pedestrian field survey, no cultural resources were identified within the APE. Consistent with the findings of the previously prepared CRA, Rincon recommends a finding of ***no impact to historical and archaeological resources*** under CEQA and ***no historic properties affected*** under Section 106 of NHPA. The following best management practices are provided in the event of an unanticipated discovery of cultural resources during project development. The project is also required to adhere to regulations regarding the unanticipated discovery of human remains, detailed below.

Unanticipated Discovery of Archaeological Resources

If archaeological resources are encountered during ground-disturbing activities, work in the immediate area should be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) should be contacted immediately



to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work, such as data recovery excavation, may be warranted to mitigate any significant impacts to historical resources.

Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground-disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site and provide recommendations for treatment to the landowner within 48 hours of being granted access.

Please do not hesitate to contact Rincon with any questions regarding this cultural resources assessment amendment.

Sincerely,
Rincon Consultants, Inc.

Breana Campbell-King, MA, RPA
Principal Investigator

Mark Strother, MA, RPA
Archaeologist

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Principal

Attachments

Appendix A Figures



References

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Appendix A

Figures

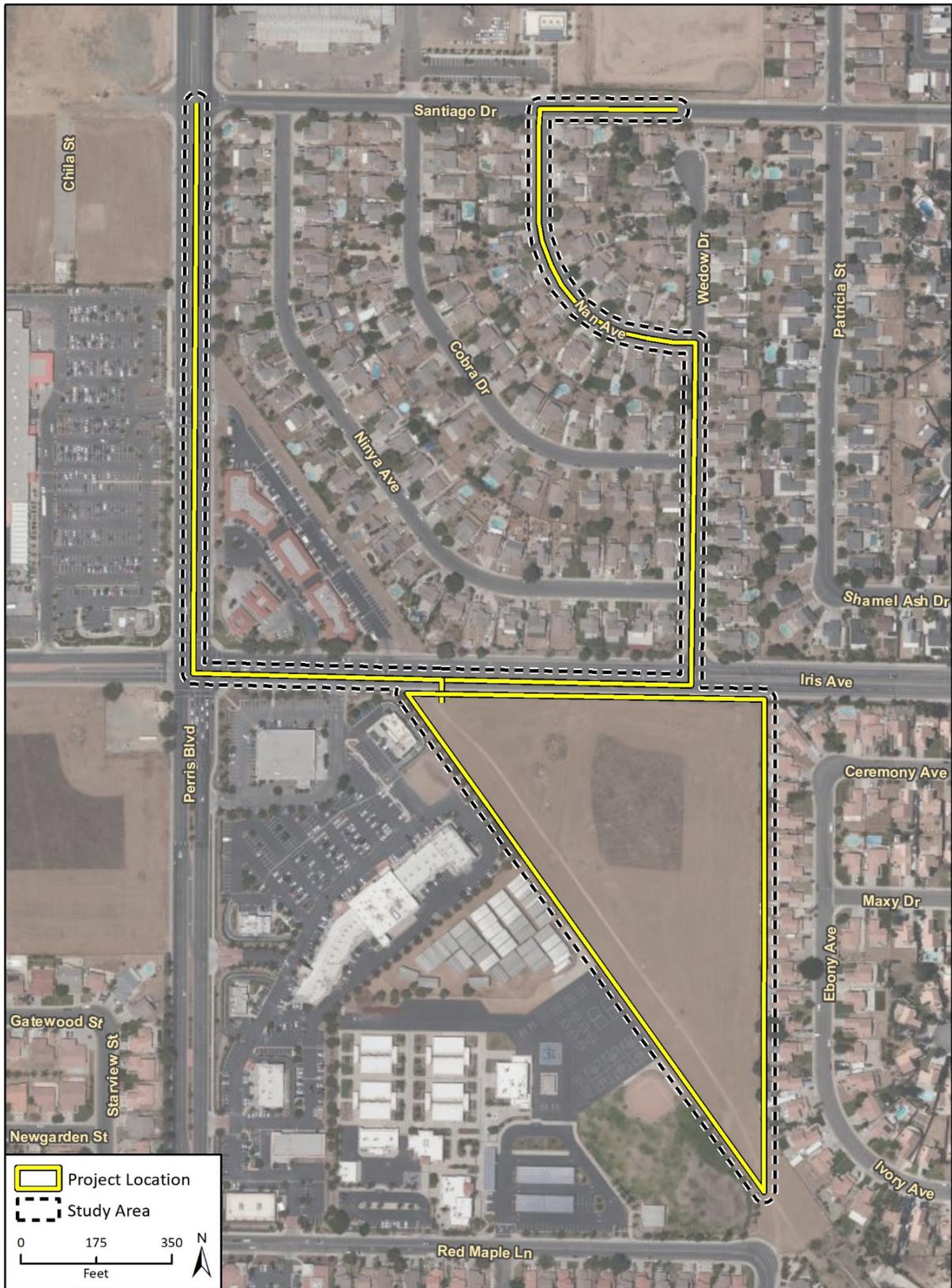
Figure 1 New Area of Potential Effects – East Well 2 Option 3



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Fig.1 Project Location BIO Addendum

Figure 2 New Area of Potential Effects – East Well 2 Option 4



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Fig. 1 Project Location BIO Addendum No.2

Figure 3 East Well 2 Option 3 Northwest Portion of Pedrorena Park, View East



Figure 4 East Well 2 Option 3 Eastern Boundary of Pedrorena Park, View West



Figure 5 East Well 2 Option 3 Northeast Corner of Iris Avenue and Kitching Street Intersection, View North



Figure 6 Overview of East Well 2 Option 4, View Northwest

