Subsequent Initial Study and Mitigated Negative Declaration

Perris North Groundwater Monitoring Project

State Clearinghouse #2020040220

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Acronym List

Acronym	Definition
AB	Assembly Bill
AQMP	Air Quality Management Plan
Basin Plan	Santa Ana River Basin Plan
BMP	Best management practice
Board of Directors	Board
BUOW	Burrowing owl
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CARB	California Air Resources Board
CCR	California Code of Regulations
CHRIS	California Historical Resources Information System
CNEL	Community Noise Equivalent Level
COC	Contaminants of Concern
DEH	Riverside County Department of Environmental Health
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
DWSAP	Drinking Water Source Assessment Program
EIR	Environmental Impact Report
EMWD	Eastern Municipal Water District
EOP	Emergency Operations Plan
GHG	Greenhouse gas emissions
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
IS	Initial Study
kWh	kilowatt-hour
L_{dn}	Day-Night Average Sound Level

Acronym	Definition
L_{eq}	Equivalent Sound Level
LHMP	Local Hazard Mitigation Plan
LOS	Level of service
LRA	Local Responsibility Area
LST	Localized Significance Threshold
LUST	Leaking underground storage tank
MTCO2e	Metric tons of carbon dioxide equivalent
MARB	March Air Reserve Base
MLD	Most likely descendent
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MSHCP	Multiple Species Habitat Conservation Plan
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
ND	Negative Declaration
NEPA	National Environmental Policy Act
NHMLAC	Natural History Museum of Los Angeles County
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
O_3	Ozone
O&M	Operation and maintenance
OSHA	California Occupational Safety and Health Administration
PCE	Tetrachloroethylene
PM	Particulate Matter
PPV	Peak Particle Velocity
ROG	Reactive organic gases
RWQCB	Regional Water Quality Control Board
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments

Acronym	Definition
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SGMA	Sustainable Groundwater Management Act
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TDS	Total dissolved solids
US EPA	United States Environmental Protection Agency
UWMP	Urban Water Management Plan
VMT	Vehicle miles traveled
VHFHSZ	Very High Fire Hazard Severity Zone
VOC	Volatile organic compounds
WSC	Western Science Center

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1. INTRODUCTION

This Subsequent Initial Study and Mitigated Negative Declaration addresses potential impacts of a revised version of the Perris North Groundwater Monitoring Project ("Project") previously evaluated in a 2022 Revised MND. Together, the 2022 Revised MND and this Subsequent IS/MND constitute the complete CEQA document for this project. The 2022 Revised MND is incorporated throughout by reference and is available for review as **Appendix E** to this document.

1.1 Project Background

Eastern Municipal Water District (EMWD) is proposing to install monitoring wells in the Perris North Groundwater Sub-basin. Monitoring wells would be installed as "well clusters" which each have up to four boreholes. As a result of project changes, a series of environmental evaluations have been completed. In 2019 and 2020, EMWD evaluated the potential environmental impacts from constructing and operating a series of 10 monitoring wells in the sub-basin. A Mitigated Negative Declaration (MND) was adopted by the EMWD Board of Directors (Board) on June 17, 2020 (SCH#2020040220).

Following Board approval, EMWD changed the location and number of proposed monitoring wells. The location of the wells was revised to be out of the roadway right-of-way. Accordingly, EMWD prepared a Revised MND ("2022 Revised MND") that evaluated environmental impacts associated with the new locations (**Figure 1-1)**. The 2022 Revised MND evaluated impacts associated with construction and operation of up to 64 wells in 16 well "clusters" on private parcels. Each well cluster in the 2022 Revised MND would consist of up to four monitoring wells (with individual boreholes for each monitoring well). To provide locational flexibility of the well clusters, 21 locations were evaluated, including five additional sites presented as "Optional" sites. The 2022 Revised MND was adopted by the EMWD Board on February 16, 2022.

Following Board approval of the 2022 Revised MND, EMWD determined that, based on the project schedule and some uncertainties in securing well sites within the various land parcels, some wells may need to be constructed in the roadway right-of-way. EMWD met with representatives from the City of Moreno Valley to solicit input on well locations. Based on City staff input, well locations were further refined. A Subsequent IS/MND has been identified as the appropriate CEQA documentation to address the proposed changes (see discussion in Section 1.3 regarding CEQA Guidelines for a Subsequent IS/MND).

1.1.1 Proposed Monitoring Wells

The proposed Project includes construction and operation of up to 16 monitoring well clusters each with up to four wells, for a maximum of up to 64 individual wells. Monitoring wells would be located within roadway rights-of-way, or parcels evaluated in the 2022 Revised MND, though exact locations remain to be determined, so potential sites have been evaluated to allow for flexibility. All roadway right-of-way locations would be within the City of Moreno Valley and include all paved portions of the right-of-way including

gutters and sidewalks. Exact well locations are to be determined. As such, this Subsequent IS/MND is evaluating a series of streets in the vicinity of the preferred roadway right-of-way locations. Two well clusters, MW-14 and MW-16, would be constructed within parcels identified in the 2022 Revised MND and would not be located within the right-of-way.

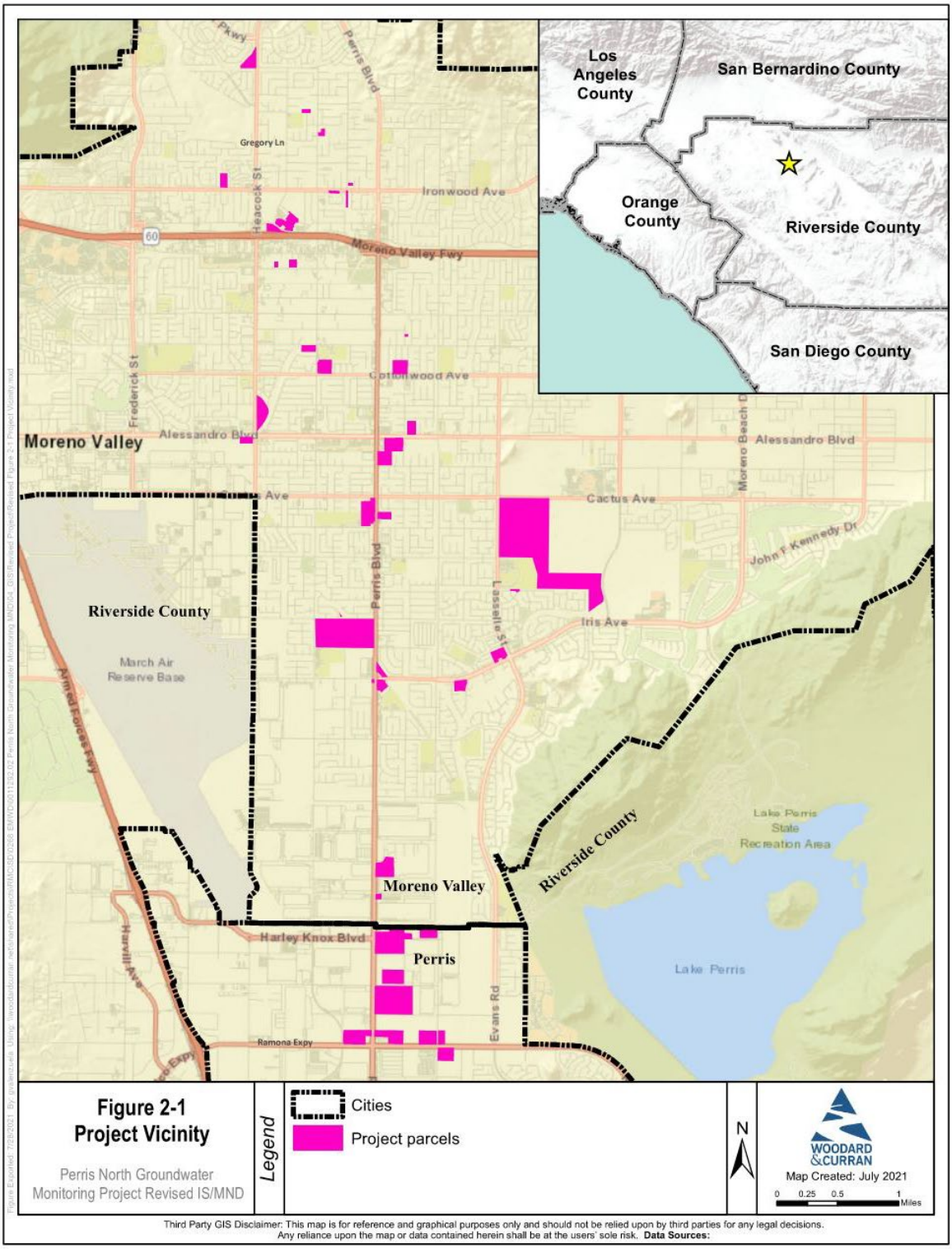
Wells would be drilled to a maximum depth of 60 feet to 420 feet below ground surface using mud rotary or sonic drilling methods. Once operational, well data would be collected remotely on a monthly basis, and site visits made quarterly to conduct maintenance and collect samples. Data will be used to help improve EMWD's understanding of the basin groundwater quality and help in making informed decisions on management of the basin.

1.2 Purpose of Subsequent Document

EMWD is the lead agency under the CEQA for the proposed Project. CEQA requires that the lead agency prepare an Initial Study (IS) to determine whether an Environmental Impact Report (EIR), Negative Declaration (ND), or Mitigated Negative Declaration (MND) is needed. EMWD has prepared this IS to evaluate the potential environmental consequences associated with the proposed Project and to disclose to the public and decision makers the potential environmental effects of the proposed Project. Based on the analysis presented herein, an MND is the appropriate level of environmental documentation for the proposed Project.

This Subsequent IS/MND addresses potential environmental effects of construction and operation of the revised well locations for the Perris North Groundwater Monitoring Project. The 2022 Revised MND and this Subsequent IS/MND, together with other project-related documents, incorporated by reference herein, serve as the environmental review of the proposed Project, pursuant to the provisions of CEQA and the CEQA Guidelines, 14 California Code of Regulations (CCR) Section 15162 et seq. EMWD's review of the revised well locations in this Subsequent IS/MND is limited to the scope of the revised well locations and does not address reconsideration of the findings of the 2022 Revised MND. In instances where a final well location is selected to be within a parcel evaluated in the 2022 Revised MND, construction and operation of the well would be consistent with the project as described in the 2022 Revised MND and subject to the environmental findings and associated mitigation measures of that document. A copy of the 2022 Revised MND is incorporated by reference and has been provided here as **Appendix E** for convenience.

Figure 1-1: Previously Approved Project Vicinity (2022 Revised MND)



1.3 Rationale for Subsequent Mitigated Negative Declaration

The basis for preparation of the Subsequent document is based on the CEQA Guidelines, Section 15162. Section 15162 of the CEQA Guidelines states:

(a) When…a negative declaration [has been] adopted for a project, no subsequent [negative declaration] may be required for the project unless the lead agency determines, on the basis of substantial evidence in 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…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…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…negative declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous…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 in light of the requirements defined under Section 15162 of the CEQA Guidelines and determined that moving wells into the roadway right-of-way constitutes a "*substantial change to the proposed project which would require major revisions of the MND due to the involvement of new potentially significant environmental effects*" per Section 15162(a)(1). As a result, a Subsequent IS/MND is the appropriate CEQA document for analysis and consideration of the Perris North Groundwater Monitoring Project.

1.4 Scope of this Document

This Subsequent IS/MND has been prepared in accordance with CEQA (as amended) (Public Resources Code §§21000 et. seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, §§15000 et. seq.), as updated on December 28, 2018. CEQA Guidelines §15063 describes the requirements for an IS and §§15070-15075 describe the process for the preparation of an MND. Where appropriate, this document makes reference to either the CEQA Statute or State CEQA Guidelines (as amended in December 2018). This Subsequent IS/MND contains all of the contents required by CEQA, which includes a project description, a description of the environmental setting, potential environmental impacts, mitigation measures for any significant effects, consistency with plans and policies, and names of preparers.

This Subsequent IS/MND evaluates the potential for environmental impacts to resource areas identified in Appendix G of the State CEQA Guidelines (as amended in December 2018). The environmental resource areas analyzed in this document include:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources

- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance

1.5 CEQA Process

In accordance with CEQA Guidelines §15073, this Subsequent IS/MND is being circulated for a 30-day public review period (January 9, 2023 – February 9, 2023) to local and state agencies, and to interested organizations and individuals who may wish to review and comment on the report. EMWD has also submitted the IS/MND to the State Clearinghouse for distribution to State agencies. In addition, EMWD has submitted a Notice of Intent to Adopt a Mitigated Negative Declaration to the Riverside County Clerk and to responsible agencies and interested entities. The Notice of Intent has also been published in the Press-Enterprise on January 9, 2022. A copy of the IS/MND is available for review at: https://www.emwd.org/public-notices.

Written comments are to be submitted to EMWD by 5:00 PM on February 9, 2023 and addressed to:

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2270 Trumble Road
P.O. Box 8300
Perris, CA 92572-8300
broadhej@emwd.org

Following the 30-day public review period, EMWD will evaluate written comments and telephone calls received on the IS/MND and incorporate any substantial evidence that the proposed project could have an impact on the environment into the final Subsequent IS/MND. EMWD will also prepare a Mitigation Monitoring and Reporting Program (MMRP), to be incorporated into the final Subsequent IS/MND.

The Subsequent IS/MND and MMRP will be considered for adoption by the EMWD Board of Directors in compliance with CEQA at a future publicly noticed hearing, which are held on the 1st and 3rd Wednesday of each month at EMWD's headquarters.

1.6 Impact Terminology

The level of significance for each resource area uses CEQA terminology as specified below:

- **No Impact.** No adverse environmental consequences have been identified for the resource or the consequences are negligible or undetectable.
- **Less than Significant Impact.** Potential adverse environmental consequences have been identified. However, they are not adverse enough to

meet the significance threshold criteria for that resource. No mitigation measures are required.

- **Less than Significant with Mitigation Incorporated.** Adverse environmental consequences that have the potential to be significant but can be reduced to less than significant levels through the application of identified mitigation strategies that have not already been incorporated into the proposed project.
- **Potentially Significant.** Adverse environmental consequences that have the potential to be significant according to the threshold criteria identified for the resource, even after mitigation strategies are applied and/or an adverse effect that could be significant and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared to meet the requirements of CEQA.

2. PROJECT DESCRIPTION

2.1 Project Location

The Project site is located in the City of Moreno, in the western portion of Riverside County, California (**Figure 2-1**). It overlies the Perris North Sub-Basin of the San Jacinto Groundwater Basin, which is also referred to as the Perris North Groundwater Management Zone. **Figure 2-2** shows the Perris North Sub-Basin in relation to EMWD's service area. All of the proposed additional well locations are located within the City of Moreno Valley.

As shown in **Figure 2-1**, the vicinity of the additional well locations is generally bounded on the west by Interstate 215; to the north by Sunnymead Ranch Parkway; to the south by Krameria Avenue; and to the east by Nason Street. Land use in the proposed Project area is predominantly residential, with commercial areas located along major roadways (Highway 60, Alessandro Boulevard, Perris Boulevard), and business park/light industrial in areas bordering March Air Reserve Base (MARB) and the southern end of the City of Moreno Valley (City of Moreno Valley, 2019). Specific location information and land uses are described below.

2.2 Project Overview

Up to 16 monitoring well clusters would be constructed/operated under the proposed Project. To provide locational flexibility of the well clusters, in addition to the 21 locations evaluated in the 2022 Revised MND, this Subsequent IS/MND adds well sites in the roadway right-of-way within the City of Moreno Valley (**Figure 2-1**). The additional sites are located in the Perris North Sub-basin, which allows for long term monitoring of groundwater quality and elevations. Currently, groundwater in the Perris North Sub-basin contains Contaminants of Concern (COC), leading EMWD to implement management measures in the basin in support of improved water quality as well as development and protection of safe water supplies. These management measures include monitoring groundwater quality and level, capping/sealing inactive wells to protect groundwater quality, groundwater extraction (and treatment, when needed) and data collection on water supplies/uses in the basin. The Perris North Sub-basin is an important local resource to the region. The monitoring wells installed by the proposed Project would improve EMWD's understanding of the type, concentrations, and lateral and vertical extents of the COCs. The proposed Project would also help create informed management decisions related to the Perris North Sub-basin.

COCs include tetrachloroethylene (PCE) or Volatile Organic Compounds (VOC), nitrate, perchlorate, total dissolved solids (TDS), fluoride, and manganese (co-mingled VOC-Nitrate Plume). Potential contamination areas were identified by EMWD through direct experience at wells that are currently offline, monitoring of unpumped older wells in the area, the Drinking Water Source Assessment Program (DWSAP), as well as identified through the State Water Board and State Department of Toxic Substances Control databases. As shown in **Figure 2-2**, there are two estimated comingled areas of concern,

one generally north of MARB and one generally east of MARB. The northern comingled area of concern includes nitrate, VOC, and perchlorate to varying estimated extents, while the southern comingled area of concern includes nitrate and perchlorate, estimated to have similar extents (see **Figure 2-3**).

Overview of Monitoring Well Roadway Right-of-Ways

The proposed Project involves construction of up to 16 clusters of monitoring wells (consisting of up to four individual casings per cluster). The locations for these monitoring wells could be on individual parcels identified in the 2022 Revised MND (**Figure 1-1** of this Subsequent IS/MND and Figures 2-6 through 2-26 of the 2022 Revised MND, provided in **Appendix E**), or within the roadway ROW as analyzed in this Subsequent IS/MND (**Figure 2-4**). The wells would be used to establish baseline monitoring data for the co-mingled areas of concern including groundwater levels and quality, monitor changes in groundwater levels and quality over time, and to track groundwater movement resulting from basin management decisions for the Perris North Groundwater Management Zone. The goals of the proposed Project include:

- Assist in improving understanding of groundwater quality within the Perris North Groundwater Management Zone.
- Provide data to support understanding of the impacts of other management decisions in the region on the co-mingled areas of concern in the Perris North Groundwater Management Zone.
- Provide baseline data on groundwater contamination and quality prior to operation of other, separate, projects in the Perris North Groundwater Program for VOCs, perchlorate, and nitrate and other constituents of concern as may arise.

The purpose of the monitoring well network is to:

- Demonstrate comingled areas of concern reduction over the Perris North Groundwater Program lifetime.
- Confirm efficacy of removal and basis for contaminant removal estimates.
- Demonstrate reduction of contaminant concentrations throughout the areas of concern.

The roadway right-of-way monitoring well sites evaluated in this Subsequent IS/MND were selected using siting criteria listed below and designed to capture data throughout the estimated co-mingled areas of concern. These siting criteria were:

- Location within the co-mingled areas of concern, within the simulated capture zone, and upgradient/downgradient/side-gradient of the co-mingled areas of concern (with the exception of the sentinel well).

- Location within the paved portion of the roadway right-of-way, including the roadway, shoulders, gutters, sidewalks, and other paved portions of the right-of-way.
- Avoidance of major thoroughfares, where feasible. Where reasonable, wells should be moved off of major roadways onto less traveled roads, so long as such roads are able to accommodate construction activities without blocking all lanes of traffic.
- Avoidance of existing utilities and set-backs such that wells and construction equipment are able to avoid overhead and buried utilities, and maintain adequate regulatory set-backs (e.g., 50 feet from sewer, industrial, and stormwater mains and laterals).
- Adequate space for drilling rigs, with sufficient setback from nearby structures to maintain a 24-foot “fall zone” buffer around the well during construction.

Proposed Right-of-Way Monitoring Well Sites

Monitoring Well Clusters MW-01 through MW-16 would be located within the City of Moreno Valley. For these monitoring wells, they could be located either within the corresponding parcels evaluated in the 2022 Revised MND or within the roadway right-of-way, which is evaluated in this Subsequent IS/MND. With the exception of MW-14 and MW-16, the wells all have both parcel options (2022 Revised MND) and roadway right-of-way options for where they could be sited. The various locations for the proposed well clusters are described on the following pages. The exact locations of the well cluster within the roadway rights-of-way are subject to change based on EMWD, City of Moreno Valley, permitting, and technical requirements. As such, the rights-of-way under consideration include full street lengths and are shown in **Figure 2-6** through **Figure 2-22**, rather than specific well locations within the right-of-way. Only one well cluster (consisting of up to four individual casings) would be constructed per site. The full rights-of-way have been evaluated in this Subsequent IS/MND. As previously noted, wells may be located within the roadway rights-of-way evaluated in this Subsequent IS/MND or within the parcels evaluated in the 2022 Revised MND, and together this Subsequent IS/MND and the 2022 Revised MND provide CEQA coverage for the Project.

To aid with understanding the impacts of well construction on a given right-of-way, **Figure 2-5** shows an example of the footprint of a well cluster within the right-of-way. These figures are provided only as an example and may not depict the final location of the well cluster within the rights-of-way. Well construction details, including construction footprint, are described in Section 2.4.1 and Section 2.4.2.

Figure 2-1: Proposed Project Vicinity for Additional Well Locations in Right-of-Way (2022-23 Subsequent IS/MND)

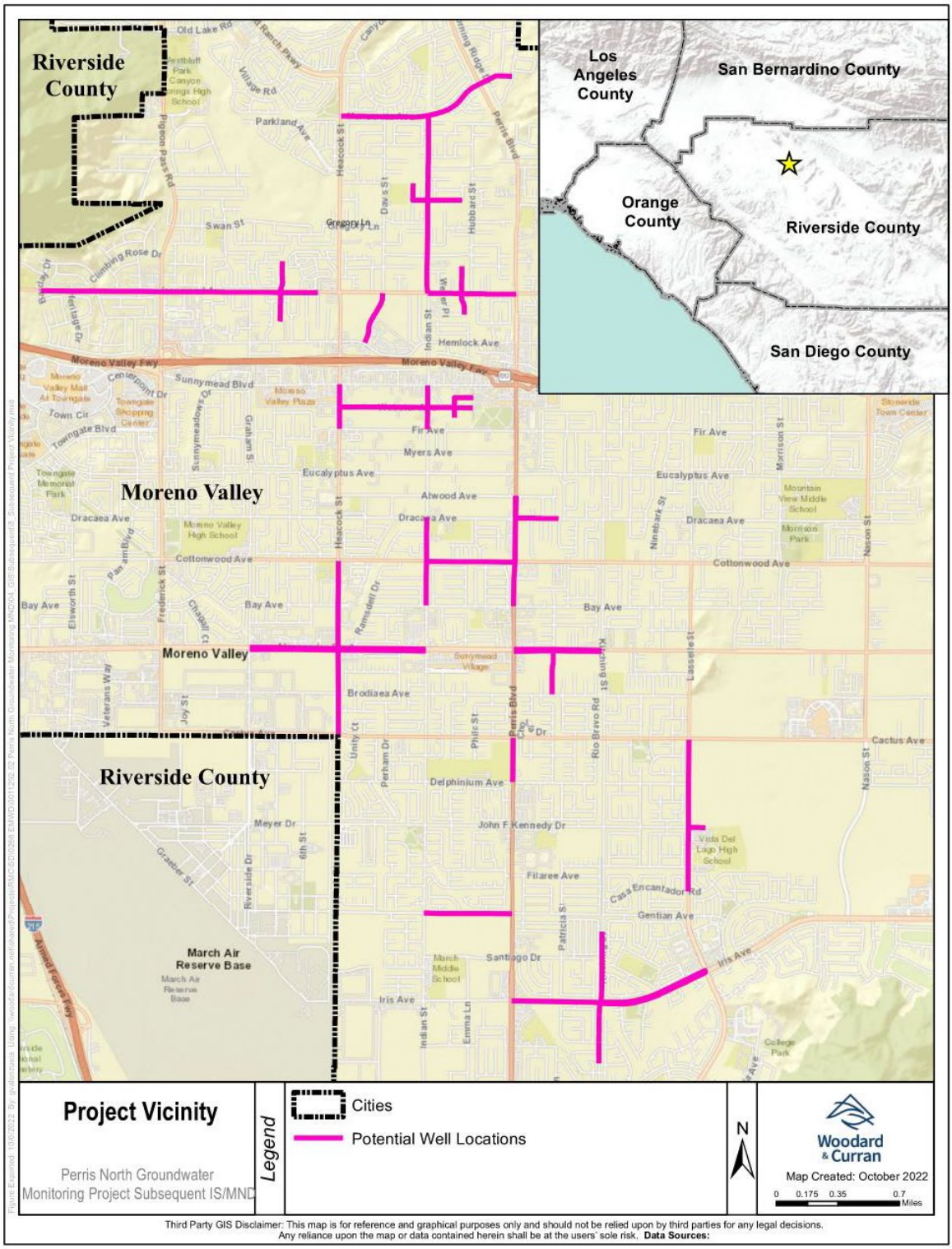


Figure 2-2: Co-Mingled Areas of Concern and Perris North Groundwater Management Program with Additional Well Locations in Right-of-Way

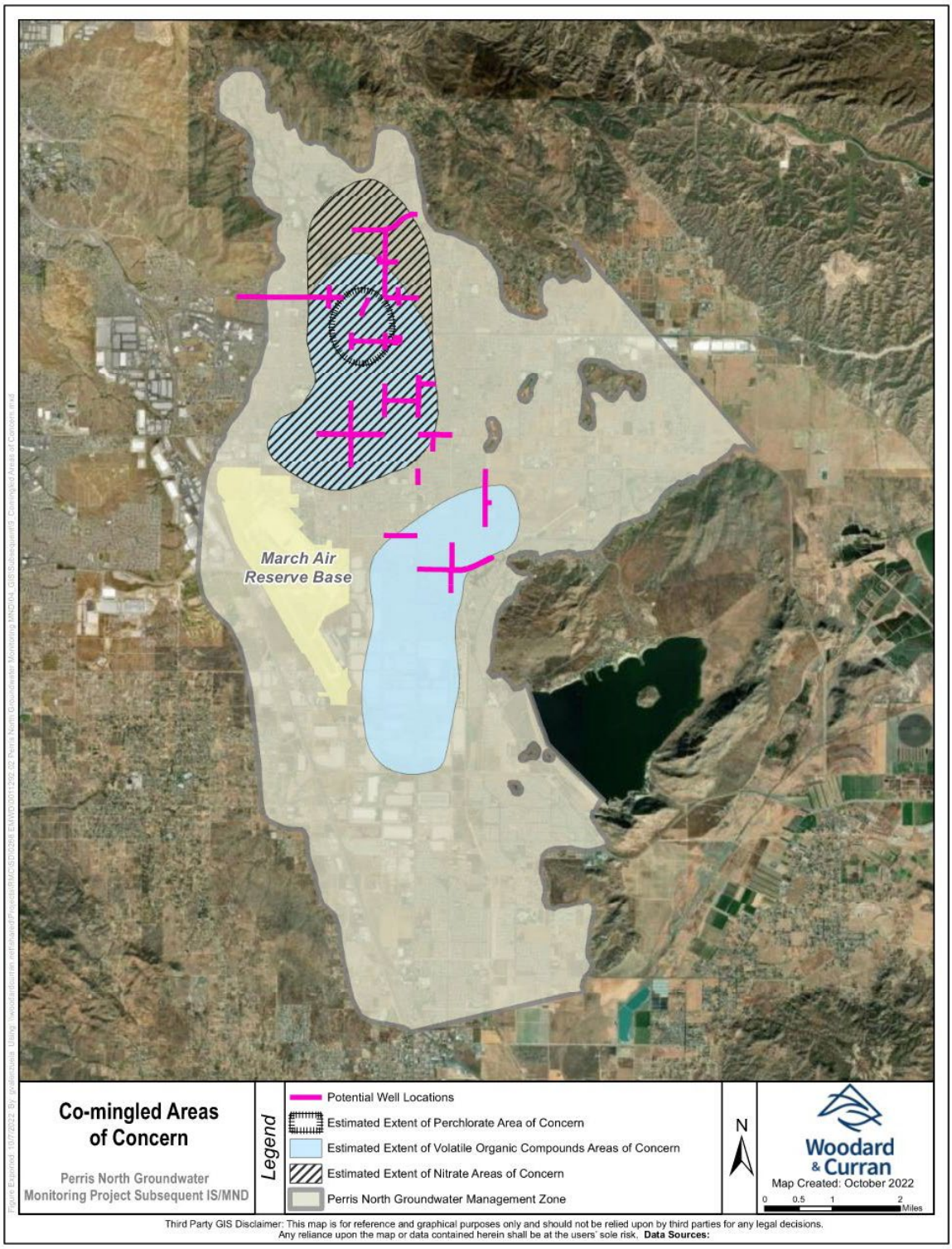


Figure 2-3: Perris North Sub-Basin / Perris North Groundwater Management Zone

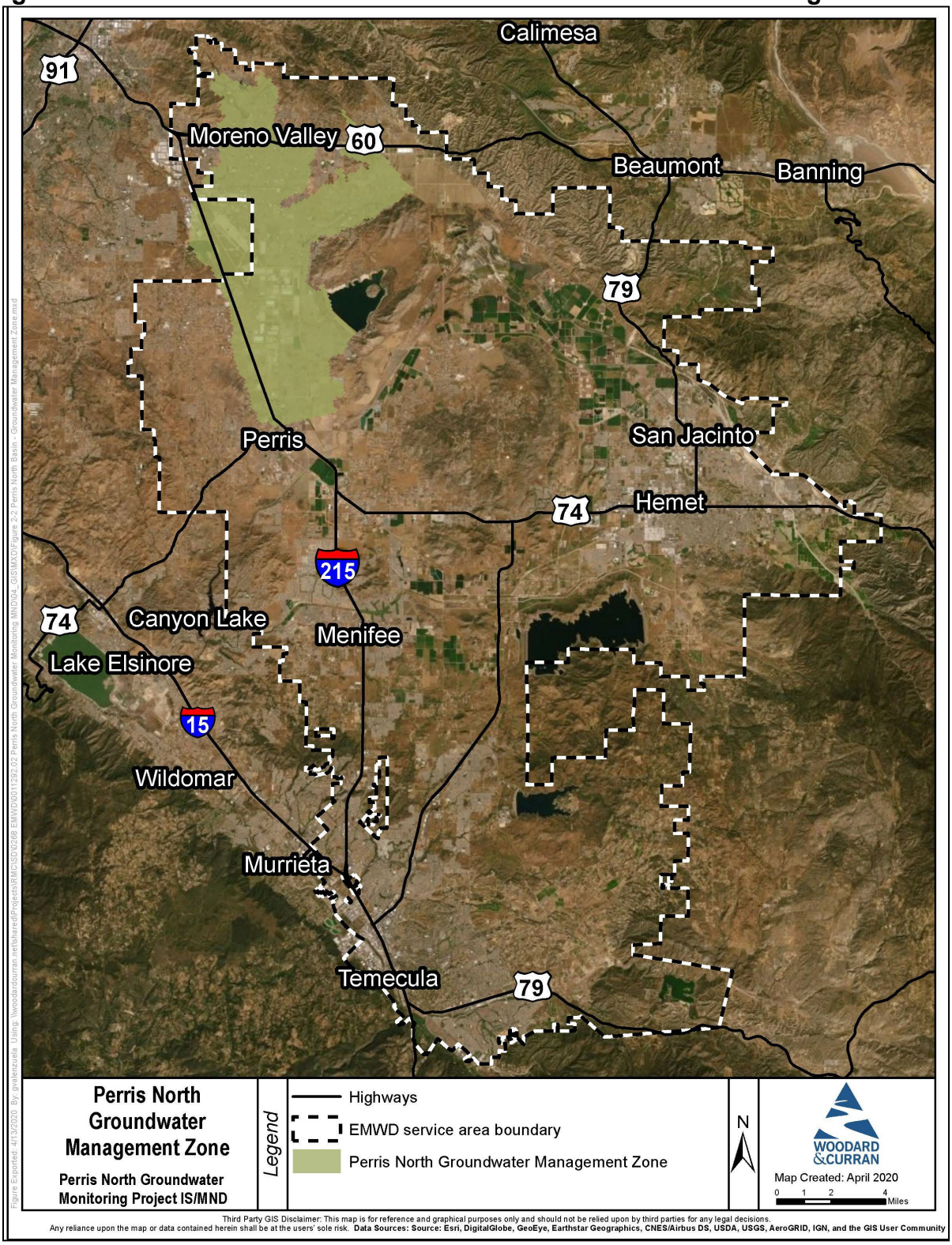


Figure 2-4: Project Overview

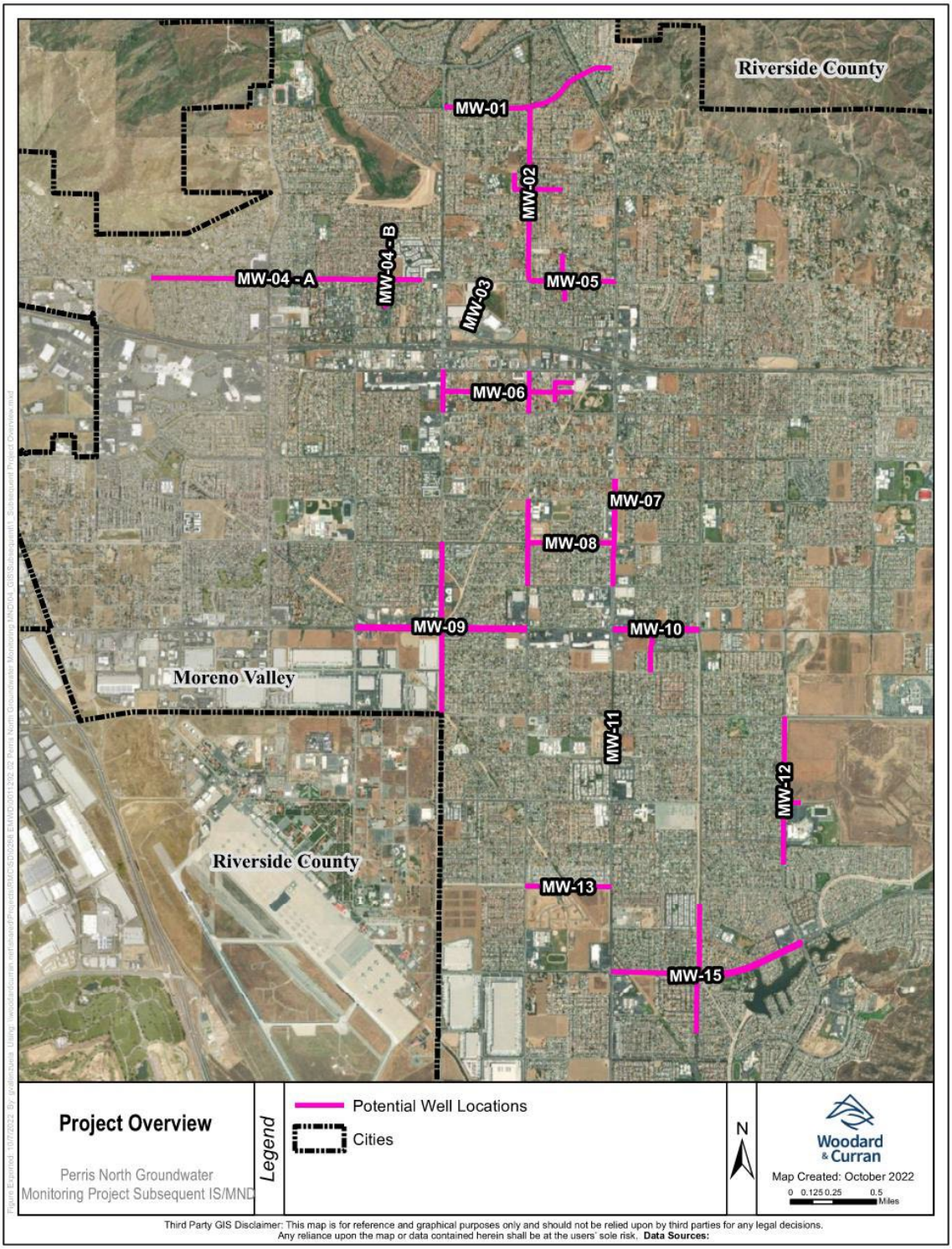
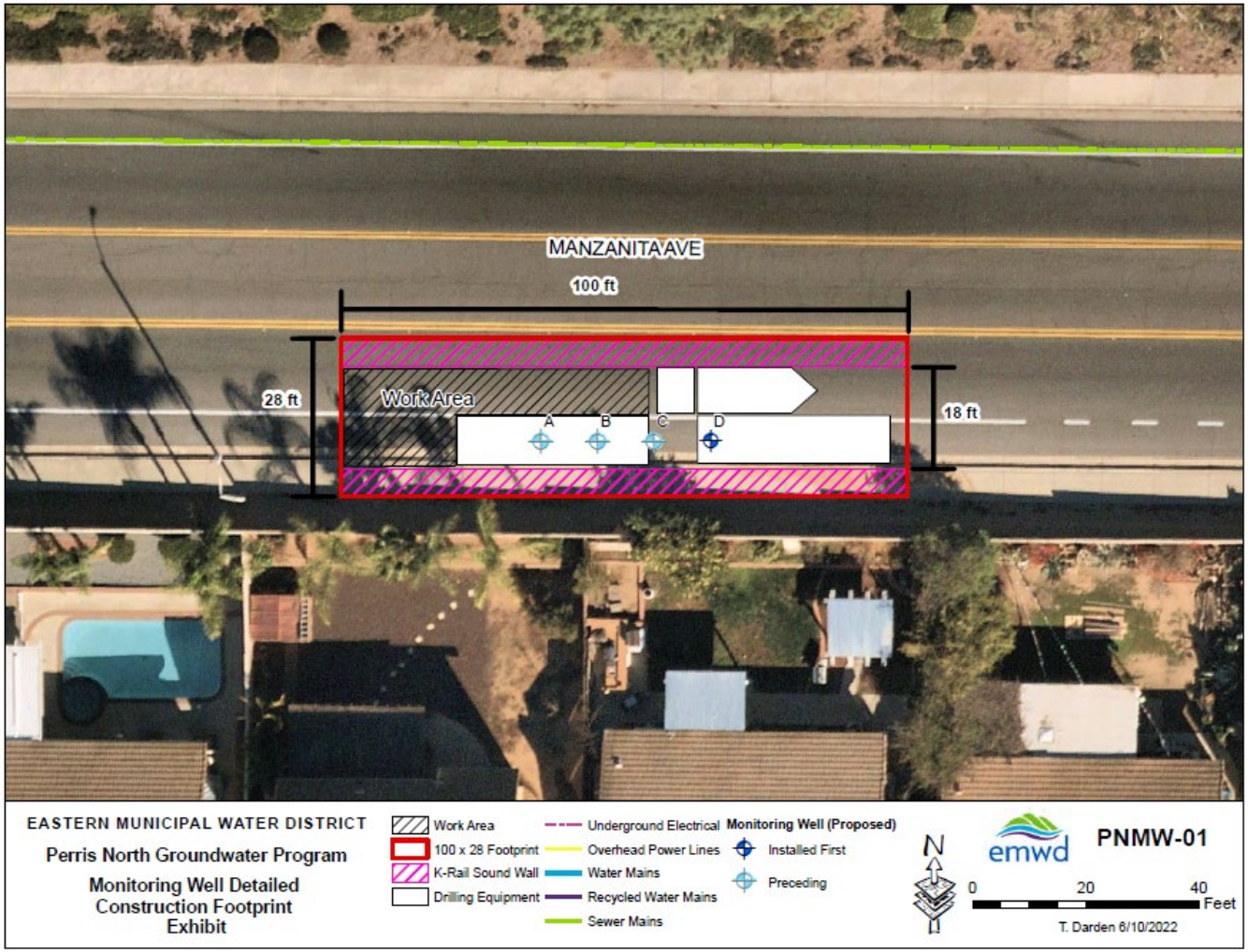


Figure 2-5: Example of a Well Cluster Footprint in a Roadway Right-of-Way

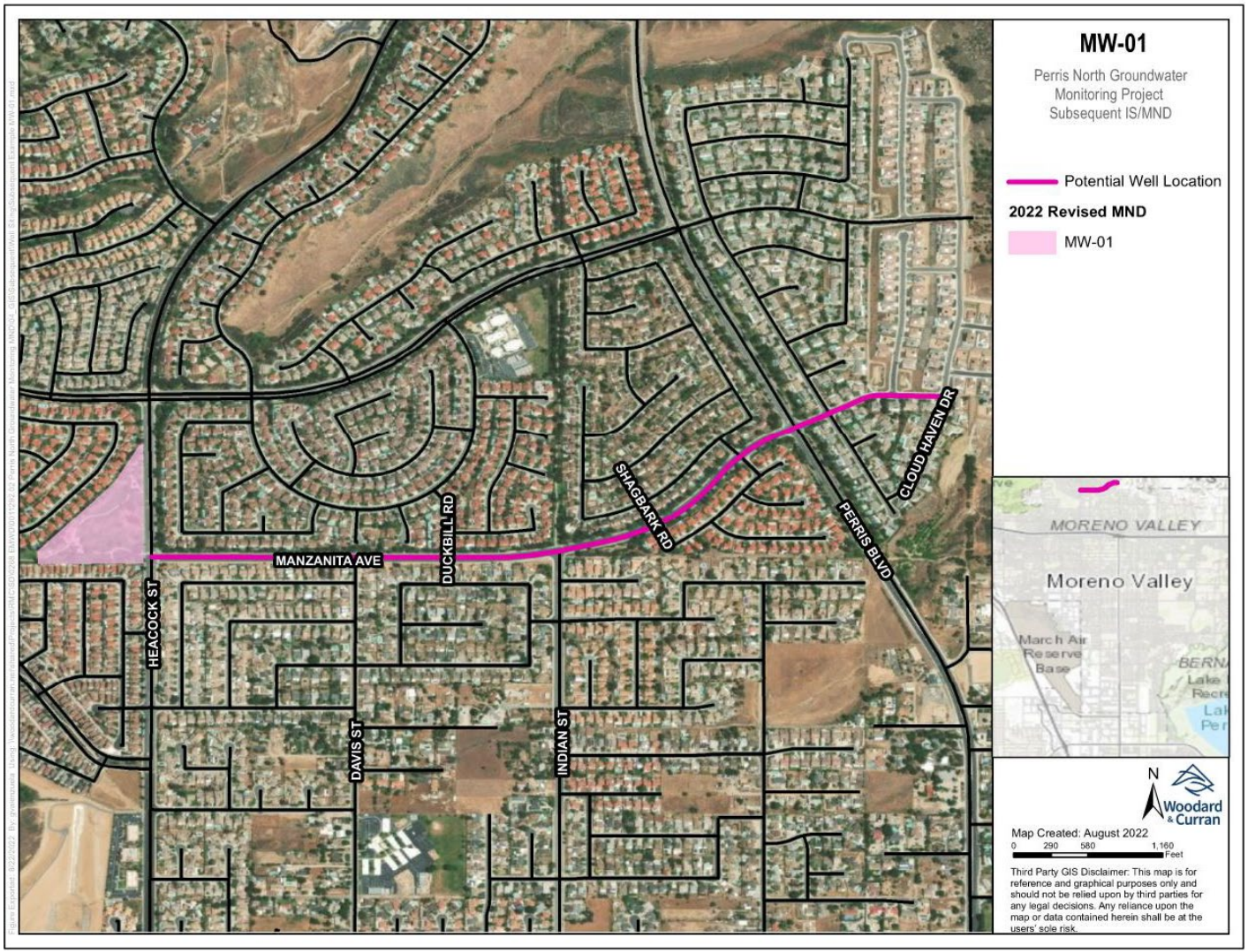


Monitoring Well 01 Right-of-Way:

MW-01 is proposed to be located within either Gateway Park or the paved right-of-way along Manzanita Avenue (**Figure 2-6**). The Gateway Park parcel is described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at that parcel is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way.

Manzanita Avenue runs east-west from Heacock Street in the west to Cloud Haven Drive, just east of Perris Boulevard. Land use is generally single-family residential along the entire street, with public parks at Heacock Street (Gateway Park) and between Indian Street and Shagbark Road. A paved recreational path runs north from Manzanita Avenue at Indian Avenue. The majority of homes along Manzanita Avenue are separated from the roadway by cement block walls generally 5-6 feet high and set back from the paved portion of the right-of-way by landscaping composed of shrubs, trees, and grass. Between Heacock and Davis Street, homes along the north side of Manzanita have low cement or masonry walls, topped by metal fencing that provides a view to the street. Manzanita Avenue is a large two-lane road with a center turn lane along its length, and bike paths on both sides. Sugarhill Elementary School is located approximately 0.25 miles north of Manzanita, 0.4 miles east of Heacock, and 0.2 miles west of Perris Boulevard. The cross streets to Manzanita, including Heacock, Davis, Duckbill Road, Indian, Shagbark Road, and Perris Boulevard, are generally residential, with Gateway Park located west of Heacock and north of the intersection with Manzanita Avenue.

Figure 2-6: MW-01 Potential Right-of-Way Location

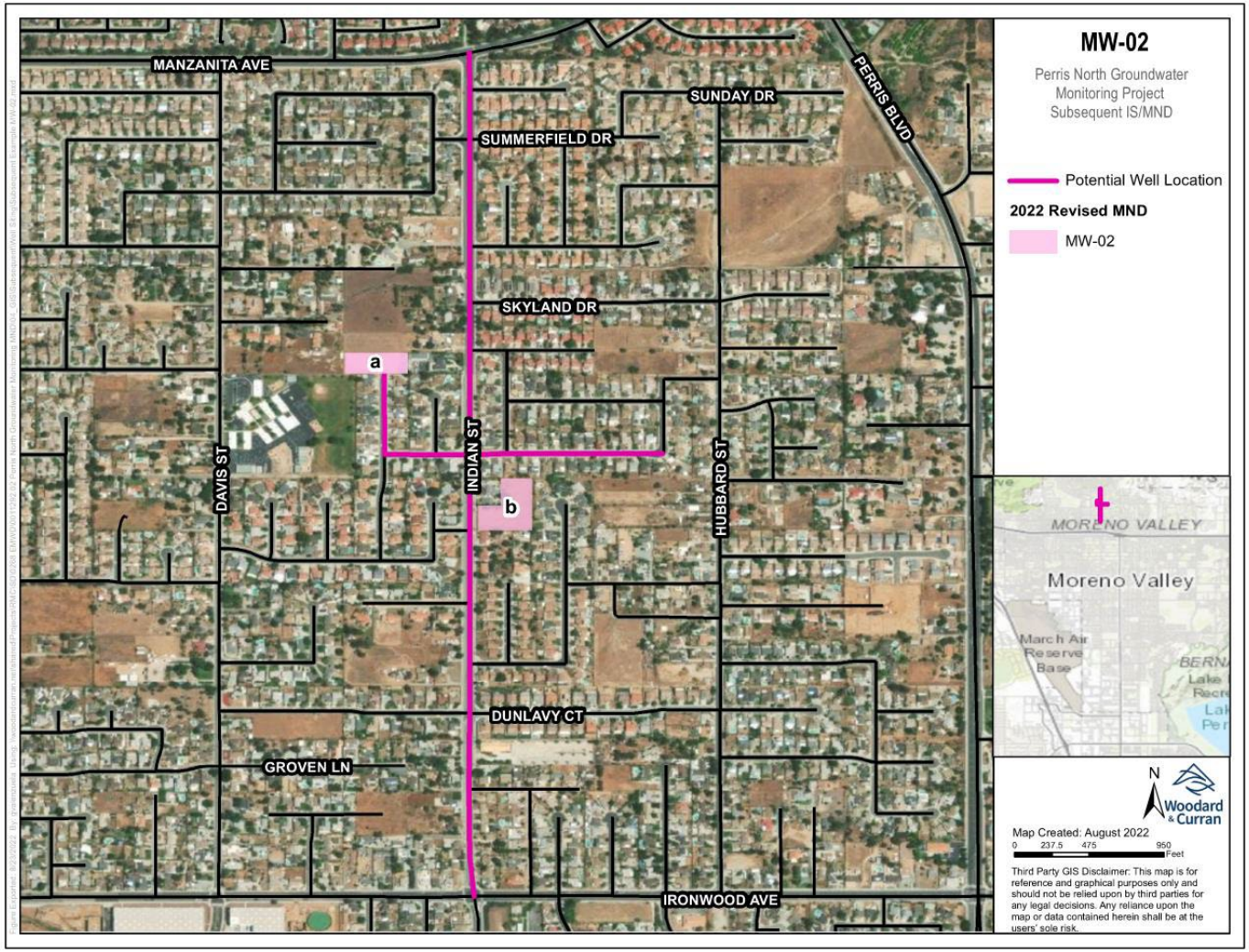


Monitoring Well 02 Right-of-Way:

In addition to the two parcels considered for MW-02 in the 2022 Revised MND, MW-02 is proposed to be located within the paved right-of-way along Indian Street between Skyrock Drive and Sundial Way. It is possible, however, that Monitoring Well 02 could be located in the right-of-way along Indian Street as far south as Ironwood Avenue or as far north as Manzanita Avenue (**Figure 2-7**). The parcels under consideration for MW-02 are described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at those parcels is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way.

Land uses along the portion of Indian Street proposed for MW-02, including cross streets like Sundial Way, nearby Daybreak Tail, and other cross streets north and south of the preferred well location, are primarily single-family residential. Many of these homes are partially shielded from Indian Street by cement block walls approximately 5 to 6 feet high, some of which are located on berms raising them further above street level. Other homes along Indian Street have minimal shielding from the roadway, limited to chain-link fences. Midland Elementary School is located approximately 0.1 miles west of Indian Street at Sundial Way. The Kingdom Hall of Jehovah's Witnesses is located on Indian Street, just south of Dunlavy Court.

Figure 2-7: MW-02 Potential Right-of-Way Location

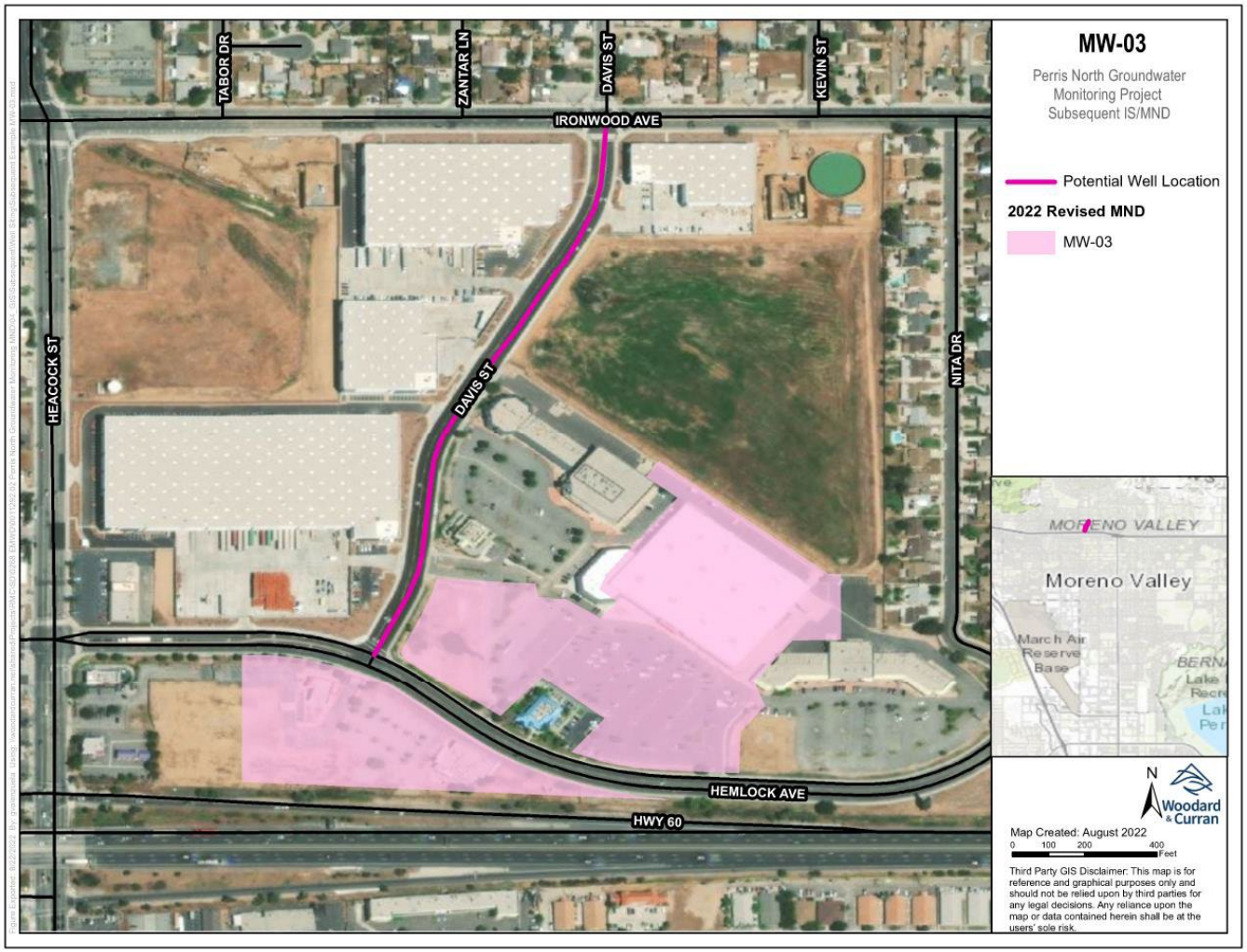


Monitoring Well 03 Right-of-Way:

MW-03 is proposed to be located along Davis Street north of Hemlock Avenue and south of Ironwood Avenue (**Figure 2-8**), or at a parcel located north and south of Hemlock Avenue at Davis Street. The MW-03 parcel is described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at that parcel is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way.

This portion of Davis Street under consideration for the right-of-way location is commercial and light Industrial land use. East of Davis Street along Hemlock Avenue is a commercial shopping center that includes restaurants and shops. Land use across Hemlock Avenue from Davis Street is similar commercial. West of Davis Street are offices and warehouses. Commercial land uses exist northwest of the proposed site at the intersection of Heacock and Ironwood Avenue, while residential land uses are present along Ironwood north of the proposed site, and east of the proposed site near Indian Street. A mix of commercial and residential land uses are present along Heacock Street between Ironwood Avenue and Hemlock Avenue. State Route 60 runs east-west south of Hemlock Avenue. Midland Elementary School is located along Davis Street approximately 0.50 miles north of Ironwood Avenue. Lighthouse Baptist Church is located on Indian Street, approximately 0.3 miles east of Davis Street.

Figure 2-8: MW-03 Potential Right-of-Way Location

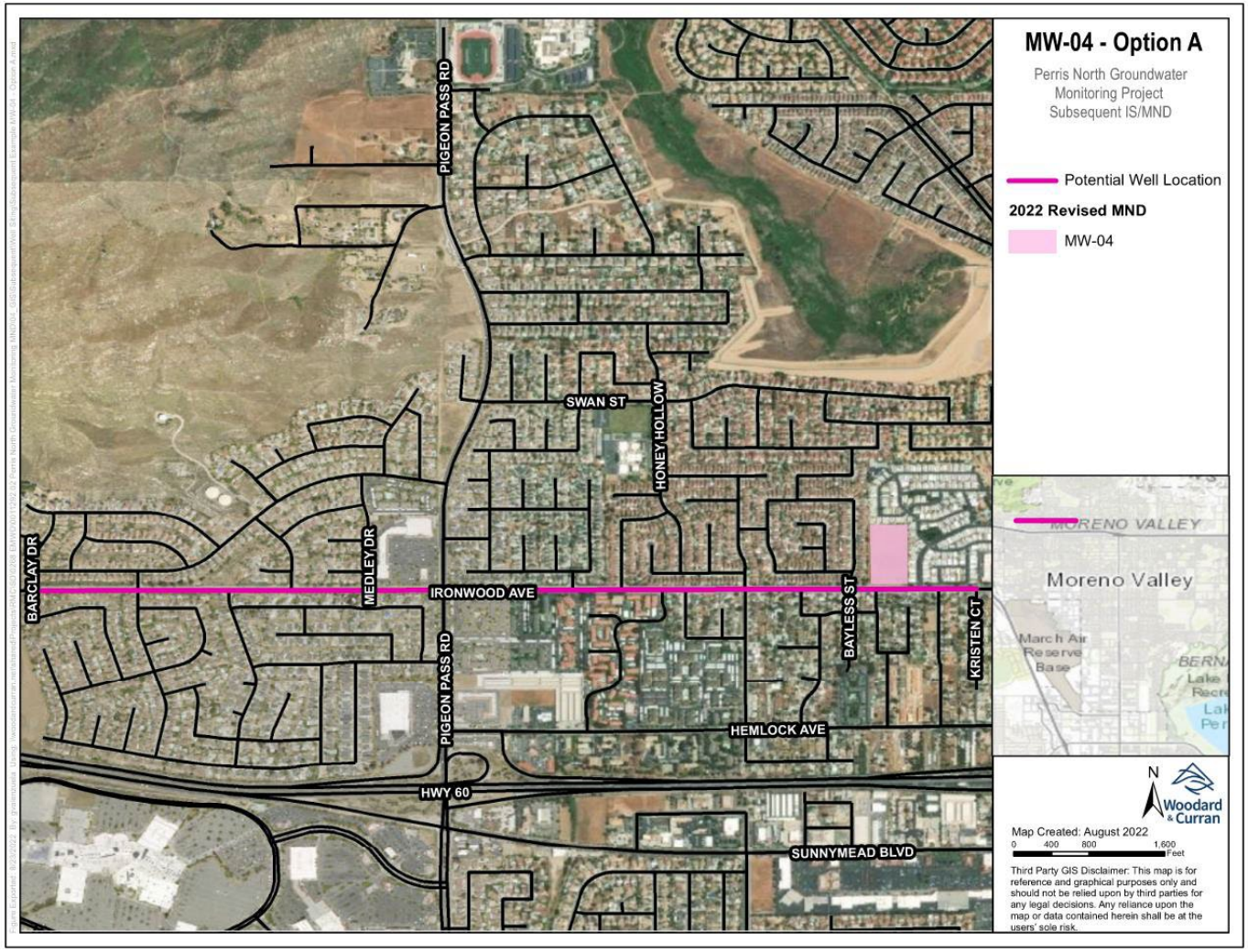


Monitoring Well 04 Right-of-Way – Option A:

In addition to the MW-04 parcel included in the 2022 Revised MND, there are two additional options being considered for the proposed location of MW-04. The MW-04 parcel is described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at that parcel is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way

MW-04 Right-of-Way Option A would be along Ironwood Avenue. The preferred location for Option A would be just west of Pigeon Pass Road (**Figure 2-9**). Ironwood Avenue has a mix of land uses, including single-family residential, multifamily residential, commercial, and undeveloped property. Single-family residential is present from Barclay Drive in the west to Medley Drive just west of Pigeon Pass Road, and again east of Pigeon Pass Road until just approximately Kristen Court, west of Heacock Street. Multifamily residential housing is located at the southeast corner of Ironwood Avenue and Pigeon Pass Road, and along Ironwood east of Pigeon Pass Road until CII Sombra. The Il Sorrento Mobile Home Park is located north of Ironwood Avenues between Bayless Street and Heacock Street. Commercial shopping centers are located at the northwest corner of the intersection of Ironwood Avenue and Pigeon Pass Road, and at the northwest corner of the intersection of Ironwood Avenue and Heacock Street. Commercial properties are also located along Pigeon Pass Road approximately 0.16 miles south of Ironwood Avenue. North of Ironwood, land use is dominated by single-family residential for the surrounding blocks. An undeveloped property is located on the northern side of Ironwood Avenue just west of Bayless Street. This property was included in the 2022 Revised MND as the proposed parcel for MW-04. Honey Hollow Elementary School is located approximately 0.2 miles north of Ironwood Avenue and 0.25 miles east of Pigeon Pass Road.

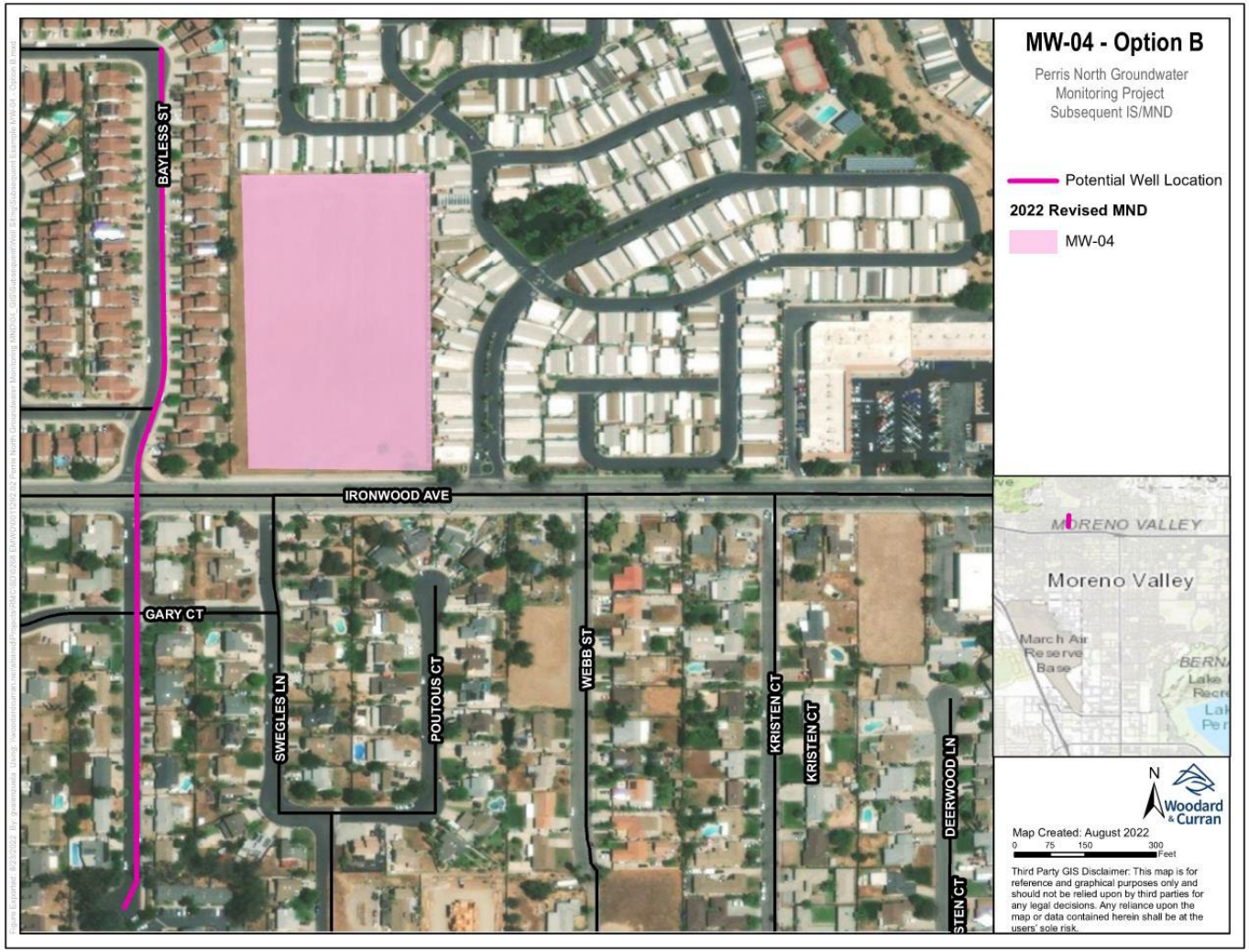
Figure 2-9: MW-04 Potential Right-of-Way Location – Option A



Monitoring Well 04 Right-of-Way – Option B:

The second additional option being considered for the proposed location of MW-04 is at the southern end of Bayless Street, which terminates in a cul-de-sac (**Figure 2-10**). Bayless Street is lined with single-family residential homes from its southern end at the cul-de-sac to its northern end where it meets Blooming Meadow Road. Multifamily homes are present south of Bayless Street, between Zinnia Street and Swegles Lane along Hemlock Avenue. These multifamily homes back into the cul-de-sac at the southern end of Bayless Street. Other multifamily residential properties are located nearby, west of Graham Street between Ironwood Avenue and Hemlock Avenue. As noted for MW-04 Right-of-Way Option A, an undeveloped lot is located east of Bayless Street north of Ironwood Avenue, with the Il Sorrento Mobile Home Park east of the undeveloped lot. Nearby commercial land uses are present at the intersection of Heacock Street and Ironwood Avenue, as well as the intersection of Hemlock Avenues and Heacock Street, southeast of the proposed well location. Homes along Bayless Street have no visual barriers between the front of the homes and the street, and homes are set back from the street between 20 and 25 feet.

Figure 2-10: MW-04 Potential Right-of-Way Location – Option B



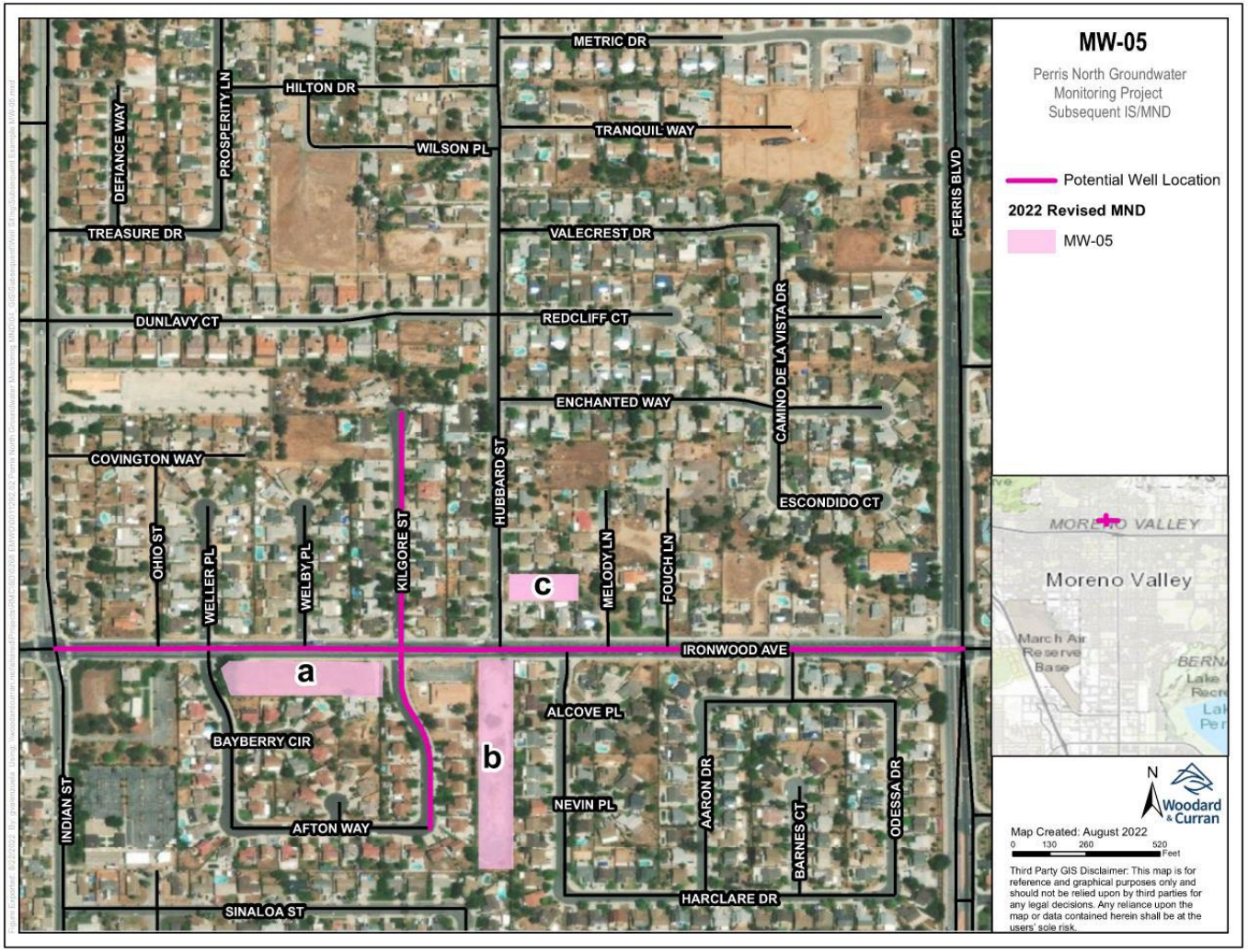
Monitoring Well 05 Right-of-Way:

MW-05 is proposed to be located within the paved right-of-way near the intersection of Ironwood Avenue and Kilgore Street, as well as three possible parcels evaluated in the 2022 Revised MND. The MW-05 parcels are described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at those parcels are addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way

For the roadway right-of-way options, the potential location of the well could be as far east as Perris Boulevard and as far west as Indian Street. The preferred location would be along Ironwood Avenue or Kilgore Street, adjacent to or very near the parcels evaluated for MW-05 in the 2022 Revised MND (**Figure 2-11**). This portion of Indian Street is four lanes with a center turning lane, painted bike lanes, and sidewalks on both sides of the street. Land use is dominated by single-family homes, few of which directly face Ironwood Avenue. Homes are separated from the street by cement brick walls, wooden fences, and chain-link fences. There are two undeveloped lots within this stretch of Ironwood Avenue, which were evaluated as MW-05a and MW-05b parcels in the 2022 Revised MND.

North Ridge Elementary School is located at Perris Boulevard and Kalmia Avenue, approximately 0.50 miles north of the intersection of Perris Boulevard and Ironwood Avenue. Cloverdale Elementary School is located along Ironwood Avenue approximately 0.50 miles east of the intersection with Perris Boulevard. Moreno Valley KinderCare is located along the western side of Perris Boulevard immediately north of the intersection with Ironwood Avenue. New Life Christian Fellowship is located at the southeast corner of the intersection of Indian Street and Ironwood Avenue. Lighthouse Baptist Church is located along Indian Street approximately 0.05 miles south of Ironwood Avenue, and 0.1 miles southwest of the intersection of Ironwood Avenue and Kilgore Street. The Kingdom Hall of Jehovah's Witnesses is located approximately 0.15 miles north of Ironwood Avenue, along Indian Street. The Church of Jesus Christ of Latterday Saints is located along the eastern side of Perris Boulevard approximately 0.20 miles north of the intersection with Ironwood Avenue.

Figure 2-11: MW-05 Potential Right-of-Way Location



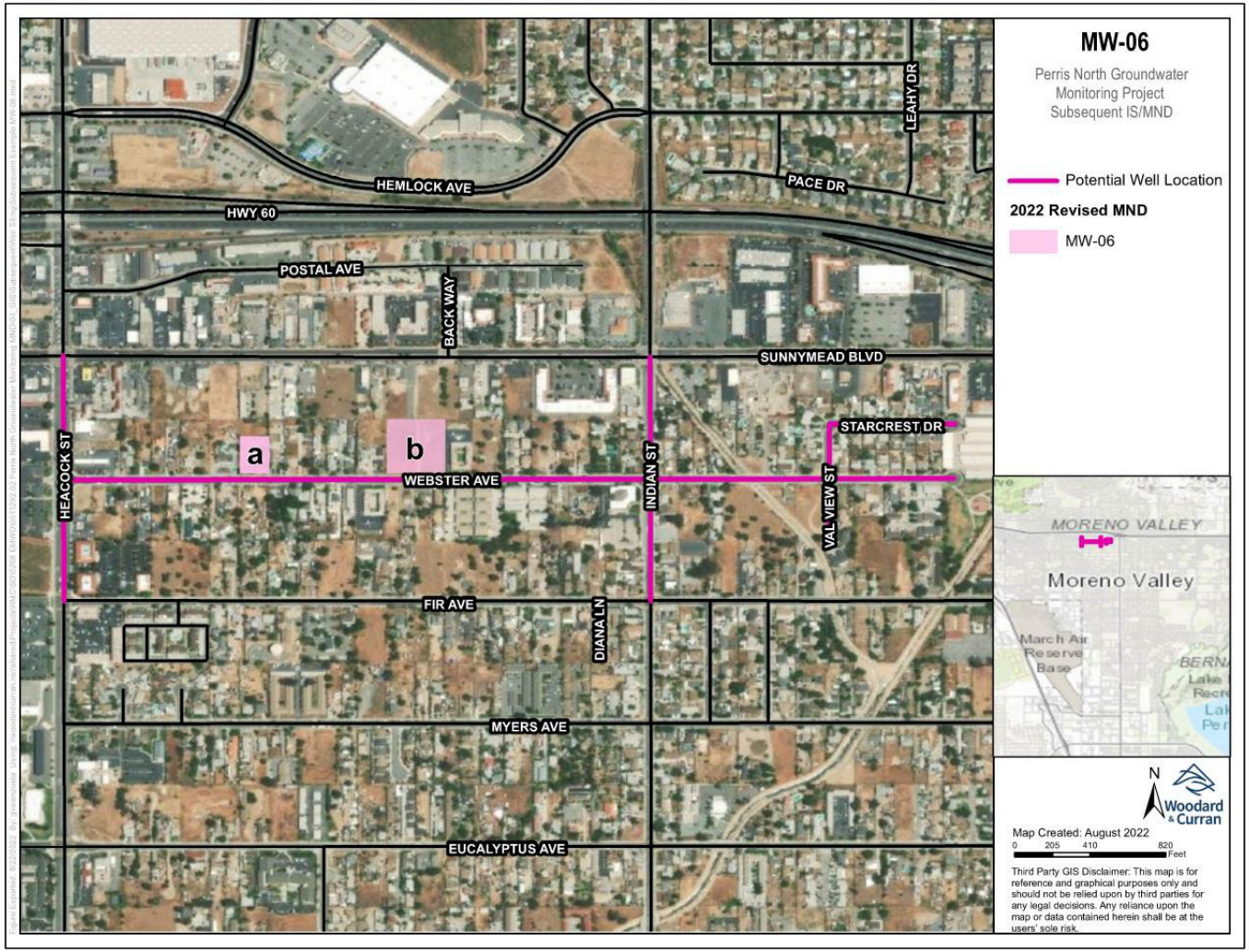
Monitoring Well 06 Right-of-Way:

MW-06 is proposed to be located within the paved right-of-way along Webster Avenue or its cross streets (**Figure 2-12**), or at one of two parcels evaluated int eh 2022 Revised MND. The MW-06 parcels are described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at one of those parcels is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way

Webster Avenue runs from Heacock Street in the west to a cul-de-sac at the eastern end where it terminates at Sunnymead Park. Major cross streets include Heacock Street and Indian Street. Webster Avenue also crosses over a stormwater channel approximately 390 feet east of Indian Street. Land uses along Webster Avenue are primarily single family residential, multi-family residential, and undeveloped lots, with commercial lands uses at either end of Webster Avenue. These commercial areas extend north and south on both sides of Heacock Street. There are also commercial lands uses nearby along Sunnymead Boulevard one block north of Webster Avenue, particularly east of Indian Street. Homes and properties along Webster Avenue generally have chain link fences separating them from the street or are set back via private driveways. Two undeveloped lots along Webster Avenue were included as MW-06a and MW-06b in the 2022 Revised MND and were analyzed in that document. Webster Avenue itself is a two-lane road approximately 40 feet wide, with sidewalks on both sides.

Sunnymead Middle School is located at the northwest corner of Heacock Street and Eucalyptus Avenue, approximately 0.25 miles south of the intersection of Webster Avenue and Heacock Street. Sunnymead Elementary School is located on Heacock Street between Atwood Avenue and Dracaea Avenue, 0.50 miles south of the intersection of Heacock Street and Webster Avenue. Desert Preschool Academy is located 0.5 miles south of Webster Avenue along Indian Street at the intersection with Atwood Avenue. Seventh Day Adventist School is located at the southwest corner of the intersection of Indian Street and Webster Avenue. Sunnymead Park, at the eastern end of Webster Avenue is a 15.53 acre park, and is bounded by Fir Avenue to the South, Perris Boulevard to the east, Sunnymead Plaza to the north and residential development between Webster Avenue and Fir Avenue to the west. The park houses four baseball fields, and multiple picnic areas. Multiple worship spaces are located in the vicinity of MW-06, including the Church of Christ Moreno Valley (Indian Street between Webster Avenue and Fir Avenue), First Baptist Church Moreno Valley (Fir Avenue across from Sunnymead Park), Moreno Valley Congregational Church (Fir Avenue between Indian Street and Heacock Street), Wat Buddha Mettatham (Webster Avenue between Indian Street and Heacock Street), Centro Cristiano Sinai (Myers Avenue and Heacock Street), and Zion Worship Center of Moreno Valley (Indian Street and Eucalyptus Avenue).

Figure 2-12: MW-06 Potential Right-of-Way Location

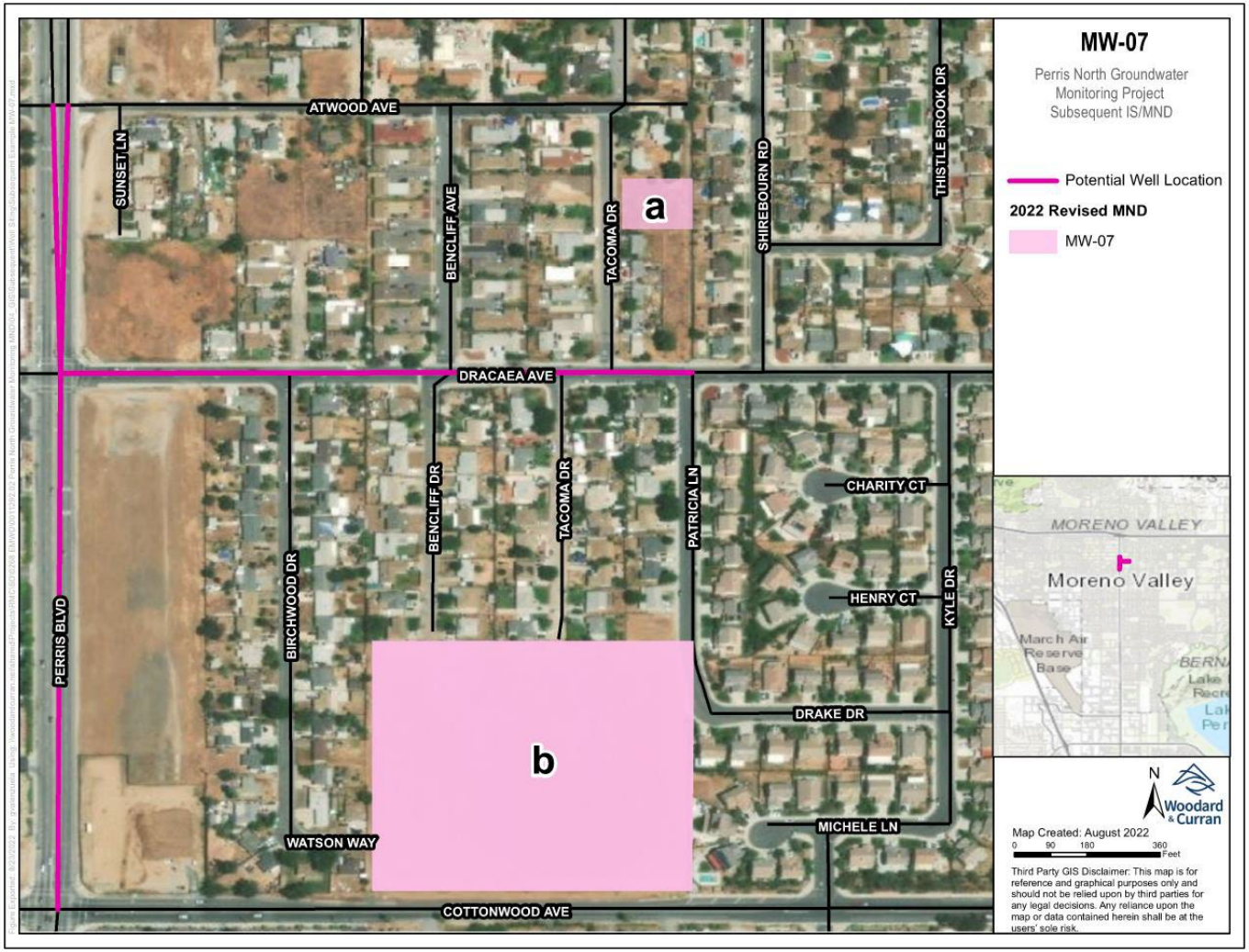


Monitoring Well 07 Right-of-Way:

MW-07 is proposed to be located within the paved right-of-way along Dracaea Avenue near the intersection with Perris Boulevard (**Figure 2-13**), or at one of two parcels evaluated in the 2022 Revised MND. The MW-07 parcels are described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at one of those parcels is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way.

Dracaea Avenue is a mix of single-family residential homes and undeveloped lots, with commercial areas along Perris Boulevard north and south of Dracaea Avenue. Perris Boulevard. Butterfield Elementary School is located at the southeast corner of the intersection of Dracaea Avenue and Kitching Street, while Bear Valley Elementary School is located approximately 0.35 miles north of Dracaea Avenue along Lasselle Street. March Mountain High School is located along Dracaea Avenues, approximately 0.25 miles west of Perris Boulevard. The Church of Jesus Christ of Latter-Day Saints is located along Dracaea Avenue at the southwest corner of the intersection with Lasselle Street, while St. Christopher Parish is located along Perris Boulevard and Cottonwood Avenue, approximately 0.25 miles south of Dracaea Avenue. Weston Park is also located at the intersection of Dracaea Avenue and Lasselle Street, in the northeast. Dracaea Avenue is a two-lane road with parking available in both shoulders and sidewalks on both sides. Homes along Dracaea Avenue are generally single-family and from Perris Boulevard until Patricia Lane, generally do not face Dracaea Avenue. Those homes typically have a fence or wall separating the properties from the street, made of varying materials including chain-link, wood, and cement. East of Patricia Lane, homes tend to face Dracaea Avenue, and have no visual barriers between the street and the homes. A stormwater channel crosses Dracaea Avenue approximately 0.75 miles east of the intersection with Perris Boulevard, between Kitching Street and Lasselle Street.

Figure 2-13: MW-07 Potential Right-of-Way Location



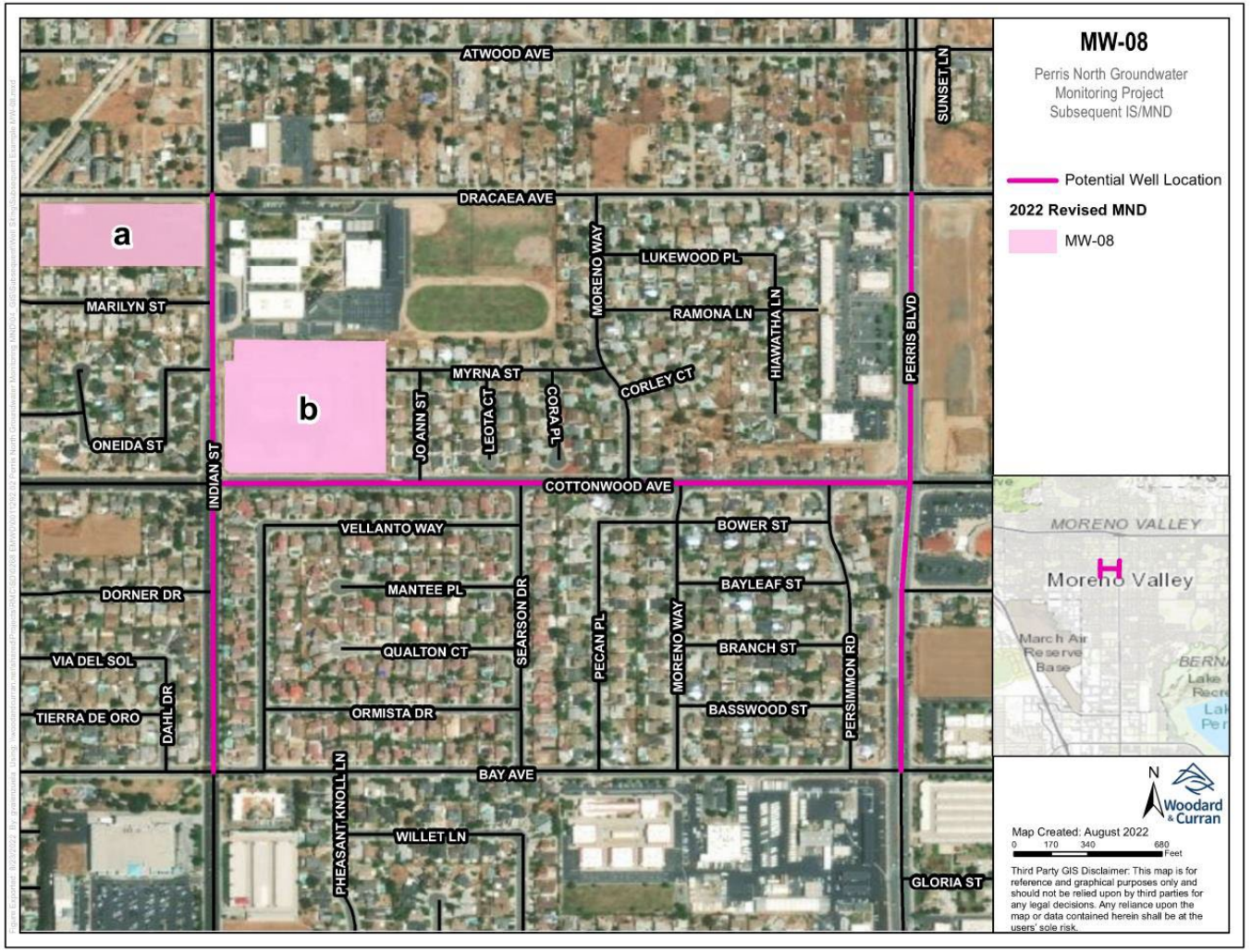
Monitoring Well 08 Right-of-Way:

MW-08 is proposed to be located within the paved right-of-way along Cottonwood Avenue between Indian Street and Perris Boulevard (**Figure 2-14**), or at one of two parcels included in the 2022 Revised MND. The MW-08 parcels are described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at one of those parcels is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way

The portion of Cottonwood Avenue proposed for the MW-08 right-of-way location is dominated by single-family residential properties, the majority of which back into Cottonwood, rather than face Cottonwood Avenue directly. The exception is the north side of Cottonwood Avenue between Moreno Way and Perris Boulevard. Homes backing into Cottonwood Avenue generally have a cement block wall or wooden fence, approximately 5-6 feet high between the property and the street, though some homes have chain-link fences separating them from the street. Homes facing Cottonwood Avenue have chain-link fences separating them from the street. The surrounding area is generally single-family residential, with some commercial land uses east and south as noted below.

Cottonwood Avenue is a two-lane road with a center turning lane, bike paths on both sides, and parking lanes in the shoulders. Sidewalks run along either side of the street as well. West of Indian Street are additional single-family homes, and a stormwater channel crossing approximately 0.25 miles west of the intersection of Indian Street and Cottonwood. March Mountain High School and Moreno Valley Community Adult School, which share a campus, are located on Indian Street approximately 0.1 mile north of Cottonwood Avenue (along Dracaea Avenue). Desert Preschool Academy is also located along Indian Street, approximately 0.4 miles north of Cottonwood Avenue. Ramona Elementary School and Sunnymead Montessori School are both located approximately 0.25 miles south of Cottonwood Avenue, along Bay Avenue. Commercial land uses are located approximately 0.25 miles south along Indian Street, near Alessandro Boulevard, as well as along Perris Boulevard north and south of the intersection with Cottonwood. As noted for MW-07, St. Christopher Parish church is located at the intersection of Cottonwood Avenue and Perris Boulevard.

Figure 2-14: MW-08 Potential Right-of-Way Location



Monitoring Well 09 Right-of-Way:

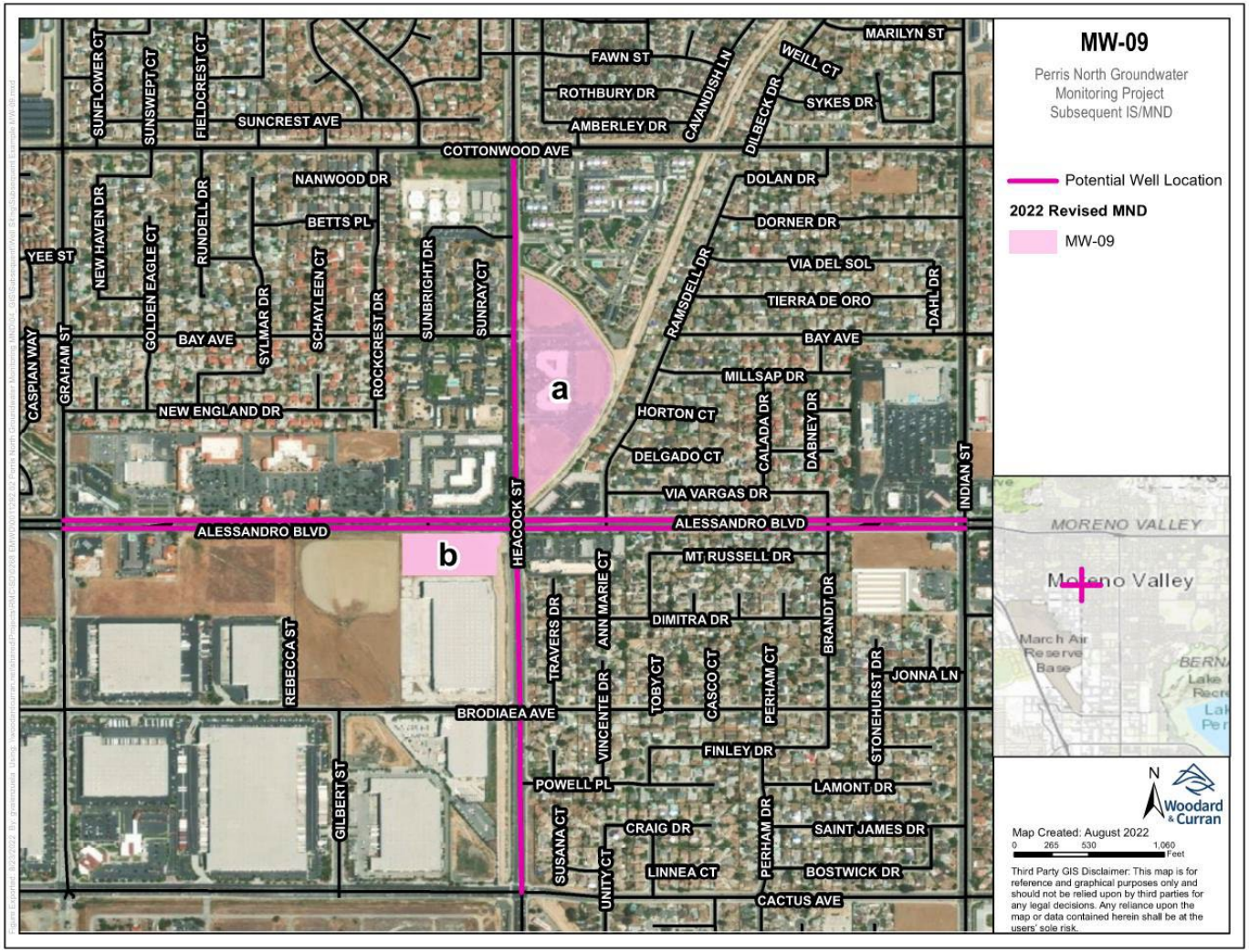
MW-09 is proposed to be located within the paved right-of-way near the intersection of Heacock Street and Alessandro Boulevard, as well as two parcels evaluated for MW-09 in the 2022 Revised MND (**Figure 2-15**). The MW-09 parcels are described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at one of those parcels is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way

For the right-of-way location, the intersection of Heacock Street and Alessandro Boulevard has commercial land uses on the northeast, northwest, and southeast corners, and an undeveloped lot on the southwest corner. West of Heacock Street, along the northern side of Alessandro, is a commercial shopping center for the full block until Graham Street, with a hotel and undeveloped lots along the southern side of Alessandro. Between Heacock and Indian Street, single-family residential homes back into both sides of Alessandro Boulevard, with commercial properties at the intersections. A stormwater channel curves around the property in the northeast portion of the intersection of Heacock and Alessandro Boulevard and joins the main stormwater channel that runs towards the intersection of Heacock and Alessandro from the northeast. The stormwater channel crosses under the intersection, then runs parallel to Heacock Street south until Cactus Avenue, where it crosses the intersection again and heads southeast.

North of Alessandro Boulevard, Heacock Street is a mix of multi-family residential and single-family residential properties, most of which back into the street. Along the east side of Heacock Street is an office building with parking lot and large undeveloped areas. Creekside Elementary School is located along Heacock Street at Cottonwood Avenue, approximately 0.35 miles north of the intersection with Alessandro Boulevard. South of Alessandro Boulevard, Heacock Street has single-family homes backing into it on the east, undeveloped lots and light-industrial and office buildings along the western side.

Alessandro Boulevard is a six-lane road with periodic turning lanes and striped bike lanes on both sides. A paved center median is present from Ramsdell Drive (just east of the intersection with Heacock Street) to west of Graham Street as well as from Brandt Drive to approximately Perris Boulevard to the east. Heacock Street is a four-lane road with striped bike lands and sidewalks along both sides. A painted turning lane runs down the middle of Heacock Street within the study area.

Figure 2-15: MW-09 Potential Right-of-Way Location

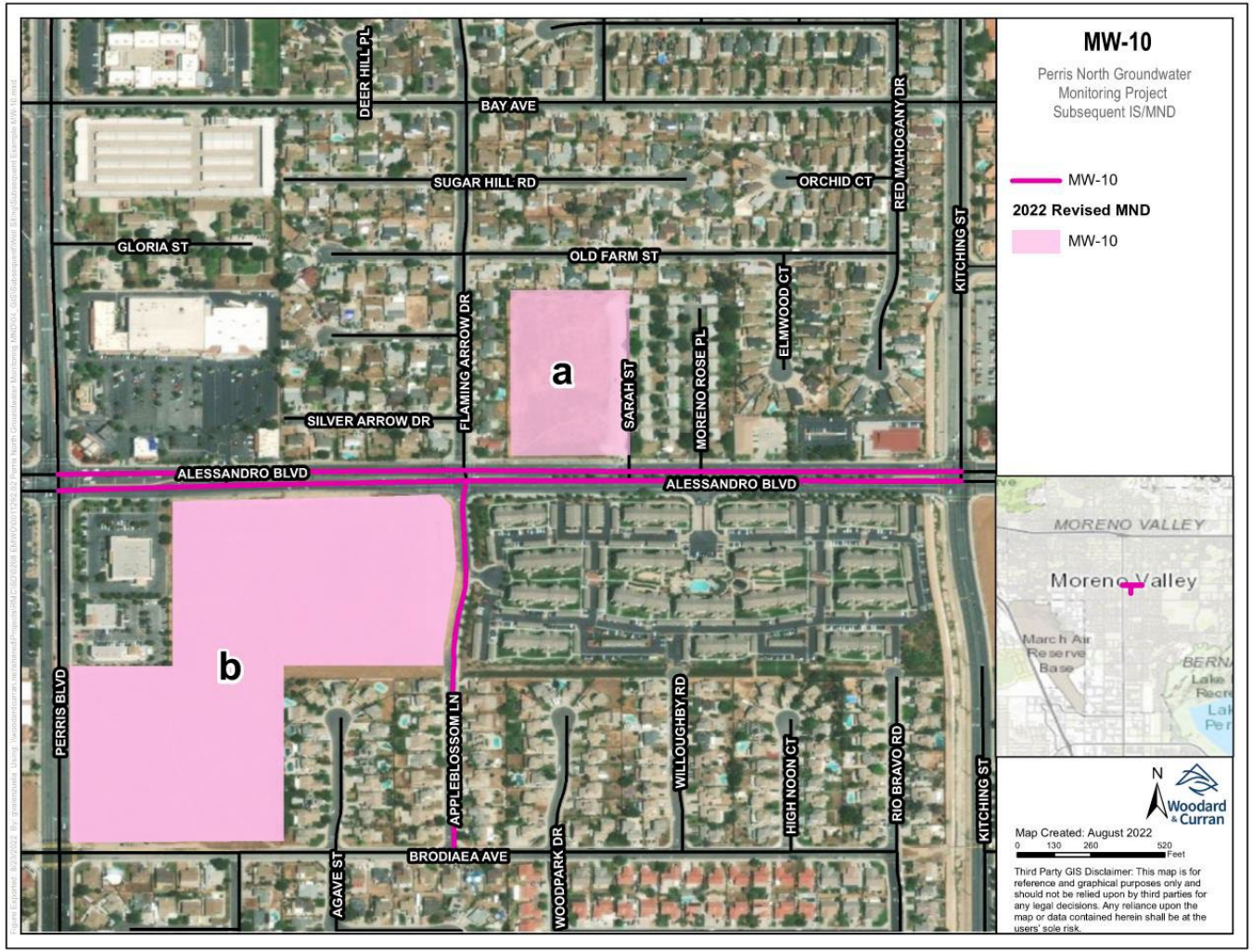


Monitoring Well 10 Right-of-Way:

MW-10 is proposed to be located within the roadway right of way south of Alessandro Boulevard between Perris Boulevard to the west and Kitching Street to the East, or one of two parcels evaluated in the 2022 Revised MND. The MW-10 parcels are described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at one of those parcels is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way

For the right-of-way option, I preferred location would be in the roadway right-of-way adjacent to the MW-10b parcel evaluated under the 2022 Revised MND, along Apple Blossom Lane (**Figure 2-16**). East of Apple Blossom Lane, and along Alessandro Boulevard, is multi-family housing, while single-family residential homes are present along the southern portion of Apple Blossom Lane. The southern half of Apple Blossom Lane is an unstriped two-lane residential street with sidewalks on both sides and speed humps. It then turns into a single-lane, one-way road before intersecting with the entrance to the Ridgeview Apartments complex. It then continues north to Alessandro Boulevard as a two-lane road. North of Alessandro Boulevard are mostly single-family homes, along with an undeveloped lot evaluated in the 2022 Revised MND as the MW-10a parcel. Commercial land use is located at the intersection of Alessandro Boulevard and Perris Boulevard, and some commercial land use at the intersection of Alessandro Boulevard and Kitching Street. The Moreno Valley Public Library is located at this intersection as well. The Journey School is located along Kitching at the intersection with Alessandro Boulevard, approximately 0.3 miles east of Apple Blossom Lane. Sunnymead Montessori School and Ramona Elementary School are located approximately 0.25 miles northwest of the intersection of Alessandro Boulevard and Perris Boulevard. Hendrick Ranch Elementary School is located approximately 0.15 miles south of Alessandro Boulevard along Kitching Street, at the intersection with Brodiaea Avenue.

Figure 2-16: MW-10 Potential Right-of-Way Location



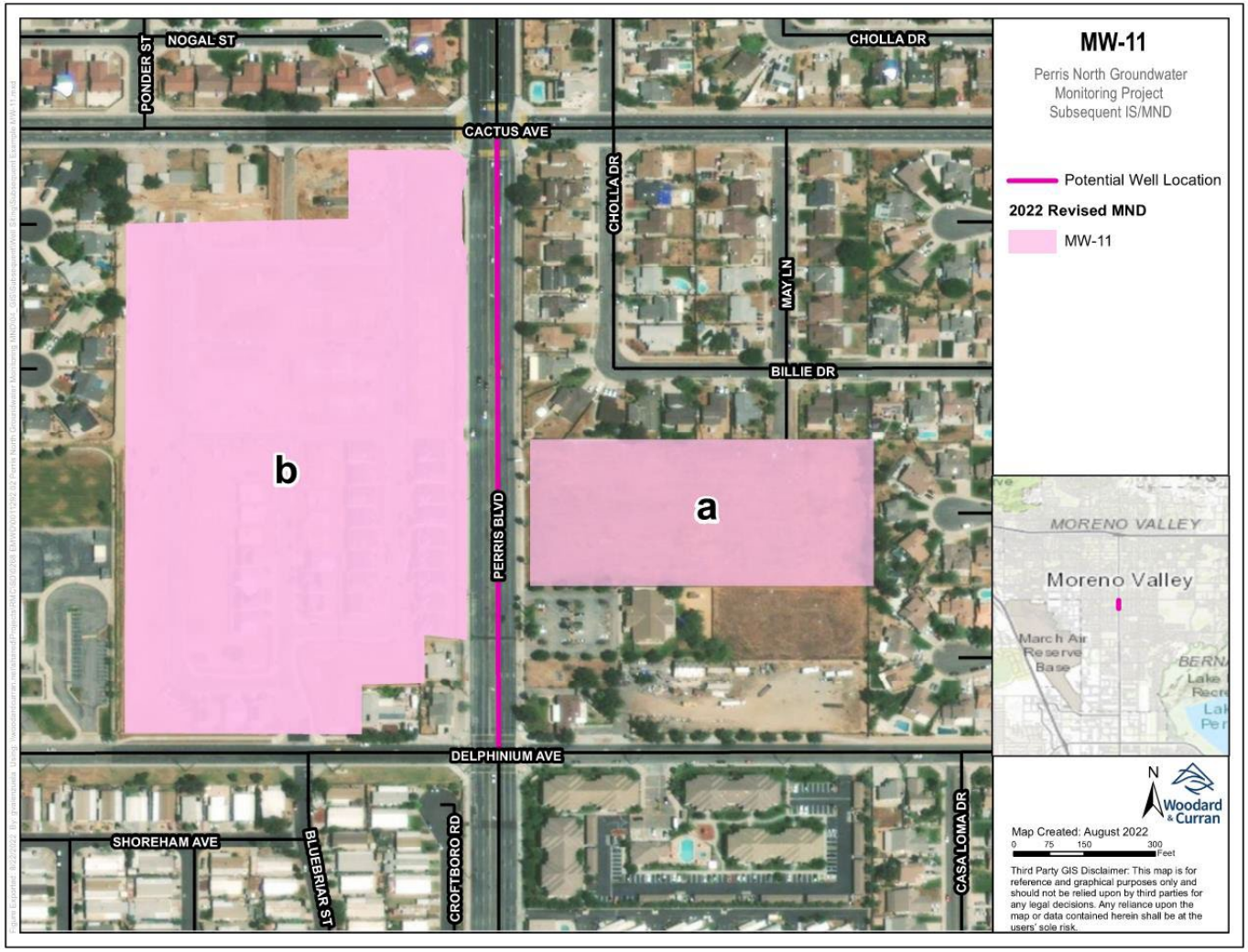
Monitoring Well 11 Right-of-Way:

MW-11 is proposed to be located within the roadway right-of-way along Perris Boulevard, with the preferred location between Cactus Avenue and Delphinium Avenue, in the vicinity of the two MW-11 parcels evaluated in the 2022 Revised MND (**Figure 2-17**). The MW-11 parcels are described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at one of those parcels is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way.

Along Perris Boulevard, land use is dominated by single-family homes between Delphinium Avenue and Brodiaea Avenue. South of Delphinium Avenue are mobile home parks, multi-family residential, and commercial land uses to John F. Kennedy Drive. Armada Elementary School is located approximately 0.3 miles southeast of the intersection of Perris Boulevard and Delphinium Avenue. Chaparral Hills Elementary School and Badger Springs Middle School are located 0.12 miles and 0.25 miles west of Perris Boulevard along Delphinium Avenues. Bayside Community Day School is located approximately 0.35 miles east of Perris Boulevard, along Cactus Avenue. Childtime of Moreno Valley, a childcare center, is located on Perris Boulevard immediately adjacent to the MW-11a parcel included in the 2022 Revised MND, just north of Delphinium Avenue.

This portion of Perris Boulevard is 6 lanes, with a paved center median and sidewalks on both sides. Homes are generally separated from the street by cement brick walls approximately 5-6 feet high. Homes near the intersection of Perris Boulevard and Delphinium Avenue have shorter chain-link fences separating them from the street. Apartment buildings at the southeastern corner of Perris Boulevard and Delphinium Avenue are separated from the street with iron fences. North of Cactus, Perris Boulevard has a center turning land instead of a paved median, and some homes are separated from the street by a six-foot high wooden fence, rather than cement brick walls. Delphinium Avenue is a two-lane road with sidewalks on either side. West of Perris Boulevard, homes along Delphinium Avenue are separated from the road by cement brick walls for the first quarter mile, then west of that face the street and have no visual barriers to the street. East of Perris Boulevard, properties along Delphinium have chain-link fences or iron fences that provide minimal visual barriers to the street for the first 0.1 miles, and further west comes that back into Delphinium Avenue on the north side are blocked by cement brick wall, while homes on the south side face the street and have no visual barriers. Cactus Avenue is a four-lane road in this area, with a center turning lane and sidewalks on both sides. Single family homes back into Cactus Avenue and have either cement block walls or wooden fences separating them from the roadway in either direction from Perris Boulevard, with the exception of four homes just west of the intersection.

Figure 2-17: MW-11 Potential Right-of-Way Location

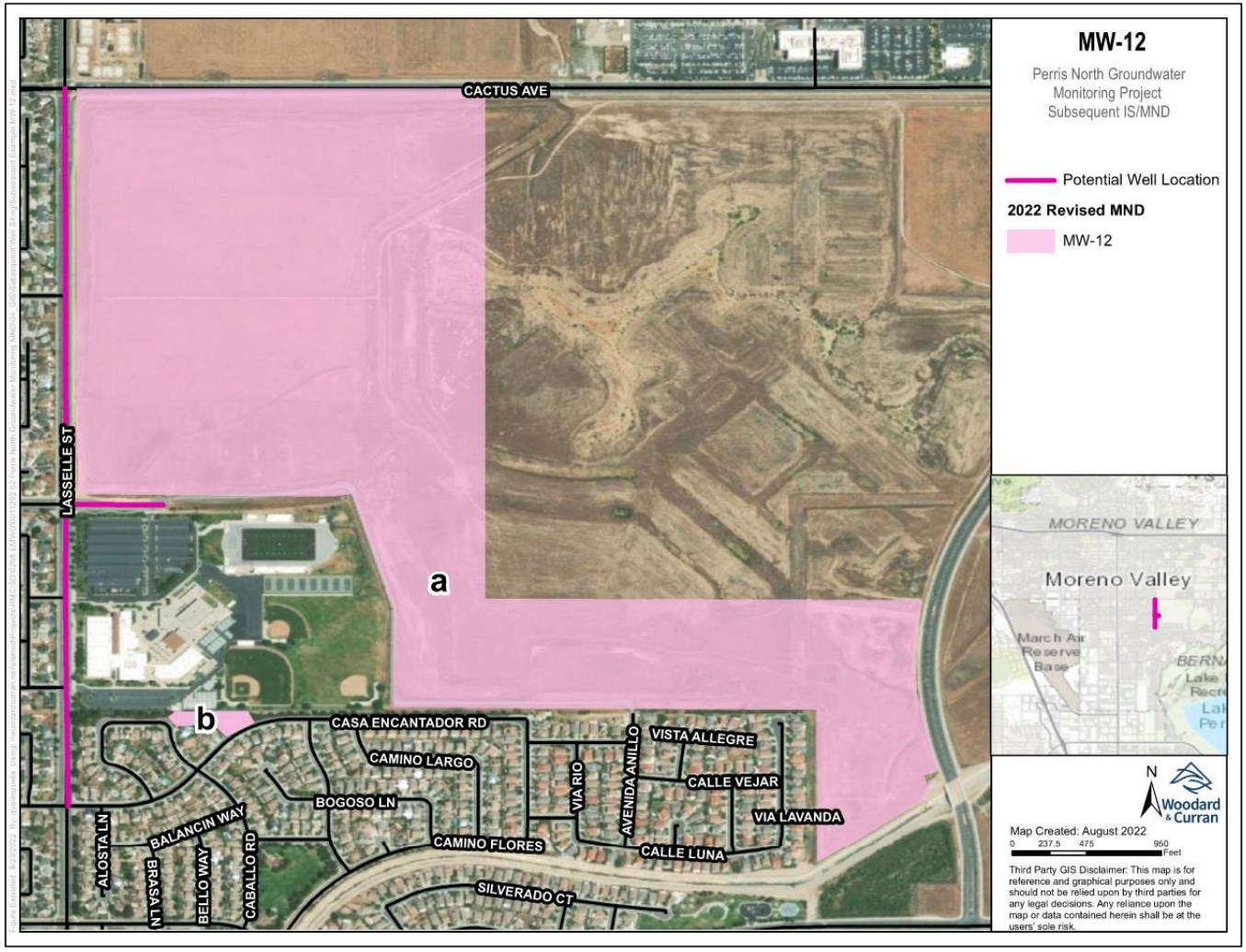


Monitoring Well 12 Right-of-Way:

MW-12 is proposed to be located within the roadway right-of-way at the eastern end of John F. Kennedy Drive near the intersection with Lasselle Street, adjacent to the MW-12a parcel included in the 2022 Revised MND (**Figure 2-18**). MW-12 may also be located at one of two parcels addressed in the 2022 Revised MND (including the MW-12a parcel). The MW-12 parcels are described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at one of those parcels is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way

The roadway right-of-way location addressed in this Subsequent IS/MND for MW-12 is adjacent to Vista del Lago High School, which occupies the eastern side of Lasselle Street from John F. Kennedy Drive to Margaret Avenue. North of John F. Kennedy Drive, also on the eastern side of Lasselle Street is an undeveloped lot (MW-12a parcel in the 2022 Revised MND). On the western side of Lasselle Street, single-family homes back into the street and are separated from the street by cement block walls, both north and south of John F. Kennedy Drive. Woodland Park is located nearby on Cactus Avenue, approximately 0.4 miles northwest of the intersection of John F. Kennedy Drive and Lasselle Street. The Riverside University Health System Medical Center is located along Cactus Avenue approximately 0.5 miles east of Lasselle Street, and approximately 0.75 miles northeast of the intersection of Lasselle Street and John F. Kennedy Boulevard. In this area, Lasselle Street, John F. Kennedy Boulevard, and Cactus Avenue are all four-lane roads with center turning lanes, and sidewalks and striped bike lanes on both sides.

Figure 2-18: MW-12 Potential Right-of-Way Location



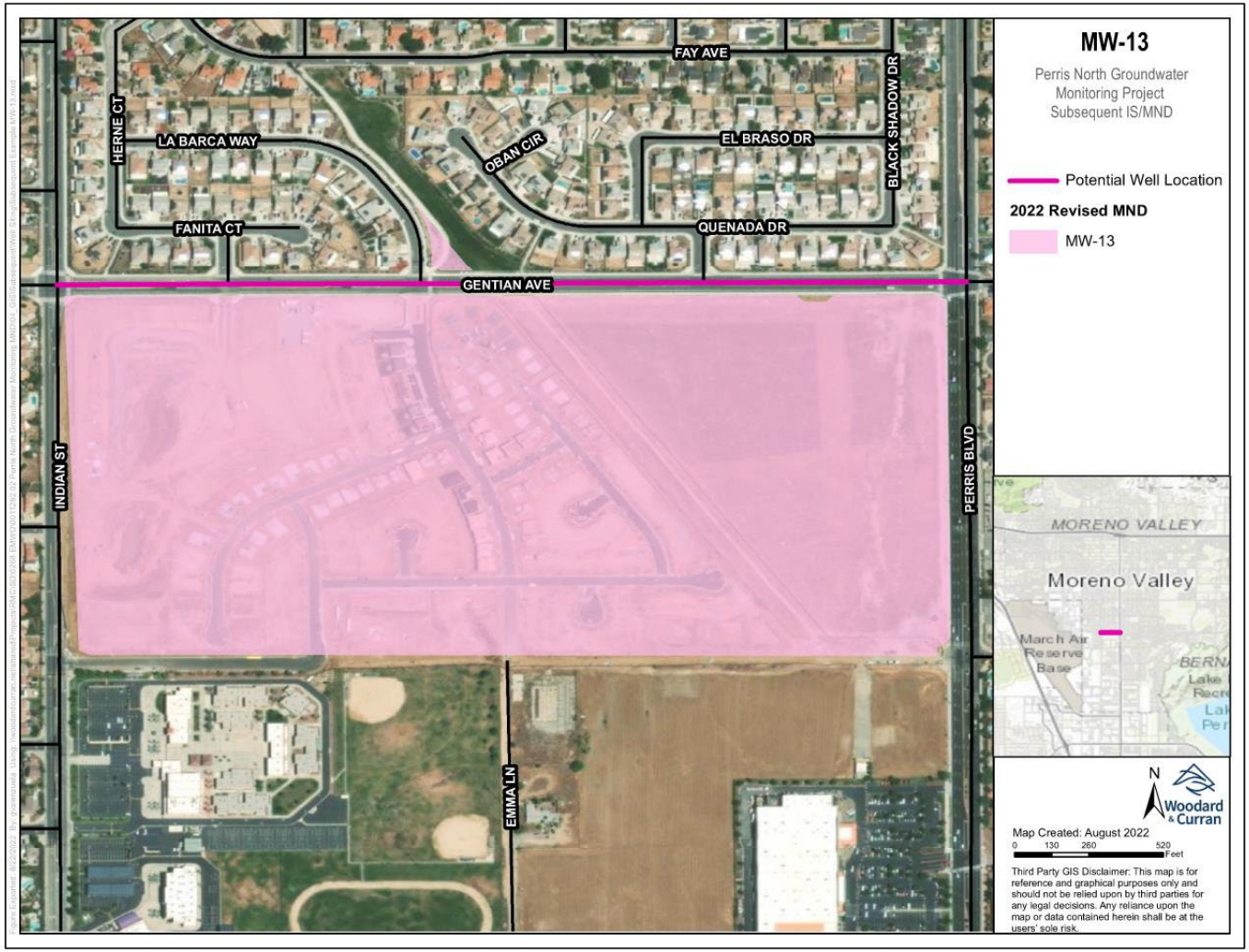
Monitoring Well 13 Right-of-Way:

MW-13 is proposed to be located in the roadway right-of-way along Gentian Avenue adjacent to the MW-13 parcel included in the 2022 Revised MND (**Figure 2-19**). The MW-13 parcel is described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at the parcel is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way

For the roadway right-of-way location, the proposed portion of Gentian, between Perris Boulevard and Indian Street, is lined with single-family homes. An undeveloped parcel (part of MW-13 of the 2022 Revised MND) is located at the southwest corner of the intersection of Gentian Avenue and Perris Boulevard. A stormwater channel runs from the northwest to southeast through the middle of this block of Gentian Avenue. A greenbelt, with maintained lawn and sidewalks, is located along a portion of this stormwater channel, between Gentian Avenue and Fay Avenue to the north. West of Indian Street are single-family home neighborhoods. East of Perris Boulevard and south of Gentian Avenue, land uses are primarily single-family homes, though the City of Moreno Valley has a large property along Perris Boulevard south of Gentian Avenue and north of Santiago Drive. Multi-family residential homes are present on the east side of Perris Boulevard north of Gentian Avenue. March Middle School and Rainbow Ridge Elementary School are located along Indian Street, approximately 0.25 miles and 0.35 miles south of Gentian Avenue, respectively. John F. Kennedy Memorial Park is located approximately 0.35 miles north of Gentian Avenue, along Indian Street.

Gentian Avenue is a two-lane road with paved center median and turn outs in the area between Perris Boulevard and Indian Street. Sidewalks and striped bike lanes are present on both sides of the street. Homes back into the street and are generally separated with cement brick walls, though homes are two story and extend above these walls. West of Indian Street, Gentian remains a two-lane road with sidewalks on both sides, but the paved median turns into a painted turning lane and the bike paths are no longer painted on the road. A Stormwater channel runs along the northern side of Gentian east of Indian Street. Indian Street is a four-lane road with center turning lane, with painted bike paths and sidewalks on both sides. Homes along Indian Street are separated from the street with cement brick walls, both north and south of the intersection with Gentian Avenue. Perris Boulevard is a six-lane road with sidewalks on either side. Just north of the intersection with Gentian there is a paved center median, though for most of the portion of Perris Boulevard near MW-13 has a center turn lane instead of a paved median. Homes along the western side of Perris Boulevard north of Gentian Avenue are separated from the street by cement brick walls, while homes on the eastern side of Perris Boulevard are generally separated by chain link fences.

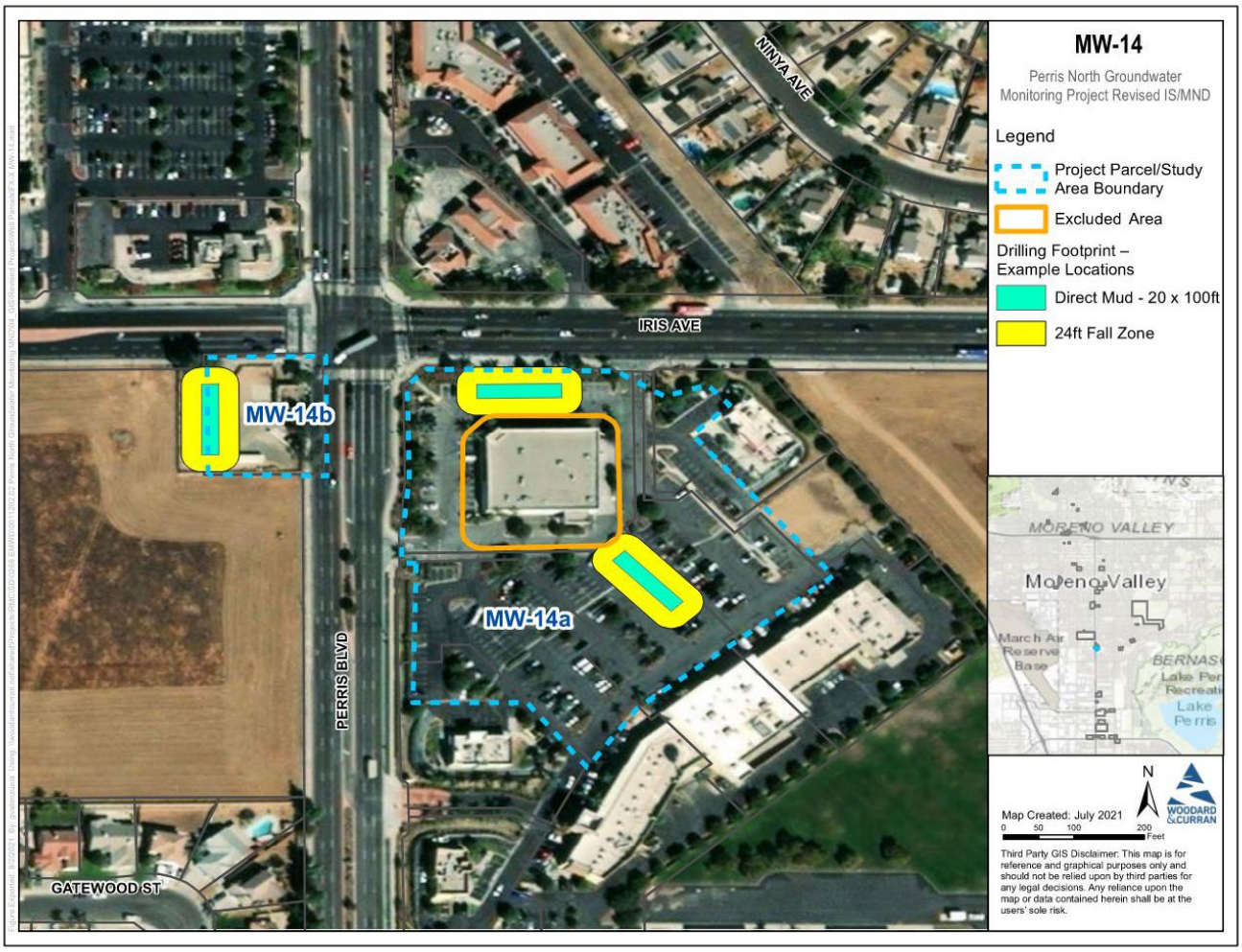
Figure 2-19: MW-13 Potential Right-of-Way Location



Monitoring Well 14:

MW-14 is proposed to be located within either of the MW-14a or MW-14b parcels included in the 2022 Revised MND. These parcels are located at the intersection of Iris Avenue and Perris Boulevard (**Figure 2-20**). MW-14b parcel is an EMWD-owned property at the southwest corner of the intersection. MW-14a is a commercial shopping center and parking lot located at the southeast corner of the intersection. No additional environmental analysis is needed for either of these locations because they have already been evaluated in the 2022 Revised MND, which is incorporated herein.

Figure 2-20: MW-14



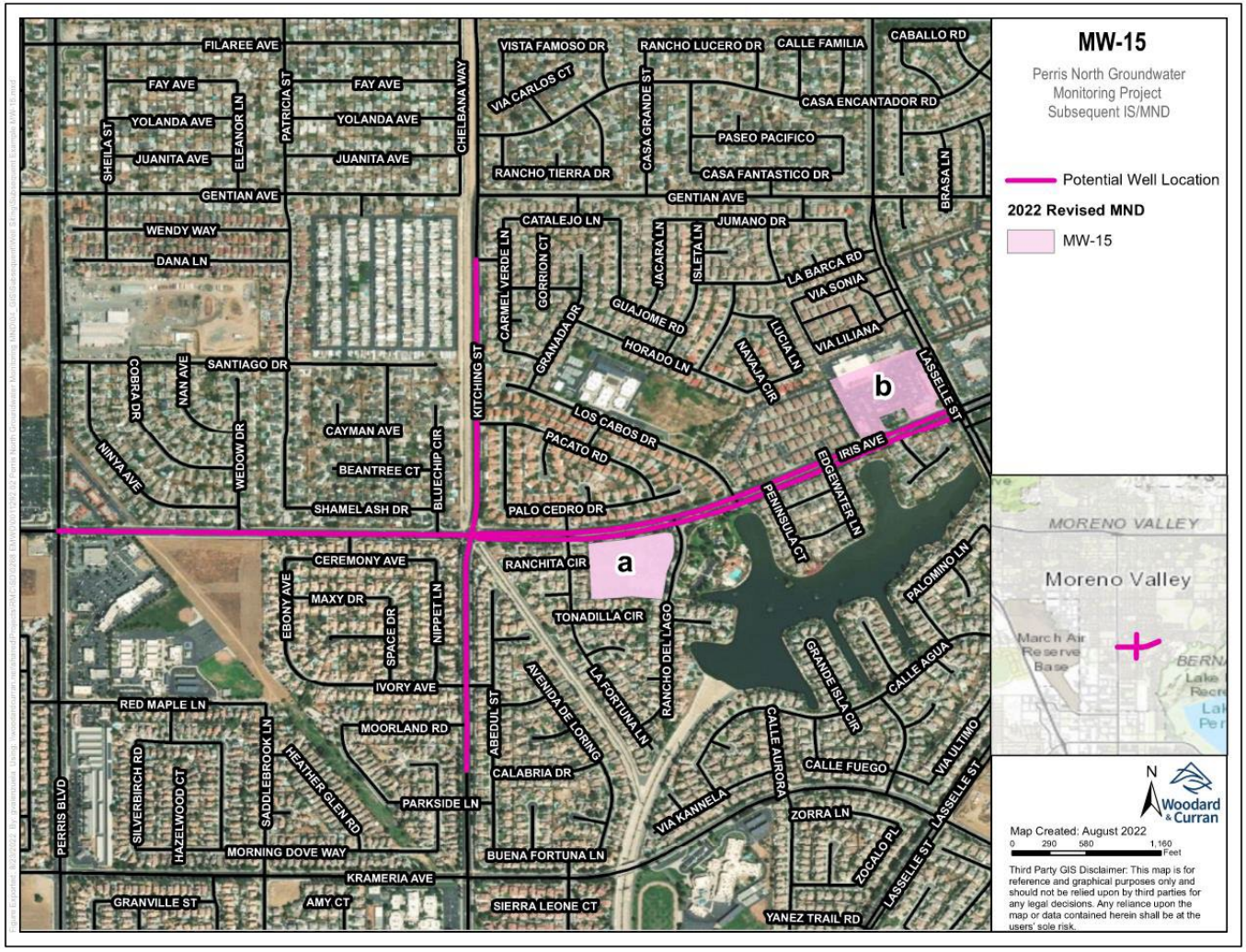
Monitoring Well 15 Right-of-Way:

MW-15 is proposed to be located within the roadway right-of-way along Kitching Street south of Iris Avenue (**Figure 2-21**), or within one of two parcels evaluated in the 2022 Revised MND. The MW-15 parcels are described in Section 2.2 Project Overview of the 2022 Revised MND and potential environmental impacts associated with locating the well at one of those parcels is addressed in the 2022 Revised MND, which is incorporated herein by reference. This Subsequent IS/MND describes the proposed right-of-way location and evaluates potential environmental impacts of locating the well within the right-of-way

The portion of Kitching Street proposed for the MW-15 right-of-way location option is lined with single family homes, which back up to Kitching Street and separate from the road by cement walls or cement brick walls. Kitching Street is a four-lane road with a center turning lane and sidewalks and painted bike paths on both sides. This single-family residential land use extends south until Plumeria Lane, and north of Iris for several blocks. Santiago Estates, a mobile home park, is located north of Iris Avenue along the west side of Kitching Street but is separated from Kitching Street by a stormwater channel and a cement brick wall. Iris Avenue has single-family residential homes for one to two blocks east and west of the intersection with Kitching Street. At the intersection of Iris Avenue and Perris Boulevard are commercial lands uses on the northwest, northeast, and southeast corners, and an undeveloped property with EMWD facilities on the southwest corner. An undeveloped lot is located along the south side of Iris Avenue across from Wedow Drive. East of the intersection with Kitching Street, along Iris Avenue are also single-family homes. Surrounding streets are generally single-family residential.

Pedrorena Park and Mango Park are located along Iris Avenue approximately 0.15 miles west of the intersection with Kitching. Victoriano Park is located just east of Mango Park, near the north side of Iris Avenue. Commercial land uses are present along Iris Avenue at the intersection with Lasselle Street. Victoriano Elementary School is located approximately 0.20 miles northeast of the intersection of Kitching Street and Iris Avenue while Mary McLeod Bethune Elementary School is located approximately 0.50 miles south of the intersection, at Kitching Street and Krameria Avenue, and is bounded to the south by Bethune Park. Vista Verde Middle School is located approximately 0.50 miles southeast of the intersection of Kitching Street and Iris Avenue, and 0.25 miles west of Kitching Street and Krameria Avenue. Red Maple Elementary School and Val Verde Academy are located on Red Maple Lane just east of Perris Boulevard, approximately 0.30 miles west of Kitching Street. A stormwater channel runs parallel to Kitching Street from north of the proposed MW-15 site to the intersection with Iris Avenue, where it turns southeast before joining another stormwater channel existing Lily Lake near Krameria Avenue. A walking and biking trail runs from the northwest near Iris Avenue and Perris Boulevard to the southeast near Kitching Street and Krameria Avenue.

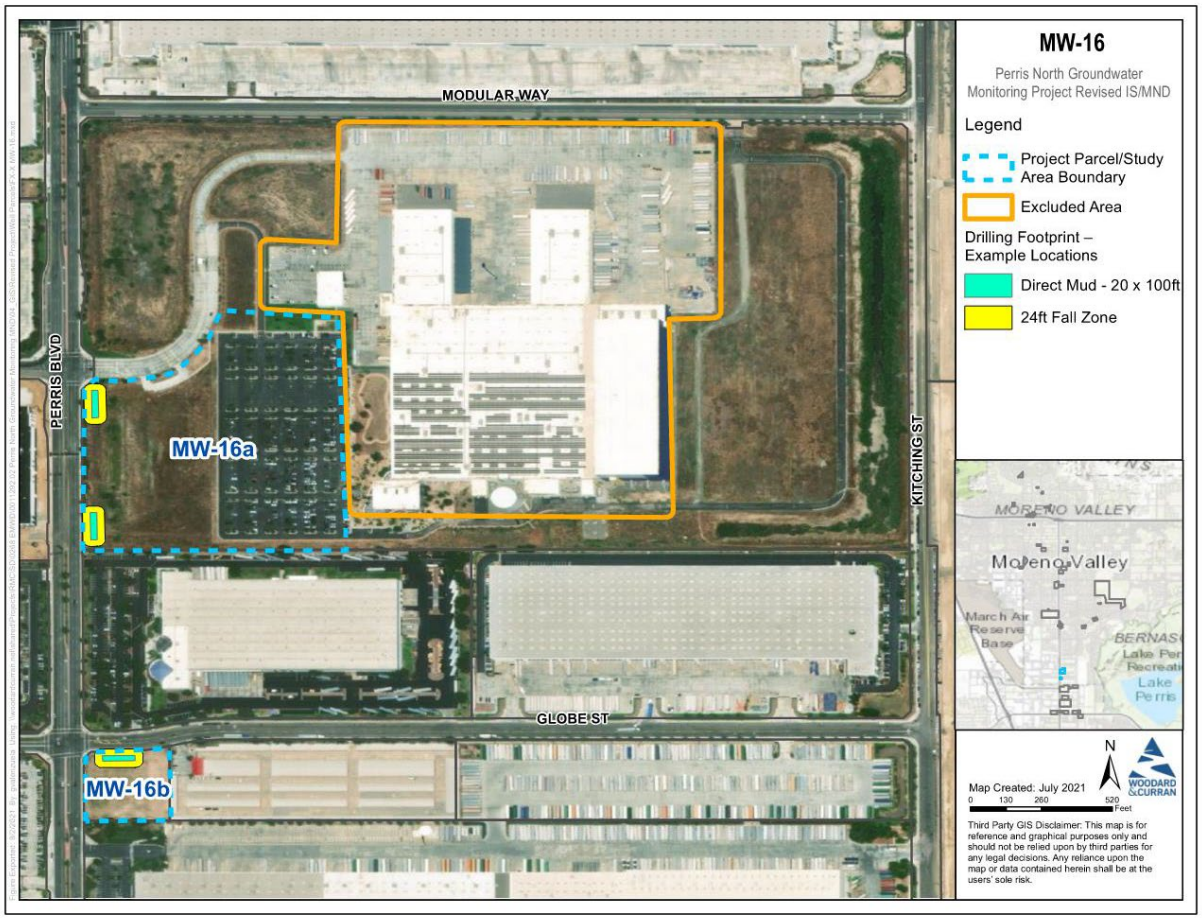
Figure 2-21: MW-15 Potential Right-of-Way Location



Monitoring Well 16:

MW-16 is proposed to be located within the MW-16 parcel included in the 2022 Revised MND. This parcel is located at the northeast corner of the intersection of Iris Avenue and Perris Boulevard (**Figure 2-22**). MW-16 parcel is a commercial shopping center and parking lot, adjacent to a walking and biking trail and single-family residential properties. No additional environmental analysis is needed for this location because it has already been evaluated in the 2022 Revised MND, which is incorporated herein.

Figure 2-22: MW-16



2.3 Environmental Setting and Existing Conditions

Land Uses and Sensitive Receptors

There are no state-designated scenic highways in the proposed Project vicinity. The nearest eligible County-designated scenic highway is State Route 74, approximately 6 miles south of the proposed Project site. Ramona Expressway is a County-eligible scenic highway but is not designated as a scenic highway (Riverside County, 2017). Ramona Expressway is located approximately 3 miles south of the intersection of Iris Avenue and Kitching Street, where MW-15, the southernmost proposed well location may be located. The nearest eligible state-designated scenic highway is State Route 243, approximately 20 miles east of the project site (Caltrans, 2019).

The MARB/March Inland Port is located southwest of the City of Moreno Valley, roughly one-half mile from the proposed Project site. It is currently active as a center for military reserve activities and as a military communication center, as well as general commercial purposes. The runways at the base are located along the western edge of the base, approximately 1.5 miles from the proposed Project site. Other municipal airports in the region are not near the proposed Project site; the nearest is the Perris Valley Airport which is located approximately seven miles south of the proposed Project site.

Sensitive receptors within the project vicinity include single-family residences, multi-family residences, schools, churches, day care centers, and hospitals. In some cases, residences and/or schools may be located adjacent to the monitoring well locations, as noted in the well parcel descriptions above. Because the exact well locations are not yet known, schools within one half-mile of the potential well locations were identified and include:

- Armada Elementary School
- Bear Valley Elementary School
- Butterfield Elementary School
- Chaparral Hills Elementary School
- Cloverdale Elementary School
- Creekside Elementary School
- Hendrick Ranch Elementary School
- Honey Hollow Elementary School
- Mary McLeod Bethune Elementary School, Midland Elementary School
- North Ridge Elementary School
- Rainbow Ridge Elementary School
- Ramona Elementary School
- Red Maple Elementary School
- Sugarhill Elementary School
- Sunnymead Elementary School
- Sunnymead Montessori School
- Victoriano Elementary School
- Badger Springs Middle School
- March Middle School
- March Mountain High School
- Vista Del Lago High School
- Moreno Valley Community Adult School
- Bayside Community Day School
- Journey School
- Val Verde Academy
- Desert Preschool Academy
- Seventh Day Adventist School

The Riverside University Health System Medical Center, Riverside County Regional Medical Center and Moreno Valley Community Hospital are located within one mile of the proposed Project.

Public Services

Electrical service within the City of Moreno Valley is provided by Southern California Edison and Moreno Valley Utility. Natural gas service within the City of Moreno Valley is provided by the Southern California Gas Company. Water and wastewater services within the City of Moreno Valley is provided by EMWD. Solid waste services within the City of Moreno Valley is provided by the Waste Management of Inland Empire.

The Riverside County Transportation Commission owns a rail line located west of the City of Moreno Valley parallel to I-215 (roughly 1.25 miles west of the proposed Project site), which carries commuter rail service and a low volume of freight trains. Riverside Transit Agency operates multiple bus routes within the proposed Project area, including Routes 11, 18, 19, 20, 31 and 41 (Riverside Transit Agency, 2021). Bikeways also exist in the project vicinity. Existing bikeways adjacent to potential well locations are a Class 1 multi-use path along Manzanita Avenue, Class 2 bike lanes along Manzanita Avenue, Indian Street, Heacock Street, Alessandro Boulevard, Cactus Avenue, Iris Avenue, and Lasselle Street and Class 3 bike routes along Box Springs Road, Cottonwood Avenue, Indian Street, and Cactus Avenue.

Environmental Jurisdictions

The proposed Project is located within the South Coast Air Quality Management District (SCAQMD), within the South Coast Air Basin (SCAB). The City of Moreno Valley and the proposed Project lie within the San Jacinto subwatershed of the Santa Ana River watershed. Water quality issues in the area are regulated by the Regional Water Quality Control Board (RWQCB), Santa Ana Region. Concrete-lined drainage channels exist in the proposed Project area; notable drainage channels are in the project vicinity along Kitching Street and Heacock Street and noted in the description of the proposed rights-of-way for each monitoring well cluster above. An additional drainage channel runs southeast from approximately Frederick Street and Cottonwood Avenue to approximately Kitching Street and Krameria Avenue. Another drainage channel runs southwest from approximately Highway 60 and Perris Boulevard to Alessandro Boulevard and Heacock Street.

The proposed Project area is within the area covered by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP was developed by Riverside County to aid in maintaining biological and ecological diversity within the region, while addressing requirements of the State and federal Endangered Species Acts. The Plan was completed in 2003, and associated permits were issued in 2004. The MSHCP defines a reserve system that includes existing and proposed core habitat blocks and habitat linkages to accommodate the needs of wildlife and plant species. EMWD is not a

signatory to the MSHCP. None of the proposed Project features are located within existing or proposed reserve or criteria areas of the MSHCP.

Geology and Groundwater

The Perris North Subbasin is located in the San Jacinto Groundwater Basin (DWR Bulletin 118 Basin 8-005) and is one of five subbasins within the West San Jacinto Groundwater Sustainability Agency (GSA) Plan Area. The San Jacinto Groundwater Basin has been designated a High Priority Basin under the State of California's Sustainable Groundwater Management Act (SGMA) 2014 California Statewide Groundwater Elevation Monitoring program Basin Prioritization and SGMA 2015 Basin Prioritization, and subsequently in the recently completed SGMA 2019 Basin Prioritization. SGMA was adopted in 2014 and empowers local agencies to achieve sustainable management of groundwater basins across the State. Sustainability goals are intended to reduce decreasing groundwater levels and protect existing groundwater uses and are being rolled out first in critically overdrafted basins followed by high and medium priority basins. High priority basins are generally those that serve as an important and significant source of water for a region, have water quality concerns, or are facing management concerns such as subsidence or declining groundwater levels. EMWD's Board of Directors serve as the West San Jacinto GSA. The West San Jacinto GSA adopted a Groundwater Sustainability Plan (GSP) for the San Jacinto Groundwater Basin on September 15, 2021, which includes the proposed Project area, and submitted the GSP to the Department of Water Resources (DWR) before the January 31, 2022 deadline.

The proposed Project area lies on bedrock known as the Perris Block. The Perris Block is a large mass of granitic rock generally bounded by the San Jacinto Fault, the Elsinore Fault, and the Santa Ana River (with a non-defined southeast boundary). The San Jacinto Fault is the closest fault zone and is located just over four miles from the proposed Project site.

2.4 Proposed Project Description

The proposed Project includes construction and operation of groundwater monitoring wells, as generally described in *Section 2.1 Project Overview*, and as described in more detail in the following sections.

2.4.1 Description of Monitoring Wells

Sixteen clusters of monitoring wells are proposed within the proposed Project area, as shown in **Figure 2-4**. For each well site, up to four boreholes of up to 12-inch diameter each would be drilled, and up to four individual 4-inch diameter casings per well site would be installed, along with a sampling pump located inside the well. Well clusters within the paved right-of-way would either have well heads flush-mounted to the sidewalk or pavement or would include a standpipe surrounded by bollards. For monitoring wells located within the street or designated bike lane, or where sidewalks are too narrow to

accommodate bollards, wellheads would be flush mounted. Standpipes would be aboveground completions extending two to three feet above grade, with traffic bollards installed around each for the protection of the well head. Photos demonstrating what complete wells could look like are provided in **Figure 2-23**. Wells would be drilled to a maximum depth of 420 feet based on the preliminary assessment, but may be deeper based on conditions encountered during completion of field activities, depending on where in the proposed Project area they are located (see **Table 2-1**, below). Depth to bedrock is estimated to range from 200 feet to 800 feet below ground surface in the vicinity of the proposed monitoring wells and represents the maximum theoretical well depth. During operation of the wells, an approximately 1,600 +/- square foot area would be required to provide access for temporary monitoring equipment for quarterly data collection visits as described in *Section 2.4.6*.

Figure 2-23: Example of Completed Wells

Example of aboveground wellheads (left) and flush-mounted well heads (right).

2.4.2 Well Construction

Monitoring well construction would involve site clearing and grading on vacant parcels, well drilling and installation, and restoration of the site to pre-construction conditions. Up to 16 sites would be constructed, each of which would have a cluster of up to four 12-inch diameter boreholes, and up to four individual 4-inch maximum casings in each borehole. Wells would be constructed using sonic drilling or mud rotary drilling. Sonic drilling uses vibration energy to advance a steel casing to the borehole depth. The action is applied vertically, and the drill string rotates for even distribution of the energy and impact at the bit face. The monitoring well is constructed inside the steel casing that is first driven to total depth and retracted in sections as the well is constructed. Advantages of sonic

drilling include a continuous core to total depth, which allows a geologist to log (describe) the subsurface in detail, the absence of mud that must be cleared out of the borehole during and after well construction, and 24-hour continuous drilling is not required. Additionally, set up time for sonic drilling is less than that for mud rotary drilling, allowing for a faster construction schedule. Direct mud rotary is typically used for deeper and larger wells and involves the use of an engineered, viscous "mud" that circulates throughout the borehole to a container or pit at ground surface. The mud lifts the drill cuttings to the surface, and the mud keeps the borehole open, so it does not collapse while the monitoring well is constructed in the open borehole.

In the case of the proposed Project, sonic drilling is the preferred construction method as it requires a smaller construction footprint, generates less overall investigated derived waste, and its vibratory component is no more intrusive than mud rotary drilling. It is anticipated that mud rotary drilling will be used for the deepest of the boreholes at each site, and sonic drilling for the rest. However, if needed (e.g., due to depth limitations of sonic drilling), mud rotary drilling techniques would be used for remaining boreholes. The drilling method would be selected based on final site characteristics.

Well drilling via the sonic or direct mud rotary drilling method would be conducted during daytime hours only and 24-hour drilling operations are not required. For well drilling, mobilization through demobilization, including but not limited to the well construction and development, is anticipated to take up to 8 weeks for each cluster of wells (up to 4 wells at each site). Wells would be constructed to avoid existing underground and overhead utilities. **Table 2-1** summarizes the construction duration for each of the well clusters, based on maximum potential well depth. For the purposes of this analysis, all boreholes within each well cluster were assumed to have the maximum depth for the cluster.

Table 2-1: Maximum Well Depth and Construction Timeline

Monitoring Well (cluster of four 12-inch wells)	Maximum Depth (ft)	Total Construction Duration (weeks)	Drilling Duration (weeks)	Volume of Drill Cuttings (cubic yards)	Total Volume of Material* (cubic yards)	Haul Trips**
MW-1	375	8	4	44	94	6
MW-2	355	8	4	41	91	6
MW-3	395	8	4	46	96	6
MW-4	210	8	4	24	74	5
MW-5	265	8	4	31	81	6
MW-6	350	8	4	41	91	6
MW-7	220	8	4	26	76	5
MW-8	225	8	4	26	76	5
MW-9	255	8	4	30	80	5
MW-10	200	8	4	23	73	5
MW-11	60	8	4	7	57	4
MW-12	275	8	4	32	82	6
MW-13	420	8	4	49	99	7
MW-14	360	8	4	42	92	6
MW-15	365	8	4	42	92	6

Monitoring Well (cluster of four 12-inch wells)	Maximum Depth (ft)	Total Construction Duration (weeks)	Drilling Duration (weeks)	Volume of Drill Cuttings (cubic yards)	Total Volume of Material* (cubic yards)	Haul Trips**
MW-16	140	8	4	16	66	5

*Assumes an additional 50 cubic yards of materials removed for grading, site preparation, and general wellhead construction activities outside of drilling
**Haul trucks with 16 cubic yard capacity

Construction of each well is anticipated to require construction equipment shown in **Table 2-2**.

Table 2-2: Estimated Construction Vehicle Fleet for Well Construction

Equipment	Number Required for Each Well
Backhoe/Loader	1
Drilling Rig	1
Crane	1
Utility Truck	1
Water Truck	1
Welder	1
Compressor	1
Pump	1
Pick-up Trucks	2
Concrete Pumper	1
Generator	1

Construction of the monitoring wells is assumed to temporarily disturb an area of approximately 3,000 square feet at each site, to allow for equipment and construction activities at the site. In total, the proposed Project would disturb approximately 1.1 acres of surface area for construction of all 16 well clusters. **Table 2-1** shows the volume of drill cuttings to be exported from each well site, assuming 12-inch boreholes and maximum potential depth of each well. Additional material would be exported from each well site during grading. The total material export associated with each well cluster would range from 57 to 99 cubic yards. The 16 well clusters would have an average of 33 cubic yards of total material export (see **Table 2-1**), and an additional approximately 50 cubic yards for grading at each well cluster. In total, the proposed Project would generate approximately 1,320 cubic yards for all 16 of the proposed well clusters. Material from drilling activities would be disposed to the nearest landfill permitted to accept these materials, typically Badlands or El Sobrante Landfills (see *Section 3.19*). Where the quality of groundwater recovered during construction fails to meet regulatory standards for discharge to surface waters, discharge to sewer may be required. If required, the connection to the sewer is typically accommodated by directly discharging to the sewer, or by utilizing temporary onsite storage through a holding tank that would be pumped to the sewer.

2.4.3 Construction Vehicle Trips

Construction would require the use of the construction equipment listed in **Table 2-2**. Each well cluster is estimated to require 10 workers during construction. Due to COVID-19 concerns, it is assumed that workers would not carpool to the site, resulting in 20 one-way trips per day for worker transportation to each well. Most materials are expected to be stored on-site, but in the event that separate staging areas are used, construction could require up to six one-way trips per day to collect materials and equipment from the nearest staging area. Based on a haul truck capacity of 16 cubic yards per truck and the anticipated volume of material removed during drilling and construction, a total of 89 haul truck trips would be required across all 16 well clusters with an average of 6 total haul trips per well cluster (see **Table 2-1**).

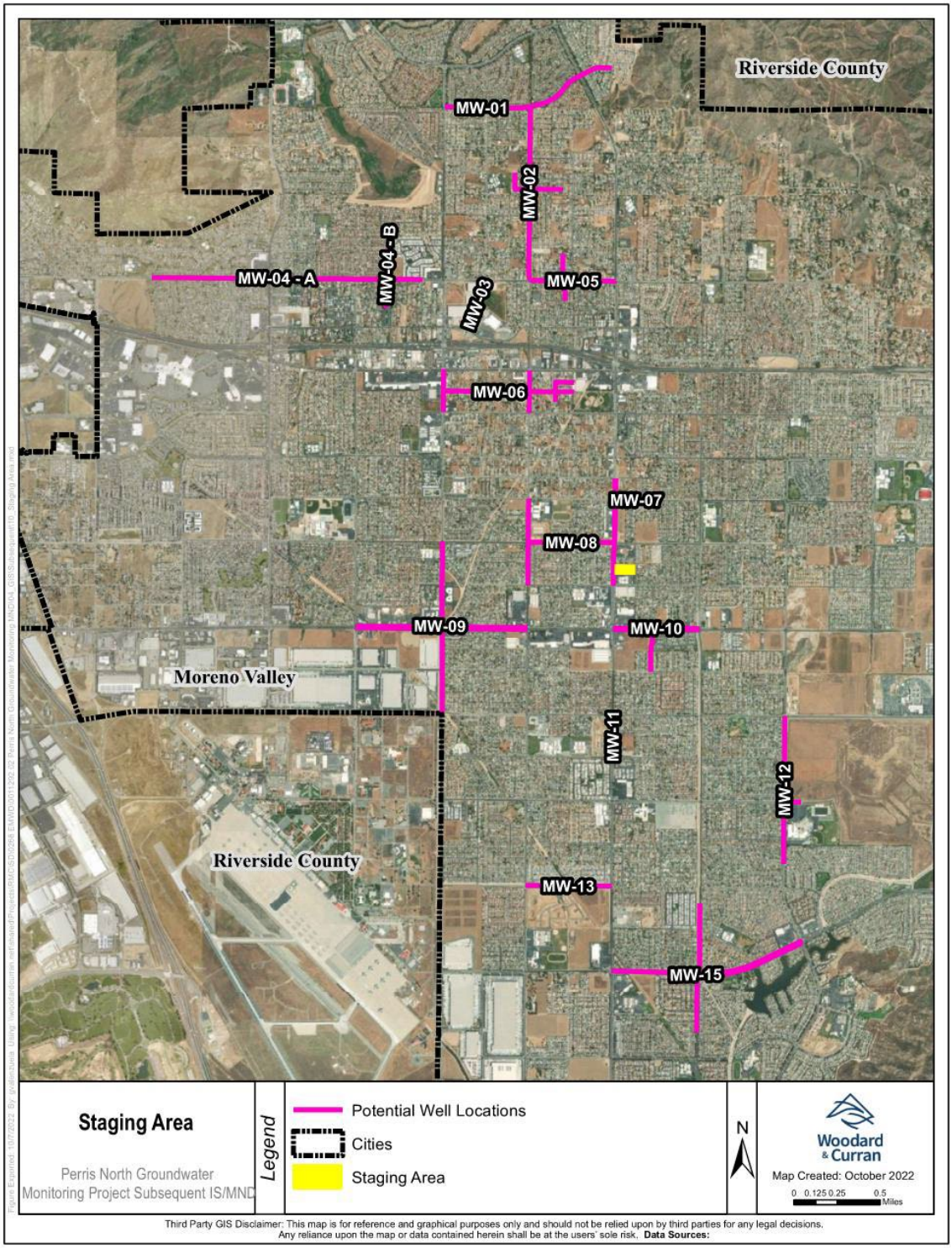
2.4.4 Construction Schedule

In total, construction of the proposed Project is estimated to take 20 months, with anticipated commencement in July 2023 and completion in February 2025. Although well construction would be staggered, up to two well clusters could be under construction at a given time.

2.4.5 Equipment / Staging Areas

For equipment and materials that cannot be accommodated within the project footprint for each well site, EMWD properties would be used for equipment storage and staging. Anticipated staging areas include the EMWD-owned proposed monitoring well site (MW Site-14b), the City of Moreno Valley Corporate Yard on Santiago Drive between Nan Avenue and the intersection with Patricia Street, EMWD's Well 204 site on Nance Street between North Perris Boulevard and Las Palmas, and EMWD's treatment plant that will be constructed under the Cactus Avenue Corridor Groundwater Wells Project. One site is being considered for EMWD's new treatment plant and is considered as a possible staging area. This site is along Perris Boulevard between Bay Avenue and St. Christopher Lane in the city of Moreno Valley. No more than six trips per day to and from each staging area would occur during construction. These are the same staging areas evaluated in the 2022 Revised MND. Anticipated staging areas are shown in **Figure 2-24**.

Figure 2-24: Potential Staging Areas



2.4.6 Operations and Maintenance

Once operational, groundwater wells may be equipped with pressure transducers that would allow for continuous logging of groundwater level data. Manual water level and groundwater quality sampling would occur at each monitoring well location quarterly for one-week periods. During quarterly sampling events, the pressure transducers would be removed from the wells and redeployed after each quarterly event. A mobile sampling trailer equipped with a water level sounder will be utilized to tag groundwater levels in each well at every site. In the same manner, the mobile sampling trailer will be equipped with a submersible pump that will be utilized to perform groundwater quality sampling. During groundwater quality sampling, field parameters will be collected using a multi-parameter meter and the sample will be collected when the parameters stabilize, and a representative groundwater sample is retrieved. Groundwater samples would be taken off-site for laboratory analysis.

2.4.7 Operation and Maintenance Vehicle Trips

For each quarterly well visit, one truck with a sampling trailer and one support truck would visit each well (for a total of 2 trucks). This would result in a total of 20 one-way trips per monitoring well cluster per quarter, or a total of 1,280 vehicle trips per year. Assuming each well visit originates separately from EMWD's headquarters, a total of approximately 19,260 vehicle miles per year would be traveled to service the 16 well clusters annually.

2.4.8 Environmental Commitments

The following standard EMWD best management practices would be implemented for the proposed Project:

- The design of the facilities would be based on the lithologic information collected during drilling of each borehole, and the construction would be consistent with the Riverside County Department of Environmental Health requirements for drilling and installation of groundwater monitoring wells and consistent with the California Well Standards.
- Groundwater encountered during construction would be containerized and/or discharged to EMWD's sewer for treatment and reuse. Investigation derived water would also be discharged to the sanitary sewer for treatment at EMWD's wastewater treatment plant or would be temporarily stored in containers (such as 55-gallon drums) (on site or at one of the identified staging areas) until it could be properly disposed of to the sewer or other permitted disposal site.
- 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.
- During construction, the contractor would be required to comply with SCAQMD Rule 403 Fugitive Dust Control requirements.

- During construction, best management practices (BMPs) would be implemented to control water quality of stormwater discharges offsite, including but not limited to placing drip pans under stationary equipment, installing temporary erosion and sedimentation control measures (e.g., straw wattle), using tarps to cover stockpiled soil, following site housekeeping practices such as trash control and sweeping, avoid storing equipment and materials within 50-feet of waterways, as appropriate for the site and construction activities.

- A 24-foot “fall zone” buffer would be established around the drill rig and well construction footprint for each well. Wells and drill rigs would be located such that no buildings (residential, commercial, industrial) would be within the fall zone.

2.5 Required Permits and Approvals

Anticipated permits are identified in **Table 2-3**. No South Coast Air Quality Management District permits for new stationary sources are anticipated.

Table 2-3: Permits and Approvals

Agency	Permit/ Approval
City of Moreno Valley	Encroachment Permit for work in right-of-way (temporary high lines to hydrants and sewer)
Riverside County Department of Environmental Health	Well Drilling Permit
State Water Resources Control Board	NPDES Construction General Permit for Storm Water Discharges (total disturbance area for all wells exceeds 1 acre)
Regional Water Quality Control Board	NPDES permit for dewatering and test water discharges during construction
Riverside County Flood Control and Water Conservation District	Encroachment Permit for well drilling near stormwater facilities

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3. ENVIRONMENTAL CHECKLIST FORM

1. **Project title:** Perris North Groundwater Monitoring Project

2. **Lead agency name and address:** Eastern Municipal Water District
   2270 Trumble Road
   P.O. Box 8300
   Perris, CA 92572-8300

3. **Contact person and phone number:** Joseph Broadhead,
   Principal Water Resources Specialist
   broadhej@emwd
   (951) 928-3777 ext. 4545

4. **Project location:** City of Moreno Valley, Riverside County, California

5. **Project sponsor's name and address:** Same as Lead Agency

6. **General plan designations:** Commercial, Office, Open Space, Residential/Office, Residential (5 du/ac, 10 du/ac), Public Facilities, Light Industrial

7. **Zoning:** Neighborhood Commercial, Open Space, Office, Public, Light Industrial, Residential

8. **Description of project**: The Perris North Groundwater Monitoring Project consists of development and operation of groundwater monitoring wells in the Perris North Sub-basin. The proposed Project includes construction and operation of 16 monitoring well clusters with up to four wells each, for a maximum of 64 individual wells. Monitoring wells would be located within roadway rights-of-way, or parcels evaluated in the 2022 Revised MND, though exact locations remain to be determined, so potential sites have been evaluated to allow for flexibility. All roadway right-of-way locations would be within the City of Moreno Valley. Exact well locations are to be determined. As such, this Subsequent IS/MND is evaluating a series of street lengths in the vicinity of the preferred roadway right-of-way locations. Two well clusters, MW-14 and MW-16, would be constructed within parcels identified in the 2022 Revised MND and would not be located within the right-of-way. Wells would be drilled to a maximum depth of between 60 feet to 420 feet below ground surface depending on the location. Above ground disturbance for each well cluster measures approximately 3,000 square feet. Once operational, well data would be collected remotely on a monthly basis, and site visits made quarterly to conduct maintenance and collect samples. Data will be used to help improve EMWD's understanding of the basin groundwater quality and help in making informed decisions on management of the basin.

9. **Surrounding land uses and setting:** The proposed Project sites are located in the City of Moreno Valley. The proposed Project area is generally built-out. Surrounding land uses include single-family residential, multi-family residential, schools, churches, libraries, neighborhood commercial, office, public facilities, business parks and light industrial. There are several storm channels in the proposed Project area, including one along Kitching Street and one that crosses Cottonwood Avenue to the intersection of Heacock Street and Alessandro Boulevard.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)**
    - City of Moreno Valley: Encroachment 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 Groundwater Dewatering and NPDES Permit for Discharge of Well Test Water

11. **Have California Native American tribes traditionally and culturally affiliated with the Project area requested consultation pursuant to Public Resources Code section 2180.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** EMWD has consulted with Native American tribal representatives through written correspondence, based on a contact list of tribes who indicated to EMWD that they are interested in receiving notification. Additionally, EMWD staff has undertaken consultation with representatives from the Pechanga Band of Luiseño Indians on both this Subsequent MND and the 2022 Revised MND, and Rincon Band of Luiseño Indians on the 2022 Revised MND to discuss the Project and potential effects on significant cultural resources.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

[X]	Aesthetics	[ ]	Agriculture and Forestry Resources	[ ]	Air Quality
[X]	Biological Resources	[X]	Cultural Resources	[ ]	Energy
[X]	Geology/Soils	[ ]	Greenhouse Gas Emissions	[X]	Hazards and Hazardous Materials
[ ]	Hydrology/Water Quality	[ ]	Land Use/Planning	[ ]	Mineral Resources
[X]	Noise	[ ]	Population/Housing	[ ]	Public Services

[ ]	Recreation	[X]	Transportation	[X]	Tribal Cultural Resources
[ ]	Utilities/Service Systems	[ ]	Wildfire	[X]	Mandatory Findings of Significance

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial evaluation:

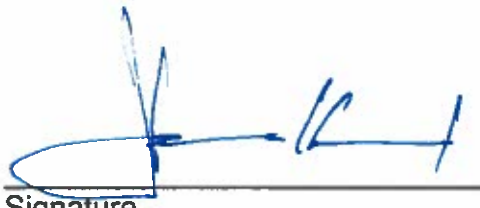
[ ] I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

[X] I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

[ ] I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

[ ] I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

[ ] I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.



Signature

1-5-23

Date

JOE BROADHEAD

Printed Name

For

Relationship with Revised MND

This Subsequent IS/MND, together with the 2022 Revised MND, incorporated by reference herein, serve as the environmental review of the Perris North Groundwater Monitoring Project as a whole, which includes 16 well clusters, up to 4 boreholes per cluster, located either within parcels (covered in the 2022 Revised MND) or the roadway right-of-way (addressed in this Subsequent IS/MND). The 2022 Revised MND addresses the potential environmental effects of construction and operation of the well locations within parcels that are either vacant or have sufficient room available to accommodate the monitoring wells. As noted in that document, the parcels are a combination of private, public, and EMWD-owned parcels. Parcels included in the 2022 Revised MND are located in both the City of Moreno Valley and the City of Perris. This Subsequent IS/MND addresses the potential environmental effects of construction and operation of the well locations within the paved roadway right-of-way, and are limited to rights-of-way within the City of Moreno Valley. A summary of the potential environmental impacts and required mitigation measures for each of the impacts analyzed in the 2022 Revised MND and Subsequent MND is provided in **Table 3-1**. The 2022 Revised MND is included in its entirety as **Appendix E**.

Table 3-1: Potential Environmental Impacts and Required Mitigation Measures

NI: No Impact | LTS: Less than Significant | LTS-M: Less than Significant with Mitigation | SU: Significant and unavoidable

Environmental Factor	Revised MND Page #	Revised MND Conclusion	Revised MND Mitigation Measure	Subsequent MND Conclusion	Subsequent MND Mitigation Measure
3.1 Aesthetics	3-5	LTS-M	AES-1: Low Illumination Nighttime Security Lighting	LTS-M	AES-1: Low Illumination Nighttime Security Lighting
3.2 Agricultural and Forestry Resources	3-9	LTS	-	LTS	
3.3 Air Quality	3-12	LTS	-	LTS	
3.4 Biological Resources	3-23	LTS-M	BIO-1: Burrowing Owl Preconstruction Clearance Survey BIO-2: Preconstruction Nesting Bird Survey	LTS-M	BIO-3: Preconstruction Nesting Bird Survey
3.5 Cultural Resources	3-32	LTS-M	CUL-1: Unanticipated Discovery of Cultural Resources CUL-2: Human Remains	LTS-M	CUL-1: Unanticipated Discovery of Cultural Resources CUL-2: Human Remains
3.6 Energy	3-36	LTS	-	LTS	
3.7 Geology and Soils	3-39	LTS-M	GEO-1: Unanticipated Fossil Discovery	LTS	GEO-1: Unanticipated Fossil Discovery
3.8 Greenhouse Gas Emissions	3-48	LTS	-	LTS	

Environmental Factor	Revised MND Page #	Revised MND Conclusion	Revised MND Mitigation Measure	Subsequent MND Conclusion	Subsequent MND Mitigation Measure
3.9 Hazards and Hazardous Materials	3-52	LTS-M	HAZ-1: Hazardous Materials Management and Spill Prevention and Control Plan HAZ-2a: Environmental Site Assessment HAZ-2b: Prepare Project-Specific Health and Safety Plan HAZ-2c: Disposal of Hazardous Materials	LTS-M	HAZ-1: Hazardous Materials Management and Spill Prevention and Control Plan HAZ-2b: Prepare Project-Specific Health and Safety Plan HAZ-2c: Disposal of Hazardous Materials HAZ-2d: Environmental Site Assessment TRA-1: Traffic Control Plan
3.10 Hydrology and Water Quality	3-61	LTS	-	LTS	
3.11 Land Use and Planning	3-69	LTS	-	LTS	
3.12 Mineral Resources	3-73	NI	-	NI	
3.13 Noise	3-74	LTS-M	NOI-1: Construction Noise Reduction Measures NOI-2: Noise Barriers	LTS-M	NOI-3: Construction Noise Reduction Measures NOI-4: Noise Barriers
3.14 Population and Housing	3-87	NI	-	NI	
3.15 Public Services	3-88	LTS		LTS	
3.16 Recreation	3-95	LTS	-	NI	
3.17 Transportation	3-96	LTS-M	TRA-1: Traffic Control Plan	LTS-M	TRA-1: Traffic Control Plan
3.18 Tribal Cultural Resources	3-100	LTS-M	CUL-1: Unanticipated Discovery of Cultural Resources CUL-2: Human Remains	LTS-M	CUL-1: Unanticipated Discovery of Cultural Resources CUL-2: Human Remains
3.19 Utilities and Service Systems	3-105	LTS		LTS	
3.20 Wildfire	3-111	LTS		LTS-M	TRA-1: Traffic Control Plan

Environmental Factor	Revised MND Page #	Revised MND Conclusion	Revised MND Mitigation Measure	Subsequent MND Conclusion	Subsequent MND Mitigation Measure
3.21 Mandatory Findings of Significance	3-114	LTS-M	AES-1 BIO-1 BIO-2 CUL-1 CUL-2 GEO-1 HAZ-1 HAZ-2a HAZ-2b HAZ-2c NOI-1 NOI-2 TRA-1	LTS-M	AES-1 BIO-3 CUL-1 CUL-2 GEO-1 HAZ-1 HAZ-2b HAZ-2c HAZ-2d NOI-3 NOI-4 TRA-1

3.1 Aesthetics

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Except as provided in Public Resources Code Section 21099, would the Project:				
a) Have a substantial adverse effect on a scenic vista?	[ ]	[ ]	[X]	[ ]
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	[ ]	[ ]	[ ]	[X]
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views 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]	[ ]	[ ]

Discussion

The 2022 Revised MND describes the applicable aesthetic background, environmental setting, and regulatory setting, which is incorporated by reference herein. No background or setting information has changed since the 2022 Revised MND was adopted.

The Perris North Groundwater Monitoring Project area is disturbed and generally built-out. The Project would be constructed entirely within existing rights-of-way and primarily visible to immediately adjacent areas. There are no state-designated scenic highways within the Project area; the nearest eligible state-designated scenic highway is State Route 243, approximately 20 miles east of the project site (Caltrans, 2019). There is no other new information or changed circumstances related to aesthetics and setting that have arisen since the 2022 Revised MND was adopted.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on aesthetics with the implementation of mitigation measure AES-1. The primary visual impacts associated with the Project would be temporary and would occur during temporary construction activities. Upon the completion of construction, the Project would not result in any permanent aesthetic impacts. As a public agency, EMWD is not subject to the Mount Palomar Nighttime Lighting regulations, but implementation of Mitigation Measure AES-1 would ensure all nighttime securing lighting during construction would be shielded and directed downward to minimize impacts on neighboring residents and areas.

a) Less than Significant

Similar to the 2022 Revised MND project, primary scenic impairments associated with the proposed Project would be temporary and would occur during construction, which is anticipated to last 15 months. Once the Project is completed, the monitoring wells would be underground and the area of temporary disturbance would be restored to pre-project condition, thus having no long-term impact on scenic vistas. The proposed monitoring wells located in rights-of-way would not be protruding out of the ground because the well heads would be flush-mounted to the road or sidewalk (**Figure 2-23**). Where sufficient room existing without impeding use of the paved right-of-way, proposed wells may include a standpipe no taller than three feet above ground surrounded by traffic bollards (see *Section 2.4.1 Description of Monitoring Wells*).

During construction, scenic vistas near the proposed monitoring well sites would be temporarily altered by construction equipment such as a crane and drilling rig, or potential noise mitigation measures (e.g., sound walls). However, once construction is complete, the proposed monitoring wells would not be noticeable to the general public. Therefore, the Project would not substantially adversely impact local scenic vistas of surrounding foothills and mountains, and impacts would be less than significant.

b) No Impact

Similar to the 2022 Revised MND project, none of the proposed monitoring wells would be located within the viewshed of a State scenic highway. Therefore, there would be no impact on scenic resources associated with a State scenic highway.

c) Less than Significant Impact

Similar to the 2022 Revised MND project, the proposed Project sites would be located within a built-out area of Moreno Valley. EMWD, as a public agency, is not subject to other jurisdictional agencies' established standards or ordinances. Nonetheless, the proposed monitoring wells would be minimally noticeable to the public eye once constructed and therefore would not affect public views. The wells would either be flush-mounted to pavement or if sufficient room exists without impeding the paved right-of-way, have a short standpipe no taller than 3 feet with traffic bollards (see *Section 2.4.1 Description of Monitoring Wells*). Although construction activities would temporarily impact the visual character and quality of the Project sites, all potential construction-related visual impacts would be removed once construction is complete. Therefore, Project impacts on visual character and public views would be less than significant.

d) Less than Significant with Mitigation Incorporated

Construction and development of each well cluster (up to 4 wells at each cluster) is anticipated to require up to eight weeks from mobilization to demobilization. Well drilling via either the sonic or direct mud rotary drilling method would be conducted during daytime hours only. However, temporary lighting may be required for site security during construction which would be visible to neighboring residents and land uses and could represent a nuisance without mitigation in place. No permanent lighting would be required once construction has been completed.

Similar to the 2022 Revised MND project, the proposed Project would be located within the 45-mile zone radius of the Palomar Observatory, which under the County of Riverside's Ordinance No. 655 would be subject to the Mount Palomar Nighttime Lighting Policy's Zone B regulations (County of Riverside 1988). This regulation dictates the type of lighting allowed and hours that lights may be operating for different uses. Construction lighting would be Class II lighting under the regulations (illumination of equipment yards and security), which is allowed to remain on all night. As a public agency, EMWD is not subject to these regulations. Temporary construction lighting would not have potential impacts on nighttime viewing from the Mount Palomar Observatory. Implementation of **Mitigation Measure AES-1** from the 2022 Revised MND would ensure all nighttime security lighting during construction would be shielded and directed downward to minimize impacts on neighboring residents and areas. With incorporation of mitigation measures, impacts would be less than significant.

Mitigation Measures:

To mitigate possible impacts to nighttime views during construction and operation, EMWD shall implement **Mitigation Measure AES-1**. The proposed Project's aesthetic impacts would be less than significant with mitigation incorporated.

> **AES-1: Low Illumination Nighttime Security Lighting.** All nighttime security lighting shall be of the lowest illumination necessary for Project security, attached to motion sensors, and shielded and directed downward to avoid light spillage onto neighboring properties.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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]
c) Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	[ ]	[ ]	[ ]	[X]
d) Result in the loss of forest land or conversion of forest land to non-forest use?	[ ]	[ ]	[ ]	[X]
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	[ ]	[ ]	[ ]	[X]

Discussion

The 2022 Revised MND describes the applicable agriculture and forestry background, environmental setting, and regulatory setting, and is incorporated by reference herein. Since the 2022 Revised MND was adopted, the City of Moreno Valley General Plan 2006 was updated in the General Plan 2040, which included an updated City of Moreno Valley Zoning Map (City of Moreno Valley 2021a). This updated Zoning Map shows that the proposed well clusters in the right-of-way would not be located within an agricultural-zoned area.

There are no exclusive agricultural zones, Williamson Act contract lands, designated forest lands, or timberland within the City of Moreno Valley. There is no other new information or changed circumstances that have arisen since the 2022 Revised MND was adopted.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on agriculture and forestry resources. None of the proposed well sites are located on land zoned for agricultural use or protected by a Williamson Act Contract and there is no existing or designated forest land or timberland within the City of Moreno Valley. In addition, the Project would not result in groundwater extraction.

a) Less Than Significant

The proposed Project well clusters would be installed within City of Moreno Valley rights-of-way. Potential staging areas would include EMWD-owned parcels. None of the well clusters or staging areas are within land classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. All proposed well sites are located within existing paved rights-of-way, where construction and operation of a monitoring well would not cause conversion of farmland to non-agricultural use because they would not be located within farmland or sites designated as farmland.

Similar to the 2022 Revised MND project, the proposed Project would not result in land use changes and would not convert important farmland to a nonagricultural use, conflict with zoning regulations, or result in other changes that would indirectly result in conversion of nearby farmland to non-agricultural use. Therefore, impacts to important farmland would be less than significant.

b) No Impact

None of the proposed Project well sites or staging areas are located on land zoned for agricultural use or protected by a Williamson Act Contract (City of Moreno Valley 2021a; City of Moreno Valley 2022). Therefore, the proposed Project would have no impact to agricultural or Williamson Act lands.

c) No Impact

Similar to the 2022 Revised MND project, there is no land zoned for forest land or timberland within the proposed Project area. Therefore, the proposed Project would have no impact on zoning for forest land or timberland.

d) No Impact

Similar to the 2022 Revised MND project, there is no designated forest land or timberland within the proposed Project area. Therefore, the proposed Project would have no impact related to the loss of forest land or conversion of forest land to non-forest use.

e) No Impact

Similar to the 2022 Revised MND project, the proposed Project would install wells for groundwater monitoring. No groundwater extraction would occur as part of the proposed Project; therefore, the Project would not affect groundwater levels of private wells in the Perris North Basin that may be used for agricultural irrigation. Additionally, little to no private production occurs in the Subbasin due to groundwater contamination. Therefore, the proposed Project would not impede the ability of farmers to pump groundwater for irrigation use if needed. The proposed Project would not induce other changes in the environment that would result in conversion of agricultural land to non-agricultural use. The proposed Project would have no impact related to potential conversion of agricultural land.

Mitigation Measures: None required or recommended.

3.3 Air Quality

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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]	[ ]

Discussion

The 2022 Revised MND describes the applicable air quality background, environmental setting, and regulatory setting, which is incorporated by reference herein. The proposed Project is located within the jurisdiction of the SCAQMD within the SCAB. The SCAQMD is in the process of updating the 2022 Air Quality Management Plan (AQMP) as of the writing of this Initial Study. The 2022 AQMP focuses on strategies to meet the United States Environmental Protection Agency's (US EPA) primary and secondary NAAQS for ground-level ozone (O_3), which was revised to 70 parts per billion on October 1, 2015. The 2022 AQMP is currently in draft form; however, it is relevant to the environmental and regulatory setting of the proposed Project because it incorporates the most recent information on regional growth and population from the Southern California Association of Governments (SCAG), the California Air Resources Board (CARB), and the US EPA. No background or setting information has changed since the 2022 Revised MND was adopted.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on air quality. The proposed Project would result in criteria pollutant emissions and odors from equipment during construction. However, construction activities would be temporary and would only last for a maximum of eight weeks at a given well cluster. The operation of the Project would result in limited emissions associated with well measurements and maintenance. The proposed Project would not exceed any local or regional air quality standards.

a) Less than Significant Impact

The SCAQMD's 2022 AQMP, which assesses the attainment status of the Moreno Valley and EMWD area of the SCAB and provides a strategy for attainment of state and federal air quality standards, is the applicable air quality plan. The AQMP strategies are developed based on population, housing, and employment growth forecasts anticipated under local city general plans and regional transportation plans.

Under the National Ambient Air Quality Standards (NAAQS), the SCAB is in nonattainment status for ozone (1-hour and 8-hour) and particulate matter (PM) 2.5 (24-

hour and annual). Under the California Ambient Air Quality Standards (CAAQS), the SCAB is in nonattainment status for ozone (1-hour and 8-hour), particulate matter 2.5 (annual), and particulate matter 10 (24-hour and annual) (SCAQMD 2022).

A project would conflict with or obstruct an applicable air quality plan if it would lead to population, housing or employment growth that exceeds the forecasts used in the development of the applicable air quality plan. The proposed Project would construct 16 groundwater monitoring well clusters and does not provide any additional water or other utility service to customers in the area. Similar to the 2022 Revised MND project, the proposed Project would not lead to unplanned population, housing or employment growth that exceeds the forecasts used in the development of the AQMP. Potential for conflicts with the AQMP would be less than significant.

b) Less than Significant Impact

Similar to the 2022 Revised MND project, the proposed Project would result in emissions of criteria pollutants from short-term construction activities and long-term operation and maintenance activities. Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) 2020.4.0, which was developed by the SCAQMD and is used throughout California to quantify criteria pollutants and greenhouse gas (GHGs) emissions.

The CalEEMod emissions scenarios were based on project-specific information found in *Section 2 Project Description*. 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. Below is a summary of the assumptions made during the CalEEMod modeling efforts.

Project Schedule and Modeling Phases

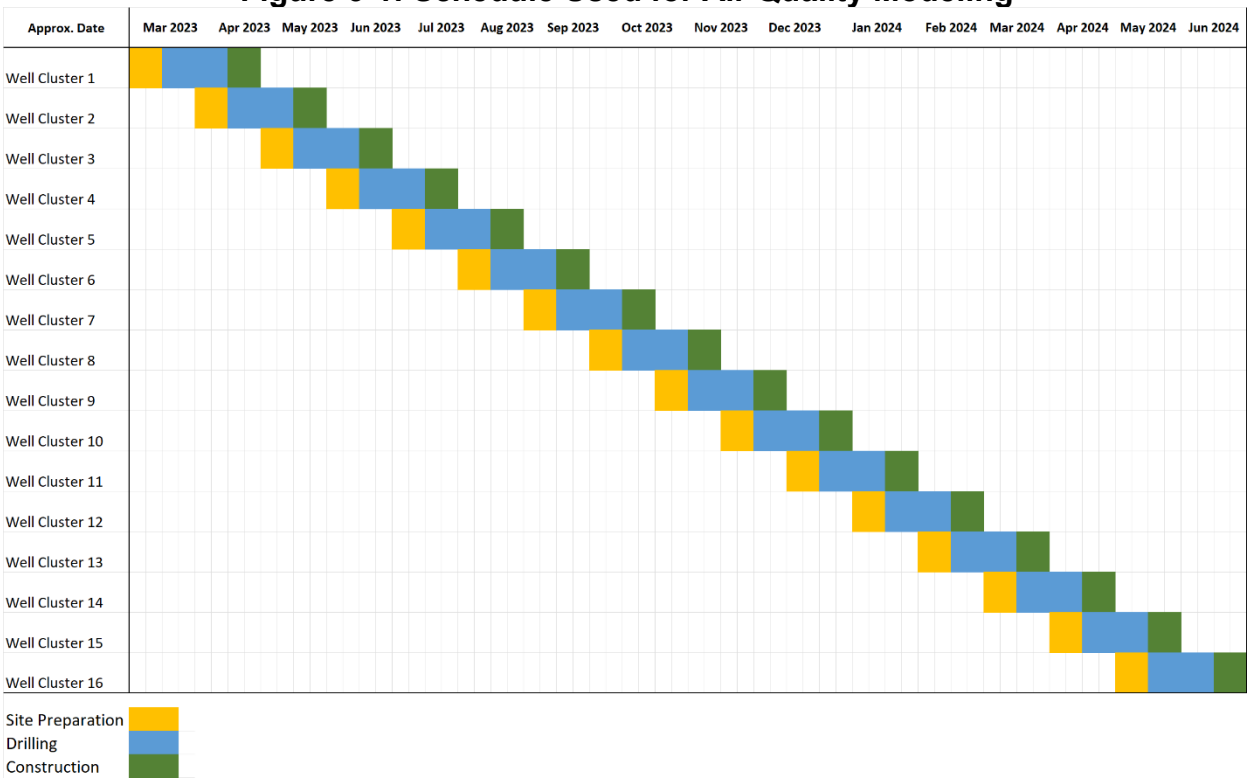
The proposed Project includes the installation of 16 well clusters, with an estimated construction period of 8 weeks per well cluster, with work occurring 7 days per week. The approximate schedule for each well is as follows:

- Weeks 1-2 – site preparation (8-hour workdays)
- Weeks 3-6 – well drilling (8-hour workdays)
- Weeks 7-8 – well head and site construction (8-hour workdays)

This schedule requires two crews: one crew for site preparation and construction, and one crew for drilling.

Construction is expected to begin in March 2023. Engineering estimates provide an overall project schedule lasting for 15 months (until June 2024). The schedule provided in **Figure 3-1** corresponds to the project timeline and assumes two crews working simultaneously at different well sites. This is the fastest schedule and was used to calculate emissions.

Figure 3-1: Schedule Used for Air Quality Modeling



Data tables and reporting requirements provide both construction and operational total maximum daily emissions, and annual emission totals. To simplify modeling for the project, the maximum daily emissions and total construction emissions were calculated using separate model runs. The following modeling runs were conducted:

- Total construction emissions and operational emissions: This model run included construction of all 16 well clusters, beginning in March 2023 and concluding in June 2024 in order to estimate the maximum annual emissions (Figure 3-1). This model run was also used to estimate operational emissions (both annual and maximum daily operational emissions). As shown in the schedule, either the site preparation or construction phases would be underway at one site at any given time. Because the equipment list and hours of equipment use for the site preparation and construction phases are identical, these phases were modeled as one continuous phase (beginning with site preparation for the first well and concluding with construction for the last well). Drilling would also be underway at one site at any given time and was modeled as one continuous phase.
- Maximum daily construction emissions: In order to capture the possibility that the construction schedule does not perfectly stagger the work at each site, another model run was conducted to estimate the maximum daily emissions that would occur if site prep/construction was underway at two sites simultaneously, or if

drilling was underway at two sites simultaneously. The construction equipment for each phase was doubled in order to account for work at two sites, and the modeled schedule extended from January 2024 through July 2024 in order to capture both summer and winter emissions. A single model run was used to calculate emissions of site preparation/construction at two sites and drilling at two sites. Maximum daily emissions were then determined based on the most impactful phase and season for each modeled pollutant.

Land Use Assumptions

CalEEMod has predetermined land use options that must be categorized for each modeling phase. Based on the project description, engineering input, and professional modeling experience, "other asphalt surface" was used. It is also assumed that each well would require ground disturbance area of 3,000 square feet as described in *Section 2.4.2 Well Construction*.

Construction Fleet and Equipment Operation Hours

The construction fleet is separated into two groups, one for drilling and one for site preparation and construction activities. The following table provides the equipment and the estimated maximum potential daily hours of operation. Assumptions for daily operation of each equipment is provided in **Table 3-2**.

Table 3-2: Equipment List Per Construction Phase and Daily Operational Hours

Site Preparation and Construction Equipment	Max Daily Hours of Operation	Well Drilling	Max Daily Hours of Operation
Backhoe/Loader	6 hrs/day	Backhoe/Loader	8 hrs/day
Compressor	6 hrs/day	Compressor	8 hrs/day
Concrete Pumper	2 hrs/day	Crane	8 hrs/day
Generator	6 hrs/day	Drilling Rig	8 hrs/day
Pick-up Trucks (x2)	2 hrs/day	Generator	8 hrs/day
Pump	6 hrs/day	Pick-up Trucks (x2)	6 hrs/day
Utility Truck	3 hrs/day	Utility Truck	8 hrs/day
Water Truck	2 hrs/day	Water Truck	6 hrs/day
Welder	4 hrs/day	Welder	8 hrs/day

Vehicle Trips

Vehicle trips were based on project description information as discussed in *Section 2.4.3*. It is estimated that 10 workers are needed each day at each site, and no car-pooling would occur, resulting in 20 one-way vehicle trips per site per workday. Up to six one-way vehicle trips for materials deliveries would occur each day across both sites.

Haul trips for disposal of materials were calculated based on maximum likely well depths and grading material for each well site. As described in **Table 2-1**, an estimated 89 round-trip haul trips would be required for the proposed Project in total.

Operation and maintenance (O&M) activities including well sampling and well maintenance would also require workers to travel to and from the proposed Project well sites. As described in *Section 2.4.7*, O&M vehicle miles traveled (VMT) was calculated by determining the likely route required to travel to each well and perform annual operation and maintenance tasks. Approximately 1,280 vehicle trips would occur annually traveling approximately 19,260 miles in total. It should be noted that O&M of the proposed Project would not result in an increase in worker commute trips because existing staff would take over these tasks, thus no additional worker commuter trips were incorporated into the model.

All other values related to vehicle miles and worker trips, such as fleet mix, use model default values.

Other Model Assumptions

CalEEMod is used for a wide range of potential projects, including general construction, housing, etc. based on modeling experience, other values were either nulled or use model default values. For example, because the proposed Project does not require connection to the electrical grid or other energy sources for operation, operational energy use is zero.

Environmental and Regulatory Commitments

In general, construction projects utilize environmental and regulatory commitments regardless of whether mitigation is required through CEQA and/or NEPA. Regulatory commitments relevant to the Project include SCAQMD Rule 403 Fugitive Dust Control requirements. SCAQMD's Rule 403 requires construction projects to implement measures to suppress fugitive dust emissions, such as watering of exposed soils and the preparation of a Fugitive Dust Control Plan. The construction contractor would be required to have a Fugitive Dust Control Plan approved by either the SCAQMD or Riverside County prior to grading or excavation activities. This requirement was factored into the CalEEMod modeling runs.

Construction Emissions

Air emissions of criteria pollutants during construction would result from the use of construction equipment with internal combustion engines, as well as offsite vehicles to transport workers and deliver materials to the site, and to haul export material from the site. Project construction would also result in fugitive dust emissions, which would be lessened through the implementation of the fugitive dust control measures required by SCAQMD rules.

As described in *Section 2.4.8 Environmental Commitments*, EMWD implements standard best practices and complies with applicable regulatory requirements to control fugitive dust, which provides a level of emissions reductions before mitigation measures are implemented. **Table 3-3** summarizes the maximum daily pollutant emissions during construction of the proposed Project, with environmental and regulatory commitments incorporated, based on the well construction schedule.

Table 3-3: Maximum Daily Construction Emissions (pounds/day)

Emissions Source	Reactive Organic Gases (ROG)	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Construction Equipment	6	46	46	<1	2	2
Offsite emissions	<1	<1	1.5	<1	<1	<1
Fugitive dust (with required fugitive dust controls)	--	--	--	--	<1	<1
Total Maximum Daily Emissions	**6.2**	**46.6**	**47.3**	**<1**	**2.4**	**1.9**
SCAQMD Regional Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Note: In CalEEMod, environmental commitments, including regulatory requirements to control fugitive dust, must be added as "mitigation measures." Therefore, these results reflect the mitigated scenario in the output tables in Appendix A.

As shown in **Table 3-3**, Project construction would not exceed SCAQMD regional thresholds for any constituents.

Additionally, while the use of SCAQMD Local Significance Thresholds (LSTs) is voluntary, the proposed Project emissions were compared to LSTs for the proposed Project area and are provided in **Table 3-4**. LSTs are only applicable to emissions within a fixed, stationary location, such as construction sites, and vary based on project site size.

Table 3-4 provides applicable LSTs for the proposed Project. Because the proposed Project would disturb less than one acre per day during construction (a well site disturbance footprint is 0.07 acre), the LST for construction of a one-acre project was used. As shown in **Table 3-4**, Project construction emissions do not exceed the one-acre LST which applies to receptors at a distance of 25 meters (82 feet) from the proposed Project site boundary and represents the most conservative LST distance.

Table 3-4: Maximum Daily Emissions Compared to LSTs (pounds/day)

	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Proposed Project	6.2	46.6	47.3	<1	2.4	1.9
Proposed Project LST (one-acre LST)	*--*	*118*	*602*	*--*	*4*	*3*
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Operations

Long-term emissions from the proposed Project would result almost exclusively from vehicle trips to and from the wells for inspections and monitoring, along with drive-bys to collect automatic data from the wells. CalEEMod only calculates direct emissions of criteria pollutants from energy sources that combust on-site, such as natural gas. The proposed Project does not propose to combust natural gas onsite or produce any other electricity on-site. Criteria pollutant emissions from power plants are associated with the power plants themselves, which are stationary sources permitted by air districts and/or

the US EPA, and are subject to local, state and federal control measures. Thus, CalEEMod does not calculate or attribute emissions of criteria pollutants from electricity consumption to individual projects.

Operational emissions of criteria pollutants from mobile and area sources associated with operation and maintenance of the proposed Project are included in **Table 3-5**. No SCAQMD mass daily thresholds would be exceeded by operation of the proposed Project.

Table 3-5: Maximum Daily Project Operational Emissions Compared to SCAQMD Thresholds

Emissions Source	**NO_x**	**VOC**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Operational Emissions (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**

Similar to the 2022 Revised MND project, emissions of criteria pollutants would be less than significant for both construction and operation of the proposed Project and no mitigation would be necessary.

c) Less than Significant Impact

Sensitive receptors are typically defined as schools (preschool – 12th grade), hospitals, resident care facilities, senior housing facilities, day care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. Sensitive receptors within the project vicinity include single-family residences, multi-family residences, schools, churches, day care centers, and hospitals. In some cases, residences or schools are located adjacent to the well sites. *Section 2.3 Environmental Setting and Existing Conditions* identifies the schools within one half-mile of the potential well locations. The Riverside University Health System Medical Center, Riverside County Regional Medical Center and Moreno Valley Community Hospital are located within one mile of the proposed Project

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. Therefore, projects that conform to the LSTs are assumed to have a less than significant impact on nearby sensitive receptors. Similar to the 2022 Revised MND project, and as discussed under “b” above, the proposed Project’s construction and operational emissions would not exceed SCAQMD regional thresholds or LSTs. Therefore, sensitive receptors would not be subjected to substantial pollutant concentrations and impacts would be less than significant.

d) Less than Significant Impact

The proposed Project would involve emissions of sulfur compounds from use of oil and diesel fuel during construction, which would potentially result in unpleasant odors. Construction would be temporary and odorous emissions from construction equipment tend to dissipate quickly within short distances from construction sites. Once the proposed Project is operational, well sites would not be associated with odors. The proposed wells are not a permanent land use that is typically associated with nuisance odors, such as a landfill or rendering plant (CARB 2005). Similar to the 2022 Revised MND project, impacts would be less than significant.

Mitigation Measures: None required or recommended.

3.4 Biological Resources

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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,	[ ]	[ ]	[ ]	[X]

	hydrological interruption, or other means?				
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	[ ]	[ ]	[ ]	[X]
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	[ ]	[ ]	[ ]	[X]
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	[ ]	[X]	[ ]	[ ]

Discussion

A Biological Resources Assessment was prepared for the Perris North Groundwater Monitoring Project in February 2020, and a second Biological Resource Assessment prepared in 2021 for the Revised Perris North Groundwater Monitoring Project (addressed in the 2022 Revised MND). The 2020 and 2021 Biological Resources Assessments provide analytical coverage for the proposed Project because the roadway rights-of-way that are included in this Subsequent IS/MND are located within the original five-mile database search radius of the 2020 and 2021 Biological Resources Assessments. The 2020 Biological Resources Report is included as **Appendix B** to this Subsequent MND. The 2021 Biological Resources Report is included as Appendix B in the 2022 Revised MND, which has been provided as **Appendix E** of this Subsequent MND. Similar to the proposed Project, the project covered in the 2020 Biological Resources Assessment included the construction and operation of monitoring wells within City of Moreno Valley roadway rights-of-way. The construction and operational footprints of the proposed Project well clusters would be similar to or less than those of the wells analyzed in the 2020 Biological Resources Assessment, and under both projects, wellheads would either be flush-mounted to sidewalks/streets or would consist of a standpipe surrounded by bollards. Although the specific location of the proposed Project well clusters is not known, the biological resource impacts associated with the construction and operation of the proposed Project are expected to be similar to those analyzed in the 2020 Biological Resources Assessment.

Regulated or sensitive resources studied and analyzed included special status plant and wildlife species, nesting birds and raptors, wildlife movement, sensitive plant communities, jurisdictional waters and wetlands, and locally protected resources (i.e., trees). Potential impacts to biological resources were analyzed based on the following statutes:

- California Environmental Quality Act
- Federal Endangered Species Act
- California Endangered Species Act
- Federal Clean Water Act
- California Fish and Game Code
- Migratory Bird Treaty Act
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- City of Moreno Valley Municipal Code
- Western Riverside County Multiple Species Habitat Conservation Plan

The literature review determined the environmental and regulatory setting and included maps, aerial photographs, topographic quadrangles, and publicly available databases maintained by the National Wetlands Inventory, US Department of Agriculture, US Forest Service, United States Fish and Wildlife Service, California Department of Fish and Wildlife, Western Riverside County, and California Native Plant Society. The 2020 Biological Resources Assessment literature review was relied upon for this Subsequent IS/MND because the proposed Project, would be located within existing City of Moreno Valley roadway rights-of-way like the project as described in the 2020 Biological Resources Assessment and would be constructed and operated under similar conditions.

The 2020 and 2021 Biological Resources Assessments also included a field reconnaissance survey to document site conditions and the potential presence of sensitive biological resources, such as plants, wildlife, nesting birds, and jurisdictional waters and wetlands. The 2021 field survey included an additional burrowing owl (*Athene cunicularia*) (BUOW) habitat assessment and burrow survey. The 2020 Biological Resources Assessment field reconnaissance survey and burrowing owl habitat assessment were relied upon for this Subsequent IS/MND because the proposed Project, would be located within existing City of Moreno Valley roadway rights-of-way and staging areas would be located on existing EMWD owned parcels, similar to the project as evaluated in the 2020 Biological Resources Assessment.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on biological resources with the implementation of Mitigation Measures BIO-1 and BIO-2. Although the proposed Project sites are located within a highly developed urban area, undeveloped areas adjacent to Project sites that contain low-growing, non-native ruderal species may provide low quality or marginal foraging

and/or nesting habitat for sensitive wildlife species or nesting birds. Mitigation Measure BIO-1 would be implemented to avoid direct impacts to the burrowing owl and California horned lark and Mitigation Measure BIO-2 would be implemented to avoid impacts to nesting birds in potential Project sites that contain trees. Although the Project is within the boundaries of the Western Riverside County MSHCP and County of Riverside Stephen's Kangaroo Rat Plan and Fee Area (County of Riverside Ordinance No. 663), the Project would not impact or result in the loss of habitat or conserved land. There are no jurisdictional features, vernal pools, fairy shrimp habitat, or mapped essential habitat connectivity areas within the Project area.

a) Less than Significant with Mitigation Incorporated

The proposed Project would be located in an urban, built-out setting with the proposed sites located within previously disturbed roadways and surrounded by existing development. Sensitive plant and wildlife species are not expected to occur within City of Moreno Valley roadway rights-of-way due to the lack of suitable habitat as well as historical and existing disturbances. As noted in the 2020 Biological Resources Assessment, the proposed Project has limited habitat for wildlife species that commonly occur within urban communities in the Riverside County region.

Based upon the findings in the 2020 Biological Resources Assessment, the BUOW and the California horned lark (*Eremophila alpestris actia*) are the only sensitive wildlife species with a low potential to occur within the proposed Project area. During the 2020 Biological Resources Assessment field survey, no horned larks, BUOW or signs of either species (i.e., pellets or whitewash) were observed. During the 2021 Biological Resources Assessment field survey, one BUOW was observed at MW Opt. C-2 parcel. Nonetheless, undeveloped areas adjacent to potential well cluster locations that contain low-growing, non-native ruderal species may provide low quality or marginal foraging and/or nesting habitat for the BUOW and the California horned lark species. Implementation of **Mitigation Measure BIO-3** would require a preconstruction nesting bird survey to minimize impacts to nesting birds to less than significant.

Because the proposed Project sites are not finalized, there is the potential for selected well locations to be near trees or shrubs that could provide suitable habitat for common avian species such as mourning doves and house finches that have the potential to nest even in highly disturbed areas. Additionally, although some species such as horned larks are typically ground nesters and will nest on bare ground, no suitable habitat for ground nesting birds is anticipated within the proposed Project sites in the paved right-of-way given the existing levels of disturbance and observations from the 2020 Biological Resources Assessment field survey. All the common avian species, except the horned lark, are not candidate, sensitive, or special status.

Construction activities would primarily occur within highly disturbed roadways that are located within a highly developed urban area and surrounded by existing commercial and residential development. With the proposed Project being confined to existing roadway right-of-way or other developed areas, it would likely deter wildlife and nesting birds from

using the site long-term or even at all, and no sensitive plant species are anticipated. Nonetheless, **Mitigation Measure BIO-3** would be implemented and require a nesting bird survey of the final well locations prior to the start of construction. With the implementation of **Mitigation Measure BIO-3**, there would be less than significant impacts to candidate, sensitive, or special status species.

b) No Impact

Based upon the findings in the 2020 and 2021 Biological Resources Assessments, no sensitive plant communities are anticipated to be present on the proposed Project sites. The Project sites are not suitable to support such communities due to the high level of disturbance and development, and the wells would be constructed within the paved roadway right-of-way which is not suitable to support vegetation. Sensitive plant and wildlife species typically have very specific habitat requirements, which the proposed Project area does not support. Additionally, there are no riparian/riverine habitats present within the proposed Project sites. Similar to the 2022 Revised MND project, the proposed Project is within the boundaries of the Western Riverside County MSHCP, which defines areas within the plan boundaries to permanently preserve portions of habitat and decrease development in these areas. The proposed Project area would not be located within a preservation area or riparian/riverine habitat protected by the MSHCP; therefore, no MSHCP actions are required. Lastly, there are no jurisdictional features located within the proposed Project area that are under jurisdiction of the US Army Corps of Engineers, Regional Water Quality Control Board, or CDFW. Therefore, the proposed Project would have no impact on any riparian habitat or other sensitive natural community.

c) No Impact

The proposed Project sites consist of developed areas that are interconnected by urban roadways. Based upon the findings in the 2020 and 2021 Biological Resources Assessments, no hydric soils, vernal pools, fairy shrimp habitat, or jurisdictional features under the jurisdiction of the US Army Corps of Engineers, Regional Water Quality Control Board, or California Department of Fish and Wildlife are anticipated to be within or adjacent to the proposed Project area. Therefore, no action would be required in regard to vernal pools or other aquatic resources. No impact would occur.

d) No Impact

Based upon the findings in the 2020 and 2021 Biological Resources Assessments, there are no mapped essential habitat connectivity areas in the immediate vicinity of the Project sites. The proposed Project would be located within existing roadways and the construction and operation of the well clusters would be confined to the footprints described in *Section 2.4 Proposed Project Description*. Therefore, the proposed Project would have no impacts on wildlife movement.

e) No Impact

Similar to the 2022 Revised MND project, the proposed Project would be located in the County of Riverside Stephen's Kangaroo Rat Plan and Fee Area (County of Riverside Ordinance No. 663). County Ordinance No. 663 requires all proposed development projects that are located within the fee area to be reviewed to assess the most appropriate course of action to protect the survival of the species (County of Riverside nd). The 2020 and 2021 Biological Resources Assessments provide coverage of the proposed Project area and fulfills the requirements of the proposed Project's review under County Ordinance No. 663. Based upon the findings in the 2020 and 2021 Biological Resources Assessments, the proposed Project sites in the roadway rights-of-way lack suitable grassland, coastal shrub and sagebrush habitat needed to support Stephen's Kangaroo Rat. Therefore, the proposed Project would not impact, or result in the loss of suitable habitat for the Stephen's Kangaroo Rat. There are no other biological resources protected by local policies or ordinances within the proposed Project area. Therefore, there would be no impact.

f) Less than Significant Impact

The proposed Project would be located in the Western Riverside MSHCP and portions of the proposed Project sites would be located within the BUOW habitat assessment area, but not within a designated survey area identified for any other MSHCP covered species. There is low potential for BUOW to occur at the proposed Project locations because the proposed sites are highly disturbed roadways and surrounded by urban development (see response to question *a*, above, for more details*).* In addition, no BUOW were observed during the 2020 Biological Resources Assessment field survey and one BUOW was observed at MW Opt. C-2 parcel during the 2021 Biological Resources Assessment field survey, which is approximately 2.5 miles south of the Subsequent IS/MND MW-15 site. The proposed Project would not be located within a MSHCP defined Criteria Cell, Public-Quasi Public Reserve Lands, or within a Core or Linkage. The proposed Project would not impact these conserved lands because of the urban development that separates them. Therefore, the proposed Project would have a less than significant impact.

Mitigation Measures:

BIO-3: Preconstruction Nesting Bird Survey. If the monitoring wells are located within the roadway right-of-way, and if Project construction occurs during avian nesting season (generally February 1 to August 31, but variable depending on seasonal and annual climatic conditions), as determined by a qualified biologist, then a survey for active nests shall be conducted by a qualified biologist within three days prior to construction activities to determine the presence/absence, location, and status of any active nests on-site and within 100 feet of the site. The biologist shall provide a written memorandum of results and findings prior to issuance of grading or other construction permits.

If nesting birds are found within 100 feet of the project site, a construction buffer of appropriate size (as determined by the qualified biologist) should be implemented around the active nests and demarcated with fencing or flagging. If ground/burrow nesting birds are identified, demarcation materials that will not provide perching habitat for predatory bird species should be used. Nests shall be monitored at a minimum of once per week by the qualified biologist until it has been determined that the nest is no longer being used by either the young or adults. No ground disturbance shall occur within this buffer until the qualified biologist confirms that the breeding/nesting is complete, and all the young have fledged and are capable of surviving independently of the nest. If project activities must occur within the buffer, they shall be conducted at a distance that will prevent project-related disturbances, as determined by the qualified biologist.

If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.

3.5 Cultural Resources

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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]	[ ]	[ ]

Discussion

A Cultural Resources Assessment Report was prepared in November 2021 for the 2022 Revised MND that included a cultural resources records search of the CHRIS at the Eastern Information Center at the University of California, Riverside, along with a field survey. A Cultural Resources Assessment Report was also prepared in 2020 for a previous version of this project which also included a records search and field visit. The 2020 Cultural Resource Assessment evaluated the potential for cultural resources within

roadway rights-of-way at specific locations within the City of Moreno Valley and the City of Perris. Neither of these Cultural Resources Assessment found cultural resources present within the evaluated area. Because the records searches conducted for the 2020 and 2021 Cultural Resources Assessment Reports overlap the proposed Project area in this Subsequent IS/MND, and the exact well locations are not yet determined, this analysis relies on the findings of those reports to the extent possible. No additional field survey was completed for this Subsequent IS/MND.

Construction of the proposed Project would be consistent with those evaluated in the 2021 Cultural Resources Assessment. Therefore, it is anticipated that construction of the proposed Project would have a similar impact to cultural resources as discussed in the 2022 Revised MND. The 2020 Cultural Resources Assessment Report is included as **Appendix C** to this Subsequent MND. The 2021 Cultural Resources Report is included as Appendix C in the 2022 Revised MND, which has been provided here as **Appendix E** of this Subsequent MND.

Similar to the proposed Project, the project covered in the Cultural Resources Assessment included the construction and operation of monitoring wells within the City of Moreno Valley. Although the specific location of the proposed Project's well clusters is not known, the cultural resources impacts associated with the construction and operation of the proposed Project are expected to be similar to those analyzed in the 2021 Cultural Resources Assessment. As stated above, the complete 2021 Cultural Resources Assessment Report is included as Appendix C in the 2022 Revised MND, which itself has been provided as **Appendix E** of this Subsequent MND.

The 2021 Cultural Resources Assessment was prepared to satisfy CEQA-Plus investigation, Section 106 of the National Historic Preservation Act (NHPA), and the National Environmental Policy Act (NEPA). The report included a cultural resources records search, Native American outreach, local historic group consultation, historical imagery review, and a field survey.

A cultural resources records search of the California Historical Resources Information System (CHRIS) at the Eastern Information Center at the University of California, Riverside was conducted in 2021 to identify any previously recorded cultural resources and cultural resources studies within the proposed Project area. No cultural resources were identified within the proposed Project sites.

A review of historical topographic maps and aerial photographs of the proposed Project area from the 1930s to the 2000s shows much of the area surrounding the Project sites were agricultural fields with sparse areas of residential development. Based on the aerial imagery, most of the agricultural land within the proposed Project area was replaced with residential, commercial, and industrial development by the early 21st century.

No pedestrian field survey was conducted for this Subsequent IS/MND due to uncertainty of the exact well cluster locations within the roadway right-of-way. However, pedestrian

field surveys conducted for the 2020 and 2021 Cultural Resources Assessments did not identify any evidence of the former presence of structures or buildings or historic-period debris or identify any new archaeological or built environment cultural resources within the Project area.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on cultural resources with the implementation of Mitigation Measures CUL-1 and CUL-2. Results of the CHRIS records search and field survey identified one existing historical resource within the proposed Project, however the proposed Project would not affect this resource because it falls outside of the construction footprint for the proposed Project and would not be disturbed by construction. Although the proposed Project sites are considered to have low archaeological sensitivity given the level of previous ground disturbance, and construction would disturb a relatively small area, there is always a possibility of discovering unknown historical, cultural, tribal cultural, or human remains during ground disturbing activities. Mitigation Measures CUL-1 and CUL-2 would ensure proper procedures are in place in the event of unanticipated discovery of previously unknown resources or human remains.

a) Less than Significant Impact with Mitigation Incorporated

According to the CHRIS records and field survey conducted for the 2021 Cultural Resources Assessment, there are no known historical resources within the proposed Project's construction footprint because they would be located within the paved roadway right-of-way, which do not have recorded historical resources. Similar to the 2022 Revised MND, although no known historical resources would be affected by the proposed Project, construction of the proposed Project would involve ground disturbing activities which have the potential to encounter previously unknown historical resources. While encountering unknown historical resources is highly unlikely due to the small area of disturbance created at each well cluster, as well as the proposed well locations within previously disturbed areas, implementation of **Mitigation Measure CUL-1** would ensure proper procedures are in place in the event of unanticipated discovery of previously unknown historical resources. Operation of the proposed Project would not involve ground disturbing activities and would therefore have no impact on historical resources. Implementation of **Mitigation Measure CUL-1** would reduce potential impacts during construction to previously unknown historical resources, if encountered during construction, to less than significant.

b) Less than Significant Impact with Mitigation Incorporated

Archaeological resources are not anticipated to be encountered because no cultural resources have been previously recorded within or immediately adjacent to the proposed Project sites and because of the previous ground disturbance within the Project area. Further, construction of the proposed Project would disturb only a small area (3,000 square feet of previously disturbed surface area, and a borehole only 12-inches in

diameter), decreasing the likelihood of encountering an archaeological resource during construction. However, if ground-disturbing activities expose previously unrecorded resources, **Mitigation Measure CUL-1** would help prevent further damage to cultural or archaeological resources. Operation of the proposed Project would not involve ground disturbing activities and would therefore have no impact on unique archaeological resources. With implementation of **Mitigation Measure CUL-1**, potential impacts from ground-disturbing activities during construction resulting in an adverse change to archeological resources would be less than significant.

c) Less than Significant Impact with Mitigation Incorporated

The proposed Project would be constructed in previously disturbed areas and would disturb a relatively small area during construction. The potential to encounter human remains during construction is therefore low, especially given that the proposed well sites are not in areas with known human remains. However, there is always a possibility of discovering human remains during ground disturbing activities. **Mitigation Measure CUL-2** would be implemented during construction to ensure proper procedures are in place if human remains are discovered during construction. With **Mitigation Measure CUL-2**, the impacts would be less than significant

Mitigation Measures:

CUL-1: Unanticipated Discovery of Cultural Resources. If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the find. If the discovery proves to be significant under NHPA and/or CEQA, additional work such as data recovery excavation and Native American consultation may be warranted to mitigate any significant impacts.

CUL-2: Human Remains. If human remains are encountered, Public Resources Code Section 5097.98 and California Health and Safety Code Section 7050.5 will be followed, and the County Coroner shall be notified immediately. If human remains are encountered, no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours. Subsequently, the NAHC shall identify the person or persons it believes to be the "most likely descendant" (MLD). The MLD shall complete inspection of the site within 48 hours of being granted access and make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code Section 5097.98

3.6 Energy

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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]	[ ]

Discussion

The 2022 Revised MND describes the applicable energy background, environmental setting, and regulatory setting, which is incorporated by reference herein. Since the 2022 Revised MND was adopted, the City of Moreno Valley developed and adopted the Moreno Valley Climate Action Plan (CAP) (City of Moreno Valley 2021b), concurrently with the Moreno Valley General Plan 2040 (City of Moreno Valley 2021a). The CAP included an inventory of energy use in the city by sector, including for the water and wastewater sectors. The CAP reported that EMWD and Box Springs Mutual Water Company consumed 4,651,580 kilowatt-hours (kWh) of electricity to supply potable and non-potable water within Moreno Valley in 2019. Box Springs Mutual Water Company supplied less than 1% of the total amount of the City's water, so most of that electricity use can be attributed to EMWD. EMWD consumed 199,577 therms of natural gas in supplying potable and non-potable water in Moreno Valley in 2019. EMWD consumed 9,441,777 kWh of electricity and 419,096 therms of natural gas to treat and manage wastewater in Moreno Valley in 2019 (City of Moreno Valley 2021b). EMWD also adopted an updated 2020 Urban Water Management Plan (UWMP) (EMWD 2021). No other background or setting information has changed since the 2022 Revised MND was adopted.

Electrical service within the city of Moreno Valley is provided by Southern California Edison (SCE) and Moreno Valley Utility. Natural gas service within the city of Moreno Valley is provided by the Southern California Gas Company. SCE's power content mix utilizes approximately 30.9 percent renewables, 3.3 percent large hydroelectric, 15.2

percent natural gas, 8.4 percent nuclear, and 42.3 percent from other and unspecified power sources through transactions (SCE 2020).

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on energy resources. Energy consumption for the proposed Project would primarily occur during temporary construction activities that would involve construction-related fossil fuel consumption from operation of construction equipment and worker and material delivery trips. The proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy during construction or operation, which would require a negligible increase in new vehicle trips for maintenance. In addition, the proposed Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

a) Less Than Significant Impact

Similar to the 2022 Revised MND project, construction of the proposed Project would require fossil fuel consumption for operation of diesel-powered construction equipment and vehicle trips from construction crew, equipment, and materials hauling and delivery trips. A description of the anticipation construction vehicle fleet can be found in *Section 2.4.2*. Estimates of the number of worker, hauling, and vendor trips were based on information in *Section 2.4.3* and CalEEMod model assumptions, which are based on surveys of similar construction activities. **Table 3-10** summarizes the anticipated construction fleet and trips generated for the proposed project. Further detail can be found in **Appendix A**.

Table 3-6 summarizes the anticipated construction fleet for the proposed Project.

Table 3-6: Construction Fleet Summary

Equipment	Number Required for Each Well
Backhoe/Loader	1
Drilling Rig	1
Crane	1
Utility Truck	1
Water Truck	1
Welder	1
Compressor	1
Pump	1
Pick-up Trucks	2
Concrete Pumper	1
Generator	1

Sources: Project-specific information provided by EMWD engineers and duration based on total construction timeframe. See *Section 2 Project Description*. CalEEMod Version 2020.4.0; see Appendix A for model output. When project-specific equipment is not available in CalEEMod, alternate construction equipment is selected based on similar horsepower.

The proposed Project would implement typical construction practices such pavement removal, drilling, and repaving. As shown in **Table 3-6**, the Project would not require unusual or excessive construction equipment or practices that would result in wasteful, inefficient, or unnecessary consumption of energy compared to projects of similar type and size. In addition, the construction fleet contracted for the proposed Project would be required to comply with the 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.

As described in *Section 2.4.2*, the 16 well clusters would have an average of 33 cubic yards of total material export and an additional approximately 50 cubic yards for grading at each well cluster. This was calculated based on the 12-inch boreholes and maximum potential depth of each well. Based on a haul truck capacity of 16 cubic yards per truck and the anticipated volume of material removed during drilling and construction, a total of 89 haul truck trips would be required across all 16 well clusters with an average of 6 total haul trips per well cluster. A summary of these volumes and haul truck trips for each well is provided in **Table 2-1**, in *Section 2.4.2 Well Construction*.

Each well cluster is estimated to require 10 workers during construction. Due to COVID-19 concerns, it is assumed that workers would not carpool to the site, resulting in 20 one-way trips per day for worker transportation to each well. Additionally, up to six one-way trips to staging areas would occur per day per well under construction. Once operational, manual water level and groundwater quality sampling would occur at each monitoring well location quarterly for one-week periods For each quarterly well visit, one truck with a sampling trailer and one support truck would visit each well (for a total of two trucks). This would result in a total of 20 one-way trips per monitoring well cluster per quarter, or a total of 1,280 vehicle trips per year (see *Section 2.4.7 Operation and Maintenance Vehicle Trips*). Given EMWD's overall size, with a service area of 555 square miles and providing water to over 855,000 people (EMWD 2021), vehicle trips associated with the proposed Project would be relatively minor. As such, construction and operation of the proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy during construction and impacts would be less than significant.

b) Less Than Significant Impact

The City of Moreno Valley CAP, prepared concurrently with the 2040 General Plan, promotes energy efficiency throughout the city and includes measures that address energy efficiency in the residential, commercial, industrial, off-road equipment, city public services and public lighting, and natural resources sectors. Energy-reduction measures applicable to proposed project construction include reducing emissions from heavy-duty construction equipment by limiting idling based on SCAQMD requirements; utilizing cleaner fuels, equipment, and vehicles; and requiring clear signage reminding construction workers to limit idling.

None of the energy-reduction measures from the City of Moreno Valley CAP apply to operation of the proposed Project because the proposed monitoring wells would result in a negligible net increase in EMWD's existing overall operations energy use, similar to the 2022 Revised MND project. Construction of the proposed Project would not conflict with the measure because the project would comply with the CARB In-Use Off-Road Diesel-Fueled Fleets Regulations (CARB 2011), including limiting idling. Furthermore, the Project would not result in wasteful or inefficient energy consumption as explained under question "a" above. Therefore, the proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and impacts would be less than significant.

Mitigation Measures: None required or recommended.

3.7 Geology and Soils

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	[ ]	[ ]	[ ]	[X]
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]	[ ]
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?	[ ]	[ ]	[ ]	[X]
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	[ ]	[X]	[ ]	[ ]

Discussion

The 2022 Revised MND describes the applicable geology and soils background, environmental setting, and regulatory setting, which is hereby incorporated by reference. Since the 2022 Revised MND was adopted, the City of Moreno Valley *General Plan 2006* was updated and replaced with the *General Plan 2040* (City of Moreno Valley 2021a) and the West San Jacinto Groundwater Basin GSP has been approved. No other new information or changed circumstances have arisen since the 2022 Revised MND was adopted.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on geological and soil resources with the implementation of Mitigation Measure GEO-1. Although the proposed Project area is not located within an Alquist-Priolo Earthquake Fault Zone and not susceptible to ground rupture, the proximity to the San Jacinto Fault Zone makes the project area susceptible to seismic hazards associated with strong ground shaking. However, the Project area is not at risk for tsunamis, seiches, landslides, or expansive soils given the project and local geologic

features. The project does not include septic tanks and would not destroy a known unique paleontological or geologic feature. In the unlikely event an unanticipated fossil is discovered, Mitigation Measure GEO-1 would require that it be preserved.

a.i) No Impact

Similar to the 2022 Revised MND project, the proposed Project would not be associated with significant levels of risk of loss, injury or death from rupture of a known earthquake fault. Based on California's Geological Survey's Earthquake Fault Zone Map (CGS 2018), the proposed Project area is not within a Fault Zone. The nearest potentially active fault mapped in accordance with the Alquist-Priolo Earthquake Fault Zoning Act is the San Jacinto Fault Zone, approximately four miles from the nearest potential Project site. Due to the distance between the Fault Zone and proposed Project area, there is no potential for the Project to adversely affect any existing faults.

a.ii) Less than Significant Impact

The San Jacinto Fault Zone, which runs through the eastern portion of the City of Moreno Valley and approximately four miles from the nearest potential Project site, is one of the most active faults in Southern California. Additionally, the San Andres Fault Zone is approximately 15 to 20 miles north of Moreno Valley and the Elsinore Fault Zone is approximately 12 to 18 miles south of the proposed Project area. The California Department of Conservation's Ground Motion Interpolator shows the proposed Project area has a 0.829 - 0.959 gravity for potential ground shaking[1] and would likely be subject to seismic ground shaking during a measurable seismic event (CDOC 2008).

Similar to the findings in the 2022 Revised MND, the potential for ground shaking in the Project area is relatively high due to the close proximity to the San Jacinto, San Andreas, and Elsinore Fault Zones. However, the project facilities would be designed per EMWD's Engineering Standards and Specifications which would ensure structural resiliency. The Project would also be designed and constructed pursuant to applicable American Water Works Association standards and would incorporate measures to accommodate seismic loading pursuant to guidelines such as the "Greenbook" Standard Specifications for Public Works Construction (Greenbook Committee of Public Works Standards, Inc. 2018), the International Building Code (International Code Council 2018), and the California Building Code (California Code of Regulations, Title 24, Part 2). 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, the proposed project would be located entirely below ground and would not exacerbate a risk of seismic-related damage to other existing resources in the vicinity. Impacts would be less than significant.

[1] Ground shaking potential is calculated as the potential for ground shaking that has a two percent chance of being exceeded in 50 years and is measured on a ratio scale to signify the severity of the earthquake.

a.iii) Less than Significant Impact

Liquefaction is the process by which clay-free soil, such as sands and silts, temporarily lose cohesion and strength and turn into a fluid state during a severe ground shaking event. This primarily occurs in areas saturated with high groundwater levels and recent deposits of sands and silts. Based on review of the City of Moreno General Plan 2040 liquefaction hazard map, the proposed Project sites would be located within land that has low to moderate liquefaction susceptibility. The proposed Project, including MW-01, MW-02, MW-05, MW-07, and MW-08 sites would be located within or immediately adjacent to areas of moderate liquefaction susceptibility. The proposed MW-09 site between Heacock Street and Indian Street would be located within land with a moderate liquefaction susceptibility and be adjacent to areas with high liquefaction susceptibility (City of Moreno Valley 2021a).

Similar to the 2022 Revised MND project, a soils and geotechnical report would be prepared for all finalized Project clusters by a California licensed geotechnical engineer prior to the start of design and construction of the proposed Project. The geotechnical report would evaluate various geotechnical characteristics, including determining whether there is a liquefaction risk for the proposed Project area, and provide recommendations for materials and design that should be incorporated into the specifications for each Project facility and component. In addition, the proposed Project would be designed in accordance with EMWD's Engineering Standards and Specifications, and the other standards and guidelines described under "a.ii" above, that would ensure structural resiliency during earthquakes and other ground instability events, such as liquefaction. While design would address seismic risks on the proposed Project wells, construction and operation of the proposed Project would not trigger a seismic event or associated liquefaction. Impacts would be less than significant.

a.iv) Less than Significant Impact

Landslide risk is typically associated with high slopes and unstable soils. The majority of the proposed sites would be located on parcels that are flat or have a minimal slope. Therefore, the potential for the Project to exacerbate the risk of landslides in the proposed Project area is low. Based on review of the City of Moreno General Plan 2040 landslide hazard map, the proposed Project sites would be located within areas that have very low landslide susceptibility. The Proposed MW-01, along Manzanita Avenue, MW-02 along Indian Street between Ironwood and Manzanita Avenue, MW-04A site between Day Street and Pigeon Pass Road, and MW-05 along Ironwood between Indian and Perris Boulevard would be adjacent to land with a moderate landslide susceptibility (City of Moreno Valley 2021a).

Similar to the 2022 Revised MND, the proposed Project would be designed and constructed in accordance with state and EMWD seismic engineering standards described under "a.ii" above. A soils and geotechnical report would be prepared for all proposed Project components that would evaluate soil stability of the proposed Project area. The proposed Project would not directly or indirectly cause potential substantial

adverse effects, including the risk of loss, injury, or death involving seismic-related landslides. Impacts would be less than significant.

b) Less than Significant Impact

Similar to the 2022 Revised MND project, construction of the proposed Project would require soil-disturbing activities, such as drilling, which would expose soil to erosion if exposed to strong winds, heavy rains, or other storm events. In compliance with the Construction General Permit, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared and BMPs would be implemented to control and reduce erosion and pollutant discharges associated with construction. Once construction is complete, all monitoring well disturbance areas would be returned to pre-Project conditions, including being repaved if pavement was present prior to construction, and therefore would not result in further soil erosion. Wellheads and bollards would be present and represent small alterations from pre-Project conditions but would not contribute to erosion or pollutant discharges because they would not be altering the footprint of impervious surface within the area due to the well locations within the paved right-of-way. All stormwater that occurs on the sites would be collected as runoff and conveyed and discharged to the street in accordance with applicable storm water drainage design and water quality control requirements. Therefore, erosion and sedimentation impacts would be less than significant.

c) Less than Significant Impact

Additional landslide impacts were addressed in response “a.iv” above. Lateral spreading is caused by earthquake-induced liquefaction, which has been determined to be a less than significant impact. Similar to the 2022 Revised MND, liquefaction and lateral spreading risks exist in the proposed Project area due to the well-drained, clay-free soils and shallow groundwater levels, though the proposed Project’s activities would not exacerbate these risks because it would not change the soil type or trigger a seismic event. Based upon the City of Moreno Valley General Plan 2040 hazard maps, Moreno Valley has low to moderate liquefaction susceptibility and low slope instability. The geotechnical report that would inform design, along with adherence to EMWD’s Engineering Standards and Specifications and other standards and guidelines would ensure structural resiliency to earthquake events and associated lateral spreading and liquefaction. Therefore, implementation of the proposed Project would not result in significant risk of landslide, lateral spreading, or liquefaction.

Similar to the 2022 Revised MND project, the Project area may be potentially susceptible to subsidence due to fluctuating groundwater levels within the City of Moreno Valley. EMWD, acting as the Groundwater Sustainability Agency for the western portion of the San Jacinto Groundwater Basin, developed the West San Jacinto Groundwater Basin GSP, which was adopted by the EMWD Board of Directors, acting as the West San Jacinto GSA Board of Directors, on September 15, 2021. The GSP documents basin conditions and basin management based on measurable objectives and minimum thresholds that would require groundwater to be managed in a sustainable manner. The

success of the proposed Project requires functioning monitoring wells; wells would not be functional if the groundwater basin collapsed. Construction method (sonic or rotary mud drilling) would be selected, and construction activities would be conducted to avoid collapse of the borehole, based on the results of the geotechnical report and compliance applicable design standards. The proposed Project's wells would be used for monitoring groundwater levels and quality and would not result in substantial extraction of groundwater that could contribute to subsidence or collapse in the groundwater basin. Therefore, the proposed Project would not be susceptible to risks associated with land subsidence or collapse; impacts would be less than significant.

d) Less than Significant Impact

Expansive soils have the ability to significantly change their volume, shrink and swell, due to their soil moisture content. Expansive soils can crack rigid structures and potentially create pipeline rupture. Typically, expansive soils are very fine grained with a high to very high percentage (60% or more) of clay. Similar to the 2022 Revised MND project, the proposed Project area soil types have a range of clay composition between 5% to 28% (USDA 2019). With the project-specific geotechnical report, expansive soils would be identified, and design specification would be implemented to avoid damage to proposed Project wells. The geotechnical report would include necessary design specifications that the proposed Project shall incorporate, including recommendations for materials and design, to avoid infrastructure damage from expansive soils. Additionally, the proposed 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. This application of proper design standards appropriate to the proposed well sites would minimize the direct and indirect risks to life or property associated with implementing the proposed Project in expansive soils, in such areas as may be identified in the geotechnical report. The proposed Project would not change soil composition or exacerbate the impacts of expansive soils in the proposed Project area. Impacts would be less than significant.

e) No Impact

The proposed Project would not include the construction or use of septic tanks or alternative wastewater disposal systems. Therefore, there would be no impact.

f) Less than Significant Impact with Mitigation Incorporated

A Paleontological Resources Assessment was prepared for the 2022 Revised MND project in November 2021. A Paleontological Resources Assessment was also prepared in 2020 for a previous version of this project which also included a records search and literature review, along with an assessment of paleontological sensitivity of underlying geology. The 2020 Paleontological Resource Assessment evaluated the potential for paleontological resources within roadway rights-of-way at specific locations within the City of Moreno Valley and the City of Perris. The 2020 Paleontological Resource Assessment

is included as **Appendix D** to this Subsequent MND. The 2021 Paleontological Resource Assessment is included as Appendix D in the 2022 Revised MND, which has been provided as **Appendix E** of this Subsequent MND. Given the proximity of the projects, the paleontological sensitivity of the geological units underneath the proposed Project area are the similar to those of the 2022 Revised MND project. Therefore, it is anticipated that construction of the proposed Project would have a similar impact to paleontological resources as the 2022 Revised MND project evaluated in the Paleontological Resources Assessment.

As discussed in the 2020 and 2021 Paleontological Resource Assessments**,** paleontological sensitivity of the geological units underneath the proposed Project area was assessed through a literature review, a fossil locality record search, and a review of existing geologic maps and paleontological locality data. A request was submitted to the Natural History Museum of Los Angeles County (NHMLAC) for a list of known fossil localities for the proposed Project area and immediate vicinity. The potential for impacts to significant paleontological resources was assessed based on the potential for ground disturbance to directly impact paleontological sensitive geologic units as defined by the Society of Vertebrate Paleontology. There are no previously recorded fossil localities in the Project sites based on the paleontological locality records search performed at NHMLAC. However, records maintained by the Western Science Center (WSC) indicate several fossil localities near the Project sites. WSC localities 192, 193, and 194 rendered fossil ground sloth (*Megalonyx jeffersonii*), lamine camel (*Hemiauchenia* sp.), and horse (*Equus* sp.) less than 10 miles northeast of the Project sites. Fossils from these localities were recovered from 11 to 13 feet below ground surface within Pleistocene alluvial fan deposits.

Similar to the 2022 Revised MND, ground-disturbing activities in previously undisturbed portions of the proposed Project sites underlain by geologic units with a high paleontological sensitivity (i.e., Pleistocene alluvial-fan deposits) may result in significant impacts to paleontological resources. Construction of the proposed Project would include establishing temporary work areas measuring approximately 10,000 square feet at the surface of each site and drilling and installing up to 16 groundwater monitoring wells between 60 and 420 feet below surface level. Minor ground-disturbances within the temporary work areas are unlikely to impact previously disturbed sediments at the surface. Vertical drilling of boreholes 12-inches in diameter is also not conducive to paleontological monitoring because drilling typically pulverizes the soil and sediment cuttings and removes the stratigraphic context of any fossils or microfossils that may be present within the borehole walls or the cuttings. Potential disturbance to intact Pleistocene sediments from well drilling would be limited to the diameter and would therefore make impacts to paleontological resources due to well drilling negligible. Although ground-disturbing activities are likely to impact geologic units of high paleontological sensitivity at depths of 11 feet or greater below surface level, the potential for encountering significant fossil resources during construction is low due to construction occurring in previously disturbed areas and impacts to paleontological resources are not anticipated. However, there is always the potential to encounter an unanticipated

paleontological resource whenever ground disturbing activities occur. **Mitigation Measure GEO-1** would be implemented during construction of the proposed Project, which would require work to stop if a fossil is encountered during construction until a qualified paleontologist can properly document the find. In the unlikely event an unanticipated fossil is discovered, **Mitigation Measure GEO-1** would ensure it would be preserved, and potential impacts on paleontological resources would be less than significant.

Mitigation Measures:

GEO-1: Unanticipated Fossil Discovery. In the event an unanticipated fossil discovery is made during the course of project development, then in accordance with the Society of Vertebrate Paleontology (2010) guidelines, it is the responsibility of any worker who observes fossils within the project site to stop work in the immediate vicinity of the find and notify a qualified professional paleontologist who shall be retained to evaluate the discovery, determine its significance and if additional mitigation or treatment is warranted. Work in the area of the discovery will resume once the find is properly documented and authorization is given to resume construction work. Any significant paleontological resources found during construction monitoring will be prepared, identified, analyzed, and permanently curated in an approved regional museum repository.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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]	[ ]

Discussion

The 2022 Revised MND describes the applicable greenhouse gas background, environmental setting, and regulatory setting, which is incorporated by reference herein. Since the 2022 Revised MND was adopted, the City of Moreno Valley developed and adopted the Moreno Valley Climate Action Plan (City of Moreno Valley 2021b), concurrently with the Moreno Valley General Plan 2040 (City of Moreno Valley 2021a). No other background or setting information has changed since the 2022 Revised MND was adopted.

The Moreno Valley CAP has been prepared concurrently with the updated Moreno Valley General Plan, reflecting the City's most current land use and transportation strategy, and GHG implications of various General Plan's goals and policies. The General Plan includes strategies, goals and policies to promote energy efficiency, waste reduction, and resource conservation and recycling that would result in GHG reductions compared to baseline trends (City of Moreno Valley 2021a).

The Moreno Valley CAP is designed to reinforce the City's commitment to reducing GHG emissions and demonstrate how the City will comply with State of California's GHG emission reduction standards. The CAP includes an inventory of the City's GHG emissions; forecasts of future GHG emissions; and actions that demonstrate the City's commitment to achieve State GHG reduction targets by monitoring and reporting processes to ensure targets are met. While there is no sunset year for the CAP, the CAP provides analysis of GHG emissions to the year 2040, which is the General Plan horizon year (City of Moreno Valley 2021b).

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on GHG emissions. Although the proposed Project would produce GHG emissions during construction and operation, total construction emissions from the proposed Project would be below the Riverside County CAP threshold, which is used to identify small projects that are considered less than significant and would not require mitigation. In addition, long-term GHG emissions from the proposed Project would result from mobile sources for quarterly visits and are considered negligible. The proposed Project would not interfere with existing City, County, or regional programs intended to reduce energy and improve water use efficiency, including the County's CAP, the City of Moreno Valley's Energy Efficiency and Climate Action Strategy and its Greenhouse Gas Analysis.

a) Less Than Significant Impact

The proposed Project would produce GHG emissions during construction and operation. Construction is expected to last approximately 15 months, and the proposed Project's life expectancy is 30 years. Construction impacts would include emissions associated with staging, site preparation, mud rotary and sonic drilling, and well construction. Operational

emissions would result from quarterly well inspections and sampling visits. Further details can be found in *Section 2 Project Description*.

Modeling of air emissions from construction and operation was completed in CalEEMod version 2020.4.0. Details on construction, including timing, duration, equipment, and worker trips can be found in *Section 2 Project Description*. Operational emissions would result from the vehicle trips to the wells for inspection and aquifer testing throughout the year. Based on annual operation and maintenance for each well, approximately 19,260 VMT would occur annually. Monitoring wells would not require a connection to the electrical grid; transducers would be battery-powered and other monitoring equipment would be brought to the site during sampling periods.

The results of the inventory for GHG emissions, as shown in the CalEEMod output tables in **Appendix A**, are presented in **Table 3-7** along with the significance threshold that was used in the 2022 Revised MND. Consistent with the methodologies in the 2022 Revised MND, total GHG emissions from construction have been amortized over the 30-year lifetime of the Project.

Table 3-7: Proposed Project GHG Emissions per Year ($MTCO_2e$/year)

Source	$MTCO_2e$
Area	0
Energy	0
Mobile	12
Waste	0
Water	0
Construction (amortized over 30 years)	74
Total	**86**
Threshold	3,000
Exceed Threshold?	*No*

The total construction emissions from the proposed Project would be 2,220 metric tons of carbon dioxide equivalent ($MTCO_2e$). Amortized over a 30-year period, the Project would generate approximately 74 $MTCO_2e$ per year. In addition to the low per year generation of $MTCO_2e$, the proposed Project would adhere to existing energy efficiency requirements during construction, including CARB's In-Use Off-Road Diesel-Fueled Fleets Regulations that limit vehicle idling time to five minutes, restrict adding vehicles to construction fleets that have lower than Tier 3 engines, and establish a schedule for retiring older and less fuel-efficient engines (CARB 2019). Similar to the 2022 Revised MND project, the proposed Project's construction related GHG impacts would be less than significant, and no mitigation would be required.

Similar to the 2022 Revised MND project, long-term GHG emissions from the proposed Project would result from mobile sources for quarterly visits, which is considered negligible as described above. Total GHG emissions are 84 $MTCO_2e$ annually, which is below the 3,000 $MTCO_2e$ threshold. Similar to the 2022 Revised MND project, the proposed Project's operation related GHG impacts would be less than significant, and no mitigation would be required.

b) Less than Significant Impact

California's 2017 Climate Change Scoping Plan focuses on reducing energy demand, and GHG emissions, which result from mobile sources and land use development. Similar to the 2022 Revised MND project, the proposed Project would not involve a considerable increase in new vehicle trips or land use changes that would result in an increase in vehicle trips, such as urban sprawl. Therefore, it would not conflict with the State's Climate Change Scoping Plan.

The City of Moreno Valley CAP contains a non-exclusive list of potential additional measures that can be applied at the project level to reduce GHG emissions. Identified reduction measures include renewable energy, green building, energy efficiency, transportation, water conservation, landscaping, and solid waste measures. The proposed project would not conflict with the City of Moreno Valley CAP project level GHG reduction measures.

Similar to the 2022 Revised MND project, the proposed 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. The proposed Project would not, therefore, conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Impacts would be less than significant, and no mitigation would be required.

Mitigation Measures: None required or recommended.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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]	[ ]	[ ]
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	[ ]	[ ]	[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]	[ ]

Discussion

The 2022 Revised MND describes the applicable hazards and hazardous materials background, environmental setting, and regulatory setting, which is incorporated by

reference herein. No background and setting information has changed since the 2022 Revised MND was adopted.

A regulatory records search was performed for the proposed Project area using the California State Water Resources Control Board (SWRCB) GeoTracker database (SWRCB 2022) and the California Department of Toxic Substances Control (DTSC) Envirostor database (DTSC 2022). There are three open cleanup sites listed on the SWRCB GeoTracker database within one mile of the proposed Project well clusters. Towngate Cleaners (ID T10000005207), located at 12625 Frederick Street, is an open cleanup program site roughly 0.7 miles south of the proposed MW-04 well cluster site. M&M Dry Cleaners (ID T10000004432), located at 23080 Alessandro Boulevard, is an open cleanup program site roughly 0.6 miles west of the proposed MW-09 well cluster site. Shell Gas Station (ID T0606517323), located at 15980 Perris Boulevard, is an open Leaking Underground Storage Tank (LUST) cleanup site adjacent to the proposed MW-15 well cluster site. There are two active cleanup sites listed on the DTSC Envirostor database within one mile of the proposed Project well clusters. Best Cleaners/Moreno Valley (ID 60002207), located at 11875 Pigeon Pass Road, is an active voluntary cleanup site adjacent to the proposed MW-04 well cluster site. Portions of the March Air Reserve Base (ID 33970004), an active federal superfund site, are located within a mile of the proposed MW-09 and MW-13 well cluster sites.

As discussed in *Section 3.20 Wildfire,* the Project area is located in a non–Very High Fire Hazard Severity Zone within the Moreno Valley Local Responsibility Area (CalFire 2009).

The March Air Reserve Base, which has its own airport, is located within one mile of proposed Project well cluster sites. The nearest municipal airport is the San Bernardino International Airport which is located over 10 miles north of the Project area.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on hazards and hazardous materials with the implementation of Mitigation Measures HAZ-1, HAZ-2a, HAZ-2b, and HAZ-2c in the 2022 Revised MND. Although the Project would not routinely transport or dispose of hazardous materials, use of construction machinery (i.e., drilling rig, cranes) and worker trucks throughout construction and operation that require petroleum and oils have the potential to accidently release hazardous materials into the environment. Implementation of Mitigation Measure HAZ-1 would minimize the risk of hazardous material exposure through material use and accidents by requiring EMWD and its construction contractor to develop a Hazardous Materials Management and Spill Prevention and Control Plan. The proposed Project sites would not emit hazardous waste within one-quarter mile of an existing or proposed school, but some proposed Project sites may be located adjacent to active or inactive cleanup sites which may expose workers to hazardous materials during ground disturbing activities. Mitigation Measures HAZ-2a, HAZ-2b, and HAZ-2c shall be implemented in order to proper health and safety planning to protect workers from exposure to hazardous wastes, and to dispose of hazardous materials properly. The Project is located in the

vicinity of the MARB but would not expose people living or working in the Project area to excessive noise or include tall structures that could interfere with airport safety measures. Finally, construction and operation of the proposed Project would not block or impair access to surrounding roadways or require any traffic lane closures.

a) Less than Significant Impact

Similar to the 2022 Revised MND project, construction of the proposed Project would temporarily increase the routine transport and use of hazardous materials such as for operation of equipment (i.e., gasoline, diesel) or installation of the monitoring wells (i.e., adhesives, solvents). However, the construction contractor would be required to comply with applicable safety standards and regulations as described in the 2022 Revised MND. EMWD would also be required to implement a SWPPP to address the discharge of contaminants (including construction-related hazardous materials) through appropriate BMPs. While specific BMPs would be determined during the SWPPP process based on site-specific characteristics (equipment types, etc.), they would include standard industry measures and guidelines contained in the National Pollutant Discharge Elimination System (NPDES) Construction General Permit. Groundwater encountered during construction would be discharged to land or surface water (storm drain) in accordance with applicable permits or would be discharged to EMWD's sewer for treatment and reuse. As discussed in *Section 2.4.2 Well Construction*, where the quality of groundwater recovered during construction fails to meet regulatory standards for discharge to surface waters, discharge to sewer would be required. With compliance with existing regulations, impacts during construction from the routine use of hazardous materials would be less than significant, and no mitigation would be required.

Once operational, each monitoring well would be visited quarterly to collect manual readings and data, conduct inspections, and perform well maintenance. Similar to the 2022 Revised MND project, the only potential hazardous materials exposure from operation of the proposed Project would be potential small leaks of petroleum products (i.e., gasoline, diesel) from worker vehicles and automotive exhaust. Up to two vehicles would be used to visit each well, and visits would be incorporated into EMWD's existing operational activities. The potential exposure to vehicle-related hazardous materials are minimal and consistent with existing exposure for EMWD operators. As such, operational activities do not risk substantial exposure to hazardous materials and impacts would be less than significant, and no mitigation is required.

b) Less than Significant with Mitigation Incorporated

Similar to the 2022 Revised MND project, construction of the proposed Project could create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials used in construction, which include diesel fuel and minor amounts of paints, solvents, and glues. Implementation of **Mitigation Measure HAZ-1** from the 2022 Revised MND would minimize the risk of hazardous material exposure through material use and accidents by requiring EMWD and its construction contractor to develop a Hazardous Materials

Management and Spill Prevention and Control Plan to ensure project-specific contingencies are in place. Impacts from hazardous materials to the public or the environment from potential accidents would be less than significant with implementation of **Mitigation Measure HAZ-1**.

Similar to the 2022 Revised MND project, there is very low to no risk of accidental release of hazard materials during operation of the proposed Project because the proposed monitoring wells are located underground and would not require the use of hazardous materials to perform monitoring activities. Some chemicals may be used during the quarterly maintenance of the proposed wells, such as vehicle fuel, which could be accidentally released. However, the proposed Project would be required to comply with existing standards and regulations (see response to "a" above) that would minimize the risk of accidental hazardous material release during operation. In addition, a Hazardous Materials Business Plan, Emergency Response Plan, Risk Management Plan, and Health and Safety Plan would need to be prepared and implemented based on the State of California Accidental Release Prevention (CalARP) requirements. The CalARP Program incorporated and modified the Federal Risk Management Plan and designed it to minimize harm to people and the environment through enforcing regulations that minimize risks for facilities that handle hazardous material. Safety measures would be put in place to ensure proper sampling and spill procedures, and training for site workers. Impacts would be less than significant with implementation of **Mitigation Measure HAZ-1**.

c) Less than Significant with Mitigation Incorporated

Similar to the 2022 Revised MND project, there are existing schools within one-quarter mile of the proposed Project well clusters that would be exposed to hazardous emissions during construction (see *Section 2.3 Environmental Setting and Existing Conditions*). As explained in *Section 3.3 Air Quality*, construction emissions would be below SCAQMD LST thresholds and less than significant. As explained in response to "b" above, there is a risk of accidental release of hazardous materials during project construction, including within one-quarter mile of schools. Implementation of **Mitigation Measure HAZ-1** would reduce impacts to less than significant.

Similar to the 2022 Revised MND project, operation of the proposed Project monitoring wells would require quarterly visits for manual groundwater sampling, inspection, and maintenance; however, no hazardous materials would be handled or emitted on a regular basis. As explained under responses "a" and "b" above, operation of the monitoring wells would be compliant with local standards and regulations, and there would be less than significant impacts related to hazardous material release associated with long-term Project operation and maintenance activities. Similar to the risk of exposure to hazardous materials during construction, implementation of **Mitigation Measure HAZ-1** during operation, required under impact "b" above, would further reduce the potential exposure of schools to hazardous materials during operation of the proposed Project.

d) Less Than Significant with Mitigation Incorporated

As described above, a search was conducted on the SWRCB GeoTracker and DTSC EnviroStor databases in the vicinity of the proposed project. These databases provide information on potential, confirmed, and closed hazardous waste and substances sites in California. Based on this review of the GeoTracker and EnviroStor databases, none of the proposed well clusters would be located on a site that is included on a list of hazardous materials sites per Government Code Section 65962.5 (DTSC 2022 and SWRCB 2022).

There are two active cleanup sites adjacent to proposed Project well cluster rights-of-way:

- Shell (GeoTracker T0606517323) is adjacent to the right-of-way for the proposed MW-15 site near the intersection of Perris Boulevard and Iris Avenue. It was discovered in 2004 that soil and groundwater had been contaminated by an accidental release of gasoline. Cleanup activities are being overseen by the Riverside County Department of Environmental Health (DEH) and the Santa Ana RWQCB. The cleanup status was designated Open – Verification Monitoring on 8/19/2016. Continued monitoring includes 13 wells monitored quarterly and 36 wells monitored semi-annually.

- Best Cleaners/ Moreno Valley (EnviroStor ID 60002207) is adjacent to the right-of-way for the proposed MW-04 site near the intersection of Pidgeon Pass Road and Ironwood Avenue. The DTSC entered a voluntary cleanup agreement with the property owners to remediate potential soil contamination from tetrachloroethylene release as part of dry cleaning operations. The DTSC Hazardous Waste Management Program is the lead agency overseeing remediation. The site is active as of 7/7/2015.

There are seven closed cleanup sites adjacent to the right-of-way for the proposed Project well cluster sites:

- Fastrip #13 (GeoTracker ID T0606500482) is adjacent to the right-of-way for the proposed MW-06 site near the intersection of Heacock Street and Sunnymead Boulevard. It was discovered in 1996 that soil and groundwater had been contaminated by an accidental release of gasoline. Cleanup activities were overseen by the DEH and the Santa Ana RWQCB. The cleanup status was designated as Completed – Case Closed on 11/13/2006.

- Circle K #0872 (GeoTracker ID T0606547819) is adjacent to the right-of-way for the proposed MW-07 and MW-08 sites near the intersection of Perris Boulevard and Dracaea Avenue. It was discovered in 1998 that soil and groundwater had been contaminated by an accidental release of gasoline. Cleanup activities were overseen by the DEH and the Santa Ana RWQCB. The cleanup status was designated as Completed – Case Closed on 6/6/2013. Continued monitoring includes five wells monitored semi-annually and three wells monitored annually.

- Arco #5344 (GeoTracker ID T0606500632) is adjacent to the right-of-way for the proposed MW-09 site near the intersection of Graham Street and Alessandro Boulevard. It was discovered in 1998 that soil had been contaminated by an accidental release of gasoline. Cleanup activities were overseen by the DEH and the Santa Ana RWQCB. The cleanup status was designated as Completed – Case Closed on 7/11/2001.

- Mobile #18-A3E (GeoTracker ID T0606599291) is adjacent to the right-of-way for the proposed MW-09 site near the intersection of Indian Street and Alessandro Boulevard. It was discovered in 2001 that soil had been contaminated by an accidental release of gasoline. Cleanup activities were overseen by the DEH and the Santa Ana RWQCB. The cleanup status was designated as Completed – Case Closed on 5/1/2019. Continued monitoring includes three wells monitored quarterly, ten wells monitored semi-annually, and two wells monitored at another frequency.

- Arco #5208 (GeoTracker ID T0606562779) is adjacent to the right-of-way for the proposed MW-10 site near the intersection of Perris Boulevard and Alessandro Boulevard. It was discovered in 2002 that soil and groundwater had been contaminated by an accidental release of gasoline. Cleanup activities were overseen by the DEH and the Santa Ana RWQCB. The cleanup status was designated as Completed – Case Closed on 11/7/2008.

- Tosco/ 76 Station #6962 (GeoTracker ID T0606504503) is adjacent to the right-of-way for the proposed MW-10 site near the intersection of Perris Boulevard and Alessandro Boulevard. It was discovered in 2006 that soil had been contaminated by an accidental release of waste oil (motor oil, hydraulic oil, lubricating oil). Cleanup activities were overseen by the DEH and the Santa Ana RWQCB. The cleanup status was designated as Completed – Case Closed on 2/28/2007.

- Tosco/ 76 Station #6962 (GeoTracker ID T0606500535) is adjacent to the right-of-way for the proposed MW-10 site near the intersection of Perris Boulevard and Alessandro Boulevard. It was discovered in 1998 that soil and groundwater had been contaminated by an accidental release of gasoline. Cleanup activities were overseen by the DEH and the Santa Ana RWQCB. The cleanup status was designated as Completed – Case Closed on 12/9/2010.

Although none of the proposed Project sites would be located on a designated hazardous materials site, construction of monitoring well clusters in the right-of-way adjacent to a cleanup site could expose workers to contaminated soil and groundwater during site preparation and well drilling. Although the construction sites would not be accessible to the public, and thus the general public would not be at risk for exposure to a significant hazard related to potential contaminated soils, workers could be at risk for exposure to hazardous substances during construction of MW-04 and MW-15 if the right-of-way is selected for the well clusters. Therefore, **Mitigation Measure HAZ-2d** shall be

implemented requiring EMWD to conduct environmental site assessments for these locations prior to the final siting of well clusters to avoid disturbance of existing contamination and ongoing testing and remediation efforts. Additionally, **Mitigation Measures HAZ-2b** and **HAZ-2c** from the 2022 Revised MND shall be implemented in order to ensure proper health and safety planning to protect workers from exposure to hazardous wastes, and to dispose of hazardous materials properly (including soils and groundwater).

Similar to the 2022 Revised MND project, operation of the proposed Project would involve quarterly visits for inspection and monitoring which would not include ground-disturbing activities that could pose a risk of exposure to workers or the public. With **Mitigation Measures HAZ-2b, HAZ-2c and HAZ-2d** in place, the proposed Project's potential to create a hazard to the public or environment would be less than significant.

e) Less Than Significant Impact

Similar to the 2022 Revised MND project, the proposed Project is located near the MARB, which has its own airport. The entire Project area is located within the FAR Part 77 Military Outer Horizontal Surface Limits, and five of the proposed well cluster sites are located within the MARB Airport Influence Area Zone E, which is the outer limits of the influence area (Riverside County Airport Land Use Commission 2014). Zone E is the outer portion of the flight corridor and is only occasionally used, which leads to low noise disturbances. Although these locations could expose workers to airport-related noises, project construction would require the use of noisy machinery (e.g., drill rig) and workers would already have hearing protection appropriate to the site and as required by California Occupational Safety and Health Administration (OSHA). Additionally, the proposed Project sites are outside the noise contours for MARB, which would further reduce worker exposure to airport noise (City of Moreno Valley 2021a).Therefore, airport noise from MARB would not substantially increase the noise exposure of workers at these sites. In addition, well construction would be temporary, lasting approximately eight weeks of drilling per well cluster, limiting how long workers would be exposed to airport noise.

Project operation would not generate elevated noise levels because monitoring equipment includes transducers that do not generate noise when located in the wells. Quarterly vehicle trips to and from the wells would not generate new noise noticeable above the preexisting ambient noise of the roads. Maintenance and manual sampling activities, which would occur quarterly, would occur during the day, and would not involve the use of heavy machinery other than the vehicles used to get to and from the sites. Therefore, the proposed Project would not expose people living or working in the Project area to excessive noise. In terms of safety, the Project would not include tall structures that could interfere with airport safety measures. Impacts would be less than significant.

f) Less than Significant with Mitigation Incorporated

The proposed Project would involve the installation of up to 16 monitoring well clusters within City of Moreno Valley roadway rights-of-way. Construction of the proposed Project

would temporarily block traffic lanes that could be used by emergency response vehicles or in emergency evacuations such that construction activities may conflict with the adopted emergency response plan and emergency evacuation plan (City of Moreno Valley Emergency Operations Plan [City of Moreno Valley 2019a] and City of Moreno Valley Local Hazard Mitigation Plan (LHMP) [City of Moreno Valley 2017]). As discussed in *Section 3.17 Transportation*, **Mitigation Measure TRA-1** would be implemented during Project construction. The Traffic Control Plan developed under this mitigation measure includes coordination with emergency responders to ensure that construction would not interfere with emergency response times. Installation of well clusters within roadways would require well heads flush-mounted to the well pad or existing pavement. Installation of well clusters that include a standpipe surrounded by traffic bollards (see *Section 2.4.1 Description of Monitoring Wells*) would be installed at a practicable distance from traffic lanes to ensure no permanent impact to vehicles.

During operation, the wells would require quarterly data collection visits and inspections as needed, which would impact a roughly 400 square feet around each well cluster for a period of up to one week. These minimal operational activities would require temporary lane closures for proposed sites located within the roadway for each quarterly monitoring event. Temporary lane closures associated with operation of the proposed Project could interfere with implementation of an adopted emergency response plan by reducing access in the event of an evacuation or emergency. With the implementation of **Mitigation Measure TRA-1** (see *Section 3.17 Transportation*), coordination with local emergency responders would be required regarding lane closures for both construction and operation. Impacts would be less than significant with the incorporation of **Mitigation Measure TRA-1**.

g) Less than Significant Impact

Similar to the 2022 Revised MND project, the proposed Project would not involve the installation or maintenance of infrastructure that is typically associated with fire risk (see *Section 3.20 Wildfire*). Additionally, the proposed Project sites are located within area designated as non–Very High Fire Hazard Severity Zone (VHFHSZ) within the Moreno Valley Local Responsibility Agency (LRA) (FRAP 2009). Therefore, the proposed Project would have a less than significant impact on exposing people or structures to a significant risk of loss, injury or death involving wildland fires.

Mitigation Measures:

Mitigation Measure HAZ-1: Hazardous Materials Management and Spill Prevention and Control Plan. Before construction begins, EMWD shall prepare a Hazardous Materials Management Spill Prevention and Control Plan that includes a project-specific contingency plan for hazardous materials and water operations. The Plan will be applicable to construction activities and will establish policies and procedures according to applicable codes and regulations, including but not limited to the California Building and Fire Codes, and federal and OSHA regulations. The Plan will include, but is not limited to the following:

- A discussion of hazardous materials management, including delineation of access and egress routes, waterways, emergency assembly areas, and hazardous material disposal;
- Notification and documentation of procedures; and
- Spill control and countermeasures, including employee spill prevention/response training.

Mitigation Measure HAZ-2b: Prepare Project-Specific Health and Safety Plan. EMWD or its contractor shall prepare a project-specific Health and Safety Plan (HASP) in accordance with 29 U.S. Code of Federal Regulations 1910 to protect construction workers and the public during all excavation, grading and construction services. The HASP shall include, but not be limited to, the following information:

- A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals;
- Specified personal protective equipment and decontamination procedures, if needed Safety procedures to be followed in the event suspected hazardous materials are encountered;
- Emergency procedures, including route to the nearest hospital; and
- The identification of a site health and safety officer and responsibilities of the site health and safety officer.

Mitigation Measure HAZ-2c: Disposal of Hazardous Materials. EMWD or its contractor shall develop a materials disposal plan specifying how excavated material and groundwater dewatering would be removed, handled, transported, and disposed of in a safe, appropriate, and lawful manner. The plan shall identify the disposal method for soil and the approved disposal site. The plan shall specify how groundwater from dewatering would be treated and/or disposed.

Mitigation Measure HAZ-2d: Environmental Site Assessment. Prior to EMWD final well location determinations for MW-04 and MW-15 in the right-of-way, EMWD shall retain a qualified environmental professional to conduct an environmental site assessment of each right-of-way to evaluate the presence and extent of contamination at the parcels, in conformance with state and local guidelines and regulations. If the results of the environmental site assessments indicate the presence of contaminated soils or groundwater, or the potential to impact existing soil and/or groundwater remediation efforts within the right of way, EMWD shall evaluate if there are appropriate locations within the right-of-way or identify an alternative right of way to safely construct and operate the monitoring wells.

Mitigation Measure TRA 1: Traffic Control Plan (see *Section 3.17*)

3.10 Hydrology and Water Quality

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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]	[ ]
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]	[ ]

Discussion

The 2022 Revised MND describes the applicable hydrology and water quality background, environmental setting, and regulatory setting, which is incorporated by reference herein. The West San Jacinto Groundwater Basin Groundwater Sustainability Plan (GSP) was adopted after the 2022 Revised MND was approved. The GSP documents basin conditions and basin management based on measurable objectives and minimum thresholds. These are defined in the GSP to prevent significant and unreasonable impacts to sustainability indicators (including surface and groundwater levels and quality) described in the GSP. There is no other new information or changed circumstances that have arisen since the 2022 Revised MND was adopted.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on hydrology and water quality. Because of the Project's size, EMWD would be required to obtain coverage under the NPDES Stormwater Construction General Permit and prepare a SWPPP. Compliance with this permit including implementation of BMPs would ensure the Project would not violate water quality standards or waste discharge requirements, nor significantly degrade surface water quality. Construction of the Project would result in a negligible change to impervious surface area, and hence have a negligible effect on groundwater recharge and surface runoff, including drainage patterns. Although there is a low risk of flood at the Project sites, no hazardous materials would be kept at the well sites; therefore, there is no potential for release of pollutants to occur in the event that wells are inundated. The Project would not conflict with applicable water quality control plans or groundwater management plans.

a) Less than Significant Impact

Similar to the 2022 Revised MND project, construction of the proposed Project could result in short-term erosion and sedimentation that has the potential to impact water quality. However, the construction contractor would be required to prepare a SWPPP and implement BMPs to control water quality of stormwater discharges offsite as part of the NPDES Stormwater Construction General Permit. Additionally, the contractor would also

be required to implement stormwater discharge BMPs as part of EMWD's existing environmental commitments (see *Section 2.4.8 Environmental Commitments*). Typical BMPs include housekeeping practices such as proper waste disposal, covering stockpiles with tarps, containment of building materials, and inspection of construction vehicles to prevent leaks or spills. Construction dewatering water 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, depending on the quality of the water and permitted allowances. With the implementation of the SWPPP BMPs along with compliance with existing permits and EMWD environmental commitments, construction of the proposed Project would not violate water quality standards or waste discharge requirements or otherwise degrade surface or groundwater quality. Impacts would be less than significant.

Operation of the proposed Project monitoring wells would have no adverse impact on groundwater quality, but rather would provide a benefit to water quality management of Perris North Sub-basin. The monitoring wells would provide data needed to improve understanding of groundwater quality within the Perris North Sub-basin, and the well data would support understanding of the impacts of other management decisions in the region on the contaminant plume in the Perris North Sub-basin. As a result, Project operation would provide a long-term beneficial effect to long-term groundwater quality management of the basin.

b) No Impact

The proposed Project is located in the northwest portion of the San Jacinto Groundwater Basin and subject to the requirements of the West San Jacinto Groundwater Basin GSP. The goal of the West San Jacinto Basin GSP is to manage groundwater resources in a way that facilitates long-term sustainable use of groundwater in the non-adjudicated portion of the San Jacinto Groundwater Basin (West San Jacinto GSA 2021). The proposed Project would construct monitoring wells that would result in a negligible change to impervious surface area. Further, if the proposed roadway right-of-way is selected for well sites (rather than parcels from the 2022 Revised MND), wells would be constructed within paved areas, and would not increase impervious surface area. Therefore, the new wells would have a negligible effect on groundwater recharge because they would not change the amount of impervious area. Operation of the wells would provide water quality and other data needed to manage and protect the Perris North Sub-basin. The Project is part of EMWD's ongoing groundwater management in the basin. No groundwater would be extracted as part of the proposed Project. Therefore, the Project would not decrease groundwater supplies or interfere with groundwater recharge. No impacts would be expected.

c) Less than Significant Impact

Construction and staging of the proposed Project would occur within existing rights-of-way and previously disturbed parcels. The monitoring well clusters would be installed

below-ground and disturbed areas would be restored to their pre-construction condition. Monitoring wells with an above ground standpipe and traffic bollards would be installed within existing impervious areas and thus would not result in a permanent increase in total impervious surfaces in the project area. As noted in the 2022 Revised MND, installation of proposed monitoring well clusters MW-14 and MW-16, which would remain within the parcels evaluated in the 2022 Revised MND, may replace existing pervious surfaces with pavement that would lead to slightly increased surface runoff, however, the monitoring well footprints would be minimal and would have a negligible effect on surface runoff.

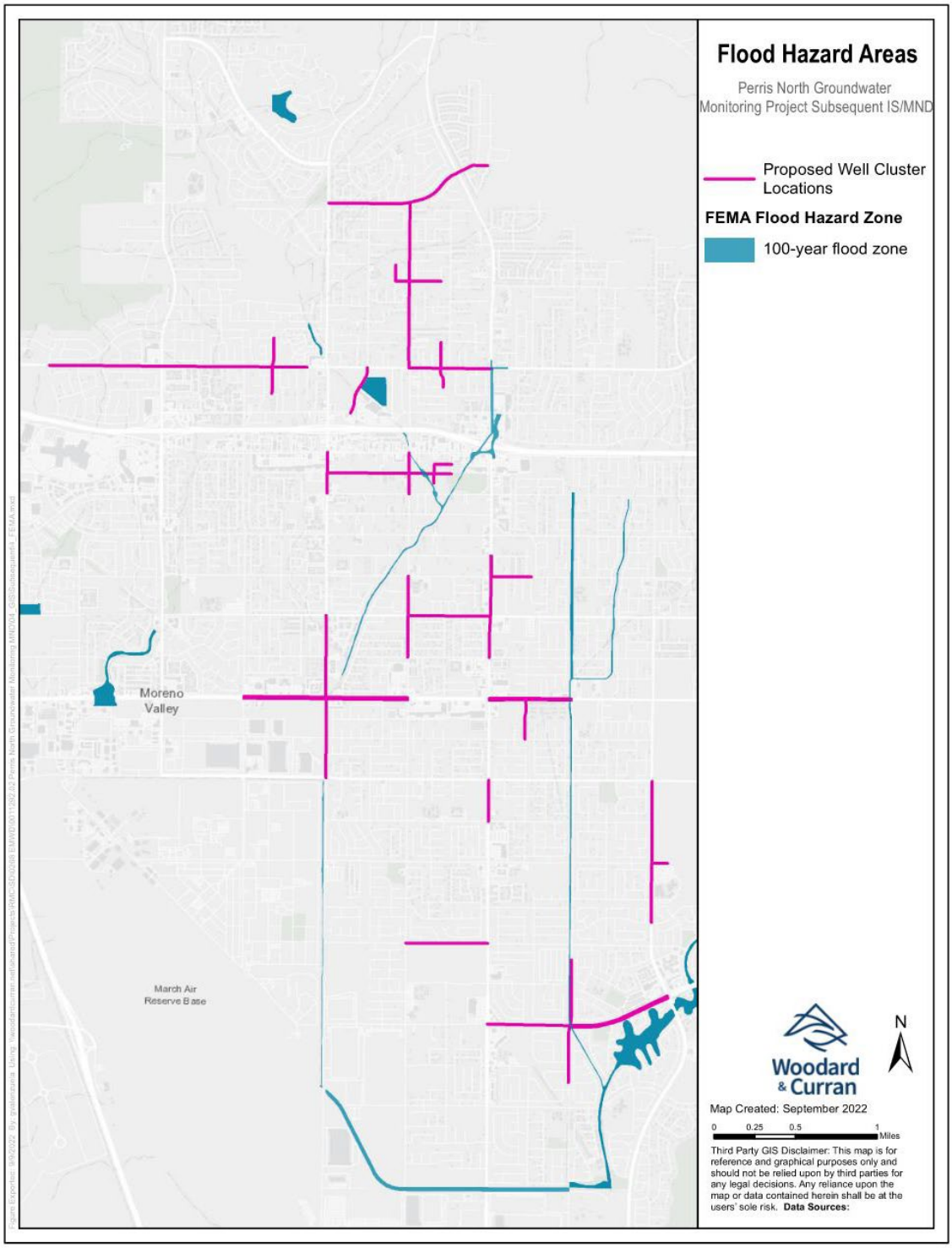
As discussed under topic "a", construction of the proposed Project may result in disturbance or exposure of soil that could be subjected to erosion or sedimentation during a rain event. Implementation of BMPs as required by the NPDES Construction General Permit and EMWD's existing environmental commitments would limit erosion and sedimentation and prevent construction-related pollutants in stormwater discharges from the construction site. As a result, the construction and operation of the proposed Project would not impede or redirect flood flows, alter drainage patterns of the 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. Impacts would be less than significant.

d) Less than Significant Impact

The proposed Project area is located approximately 40 miles from the Pacific Ocean; at this distance, a tsunami would not impact the Project vicinity. Although Lake Perris, approximately 2 miles southeast of the nearest proposed well cluster, is one of only two waterbodies in Riverside County that have the potential for seismically induced seiche, there are no significant documented seiche hazards for any water bodies within Riverside County (County of Riverside 2015).

As shown in **Figure 3-2,** portions of the proposed well cluster locations are located in a 100-year floodplain as designated by the United States Department of Homeland Security Federal Emergency Management Agency National Flood Insurance Program. However, the monitoring wells would be installed belowground and no hazardous materials would be stored at the well sites; therefore, there is no potential for release of pollutants to occur in the event that wells are inundated. In addition, O&M of the Project would not require routine transportation and use of hazardous materials that could be released in the event of potential inundation. Therefore, the potential for the release of pollutants due to Project inundation is low. Impacts would be less than significant.

Figure 3-2: Flood Hazard Areas



e) Less than Significant Impact

The applicable water quality and groundwater sustainability plans for the proposed Project are the Santa Ana River Basin Plan (Basin Plan) and the West San Jacinto Groundwater Basin GSP.

Water quality thresholds identified in the Basin Plan are intended to reduce pollutant discharge and ensure that water bodies are of sufficient quality to meet their designated beneficial uses (Santa Ana RWQCB 2016). The proposed Project would not conflict with the water quality standards outlined in the Basin Plan or worsen water quality conditions in any 303(d)-listed water body. As discussed above, pollutant discharge during construction would be avoided via compliance with the Construction General Permit and existing EMWD environmental commitments (See Section *2.4.8 Environmental Commitments*). Once operational, the proposed Project would monitor groundwater; water would not be discharged from monitoring wells. The proposed Project would not be a source of pollutants for downstream water bodies (e.g., San Jacinto River, Canyon Lake, Lake Elsinore). Therefore, the proposed Project would not conflict with the Basin Plan. Impacts would be less than significant.

EMWD, acting as the West San Jacinto GSA, adopted the West San Jacinto GSP on September 15, 2021 in compliance with SGMA regulations. The GSP documents basin conditions and basin management based on measurable objectives and minimum thresholds defined to prevent significant and unreasonable impacts to sustainability indicators (including surface and groundwater levels and quality) described in the GSP. The sustainability goal of the GSP is to manage groundwater resources in a way that facilitates long-term sustainable use of groundwater in the non-adjudicated portion of the San Jacinto Groundwater Basin (West San Jacinto GSA 2021). The proposed Project would install groundwater monitoring wells, and operation would not require or result in additional surface or groundwater use or discharge. The Project would provide data on groundwater quality that can be used when making management decisions for the basin. Therefore, the proposed Project would not conflict with the GSP. Impacts would be less than significant.

Mitigation Measures: None required or recommended.

3.11 Land Use and Planning

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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]

Discussion

The 2022 Revised MND describes the applicable land use and planning background, environmental setting, and regulatory setting, which is incorporated by reference herein. Since the 2022 Revised MND was adopted, the City of Moreno Valley General Plan 2006 was updated in the General Plan 2040, (City of Moreno Valley 2021a). There is no other new information or changed circumstances that have arisen since the 2022 Revised MND was adopted. A summary of the zoning designations adjacent to the proposed roadway rights-of-way for the well clusters is provided in **Table 3-8**. As shown in the table and noted in *Section 2.2 Project Overview* of the Project Description, land use is generally residential and commercial, with some mixed use, open space, public facilities and industrial.

Table 3-8: Zoning of Proposed Monitoring Well Sites

Proposed Monitoring Well Cluster	Adjacent Zoning Designation
MW-01	Open Space/Park, Suburban Residential (SP 168 R1)
MW-02	Suburban Residential (R5)
MW-03	Open Space/Park (OS), Commercial, Center Mixed Use
MW-04	MW-04a: Suburban Residential (R5), Multi-Family (R-15) Commercial MW-04b: Suburban Residential (R5), Multi-Family (R-15)
MW-05	Suburban Residential (R5)
MW-06	Corridor Mixed Use (SP 204 VCR), Multi-Family (R20 – SP 204 VR), Commercial, Open Space/Park (OS)
MW-07	Suburban Residential (R5), Multi-Family (R15), Corridor Mixed Use

Proposed Monitoring Well Cluster	Adjacent Zoning Designation
MW-08	Public Facilities (P), Multi-Family (R15), Suburban Residential (R5), Corridor Mixed Use
MW-09	Commercial, Corridor Mixed Use, Industrial/Business Park (LI), Public Facilities (P), Multi-Family (R15), Office (OC), Suburban Residential (R5)
MW-10	Corridor Mixed Use, Suburban Residential (R5)
MW-11	Corridor Mixed Use, Suburban Residential (R5)
MW-12	Suburban Residential (R5), Public Facilities (P), Downtown Center (DC-SP 2018 LM)
MW-13	Corridor Mixed Use, Suburban Residential (R5)
MW-15	Corridor Mixed Use, Suburban Residential (R5), Open Space/Park (OS), Multi-Family (R15), Commercial

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on land use and planning. The wells would have minimal footprints and would not create a physical barrier in existing communities. In addition, the sites would be accessible by existing public roadways and would not develop new roads that could divide an established community. The proposed Project would not permanently interfere with the pedestrian, bicycle or vehicle circulation of the neighborhoods or community. In addition, the Project would not conflict with applicable land use plans, policies, or regulations intended to avoid or mitigate an environmental effect.

a) Less Than Significant Impact

The proposed monitoring wells would be constructed within existing paved roadway rights-of-way in established communities. Construction of the proposed Project would temporarily impact adjacent land uses through increased dust, noise, and traffic, but impacts would end upon completion of construction, and disturbed roadways would be restored to pre-construction condition. During construction land closures could affect travel along adjacent roadways, but sites would be selected such that traffic could be diverted around the construction area, avoiding full road closures that could physically divide the community. Once operational, the wells would have minimal footprints and would not create a physical barrier in the existing communities. According to the siting criteria, described in *Section 2.2, Project Overview*, the sites would be accessible by existing public roadways and would not develop new roads that could divide and established community. The proposed Project would not permanently interfere with the pedestrian, bicycle or vehicle circulation of the neighborhoods or community. The proposed Project would have a less than significant impact related to physically dividing an established community.

b) No Impact

The proposed Project would construct wells in the roadway rights-of-way at sites adjacent to land designated for various uses, including residential, commercial, light industrial, public facility, and business park in the City of Moreno Valley. The wells would have minimal footprint sizes and would not alter the ability of those lands to be used for their designated purposes. Additionally, under the City of Moreno Valley's zoning ordinance, facilities such as wells and treatment facilities are permitted at the proposed sites. Therefore, the proposed Project would not conflict with the City of Moreno Valley's zoning policies. Additionally, because the proposed Project consists of facilities for the production, generation, storage, treatment, or transmission of water, EMWD would not be required to conform to city zoning ordinances.

The City of Moreno Valley is located within the Western Riverside MSHCP. However, EMWD is not a participant in the MSHCP and is therefore not subject to its conditions. The proposed Project would be implemented entirely within disturbed lands within Moreno Valley; it would not impact criteria resource areas identified in the MSHCP. Therefore, the Project would not conflict with applicable land use plans, policies, or regulations intended to avoid or mitigate an environmental effect. No impact would occur

Mitigation Measures: None required or recommended.

3.12 Mineral Resources

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	[ ]	[ ]	[ ]	[X]
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	[ ]	[ ]	[ ]	[X]

Discussion

The 2022 Revised MND describes the applicable mineral resources background, environmental setting, and regulatory setting, which is incorporated by reference herein.

Since the 2022 Revised MND was adopted, the City of Moreno Valley General Plan 2006 was updated in the General Plan 2040, (City of Moreno Valley 2021a). However, there were no new locations of known mineral resources that resulted from the General Plan Update. There is no other new information or changed circumstances that have arisen since the 2022 Revised MND was adopted.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have no impact on mineral resources. The proposed Project area is not currently used as a mineral resource recovery site and the proposed Project would not involve mining or the production of mineral resources. No impact on the availability of a known mineral resource or the availability of a locally important mineral resource recovery site would occur as a result of construction or operation of the proposed Project.

a, b) No Impact

Similar to the 2022 Revised MND project, the proposed Project would be located within land designated as Mineral Resource Zone (MRZ)-3, land for which the significance of mineral resources cannot be determined, or MRZ-1, land for which adequate geologic information indicates that no significant mineral deposits are present. Neither of these MRZ categories are considered significant mineral resources and there are no active mineral resource extraction facilities within the Project area (City of Moreno Valley 2021c). The City of Moreno Valley 2040 General Plan land use map does not delineate any mineral resource recovery sites or designate any land for mineral resource production (City of Moreno Valley 2022). Therefore, no impact on the availability of a known mineral resource or the availability of a locally-important mineral resource recovery site would occur as a result of construction or operation of the proposed Project.

Mitigation Measures: None required or recommended.

3.13 Noise

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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	[ ]	[X]	[ ]	[ ]

	standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				
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]	[ ]

Discussion

The 2022 Revised MND describes the applicable noise background, environmental setting, and regulatory setting, which is incorporated by reference herein. Since the 2022 Revised MND was adopted, the City of Moreno Valley General Plan 2006 was updated in the General Plan 2040, (City of Moreno Valley 2021a). As noted in the General Plan 2040, roadways are the principal noise source in the city. Many of the roadway rights-of-way included in the proposed well locations are located along roadways that fall within existing noise contours of Community Noise Equivalent Level (CNEL) 65 to 70 dB, and noise levels along roadways are projected to increase over time as part of planned activities and growth in the city.

City regulations regarding construction noise are in Municipal Code Chapter 11.80 and are consistent with the regulations described in the 2022 Revised MND.

For construction noise, the City of Moreno Valley Municipal Code, Sections 8.14.040 and 11.80.030, restricts construction within the City to between 7:00 a.m. and 7:00 p.m. on weekdays, and from 8:00 a.m. to 4:00 p.m. on Saturdays. The City of Moreno Valley Municipal Code also prohibits sound within the City that exceeds levels determined by the Centers for Disease Control and Prevention and the National Institute for Occupational Safety and Health to cause permanent hearing loss. For a sound that lasts 8 hours per day, that limit is 90 dBA.

For long-term operational noise, the City of Moreno Valley prohibits non-impulsive, maximum noise levels which exceeds the following limits measured at a distance of 200 feet or more from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property (**Table 3-9**) (City of Moreno Valley n.d.a.).

These guidelines apply to permanent noise sources and would not be applicable to temporary construction noise.

Table 3-9: City of Moreno Valley Non-Impulsive Noise Guidelines

Residential (in dBA)		Commercial (in dBA)	
Daytime	*Nighttime*	*Daytime*	*Nighttime*
60	55	65	60

General Plan Policies

The City of Moreno Valley General Plan 2040 (City of Moreno Valley 2021) includes several policies and objectives related to minimizing noise impacts in the land use planning process. Policies relevant to the proposed Project are listed below.

- N.1-4: Require a noise study and/or mitigation measures if applicable for all projects that would expose people to noise levels greater than the "normally acceptable" standard and for any other projects that are likely to generate noise in excess of these standards.
- N.1-5: Noise impacts should be controlled at the noise source impacts should be controlled at the noise source where feasible, as opposed to at receptor end with measures to buffer, dampen, or actively cancel noise sources. Site design, building orientation, building design, hours of operation, and other techniques, for new developments deemed to be noise generators shall be used to control noise sources.
- N.1-6: Require noise buffering, dampening, or active cancellation, on rooftop or other outdoor mechanical equipment located near residences, parks, and other noise sensitive land uses
- N.2-3: Limit the potential noise impacts of construction activities on surrounding land uses through noise regulations in the Municipal Code that address allowed days and hours of construction, types of work, construction equipment, and sound attenuation devices.

EMWD, as a public agency, is not subject to other jurisdictional agencies' established noise standards. Likewise, as a public agency, EMWD is not subject to the City ordinances and would not be required to obtain variances. EMWD has not established an applicable noise standard of its own for permanent or temporary ambient noise levels. The noise standards of the City of Moreno Valley are provided for reference and context and are used as significance thresholds for the purposes of this analysis.

Existing Conditions

As with the 2022 Revised MND, the proposed Project is located in a suburban area with residential, commercial, and business park/light industrial land uses. Noise-sensitive receptors adjacent to or in the vicinity of well sites include residences, schools, and churches. The surrounding receptors and attenuation features at each proposed Project

site are summarized in *Section 2.2, Project Overview.* Attenuation features include vegetation, wooden fences, cement masonry walls, buildings, etc.

Ambient noise measurements were conducted in January 2020 and described in the 2022 Revised MND. The observed CNEL and day-night average sound level (L_{dn}) at the Perris Boulevard location were 77 dBA and 76.7 dBA, respectively, and the 24-hour average equivalent sound level (L_{eq}) was 71.5 dBA. The observed CNEL and L_{dn} at Victoriano Park were 53.2 dBA and 53.1 dBA, respectively and the 24-hour average L_{eq} was 47.0 dBA. The 2020 noise measurements are included as Appendix E in the 2022 Revised MND, which has been provided as **Appendix E** of this Subsequent MND.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on noise with the implementation of Mitigation Measures NOI-1 and NOI-2 of the 2022 Revised MND. Each well site would be located within the parcel such that it is a minimum of 24 feet from residential property lines and would likely be further from most of the surrounding properties given the size of the well footprint in relation to the overall size of the parcels under consideration. Due to the proximity of construction activities to residences and other noise-sensitive land uses, impacts from construction noise would be potentially disruptive to daily activities. Implementation of Mitigation Measure NOI-1 would require the construction contractor to implement BMPs for noise control. Although some well sites have existing attenuation features, construction of monitoring wells would require up to four weeks of sonic or mud rotary drilling. EMWD shall require that its contractor implement Mitigation Measure NOI-2, which requires that, if a well cannot be sited at a sufficient distance from noise-sensitive receptors, sound barriers be used during well drilling activities.

a) Less than Significant with Mitigation Incorporated

Drill rigs would form the primary source of noise during construction. As shown in **Figure 2-5**, drilling equipment would be located on the far side of the well clusters from the adjacent parcels, a minimum of 14 feet from the edge of the construction footprint. Additionally, drill rigs would be a minimum of 24 feet from structures for fall safety. This would provide some natural noise attenuation associated with distance from the noise source.

Existing features in the area can also attenuate noise to residential receptors. The approximate range of noise attenuation from existing features was estimated based on the Federal Highway Administration Roadway Construction Noise Model User Manual, which provides the guidance on shielding as summarized in **Table 3-16** (FHWA 2006b). These features include typical landscape components (as opposed to specific construction noise control measures).

Table 3-10: Noise Shielding Guidance References

dBA of Shielding	Equivalent to the following between noise source and receptor
0	No barriers or breaks in the line of sight between the noise source and the receptor.
3	A noise barrier or other obstruction (like a dirt mound) just barely breaks the line-of-sight between the noise source and the receptor.
5	Noise source is enclosed or shielded with a solid barrier close to the source, but the barrier has some gaps in it.
8	Noise source is enclosed or shielded with a solid barrier close to the source
10	Noise source is completely enclosed and shielded with a solid barrier close to the source.
15	A building stands between the noise source and receptor and completely shields the noise source.

Source: FHWA 2006b

As described in *Section 2.2, Project Overview*, natural attenuation features vary by site, and include vegetation, wooden fences, cement masonry walls, buildings, and iron fences with gaps. Based on **Table 3-10**, these natural features could provide between 3 to 15 dBA of shielding.

The noise from the well drill rig would originate a minimum of 24 feet from surrounding structures, as stated in *Section 2.2, Project Overview*.

Construction

Construction of 16 well clusters (up to 64 individual boreholes) is expected to last 15 months and would involve noise-generating activities such as grading and well drilling. It should be noted that construction of each well cluster is expected to last approximately eight weeks, including mobilization/site preparation, drilling, well construction, and demobilization. Construction equipment to be used is listed in *Section 2.4, Proposed Project Description*. The typical noise level of each piece of construction equipment is shown in **Table 3-11**.

Table 3-11: Typical Construction Equipment Noise Levels

Equipment	Typical Noise Levels (dBA, at 50 feet)
Backhoe/Loader	78
Compressor	78
Concrete Pumper	81
Crane	81
Drilling Rig (sonic)	87[1]
Drilling Rig (mud rotary)	90[1]
Generator	81
Pick-up Trucks	75
Pump	81
Utility Truck	74[1]
Water Truck	84[1]
Welder	74

Source: FHWA 2006a

1. Sonic drilling rig noise level estimated based on noise measurement from previous projects that utilized sonic drilling. Mud rotary drilling rig noise level provided by contractor. Water truck noise was assumed to be comparable to a tractor. Utility truck noise was assumed to be comparable to a flat-bed truck.

The City of Moreno Valley noise guidelines, discussed previously, are included as general points of reference for noise levels. Because EMWD is exempt from other jurisdictional agencies' noise ordinances, sound emanating from the proposed Project construction would not be subject to the City of Moreno Valley ordinances. However, EMWD has opted to utilize the City of Moreno Valley noise guidelines as thresholds of significance for the purposes of this analysis, in order to provide a quantitative point of comparison for the proposed Project impacts. Although EMWD is not required to comply with city noise ordinances, construction activities would occur during daytime hours in accordance with City of Moreno Valley noise standards. Furthermore, existing ambient noise levels in the proposed Project area are elevated due to existing traffic noise, (e.g., the observed 24-hour average L_{eq} at the Perris Boulevard noise monitoring location, discussed above, was 71.5 dBA) which would dampen the perceived noise from the Project's construction activities. Due to the proximity of construction activities to residences and other noise-sensitive land uses, impacts from construction noise would be potentially disruptive to daily activities. With the implementation of **Mitigation Measure NOI-3**, which requires the construction contractor to implement BMPs for noise control, construction noise impacts would be reduced to less than significant, with the exception of potential noise impacts due to well drilling activities as discussed below.

Well Drilling

Construction of monitoring wells would last for eight weeks per well cluster from mobilization to demobilization. Of those eight weeks, up to four weeks would consist of sonic or mud rotary drilling, which would be conducted during daytime hours. Well sites are located near residences, schools, and churches that have the potential to be exposed to elevated noise levels during well construction.

Some well sites are located along roadway rights-of-way whose adjacent properties have existing attenuation features (e.g., cement block walls), as summarized in *Section 2.2, Project Overview*. However, the well drilling activities (consisting of a drill rig and pickup truck) operating simultaneously, with no shielding present, would be expected to generate high levels of noise. Mud rotary drilling is anticipated to be slightly louder than sonic drilling (**Table 3-11**), therefore it would be the most impactful activity in terms of noise and is the focus of this analysis. Mud rotary drilling would generate noise levels of 96.4 dBA L_{eq} at a distance of 24 feet (the minimum safe distance between the drill rig and nearest structure), 90.1 dBA L_{eq} at a distance of 50 feet, and 84.0 dBA L_{eq} at a distance of 100 feet. With greater distance, noise levels would attenuate further (e.g., 78.0 L_{eq} dBA at 200 feet, 70.1 L_{eq} dBA at 500 feet, and 64.0 L_{eq} dBA at 1,000 feet). The exact location of each well within the roadway right-of-way has not yet been determined, and the distance to sensitive receptors could vary widely. Therefore, this analysis uses a conservative assumption that the drill rig could be as close as 24 feet from an adjacent structure. Noise levels would attenuate to below the City of Moreno Valley residential threshold of 90 dBA L_{eq} at a distance of 51 feet from the construction site if mud rotary drilling were used. Sonic drilling would be slightly quieter, with noise attenuating to below 90 dBA L_{eq} at a distance of 37 feet from the construction site. For any receptors within 51 feet of mud rotary drilling, or within 37 feet from sonic drilling, the noise level would exceed 90 dBA. Exposing residents to this level of noise over an extended timeframe would constitute a significant impact.

In order to mitigate this impact, EMWD shall require that its contractor implement **Mitigation Measure NOI-4**, which requires that, if a well cannot be sited at a sufficient distance from noise-sensitive receptors (i.e., if noise from well drilling would not attenuate to below 90 dBA at the property line due to distance alone), sound barriers providing up to 25 dBA[2] of noise attenuation be used during well drilling activities. With the use of all feasible sound barriers, the noise from well drilling activities would be reduced to 71.4 dBA L_{eq} at a distance of 24 feet, 65.1 dBA L_{eq} at a distance of 50 feet, and 59.0 dBA L_{eq} at a distance of 100 feet (as calculated using the Federal Highway Administration's *Roadway Construction Noise Model*). The use of these sound walls would reduce construction noise sufficiently to avoid exposing nearby receptors to excessive noise.

The City of Moreno Valley considers 60 dBA L_{eq} to be an acceptable daytime noise level for permanent, long-term operational noise (which would typically be lower than the threshold for temporary construction noise) when measured at a distance of 200 feet from the noise source. At a distance of 89 feet from a given well site, well construction noise would attenuate to 85.0 dBA L_{eq}, and use of a sound barrier would reduce construction noise from the proposed Project to 60.0 dBA L_{eq}.

[2] Note that dBA is used to describe the specific noise reduction that may be achieved from the sound barrier, while L_{eq} is used to describe noise levels because it captures a receiver's cumulative noise exposure.

With implementation of **Mitigation Measures NOI-3** and **NOI-4**, as described here, construction noise impacts resulting from the well drilling activities would be reduced to a less than significant level.

Operation

Once operational, the monitoring wells would not generate noise. Ongoing operation and maintenance for the wells would involve quarterly monitoring and maintenance visits. Long-term noise associated with these additional vehicle trips would not cause a noticeable increase in permanent ambient noise above existing levels (which are already elevated due to roadway noise), because it would only require the use of standard vehicles (e.g., trucks) and maintenance activities would occur during the day when ambient noise levels are higher. Therefore, noise from the proposed operation and maintenance activities would be less than significant.

b) Less Than Significant Impact

Construction activities associated with the proposed Project would have the potential to generate low levels of groundborne vibration. Groundborne vibrations propagate through the ground and decrease in intensity quickly as they move away from the source. Vibrations with a peak particle velocity (PPV) of 0.2 inches/second or greater have the potential to cause damage to non-engineered timber and masonry buildings (FTA 2018). The *Transit Noise and Vibration Impact Assessment Manual* provides average source levels for typical construction equipment that may generate groundborne vibrations; vibration source levels for construction equipment associated with the proposed Project are summarized in **Table 3-12**. None of the construction equipment to be used would exceed the PPV threshold at a distance of 25 feet. The minimum distance between the drill rig and any surrounding structures would be 24 feet, at which distance the PPV would not exceed 0.2 inches/second and thus would not have the potential to cause damage to nearby structures.

Table 3-12: Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 feet (inches/second)	Approximate VdB at 25 feet
Backhoe/Loader	N/A	N/A
Compressor	N/A	N/A
Concrete Pumper	N/A	N/A
Crane	N/A	N/A
Cassion Drilling (as reference for mud rotary and sonic drilling)[1]	0.089[1]	87[1]
Generator	N/A	N/A
Pick-up Trucks	0.076[2]	86[2]
Pump	N/A	N/A
Utility Truck	0.076[2]	86[2]
Water Truck	0.076[2]	86[2]
Welder	N/A	N/A

Source: FTA 2018

Most construction equipment is not expected to generate vibration; these are denoted with "N/A."

1. Caisson drilling is shown here as a reference point. The proposed Project will use sonic drilling, which directs vibration energy vertically down the well shaft, and is expected to generate less vibration than caisson drilling. Mud rotary drilling is assumed to be similar to caisson drilling.

2. Pickup trucks, utility trucks, and water trucks were assumed to be comparable to "loaded trucks" as listed in the *Transit Noise and Vibration Impact Assessment Manual.*

According to the FTA's *Transit Noise and Vibration Impact Assessment Manual*, 80 VdB is the threshold for human annoyance from groundborne vibration noise when events are infrequent. Typical vibration dB levels for construction equipment are summarized in **Table 3-12**. Construction activities associated with the proposed Project would not involve use of high-impact activities, such as piledriving or blasting, that typically generate high levels of groundborne vibration. The proposed sonic drilling technique directs vibration energy vertically (i.e., down the well shaft), and very little vibration energy propagates outward from the drill rig. Due to the minimum distance required between the drill rig and nearby structures (24 feet), vibration from sonic drilling is not expected to be noticeable outside the construction site. If mud rotary drilling is used, groundborne vibration noise from drilling rig would attenuate to below 80 VdB at a distance of 43 feet ($VdB_{distance} = VdB_{reference} - 30\log(distance/25)$) (FTA 2018). If wells were sited within this distance of sensitive receptors, vibration noise could present an annoyance. The mud rotary drilling technique is expected to be used for one borehole per well cluster but could be used more depending on site-specific conditions. However, sonic drilling is preferred, so mud rotary drilling is expected to be used only where necessary, which would limit the number of sites where vibration occurs. Additionally, vibration would be temporary (up to four weeks per well cluster during active drilling activities) and would be limited to daytime hours like other construction activities. Vibration noise from the drill rig would not stand out above other construction noise. Loaded trucks would also produce levels of vibration noise that exceed the threshold for human annoyance at a distance of 25 feet. Groundborne vibration noise from trucks would attenuate to below 80 VdB at a distance of 40 feet. If wells are sited such that trucks would pass within 40 feet of receptors, groundborne

vibration noise from trucks may cause annoyance to people in buildings. However, because the wells are proposed to be located within the roadway right-of-way, trucks would be traveling along roads that already experience some truck traffic. Additionally, groundborne vibration noise would be occasional and brief (occurring only as trucks arrive at and leave the site). Therefore, construction vibration impacts would be less than significant.

Once operational, the wells would not produce groundborne vibration or noise. Project operation activities (i.e., monitoring and inspection visits) would be conducted using truck-mounted equipment on standard vehicles; no heavy equipment that could generate groundborne vibration or noise would be used for monitoring or maintenance. Therefore, there would be no operational vibration impacts.

c) Less Than Significant Impact

There is one airport in the Project vicinity, the MARB/March Inland Port. The base is located partially within the City of Perris and partially in unincorporated Riverside County. None of the proposed well sites are located within a noise contour of the MARB/March Inland Port (City of Moreno Valley 2021a). During construction and operation of the proposed project, workers would not be exposed to elevated noise levels due to air traffic. Therefore, the Project would not expose residences or workers to excessive aircraft noise and the impact would be less than significant.

Mitigation Measures:

To mitigate possible noise impacts of the Project, EMWD shall implement **Mitigation Measure NOI-3** and **Mitigation Measure NOI-4** for wells located within the roadway right-of-way. With these mitigation measures incorporated, the Project impacts are considered less than significant.

Mitigation Measure NOI-3: Construction Noise Reduction Measures

EMWD shall require its contractor to implement the following actions relative to construction noise:

- EMWD shall conduct construction activities between 7:00 a.m. and 7:00 p.m. on weekdays and 8:00 a.m. to 4:00 p.m. on Saturdays, in accordance with the City of Moreno Valley Municipal Code, Sections 8.14.040 and 11.80.030, with the exception of specific well drilling activities which may require construction on Sundays.
- Prior to construction, EMWD in coordination with the construction contractor, shall provide written notification, to all properties within 100 feet of the proposed Project facilities informing occupants of the type and duration of construction activities. The notification shall also include information concerning the noise levels that may be experienced during evening hours and that this is a temporary circumstance. Notification materials shall identify a method to

contact EMWD's program manager with noise concerns. Prior to construction commencement, the EMWD program manager shall establish a noise complaint process to allow for resolution of noise problems. This process shall be clearly described in the notifications.

- Stationary noise-generating equipment shall be located as far from sensitive receptors as possible. Such equipment shall also be oriented to minimize noise that would be directed toward sensitive receptors. Whenever possible, other non-noise generating equipment (e.g., water tanks, roll-off dumpsters) shall be positioned between the noise source and sensitive receptors.
- Equipment and staging areas shall be located as far from sensitive receptors as possible. At the staging location, equipment and materials shall be kept as far from adjacent sensitive receptors as possible.
- Construction vehicles and equipment shall be maintained in the best possible working order; operated by an experienced, trained operator; and shall utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds).
- Unnecessary idling of internal combustion engines shall be prohibited. In practice, this would require turning off equipment if it would idle for five or more minutes.
- Electrically powered equipment shall be used instead of pneumatic or internal-combustion powered equipment, where feasible.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.

Mitigation Measure NOI-4: Noise Barriers

If wells in the paved right-of-way are located such that well construction noise would exceed 90 dBA (the City of Moreno Valley noise limit in residential areas) at the property line (less than 51 feet from the property line for mud rotary drilling, or 37 feet for sonic drilling), EMWD shall require its contractor to install temporary construction noise barriers prior to the start of well construction activities. These barriers shall block the line of sight between the noise-generating components of the drilling equipment and the noise-sensitive receptor(s) and shall provide up to 25 dBA of noise attenuation, such that it can achieve sufficient attenuation to reduce construction noise at the property line to less than 90 dBA. The construction noise barrier shall be constructed of a material with a minimum weight of one pound per square foot with no gaps or perforations. It shall remain in place until conclusion of the well drilling activities. The Project plans and specifications shall include documentation from a noise consultant verifying the inclusion of an appropriate noise barrier.

3.14 Population and Housing

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	[ ]	[ ]	[ ]	[X]
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	[ ]	[ ]	[ ]	[X]

Discussion

The 2022 Revised MND describes the applicable population and housing background, environmental setting, and regulatory setting, which is incorporated by reference herein. Since the 2022 Revised MND was adopted, there is no other new information or changed circumstances that have arisen. In 2020, EMWD served an estimated retail population of 603,905 through approximately 155,561 connections, including single family accounts, multi-family accounts, and other commercial, industrial, institutional, landscape, and irrigation accounts. EMWD's service area is currently 40 percent built out, making it one of the few regions in Southern California that will see significant population growth in the coming decades. As planned for in the EMWD 2020 Urban Water Management Plan (UWMP), EMWD's retail service area population will increase to approximately 807,200 in 2045 (EMWD 2021).

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have no impact on population and housing. The proposed Project would not directly or indirectly induce unplanned population growth because no new housing or permanent employment are proposed. Construction and operation of the monitoring wells would occur within vacant parcels, developed parcels, and EMWD owned property. The proposed Project would not displace existing people or houses or require the construction of replacement housing.

a) No Impact

The proposed Project would not directly or indirectly induce unplanned population growth because no new housing or permanent employment are proposed. The proposed Project involves installation of monitoring wells and would not increase water production or distribution. Therefore, the proposed Project would not directly or indirectly induce unplanned population growth and no impact would occur.

b) No Impact

Construction and operation of the monitoring wells would occur within vacant parcels, developed parcels, and EMWD owned property. The proposed Project would not displace existing people or houses or require the construction of replacement housing. For these reasons, no impact would occur.

Mitigation Measures: None required or recommended.

3.15 Public Services

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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]

Discussion

The 2022 Revised MND describes the applicable public services background, environmental setting, and regulatory setting, which is hereby incorporated by reference. Since the 2022 Revised MND was adopted, the City of Moreno Valley General Plan 2006 was updated and replaced with the General Plan 2040 (City of Moreno Valley 2021a). No other new information has changed since the 2022 Revised MND was adopted.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on public services. The proposed Project would not change existing demand on public facilities because the proposed Project does not propose new housing units, nor would it directly or indirectly induce population or employment within the area. The proposed Project would not construct new or physically alter existing schools, fire stations, police departments, libraries, or hospitals. Although well construction activities could have a footprint of up to 10,000 square feet, this impact would be limited to the construction period for each well cluster (approximately one month) and would not permanently impact public parks. No new parks or recreational facilities would need to be built in order to maintain existing park acreage/resident ratios.

a.i.) Less than Significant with Mitigation Incorporated

Similar to the 2022 Revised MND project, the proposed Project would not construct new fire protection facilities, nor would it physically alter existing fire protection facilities. Construction of the proposed Project would require temporary lane closures, which has the potential to affect response times for fire protection services. **Mitigation Measure TRA-1** (see *Section 3.17 Transportation)* requires coordination with emergency services, including fire protection services, on road closures associated with the proposed Project, to reduce impacts of lane closures on response times. The proposed Project would not substantially change service ratios for fire protection services and facilities. Fire protection requirements during construction of the proposed Project would be short-term and the demands would be filled by the existing local work force. Existing fire protection services provided by the Riverside County Fire Department and City of Moreno Valley would be sufficient to provide fire or other emergency response to the proposed Project sites. In addition, operation of the proposed Project would not directly or indirectly induce unplanned population growth that would require construction of new fire departments or expansion of fire protection facilities. No additional or increased fire protection facilities to maintain response times, service ratios, or other measures of performance would be required. With implementation of **Mitigation Measure TRA-1**, impacts on fire protection services would be less than significant.

a.ii.) Less than Significant with Mitigation Incorporated

Similar to the 2022 Revised MND project, the proposed Project would not construct new, or physically alter existing, police protection facilities. Construction of the proposed Project would require temporary lane closures, which has the potential to affect response times for police services. **Mitigation Measure TRA-1** (see *Section 3.17 Transportation*) requires coordination with emergency services, including police, on road closures associated with the proposed Project, which will reduce impacts of lane closures on response times. The proposed Project would not substantially change service ratios for police services and stations. In the event of an emergency at a proposed Project site, existing police services provided by the Riverside County Sheriff's Department would be sufficient. In addition, operation of the proposed Project would not directly or indirectly induce unplanned population growth that would require construction of a new expansion of the existing police station to maintain response rations, service ratios, or other measures of performance. With implementation of **Mitigation Measure TRA-1,** impacts on police services would be less than significant.

a.iii.) No Impact

Similar to the 2022 Revised MND project, the proposed Project would not change existing demand on schools because the proposed Project would not directly or indirectly induce unplanned population growth. As discussed in *Section 3.13 Population and Housing*, construction of the proposed Project does not include housing, and operation would not result in new employment or population growth that would result in an influx of students. No new school facilities would need to be built in order to maintain class size ratios or other performance objectives. As a result, no impact on schools would occur.

a.iv.) No Impact

The proposed Project would be located within existing roadway rights-of-way and not within any existing park facilities. It would therefore not have any direct impacts on parks. Additionally, the proposed Project would not change existing demand on parks because it would not directly or indirectly induce unplanned population growth. Construction of the proposed Project does not include housing and operation would not result in new employment or population growth that would result in an influx of residents. No new parks or recreational activities would need to be built in order to maintain existing park acreage/resident ratios. As a result, no impact on parks would occur.

a.v.) No Impact

Similar to the 2022 Revised MND project, the proposed Project would not change existing demand on other public facilities because the proposed Project does not propose new housing units, nor would it directly or indirectly induce population or employment within the area. Construction and operation of the proposed Project would not necessitate expansion of existing or construction of new public facilities such as libraries or hospitals. Therefore, no impact to other public facilities would occur.

Mitigation Measures: **Mitigation Measure TRA-1:** Traffic Control Plan (see *Section 3.17)*

3.16 Recreation

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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]

Discussion

The 2022 Revised MND describes the applicable recreation background, environmental setting, and regulatory setting, which is incorporated by reference herein. The proposed Project is located within roadway rights-of-way in the City of Moreno Valley. None of these roadway rights-of-way are in parks or dedicated open spaces, though there are some parks nearby, as described in *Section 2.2 Proposed Project*.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on recreation. Construction of the wells would occur within open, landscaped areas of the parks and would not involve removal of recreational facilities or equipment. Ongoing O&M activities would be minimal and would not interfere with regular use of the parks and park facilities. No new recreational facilities or expansion of existing recreational facilities would be required.

a) No Impact

Similar to the 2022 Revised MND project, the proposed Project does not include any new housing units or workers that would result in temporary or permanent population increase that could result in increased use of existing parks and recreational facilities. Construction activities would also not impact access to existing parks. Thus, the Project would not cause substantial physical deterioration of existing parks or recreational facilities. No impact would occur.

b) No Impact

Similar to the 2022 Revised MND project, the proposed Project would not include recreational facilities or require the construction or expansion of recreational facilities. No impact would occur.

Mitigation Measures: None required or recommended.

3.17 Transportation

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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]	[ ]

Discussion

The 2022 Revised MND describes the applicable transportation background, environmental setting, and regulatory setting, which is incorporated by reference herein. Two background and setting planning documents have been updated since the 2022 Revised MND was adopted: the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy was updated in the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (SCAG 2020) and the City of Moreno Valley General Plan 2006 was updated in the General Plan 2040 (City of Moreno Valley 2021a).

The SCAG 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy identifies strategies to meet mobility, legislative, financial and air quality requirements in the six counties of Southern California. The most noteworthy project identified in the City of Moreno Valley is the RapidLink Service with the goal of connecting the cities of Riverside, Moreno Valley, and Perris through public transportation (SCAG 2020).

The City of Moreno Valley General Plan 2040 Circulation Element establishes goals, objectives, and policies for transportation, including identifying roadway classifications and acceptable roadway level of service (LOS) standards. Roadway classifications have been developed to guide long range transportation planning in Moreno Valley to balance access and capacity. The roadway network in Moreno Valley consists of freeways, boulevards, arterials, collectors, and local streets. The roadway classifications for each of the potential well cluster locations is shown in **Table 3-13**. LOS represents a qualitative description of the traffic operations experienced by the driver at an intersection or along a roadway segment, where LOS “A” represents no congestion and LOS “F” represents gridlock. General Plan policy C.3-1 requires the City to strive to maintain LOS “C” on roadway links, wherever possible, and LOS “D” in the vicinity of State Route 60/Moreno Valley Freeway (SR-60) and high employment centers, including intersections during peak hours.

Table 3-13: Roadway Classifications

Roadway	Potential Well Cluster	Classification
Manzanita Avenue	MW-01	Minor Arterial
Heacock Street	MW-06, MW-09	Arterial
Indian Street	MW-02, MW-06, MW-08	Minor Arterial
Ironwood Avenue	MW-04, MW-05	Minor Arterial
Perris Boulevard	MW-07, MW-11	Divided Arterial/Mixed-Use Boulevard
Alessandro Boulevard	MW-08	Divided Major Arterial/Divided Arterial
Cottonwood Avenue	MW-09, MW-10	Minor Arterial
Lasselle Street	MW-12	Arterial
Gentian Avenue	MW-13	Minor Arterial

Roadway	Potential Well Cluster	Classification
Kitching Street	MW-15	Minor Arterial
Iris Avenue	MW-15	Arterial/Divided Major Arterial

The major roadways that provide regional access to the proposed Project sites are SR-60, which runs east-west through Moreno Valley, and Interstate 215 (I-215), which is located immediately west of Moreno Valley. The Riverside County Transportation Commission owns a rail line, located west of the City of Moreno Valley parallel to I-215, which carries commuter rail service and a low volume of freight trains. Riverside Transit Agency operates multiple bus routes within the proposed Project area, including Routes 11, 18, 19, 20, 31 and 41 (Riverside Transit Agency 2022). Bikeways also exist in the project vicinity. Existing bikeways adjacent to potential well locations are a Class 1 multi-use path along Manzanita Avenue, Class 2 bike lanes along Manzanita Avenue, Indian Street, Heacock Street, Alessandro Boulevard, Cactus Avenue, Iris Avenue, and Lasselle Street and Class 3 bike routes along Box Springs Road, Cottonwood Avenue, Indian Street, and Cactus Avenue. The proposed well cluster locations may also be located within designated truck routes, which include arterial streets as shown in **Table 3-13** (City of Moreno Valley 2019b and 2021a).

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on traffic with implementation of Mitigation Measure TRA-1. Although construction and operation impacts would be temporary and would be primarily confined to the well parcels, the proposed Project would require transport of equipment (such as the drilling rig) and would require haul trips, deliveries of materials to staging areas, etc. Implementation of Mitigation Measure TRA-1 would require the development of a Traffic Control Plan which would ensure that appropriate traffic controls are implemented.

a) Less Than Significant with Mitigation Incorporated

The Project proposes to construct up to 16 wells which is estimated to last 15 months in total. Additional details on the construction schedule can be found in *Section 2.4, Proposed Project Description*. During construction, truck trips would be generated associated with construction crews and materials deliveries. Construction is estimated to generate an average of 27 one-way trips per well cluster per day, which includes trips for off-hauling of export material, delivery of materials, and construction worker commuting. All construction activities would occur within the City of Moreno Valley roadway rights-of-way, areas adjacent to the roadways, and/or on the parcels selected for well sites.

Construction-related traffic would be temporary. Lane closures may be required for wells constructed in the roadway right-of-way; as described in *Section 2.4.2*, approximately 3,000 square feet of lane closure would be required for a period of up to eight weeks at each well cluster. Lane closures have the potential to slow traffic and create a bottleneck

on busy streets. Potential traffic-related impacts (including lane closures) associated with well construction in the right-of-way would move from site to site over the 15-month construction period and disturbed areas would be restored to original condition. The Project would have no permanent impact on existing vehicular traffic lanes, bike lanes, or public transportation routes.

Operation of the proposed Project would not conflict with regional transportation plans or the City of Moreno Valley 2040 General Plan because it would not have a permanent impact on circulation. Similar to the 2022 Revised MND, EMWD would conduct quarterly monitoring/maintenance visits for each of the well clusters, which would require temporary lane closures lasting up to one week at each well located in public rights-of-way. Lane closures associated with monitoring/maintenance visits would be infrequent and temporary but could still impact circulation by slowing traffic.

Although construction and operation impacts would be temporary and have a limited footprint, construction and operation of the proposed Project may require temporary closures of roadways, bicycle lanes, and sidewalks. To ensure the appropriate traffic controls are applied and potential traffic impacts related to lane closures are less than significant, **Mitigation Measure TRA-1** would be implemented. This measure requires a Traffic Control and Detour Plan to be developed and approved by EMWD and the County prior to the start of construction. With implementation of **Mitigation Measure TRA-1**, the Project would have a less than significant impact related to applicable regional and long-term traffic and circulation plans.

b) Less Than Significant Impact

CEQA Guidelines Section 15064.3, subdivision (b) stipulates criteria for analyzing transportation impacts in terms of VMT for land use projects and transportation projects. VMT refers to the amount and distance of automobile travel attributable to a project. According to the Office of Planning and Research Technical Advisory on Evaluating Transportation impacts in CEQA (OPR 2018), the term “automobile” refers to on-road passenger vehicles, specifically cars and light-duty trucks. In the case of the proposed project, worker trips would be conducted in cars and light-duty trucks. Vendor and hauling trips would be conducted in medium- or heavy-duty trucks and are therefore excluded from the estimation of VMT. Environmental impacts associated with the use of medium- and heavy-duty truck trips are addressed in the Air Quality, Energy, and Greenhouse Gas sections of this document.

Similar to the 2022 Revised MND project, construction of the proposed Project would involve temporary trips associated with workers travelling to and from the site. Estimated at up to 14 vehicle round trips per day and a trip length of 14.7 miles, the VMT would be 206 miles. These trips would be temporary, occurring during the 15-month construction period. Upon the completion of construction, operation of the Project would involve a total of 20 one-way trips per monitoring well cluster per quarter (see *Section 2.4.7 Operation and Vehicle Maintenance Trips*). The screening threshold established by the California Governor’s Office of Planning and Research (OPR) for small projects states that “projects

that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact" (OPR 2018). The City of Moreno Valley considers projects that generate fewer than 400 trips per day to have less-than-significant VMT impacts (City of Moreno Valley Transportation Engineering Division 2020). Light-duty and passenger vehicle trips generated for construction and operation of the Project would be less than the thresholds set by OPR and the City. Therefore, the Project would be consistent with CEQA Guidelines Section 15064.3, subdivision (b) and impacts would be less than significant.

c) Less Than Significant with Mitigation Incorporated

The proposed Project would not construct new roadways, and existing roadways would be restored to their prior condition once construction is complete.

Similar to the 2022 Revised MND project, construction of the proposed Project may require some incompatible uses on roadways (i.e., transportation of heavy construction equipment) which could temporarily increase hazards near Project sites and/or staging areas. Additionally, construction would require lane closures, which could increase hazards due to the presence of construction equipment within the roadway and the need for vehicles to merge into the open lane. The Traffic Control Plan implemented under **Mitigation Measure TRA-1** would include measures to ensure that vehicle ingress and egress from construction sites and the staging area occurs safely, and that traffic controls are in place for the public.

Project operation (i.e., quarterly visits and inspections) may require infrequent lane closures, which have the potential to create temporary roadway hazards. The Traffic Control Plan prepared as part of **Mitigation Measure TRA-1** would include measures to ensure that temporary lane closures are conducted safely (e.g., with appropriate signage).

With the implementation of **Mitigation Measure TRA-1**, the impacts from construction and operation of the proposed Project would be less than significant.

d) Less Than Significant

Construction of the proposed Project would generate vehicle trips for worker travel and require lane closures for construction of all well clusters located in the roadway right-of-way. Lane closures have the potential to temporarily hinder access for emergency vehicles. In order to prevent Project construction from interfering with emergency responders, **Mitigation Measure TRA-1** would require the implementation of traffic control measures. The traffic control measures would require that emergency crews be able to access sites and surrounding areas and emergency responders are informed of construction locations. Traffic control measures would also require that the contractor make a reasonable effort to preserve access to business and properties during construction. With this mitigation measure incorporated, impacts would be reduced to less than significant.

Project operation would consist of quarterly monitoring/maintenance visits which would last approximately one week. For wells in the roadway right-of-way, monitoring/maintenance would require lane closures. Lane closures would be infrequent and have a short duration; however, lane closures have the potential to impact emergency access. **Mitigation Measure TRA-1** would be implemented to prevent project operation from impeding emergency responders. With the incorporation of this mitigation measure, impacts from operation of the proposed Project would be less than significant.

Mitigation Measures:

To mitigate possible impacts to circulation during construction and operation, EMWD shall implement **Mitigation Measure TRA-1**. The proposed Project's traffic impacts would be less than significant with mitigation incorporated.

> **TRA-1: Traffic Control Plan.** Prior to Project construction, EMWD shall require its construction contractor to implement a Traffic Control Plan, to be approved by the EMWD construction inspector. The Traffic Control Plan shall, at minimum:
>
> - Identify staging locations to be used during construction;
> - Identify safe ingress and egress points from staging areas;
> - Establish haul routes for construction-related vehicle traffic; and
> - Identify alternative safe routes to maintain pedestrian and bicyclist safety during construction.
>
> EMWD's project manager shall coordinate with emergency services (police, fire, and others) to notify these entities regarding construction schedule, Project siting, and potential delays due to construction. EMWD's project manager shall also coordinate with emergency services prior to Project operation activities (i.e., monitoring and inspection visits) that would require lane closures. EMWD shall identify roadways and access points for emergency services and minimize disruptions to or closures of these locations.
>
> The Traffic Control Plan shall include provisions for traffic control measures including barricades, warning signs, cones, lights, and flag persons, to allow safe circulation of vehicle, bicycle, pedestrian, and emergency response traffic. The provisions outlined in the Traffic Control Plan shall provide for traffic control measures during Project construction as well as during project operation. The Traffic Control Plan shall be reviewed and approved by EMWD's project manager and the construction inspector prior to Project construction. EMWD's construction inspector shall also provide the construction schedule and Traffic Control Plan to the City of Moreno Valley for review to ensure that construction of the proposed Project does not conflict with other construction projects that may be occurring simultaneously in the Project vicinity.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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]	[ ]	[ ]

Discussion

A Cultural Resources Assessment Report was prepared in November 2021 for the 2022 Revised MND that included a cultural resources records search of the CHRIS at the Eastern Information Center at the University of California, Riverside, along with a field survey at the parcels included in the 2022 Revised MND. A Cultural Resources Assessment Report was also prepared in 2020 for a previous version of this project, and also included a records search and field visit. The 2020 Cultural Resource Assessment evaluated the potential for cultural resources within roadway rights-of-way at specific locations within the City of Moreno Valley and the City of Perris. Neither of these Cultural Resources Assessment found cultural resources present within the evaluated area.

Because the records searches conducted for the 2020 and 2021 Cultural Resources Assessment Reports overlap the proposed Project area in this Subsequent IS/MND, and the exact well locations are not yet determined, this analysis relies on the findings of those reports to the extent possible. No additional field survey was completed for this Subsequent IS/MND. The 2020 Cultural Resources Assessment Report is included as **Appendix C** to this Subsequent MND. The 2021 Cultural Resources Report is included as Appendix C in the 2022 Revised MND, which has been provided as **Appendix E** of this Subsequent MND.

Section 106 Native America outreach was completed for the 2022 Revised MND and documented there. No additional Section 106 Native American outreach was conducted for this Subsequent IS/MND.

Assembly Bill 52 Consultation

Assembly Bill (AB) 52 establishes a formal consultation process between the lead agency, EMWD, and all California Native American Tribes within the area regarding tribal cultural resource evaluation. AB 52 mandates that the lead agency must provide formal written notification to the designated contact of traditionally and culturally affiliated California Native American tribes that have previously requested notice. Native American tribes are notified early in the project review phase by written notification that includes a brief description of the proposed project, location, and the lead agency's contact information. The Tribal contact then has 30 days to request project-specific consultation pursuant to this section (Public Resources Code §21080.1).

As a part of the consolation pursuant Public Resources Code §21080.3.1(b), both parties may suggest mitigation measures (Public Resources Code §21082.3) that can avoid or substantially lessen potential significant impacts to tribal cultural resources or provide alternatives that would avoid significant impacts to a tribal cultural resource. The California Native American tribe may request consultation on mitigation measures, alternatives to the project, or significant effects. The consultation may also include discussion on the environmental review, the significance of tribal cultural resources, the significance of the project's impact on the tribal cultural resources, project alternatives, or the measures planned to preserve or mitigate. Consultation shall end when either: 1) both

parties agree on the mitigation measures to avoid or mitigate significant effects on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

EMWD provided written notification to Native American tribal representatives via a letter in October 2022. The AB52 response period closed November 4, 2022, and one response was received from the Pechanga Band of Luiseño Indians requesting consultation. EMWD met with the Pechanga Band on December 7, 2022. Tribal representatives indicated potential sensitive areas near Lake Perris, Ramona Expressway, Iris Street, festival grounds north of SR-60, and Ironwood Avenue. Potential well locations identified in this Subsequent MND would not be located near Lake Perris or Ramona Expressway, therefore no impacts to these sensitive areas would occur. While potential well locations could be finalized within Iris Street (MW-15) and Ironwood Avenue (MW-05, MW-04A, MW-04B), the wells would be constructed within the existing rights-of-way, which makes the possibility of encountering intact surface tribal cultural resources low. Further, construction of the proposed Project would disturb only a small area (3,000 square feet of previously disturbed surface area, and up to four boreholes per well cluster of only 12-inches in diameter each), decreasing the likelihood of encountering a tribal cultural resource during construction. Additionally, because final well locations have not yet been determined, EMWD anticipates being able to select final well locations within the identified rights-of-way for MW-04A, MW-04B, MW-05, and MW-15 that avoid potential impacts to tribal cultural resources. Tribal representatives requested additional material on the proposed Project, which was provided by EMWD on December 8, 2022. EMWD will also provide a map of final well locations once determined.

Additionally, EMWD had previously undertaken consultation with representatives from the Pechanga Band of Luiseño Indians, and Rincon Band of Luiseño Indians to discuss the proposed Project and potential effects on significant cultural resources during development of the 2022 Revised MND. Information provided by the tribal representatives during those consultations was considered when completing the analysis in this Subsequent IS/MND.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on tribal cultural resources with implementation of Mitigation Measures CUL-1 and CUL-2. The results from the 2021 Cultural Resources Assessment determined there are no cultural resources, Native American or historical, within the proposed Project area. Most of the proposed Project area is highly disturbed by urban development, which makes the possibility of encountering intact surface tribal cultural resources low. However, there is always the potential to discover unknown resources or remains during ground disturbing activities. Mitigation Measure CUL-1 would require ground-disturbing activities to halt if an unanticipated cultural resource or tribal cultural resource was discovered, and an archaeologist to be contacted. Mitigation Measure CUL-

2 would ensure proper procedures are in place if human remains are discovered during construction, and for the remains to be analyzed to determine origin and disposition

a) Less than Significant with Mitigation Incorporated

The results from the 2021 Cultural Resources Assessment Report determined there are no cultural resources, Native American or historical, within the proposed Project area. These assessments consisted of Native American and historical society consultation, historical map and imagery review, and a field survey. Most of the proposed Project area is highly disturbed by urban development, which makes the possibility of encountering intact surface tribal cultural resources low. Additionally, there are no known tribal burial sites within the proposed Project area.

No archaeological resources have been previously recorded within or immediately adjacent to the proposed Project area. The majority of the archaeological sites documented within the record search area are of fossils found in the Pleistocene alluvium within one half mile of the proposed Project area, but not within the proposed Project sites, and no cultural resources were found within or surrounding the proposed Project area. These results suggest that there is a relatively low potential for encountering substantial prehistoric archaeological remains during construction activities. Although there is substantially low potential for tribal resources to be discovered and impacts would be expected to be less than significant, there is always the potential for ground disturbing activities to encounter previously unknown tribal cultural resources. **Mitigation Measures CUL-1** and **CUL-2** would therefore be implemented in the event that tribal cultural resources are encountered during construction. **Mitigation Measure CUL-1** would require ground-disturbing activities to halt if an unanticipated cultural resource or tribal cultural resource was discovered, and an archaeologist to be contacted. **Mitigation Measure CUL-2** would ensure proper procedures are in place if human remains are discovered during construction, and for the remains to be analyzed to determine origin and disposition pursuant to Public Resources Code §5097.98. With the implementation of **Mitigation Measures CUL-1** and **CUL-2** impacts to tribal cultural resources would be less than significant.

Mitigation Measures: Refer to **Mitigation Measures CUL-1** and **CUL-2** in *Section 3.5 Cultural Resources.*

3.19 Utilities and Service Systems

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
Would the Project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	[ ]	[ ]	[X]	[ ]
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	[ ]	[ ]	[ ]	[X]
c) Result in a determination by the wastewater treatment provider which 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]	[ ]

Discussion

The 2022 Revised MND describes the applicable utilities background, environmental setting, and regulatory setting, which is incorporated by reference herein. Background and setting information that has changed since the 2022 Revised MND was adopted includes an update to the EMWD 2015 UWMP (EMWD 2021). In 2020, EMWD provided 84,673 AF of water to 603,950 retail customers (EMWD 2021). No other new information or changed circumstances have arisen since the 2022 Revised MND were adopted.

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact on utilities and service systems. The proposed Project would not require improvements to existing municipal storm water drain systems as the proposed Project would not increase impervious surfaces in the proposed Project area, nor would it result in increased runoff. The proposed Project would not induce unplanned population or employment growth that would require or result in the construction of new or expanded water supply, wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities. The Badlands sanitary landfill has sufficient capacity to accept anticipated construction debris and operation of the Project would not generate solid waste.

a) Less than Significant Impact

Similar to the 2022 Revised MND project, the proposed Project would construct up to 16 groundwater monitoring well clusters to improve EMWD's understanding of the level and extent of contamination in the Perris North Sub-basin. The proposed Project would not require improvements to existing municipal storm water drain systems because the proposed Project would not increase impervious surfaces in the proposed Project area, nor would it result in increased runoff. During construction, some dewatering activities would occur requiring discharge to stormwater or sewer systems, as permitted. These additional flows would be minimal and would not result in a substantial increase in temporary flows to these systems.

During preliminary design of the wells, EMWD would coordinate with the Riverside County Flood Control and Water Conservation District to locate the wells so as to avoid impacts to existing below ground storm drains. As discussed in *Section 3.14 Population and Housing*, the proposed Project would not induce unplanned population or employment growth that would require or result in the construction of new or expanded water supply, wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities. As explained in *Section 2.4 Proposed Project Description*, the proposed monitoring wells would not be connected to the City of Moreno Valley's electrical grids or produce any potable, raw, recycled, or wastewater. Therefore, the proposed Project would not require construction or relocation of utilities and impacts would be less than significant.

b) No Impact

The purpose of the Project is to evaluate the level and quality of groundwater in the Perris North Sub-basin. Similar to the 2022 Revised MND project, operation of the proposed Project would not require water supplies or service. Therefore, no impact would occur.

c) Less than Significant Impact

As discussed in *Section 3.14 Population and Housing,* construction and operation of the proposed Project would not directly or indirectly induce population growth that would result in or require expansion of existing wastewater collection or treatment services. During construction, dewatering may occur that could require disposal to the sewer for treatment, depending on groundwater quality. Water produced during construction would be relatively low in volume compared to existing sewer flows and would be accommodated within existing capacity of the treatment plant. During operation, monitoring would be performed quarterly by truck-mounted equipment and any wastewater produced during sampling would be disposed by the sampling contractor according to industry standards. Similar to the 2022 Revised MND project, wastewater produced during construction and operation of the proposed Project would not be substantial and would be accommodated within existing wastewater system capacities. Therefore, impacts would be less than significant.

d) Less than Significant Impact

Similar to the 2022 Revised MND project, construction of the proposed Project would generate soil and asphalt waste during installation of the monitoring wells. While excavated soil would be reused onsite as backfill to the extent feasible, it is estimated that approximately 1,320 cubic yards of material in total would be exported for all 16 of the proposed Project's well clusters. Cuttings from drilling activities would be disposed to the Badlands sanitary landfill, unless materials are determined to be hazardous, in which case they would be disposed of to the nearest landfill permitted to take such materials.

There are two State regulations that set standards for solid waste generation: AB 939 mandates 50 percent diversion of solid waste; and AB 341 mandates recycling programs to help reduce GHG emissions. The Badlands sanitary landfill had an overall remaining disposal capacity of approximately 7.8 million cubic yards of solid waste for disposal and a maximum permit capacity of 34.4 million cubic yards (CalRecycle 2020). The anticipated closure date is currently 2026. Construction of the proposed Project is expected to be completed by June 2024. The 1,320 cubic yards of excess construction debris is anticipated to be within the permitted capacity of the Badlands sanitary landfill after onsite backfill of excavated soil combined with adherence to mandatory construction waste diversion requirements.

Operation of the proposed Project would not generate solid waste. Therefore, solid waste generation would be limited to temporary construction activities and would not affect

available solid waste disposal capacity in the region. Therefore, impacts related to local infrastructure capacity are less than significant, and no mitigation is required.

e) Less than Significant Impact

Similar to the 2022 Revised MND project, construction and operation of the proposed Project would comply with local, State, and federal regulations related to solid waste. While operation of the proposed Project would not generate long-term solid waste, construction activities would create debris such as excavated soil and asphalt. 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. These regulations would determine the landfill to be used for disposal of construction debris, disposal of solid waste from operation of the water treatment facility, mandatory 50 percent diversion of solid waste (AB 939), and mandatory recycling programs to reduce GHG emissions (AB 341). Therefore, impacts related to compliance with local, State, and federal reduction statues and regulations would be less than significant, and no mitigation would be required.

Mitigation Measures: No additional mitigation measures required or recommended.

3.20 Wildfire

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	[ ]	[X]	[ ]	[ ]
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	[ ]	[ ]	[ ]	[X]

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	[ ]	[ ]	[ ]	[X]
d) Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	[ ]	[ ]	[ ]	[X]

Discussion

The 2022 Revised MND describes the applicable wildfire background, environmental setting, and regulatory setting, which is incorporated by reference herein. No background or setting information has changed since the 2022 Revised MND was adopted. As noted in the 2022 Revised MND, the proposed Project would be located within an area designated as a non-Very High Fire Hazard Severity Zone within the Moreno Valley LRA.

Emergency Operations Plan

The City of Moreno Valley EOP provides guidance for the City's response to extraordinary emergency situations associated with natural, man-made and technological disasters. While the EOP is a preparedness document and is designed to be read, understood, and exercised prior to an emergency, emergency evacuation plans should be viewed as living documents because communities change and integrating the needs of individuals with differing access and functional needs is a dynamic process. The City's OEM is responsible for working and communicating with local community stakeholders to practice, review, revise, and update plans to reflect changes in technology, personnel, and procedures (City of Moreno Valley 2019b).

Local Hazard Mitigation Plan

The City of Moreno Valley LHMP is designed to reduce or eliminate long-term natural or man-made hazard risks and communicate the City's corresponding mitigation strategy. Components of the plan include hazard identification, asset inventory, risk analysis, loss estimation, and a mitigation strategy to reduce the effects of hazards in the City. (City of Moreno Valley 2017).

2022 Revised MND Conclusions

The 2022 Revised MND found the proposed Project (wells in parcels) would have a less than significant impact related to wildfire. Although construction of the proposed Project may cause short-term inconvenience and could intermittently slow traffic as equipment is delivered to the sites, the impacts would be temporary, and would not be expected to impact emergency response or evacuation. Therefore, access for use by emergency response vehicles or emergency evacuations would not be affected, and the proposed Project would not impair or physically interfere with local emergency evacuation or response plans. The Project would involve minimal additional vehicles during operation but would not require any lane closures. The proposed Project area is designated as non-VHFHSZ and would not involve the installation or maintenance of infrastructure that is typically associated with fire risk, such as roads, fuel breaks, emergency water sources, or power lines. In addition, the proposed Project sites are developed or vacant parcels that do not have steep slopes susceptible to landslides.

a) Less than Significant with Mitigation Incorporated

Construction activities and potential staging areas would be located within existing roadway rights-of-way. As result, construction may require sidewalk and lane closures that would temporarily restrict access for use by emergency response vehicles or emergency evacuations and could impair implementation of or physically interfere with the City of Moreno Valley's adopted Emergency Operations Plan (EOP) or 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 by requiring coordination with emergency services (police, fire, and others) and requiring that disruptions to or closures of these locations be minimized. Impacts of construction on the adopted emergency evacuation plan would be less than significant with mitigation incorporated. Further consideration of the proposed construction activities and potential for roadway access and hazardous conditions can be found under *Section 3.17 Transportation*.

Similar to the 2022 Revised MND project, operation of the proposed Project would not physically impair or otherwise interfere with adopted emergency response or evacuation plans in the proposed Project would not physically impair or otherwise interfere with adopted emergency response or evacuation plans in the proposed Project area as all ground surfaces of existing roadway rights-of-way would be returned to pre-construction conditions after installation of the monitoring well sites. The Project would involve minimal additional vehicles being added to roadways (bi-annual readings by truck-mounted monitoring equipment and periodic EMWD well inspections) and temporary lane closures during inspections and readings for wells located within the roadway right-of-way. Therefore, the Project would not interfere with emergency evacuation plans and impacts would be less than significant with mitigation incorporated.

b) No Impact

Similar to the 2022 Revised MND project, the proposed Project area is designated as non-VHFHSZ within the Moreno Valley LRA. Monitoring well sites would be installed within existing developed public roadway rights-of-way. No impacts would occur.

c) No Impact

Similar to the 2022 Revised MND project, the proposed Project would not involve the installation or maintenance of infrastructure that is typically associated with fire risk, such as roads, fuel breaks, emergency water sources, or power lines. The proposed Project would rely on existing roads and installation of well sites would be located within developed and vacant land, and within the paved roadway right-of-way. The proposed Project area is designated as non- Very High Fire Hazard Severity Zone within the Moreno Valley LRA. No impact would occur.

d) No Impact

Construction of the proposed Project would occur withing existing public roadway rights-of-way that do not have steep slopes susceptible to landslides. Proposed Project sites are not located on a downward slope that would result in increased drainage or runoff that could contribute to post-fire slope instability, landslides, or flooding. Once the Project is completed, the monitoring wells would be underground, and the area of temporary disturbance would be restored to pre-construction conditions. The proposed Project would generate minimal increases impervious surfaces and stormwater runoff (see *Section 3.10 Hydrology and Water Quality*). No impact would occur.

Mitigation Measures: Refer to **Mitigation Measure TRA-1** in *Section 3.17 Transportation*.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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	[ ]	[X]	[ ]	[ ]

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?				
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]	[ ]	[ ]

Discussion

a) Less Than Significant with Mitigation Incorporated

Similar to the 2022 Revised MND project, , the proposed Project would have a less than significant impact on the environment with implementation of mitigation measures. Due to high levels of existing disturbance, low habitat quality, and habitat fragmentation, there is low probability of impacting biological resources. With the proposed Project being confined to existing roadway rights-of-way, it would likely deter wildlife and nesting birds from using the site long-term or even at all and no sensitive plant species are anticipated. Nonetheless, with the implementation of **Mitigation Measure BIO-3,** potentially significant impacts on biological resources would be reduced to less than significant. No cultural or archaeological resources were identified within the area that would be directly impacted by the Project activities plus a one-half-mile buffer; however, there is a potential for previously unknown cultural material to exist at Project sites. With the implementation of **Mitigation Measures CUL-1** and **CUL-2**, potentially significant impacts on cultural resources would be reduced to less than significant. The 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 proposed Project ground disturbance. To ensure proper procedures are in place in the event of an unanticipated fossil discovery, **Mitigation Measure GEO-1** would be implemented during all construction phases of the

Project. **Mitigation Measure GEO-1** would require that any unanticipated fossil discovered onsite be preserved, and potential impacts on paleontological resources would be less than significant.

b) Less Than Significant Impact

CEQA Guidelines Section 15130(b) provides two approaches to discussing cumulative project impacts: either 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 agency; or the *Summary-of-Projections Method:* a summary of projections contained in an adopted general plan or related planning document or in a prior environmental document that has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency. EMWD is relying on the *List-of-Projects* method for purposes of this analysis.

The Perris North Groundwater Monitoring Project is currently being considered as one project of several within the Perris North Groundwater Program. The other projects in the program would result in the construction and operation of groundwater monitoring wells, extraction wells, treatment and distribution facilities also within the Perris North Basin. These other projects include:

- Well 204 Project;
- Cactus Avenue Corridor Groundwater Wells Project; and
- Well 65/66 Project.

The Well 204 Project consists of the development of one extraction well, a water treatment plant and pipelines in the Perris South Sub-Area of the basin. The Cactus Avenue Corridor Project involves the development and operation of groundwater extraction, treatment, and distribution facilities in the Perris North Sub-basin. The current Well 65/66 Project consists of the development and use of two new groundwater wells and pipeline also within the Perris North Basin. Although related due to contributing to overall management of the Perris North Sub-basin, each project is a stand-alone project independent of the other for project implementation.

Construction of these projects would occur at different times and sites far enough removed from each other that construction-related cumulative effects such as fugitive dust and construction noise would be less than significant. Development would adhere to applicable rules and regulations related to dust suppression, traffic control, storm water control, handling/storage of hazardous materials, and regulations related to protections for plants/animals/waters of the State and U.S. Cumulative impacts in these areas are also considered less than significant. The only operational vehicle trips associated with the various projects listed above would be the infrequent monitoring and/or maintenance trips, which would result in an insignificant cumulative increase on area roadways

separated in time and distance. Cumulative noise and air quality effects from these projects would also be less than significant due to their minimal contribution. Therefore, these projects are not expected to create impacts that are individually limited, but cumulatively considerable.

Similar to the 2022 Revised MND project, the proposed Project would not have impacts that are individually limited, but cumulatively considerable. The impacts of the proposed 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 mitigation incorporated. The 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 proposed Project would be less than significant.

c) Less Than Significant with Mitigation Incorporated

The proposed Project may create temporary lighting impacts during construction for safety and security of the construction site. **Mitigation Measures AES-1** would require lights be directed away from residences and the lowest level of illumination necessary be used to reduce impacts to surrounding land uses and people to less than significant. No lighting would be needed during operation of the proposed Project. With this mitigation measure in place, the proposed Project would have a less than significant impact on human beings as a result of lighting.

The proposed Project may expose the community, including sensitive receptors, to noise from Project construction and operation. **Mitigation Measure NOI-3** would ensure that construction noise is reduced using BMPs and **Mitigation Measure NOI-4** would require the use of noise barriers to reduce the noise level at sensitive receptors to the maximum extent possible. Noise resulting from proposed Project operation would be minimal, as monitoring wells would not produce operational noise and maintenance visits to wells would generate noise consistent with existing ambient noise. With these mitigation measures in place, the proposed Project would have a less than significant impact on human beings as a result of noise.

Although all existing applicable regulations would be followed by the Project, during construction, there is generally the potential for hazardous materials associated with typical construction activities to be released. **Mitigation Measure HAZ-1** would minimize the risk of hazardous material exposure through material use and accidents by requiring EMWD and its construction contractor to develop a Hazardous Materials Management and Spill Prevention and Control Plan to ensure project-specific contingencies are in place. Additionally, two of the proposed Project sites are located within 0.25 miles of hazardous sites, potentially exposing construction workers to contaminated soil and/or groundwater. **Mitigation Measures HAZ-2b, 2c and 2d** would reduce the risk of exposure to hazardous materials during construction by requiring investigation to determine presence of hazardous materials, and implementation of a project-specific

Health and Safety Plan should hazardous materials be found in the construction area, along with requiring safe disposal of any hazardous materials encountered.

Construction and operation of the proposed Project would require temporary closures of traffic lanes and could create traffic inconveniences. With the implementation of **Mitigation Measure TRA-1**, which requires a traffic control plan to address construction-related traffic, including construction equipment ingress and egress at the sites, transportation and related safety impacts would be less than significant.

The impacts of the proposed 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 mitigation incorporated. Therefore, with the implementation of the mitigation measures noted above, the proposed Project, similar to the 2022 Revised MND project, would not result in any environmental effects that would cause substantial adverse effects on human beings either directly or indirectly.

Mitigation Measures: See **Mitigation Measures AES-1, BIO-3, CUL-1, CUL-2, GEO-1, HAZ-1, HAZ-2b, HAZ-2c, HAZ-2d, NOI-3**, **NOI-4,** and **TRA-1**.

4. REPORT PREPARATION

4.1 Report Authors

This Subsequent IS/MND was prepared by EMWD and Woodard & Curran. Report Authors for the 2022 Revised MND are identified in that document, including teaming partners who prepared the Biological, Cultural, and Paleontological Resource Assessments (see **Appendix E**). Staff from these agencies and companies that were involved in this Subsequent IS/MND include:

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4.2 References

California Air Resources Board (CARB). 2011. *Final Regulation Order – Regulation for In-Use Off-Road Diesel Fueled Fleets*. Accessed September 7, 2022. Available online at: https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation.

California Department of Conservation (CDOC). 2008. *Ground Motion Interpolator*. Accessed on September 14, 2022. Available online: https://www.conservation.ca.gov/cgs/ground-motion-interpolator

California Department of Forestry and Fire Prevention (FRAP). 2009. *Moreno Valley*. Accessed September 8, 2022. Available online at: https://osfm.fire.ca.gov/media/5917/moreno_valley.pdf

California Department of Toxic Substances Control (DTSC). 2022. *EnviroStor*. Accessed September 8, 2022. Available online at: https://www.envirostor.dtsc.ca.gov/public/

California Geological Survey (CGS). 2018. *Earthquake Zones of Required Investigation (Map)*. Accessed on September 14, 2022. Available online at: https://maps.conservation.ca.gov/cgs/EQZApp/app/.

California Governor's Office of Planning and Research (OPR). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Accessed September 14, 2022. Available online at https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

California State Water Resources Control Board (SWRCB). 2022. *GeoTracker*. Accessed September 8, 2022. Available online at: https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Sacramento

Eastern Municipal Water District (EMWD). 2021. *2020 Urban Water Management Plan*. Accessed September 7, 2022. Available online at: https://www.emwd.org/sites/main/files/file-attachments/urbanwatermanagementplan_0.pdf?1625160721

Moreno Valley, City of. 2006. City of Moreno Valley General Plan. Accessed on September 13, 2022. Available online at: http://www.moreno-valley.ca.us/city_hall/general-plan/06gpfinal/gp/gp-tot.pdf

Moreno Valley, City of. 2017. Local Hazard Mitigation Plan. May. Accessed September 9, 2022. Available online at: http://www.moval.org/city_hall/departments/fire/pdfs/haz-mit-plan.pdf

Moreno Valley, City of. 2019a. *Emergency Operations Plan*. Accessed September 9, 2022.
Available online at: https://moval.gov/departments/fire/pdf/MV-EOP-2019.pdf

Moreno Valley, City of. 2019b. Designated Truck Route Map. Accessed September 13,

2022. Available online at: http://www.moval.org/departments/public-works/transportation/pdfs/truck-routes.pdf

Moreno Valley, City of. 2021a. *General Plan 2040*. Accessed September 1, 2022. Available online at: https://www.moval.org/city_hall/general-plan2040/MV-GeneralPlan-complete.pdf

Moreno Valley, City of. 2021b. *Climate Action Plan*. Accessed September 7, 2022. Available online at: https://www.moval.org/city_hall/general-plan2040/MV-CAP.pdf

Moreno Valley, City of. 2021c. Final Environmental Impact Report for the MoVal 2040: Moreno Valley Comprehensive Plan Update, Housing Element Update, and Climate Action Plan. Accessed September 11, 2022. Available online at: https://www.moval.org/city_hall/general-plan2040/Environmental/MV2040_FinalEIR_W-CommentResponse.pdf

Moreno Valley, City of. 2022. *City of Moreno Valley Zoning*. Accessed September 6, 2022. Available online at: https://moval.gov/city_hall/general-plan2040/NewZoning.pdf

Moreno Valley, City of, Transportation Engineering Division. 2020. Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment. Accessed September 14, 2022. Available online at: http://www.moval.org/city_hall/departments/pub-works/ transportation/ TIAGuidelines.pdf

Riverside, County of. nd. Ordinance No. 663. Accessed September 14, 2022. Available online at: https://www.rivcocob.org/ords/600/663.10.pdf

Riverside, County of. 1988. Riverside County Ordinance No. 655 Regulating Light Pollution. Accessed September 14, 2022. Available online at: https://www.rivcocob.org/ords/600/655.htm

Riverside, County of. 2015. Riverside County General Plan Update Project Environmental Impact Report Draft EIR No. 521. Accessed September 9, 2022. Available online at: https://planning.rctlma.org/Portals/14/genplan/general_plan_2015/DEIR%20521/DEIR%20No.%20521.pdf

Riverside County Airport Land Use Commission. 2014. *March Air Reserve Base/ Inland Port Airport Land Use Compatibility Plan.* Accessed September 9, 2022. Available online at: https://www.rcaluc.org/Portals/13/PDFGeneral/plan/2014/17%20-%20Vol.%201%20March%20Air%20Reserve%20Base%20Final.pdf

Riverside Transit Agency (RTA). 2022. Maps & Schedules. Accessed September 13, 2022. Available online at: https://www.riversidetransit.com/riding-the-bus/maps-schedules

Santa Ana Regional Water Quality Control Board (Santa Ana RWQCB). 2016. Santa Ana

River Basin Plan. Accessed September 9, 2022. Available online at: https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/

Southern California Association of Governments (SCAG). 2020. The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments. Accessed September 11, 2022. Available online at https://scag.ca.gov/read-plan-adopted-final-plan

Southern California Edison (SCE). 2020. Power Label Content. Accessed September 7, 2022. Available online at: https://www.energy.ca.gov/filebrowser/download/3902

U.S. Department of Agriculture (USDA). 2019. Natural Resources Conservation Service, Web Soil Survey. Accessed on January 7, 2020. Accessed at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

West San Jacinto Groundwater Basin Groundwater Sustainability Agency (West San Jacinto GSA). 2021. West San Jacinto Groundwater Sustainability Plan. Accessed September 9, 2022. Available online at: https://www.emwd.org/post/sustainable-groundwater-management-act