INITIAL STUDY

FOR THE

WEST VALLEY WATER DISTRICT
WELL NO. 57 PROJECT

Prepared for:

West Valley Water District
855 W. Baseline Road
Rialto, California 92376

Prepared by:

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LIST OF ABBREVIATIONS AND ACROYNMS

AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ACOE	Army Corps of Engineers
AF	acre feet
AFY	acre feet per year
amsl	above mean sea level
AMTP	Archaeological Monitoring and Treatment Plan
APE	Area of Potential Effect
APN	Assessor's Parcel Number
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	Air Resources Board
BACMs	Best Available Control Measures
bgs	below ground surface
BMPs	Best Management Practices
BRA	Biological Resources Assessment
BUOW	Burrowing Owl
C&D	construction and demolition
CAA	Clean Air Act
CAAA	Clean Air Act Amendment
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CCAR	California Climate Action Registry
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CHRIS	California Historical Resources Information System
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
COA	Conditions of Approval
COCs	constituents of concern
CRECs	Controlled Recognized Environmental Condition
CRHR	California Register of Historical Resources
CRMP	Cultural Resource Management Plan
CWA	Clean Water Act
CY	cubic yard

dB	decibel
dBA	A-weighted decibel
DDW	Division of Drinking Water
DOI	Department of Interior
DTSC	Department of Toxic Substance Control
DWR	Department of Water Resources
EIR	Environmental Impact Report
EO	Executive Orders
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FGC	Fish & Game Code
FTA	Federal Transit Association
GCC	Global Climate Change
GHG	Greenhouse Gas
gpm	gallons per minute
GSA	Groundwater Sustainability Agencies
GSP	Groundwater Sustainability Plans
hP	horse power
in/sec	inches per second
kWh	kilowatt hour
Leq	equivalent continuous sound level
LRA	Local Responsibility Area
LSA	Lake or Streambed Alteration
LST	Localized Significance Thresholds
LUST	Leaking Underground Storage Tank
MBMI	Morongo Band of Mission Indians
MBTA	Migratory Bird Treaty Act
MCL	maximum contamination level
MLD	Most Likely Descendant
MM	Mitigation Measure
MRZ	Mineral Resource Zone
MT	Metric Ton
MWD	Metropolitan Water District
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NBP	Nesting Bird Plan
No.	Number
NO2	Nitrogen Dioxide
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
O3	Ozone
Pb	Lead
PCE	Primary Constituent Elements
PM 10	Fine Particulate Matter
PM 2.5	Fine Particulate Matter

ppm	parts per million
PPV	peak particle velocity
PRC	Public Resource Code
R-3	Multiple Family
R-M	Medium Density Residential
RAFSS	Riversidean Alluvial Fan Sage Scrub
RECs	Recognized Environmental Condition
Rialto Basin GC	Rialto Basin Groundwater Council
RMS	root mean square
RMU	Regional Mixed Use
ROW	Rights-of-Way
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SBCFD	San Bernardino County Fire Department
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SGMA	Sustainable Groundwater Management Act
SGMP	Sustainable Groundwater Management Plan
SIP	State Implementation Plan
SO2	Sulfur Dioxide
SOI	Secretary of Interior
SRA	State Responsibility Area
SSC	Species of Special Concern
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCR	Tribal Cultural Resources
THPO	Tribal Historic Preservation Officer
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration-velocity decibel
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
WOTUS	Waters of the United States
WQMP	Water Quality Management Plan
WVWD	West Valley Water District
YSMN	Yuhaaviatam of San Manuel Nation

ENVIRONMENTAL CHECKLIST

INTRODUCTION

1. Project Title: West Valley Water District Well No. 57 Project

2. Lead Agency Name: West Valley Water District
   Address: 855 W. Baseline Road, Rialto, CA 92376

3. Contact Person: Rosa M. Gutierrez, Senior Engineer
   Phone Number: (909) 875-1322

4. Project Location: The West Valley Water District (WVWD or District) service area is located in southern California within southwestern San Bernardino County with a small part in northern Riverside County. The District's service area is shown on **Figure 1**. The project will occur within the northern portion of the District. The potential well site is at a site northwest of the intersection of Vesta Way and Knox Ave, just northeast of the intersection of Knox Avenue and Walsh Lane in the City of Fontana (refer to the regional and site aerial maps provided as **Figures 2 and 3**). The project is located within the USGS Topo 7.5-minute map for Devore, CA, and is located in Section 24, Township 1 North and Range 6 West, San Bernardino Meridian. The approximate GPS coordinates of the project site are 34.158017°, -117.458400°.

5. Project Sponsor Name: West Valley Water District
   Address: 855 W. Baseline Road, Rialto, CA 92376

6. General Plan Designation: Medium Density Residential (R-M)

7. Zoning: Multiple Family (R-3)

8. Project Description:

Project Description

Introduction

WVWD serves potable water to customers in the Cities of Rialto, Fontana, Colton, Jurupa Valley ("Riverside County") and unincorporated areas of San Bernardino County, serving over 80,000 residents within these jurisdictions. The District obtains water from both local and imported sources to serve its customers, including about 68% from Groundwater, 18% from surface water diversions from Lytle Creek, and 14% from the State Water Project. The service area consists of eight (8) pressure zones: Zone 2, 3, 3A, 4, 5, 6, 7 and 8, and is divided into Northern and Southern systems by the central portion of the City of Rialto.

New development places additional demands upon existing facilities and often requires the construction of new or expanded facilities to maintain service standards. To ensure that the District has sufficient supplies to meet those growing demands, the District intends to drill a new groundwater production well, Well No. 57, to supplement the District's water supplies.

Project Description

The District seeks to install a new well, which would aid the District in meeting current and future demand, and provide backup for an existing well in the District's water supply. Well No. 57 is proposed to be located on an approximately 1.6-acre portion of three parcels within the City of Fontana (Assessor's Parcel Numbers [APNs] 110-752-174, 110-752-176, and 110-752-171) a site northwest of the intersection of Vesta Way and Knox Ave, just northeast of the intersection of Knox Avenue and Walsh Lane in the City of Fontana (refer to the site plan provided as **Figure 4**). The District owns APNs 110-752-174 and 110-752-176, and are requesting access from the City of Fontana for APN 110-752-171. Additionally, as shown on **Figure 4**, the District is requesting an easement from Metropolitan Water District (MWD) for access to the site, for power to the site, to enable flush to waste drainage pipeline installation, and discharge to the existing catch basin, and a well pipeline connection to the existing 24" waterline.

The site would include the following features: a 12" in diameter pipeline connecting to the District's distribution system in Knox Avenue; a 6" drain line the purpose for which is to connect to a pump for waste; a 6' x 9' chlorination building adjacent to the proposed well for sodium hypochlorite 12.5% storage; and, a 5" conduit, switch gear, and transformer to connect to the existing powerline pole.

The District anticipated that the well will be drilled utilizing reverse rotary well drilling method to about 1,000 feet below ground surface (bgs), based on the depth of the District's nearby well. The objective for the well is to generate a minimum 1,000 gpm. The District anticipates that the water quality of the water extracted by the new Well No. 57 would be similar to Well No. 54, which only experiences issues with entrained air and sand (which may be location related). If sand is an issue at the new well, a small sand separator and deaeration tank may be required. The well will require installation of a submersible pump, and no booster pump will be necessary, as existing District booster pumps are sufficient to carry water from the proposed new well to customers.

Access to the proposed project site is provided from Knox Avenue and a paved fire access road. Stormwater is removed from the project site by infiltration into and sheet flow across the unpaved surfaces towards stormwater drains located on the adjacent public right-of-way.

Environmental Setting

The proposed project is located at the foothills of the eastern San Gabriel Mountains, within San Bernardino County. The proposed project site is located about 1 mile south of the San Gabriel Mountains in the Rialto-Colton Subbasin of the Upper Santa Ana Valley. The project site is currently vacant, is covered entirely by weeds and vegetation. The ground surface of the proposed project site is approximately 1,703 feet above mean sea level (amsl). The site slopes gently toward the south-southwest.

The project area lies in the geographically based ecological classification known as the Inland Valleys – Level IV ecoregion, of the Southern California/Northern Baja Coast – Level III ecoregion. The goal of regional ecological classifications is to reduce variability based on spatial covariance in climate, geology, topography, climax vegetation, hydrology, and soils. The Inland Valleys ecoregion is a heavily urbanized ecoregion that historically consisted of the alluvial fans and basin floors immediately south of the San Gabriel and San Bernardino Mountains.

The project area is within a hot-summer Mediterranean climate (Csa), characterized by both seasonal and annual variations in temperature and precipitation. Average annual maximum temperatures peak at 96.2 degrees Fahrenheit (°F) in July and August and drop to an average annual minimum temperature of 38.5° F in January. Average annual precipitation is greatest from

November through April and reaches a peak in February (3.25 inches). Precipitation is lowest in the month of July (0.04 inches). Annual total precipitation averages 16.12 inches.

Construction Scenario

Below outlines a more detailed sequence of events that will be implemented in support of the development of the proposed well.

- The bucket auger drill rig will come onsite and drill and install conductor casing and cement sanitary seal.
- The reverse rotary drill rig will mobilize to the site and set up, including sound walls.
- Drill the pilot borehole and collect associated data, such as lithology, geophysical logs, and isolated aquifer zone testing.
- Deliver the well construction materials.
- Borehole to target depth.
- Construct the well.
- Conduct initial well development by airlift, swab, and pump.
- Demobilize the drill rig and mobilize the test pump.
- Conduct final development by pumping to waste.
- Conduct pumping tests, sampling.
- Temporarily cap the well and demobilize remaining equipment.
- Return the site to original condition.
- Connect well to the District's potable Distribution System.
- Construct well discharge appurtenances: electric, etc.

It is anticipated that about five persons will be at the Well No. 57 site at any one time to support drilling the well: three drillers, the hydrologist inspector, and a foreman. Daily trips to complete the well will average about 15 roundtrips per day, which on a given day may include: two roundtrips for drill rigs; between 6 and 12 roundtrips for cement trucks; a few trips to deliver pipe; and about 10-15 trips per day for employees. It is estimated that it will require about 6-10 weeks to drill the well, with 24-hour drilling activities for 7 days a week (surrounding housing to be notified in advance). The objective for the well is to generate a minimum 1,000 gpm. Assuming the groundwater quality is potable (see the discussion under Hydrology and Water Quality), the new well will be connected to the District's distribution system.

At the Well No. 57 location, the new well would connect to the District's distribution system via a connection within the adjacent paved utility easement at the southern boundary of the site maintained by MWD. The new well will be outfitted with a vertical turbine pump.

Ground disturbance emissions assume roughly 0.2 acre of land would be actively excavated on a given day. It is anticipated that installation of connecting pipeline will require the use of a backhoe, crane, compactor, roller/vibrator, pavement cutter, grinder, haul truck and two dump trucks operating 6 hours per day; a water truck and excavator operating 4 hours per day and a paving machine and compacter operating 2 hours per day. Installation of pipeline in undeveloped locations would require the same equipment as developed area without the paving equipment (cutter, grinder, paving machine). The contractor may occasionally use a portable generator and welder for equipment repairs or incidental uses.

Operational Scenario

Operation of the new well would not require any shifts or employees as each well will be monitored and controlled remotely. The new production well would require up to 1.5 million KWH to operate per year (if full time). It is not anticipated that back-up generators will be installed, though the District currently utilizes portable back-up generators when needed to ensure that each well has

continuous electricity. Chemicals used in the water production process will be chlorine (sodium hypochlorite 12.5%) for disinfection.

9. Surrounding land uses and setting: (Briefly describe the project's surroundings)

The triangular parcel within which the project is proposed, as stated above under "Environmental Setting," is located in the City of Fontana adjacent to a utility corridor. The site is presently vacant containing a mixture of mowed weeds and other vegetation.

Table 1
EXISTING LAND USE AND LAND USE ZONING DISTRICTS

Location	Existing Land Use	Land Use Zoning District
Project Site	Vacant	Medium Density Residential (R-M)
North	Utility Corridor	Public Facility
South	Residential development	Medium Density Residential (R-M)
East	Residential Development	Medium Density Residential (R-M)
West	Utility Corridor	Public Facility

10. Other agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

There are several other agencies with possible jurisdiction/responsibility over the proposed project.

- First among these is the California State Water Resources Control Board Division of Drinking Water (State Board). The State Board ultimately approves connection of new well to the District's water distribution system after determining that the water quality is acceptable to supply potable water to District's customers. The existing District water supply permit will be modified to include the new well.
- Notice of Intent (NOI) to the State Water Resources Control Board (SWRCB) for a NPDES general construction stormwater discharge permit. This permit is granted by submittal of an NOI to the SWRCB, but is enforced through a Storm Water Pollution Prevention Plan (SWPPP) that identifies construction best management practices (BMPs) for the site. In the project area, the Santa Ana Regional Water Quality Control Board enforces the BMP requirements described in the NPDES permit by ensuring construction activities adequately implement a SWPPP. Implementation of the SWPPP is carried out by the construction contractor, with the Regional Board and County providing enforcement oversight.
- The U.S. Fish and Wildlife Service (USFWS) and/or CDFW may need to be consulted regarding threatened and endangered species documented to occur within the project area. Where such species are discovered in the Biological Resources Analysis, the appropriate consultation efforts will be required.
- The City of Fontana must grant WVWD an easement to facilitate site access.
- MWD must grant WVWD an easement to facilitate site access and connection to existing utility systems adjacent to the project site.

11. Have California Native American tribes traditionally and cultural affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

Yes, AB 52 Letters were mailed to the following California Native American tribes on November 2, 2023: Gabrieleño Band of Mission Indians – Kizh Nation; Morongo Band of Mission Indians, Torres Martinez Desert Cahuilla Indians; and, Yuhaaviatam of San Manuel Nation. Consultation by all three tribes was requested, and mitigation measures reflecting the input of each tribe has been incorporated into this Initial Study to minimize impacts to tribal cultural resources as part of project implementation.

> Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

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.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Energy
☒ Geology / Soils	☐ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials
☒ Hydrology & Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☒ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☒ Transportation	☒ Tribal Cultural Resources
☒ Utilities / Service Systems	☐ Wildfire	☒ Mandatory Findings of Significance

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

☐	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☒	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.
☐	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	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.
☐	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.

Tom Dodson & Associates
Prepared by

July 19, 2024
Date

Lead Agency (signature)

7.23.24
Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
I. AESTHETICS: Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
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 or other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

SUBSTANTIATION

a. *Less Than Significant Impact* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The project would aid the District in meeting current and future potable water demand, and provide backup for an existing well in the District's water supply within the City of Fontana within WVWD's existing service area. The well would be installed within a vacant site currently consisting of weeds and vegetation. As a result of the state of the existing site, the site does not contain features that would be considered scenic vistas.

A scenic vista impact can also occur when a scenic vista can be viewed from the project area or immediate vicinity and a proposed development may interfere with the view to a scenic vista. The dominant landscape within the project area is the recently constructed residences to the east, west, and south, with a utility easement forming the diagonal northwestern site boundary. The project footprint is located about one mile south/southeast of the foothills of the San Gabriel Mountains, which add to the background viewsheds. The Fontana General Plan EIR identified the San Gabriel Mountains as the city's most prominent visual feature, rising dramatically above the community with scenic views toward the mountains. Panoramic views also exist from the base of the mountains toward Fontana. However, pristine views of the San Gabriel Mountains in the vicinity of and internal to the project site do not exist as a result of existing development.

The presence of construction equipment and related construction materials would be visible from public vantage points, such as open space areas, sidewalks, and streets, but it would not adversely affect any scenic views or vistas. Construction of the proposed well would not permanently affect views or scenic vistas due to the small size and low profile. Thus, impacts would be less than significant. Once constructed, the proposed well would occupy a footprint anticipated to be less than 20 feet by 20 feet. As such, it is anticipated that the well would have a small footprint, and would be low profile. Given that the project would not degrade views to nearby scenic vistas as a result of the fact that the well would be low profile with a small footprint, the project would not substantially alter the views in the project footprint in the long-term. Thus, implementation of the proposed Well No. 57 Project is not expected to cause any substantial adverse effects on any important scenic vistas. No impacts are anticipated and no mitigation is required.

b. *Less Than Significant Impact* – The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana within a vacant site currently consisting of weeds and vegetation. The proposed project is located along Knox Avenue. According to the Scenic Routes & Highways Map provided as **Figure I-1,** the proposed project is not located adjacent to a scenic highway. Thus, the proposed well installation would not impact a scenic highway because none are located in close proximity to the proposed project. No historic buildings are located within the project site would be disturbed as part of the proposed project, as the proposed project site is vacant containing no existing structures. No rock outcroppings exist within the vacant project site, and therefore none would be impacted by the proposed project. As stated under issue I(a), above, the proposed project consists of weeds and vegetation, with no trees on site that would fall under the City of Fontana tree ordinance. No other scenic resources have been identified on the site. Therefore, the project would have a less than significant potential to substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

c. *No Impact* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana within a vacant site currently consisting of weeds and vegetation, that is located in an urbanized area. Construction activities would require the use of construction equipment and storage of materials at the project site. Excavated areas, stockpiled soils and other materials generated during construction would present negative visual elements to the existing landscape. However, these effects would be nominal because the well would be installed in a developed area with sufficient vacant area to temporarily store construction equipment and materials, and the effects would be temporary for only the nominal duration of construction, and therefore not substantially affect the existing visual character of the surrounding area. Furthermore, there are no regulations governing scenic quality within the City of Fontana Zoning Code that would apply to the development of the proposed well, particularly in light of California Government Code Section 53091, which renders infrastructure projects such as that which is proposed under the Program land use and zoning independent. Impacts would be less than significant.

   Once constructed, the proposed well would occupy a footprint anticipated to be less than 20 feet by 20 feet within the project site; therefore, it is anticipated that the proposed well would have a small footprint and be low profile. As stated above, there are no regulations governing scenic quality within the City of Fontana Zoning Code that would apply to the development of the proposed ancillary facilities, particularly in light of California Government Code Section 53091. As compliance with the zoning is not required for water facilities such as the proposed well, no conflict with the sections of the zoning code governing scenic quality would exist. Thus, no impacts under this issue are anticipated from either construction or operation of the proposed well.

d. *Less Than Significant With Mitigation Incorporated* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. Lighting at the well site will be installed as needed for safety. Thus, the proposed project has a potential to create a new source of substantial lighting or glare during construction that could adversely affect nighttime views at the adjacent residences, and residences can be considered a light sensitive land use. There will be a new permanent light source to support operations of the well for security purposes. Lighting will also be required during the 24-hour drilling phase of the well construction. This poses a potential to result in a substantial change to the area surrounding the project site. To protect nearby residences from direct light and glare from new lighting, the following mitigation measures will be implemented:

   AES-1 A facilities lighting plan shall be prepared and shall demonstrate that glare from construction operations and safety night lights that may create light and glare affecting adjacent occupied property are sufficiently shielded to prevent light and glare from spilling into occupied structures. This plan shall

specifically verity that the lighting doesn't exceed 1.0 lumen at the nearest residence to any lighting site within the project footprint. This plan shall be implemented by the District to minimize light or glare intrusion onto adjacent properties.

With implementation of the above measure potential light and glare can be controlled to a less than significant impact level

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
II. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

SUBSTANTIATION

a. *No Impact* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The Well No. 57 Project is located in an area that does not support agricultural uses. Neither the project site nor the adjacent and surrounding properties are designated for agricultural use; no agricultural activities exist in the project area; and there is no potential for impact to any agricultural uses or values as a result of project implementation. According to the San Bernardino Countywide Plan Agricultural Resources Map (**Figure II-1**), the proposed project has not been designated for agricultural use; no prime farmland, unique farmland, or farmland of statewide importance exists within the vicinity of the proposed project. No adverse impact to any agricultural resources would occur from implementing the proposed project. No mitigation is required.

b. *No Impact* – There are no agricultural uses currently within the project footprint or on adjacent properties. The proposed well is located within the following land use designation: Medium Density Residential (R-M). The proposed well is located within the Multiple Family (R-3) zoning classification within the City of Fontana. No potential exists for a conflict between the proposed project and agricultural zoning or Williamson Act contracts within the project area. No mitigation is required.

c. *No Impact* – Please refer to issues II(a) and II(b) above. The project site is in an urbanized area surrounded by residential housing. The proposed well is located within the following land use designation: Medium Density Residential (R-M). The proposed well is located within the Multiple Family (R-3) zoning classification within the City of Fontana. Neither the land use designation nor zoning classification supports forest land or timberland uses or designations. No potential exists for a conflict between the proposed project and forest/timberland zoning. No mitigation is required.

d. *No Impact* – There are no forest lands within the project area, which is because the project area is urbanized and removed from nearby mountains, where much of the County's forestland is located. No potential for loss of forest land would occur if the project is implemented. No mitigation is required.

e. *No Impact* – Because the project footprint and surrounding area do not support either agricultural or forestry uses and, furthermore, because the project footprint and environs are not designated for such uses, implementation of the proposed project would not cause or result in the conversion of farmland or forest land to alternative use. No adverse impact would occur. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

SUBSTANTIATION: The following information utilized in this section of the Initial Study was obtained from the following technical study: *Air Quality and GHG Impact Analyses, West Valley Water District Well No. 57 Project, San Bernardino, California* prepared by Gerrick Environmental dated January 16, 2024. This technical study is provided as Appendix 1 to this document.

Background

Climate
The climate of the western San Bernardino Valley, as with all of Southern California, is governed largely by the strength and location of the semi-permanent high-pressure center over the Pacific Ocean and the moderating effects of the nearby vast oceanic heat reservoir. Local climatic conditions are characterized by very warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and comfortable humidity levels. Unfortunately, the same climatic conditions that create such a desirable living climate combine to severely restrict the ability of the local atmosphere to disperse the large volumes of air pollution generated by the population and industry attracted in part by the climate.

The project will be situated in an area where the pollutants generated in coastal portions of the Los Angeles basin undergo photochemical reactions and then move inland across the project site during the daily sea breeze cycle. The resulting smog at times gives San Bernardino County some of the worst air quality in all of California. Fortunately, significant air quality improvement in the last decade suggests that healthful air quality may someday be attained despite the limited regional meteorological dispersion potential.

Air Quality Standards
Existing air quality is measured at established South Coast Air Quality Management District (SCAQMD) air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table III-1. Because the State of California had established Ambient Air Quality Standards (AAQS) several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table III-1. Sources and health effects of various pollutants are shown in Table III-2.

Table III-1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		–		
Fine Particulate Matter (PM2.5)[9]	24 Hour	–	–	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15.0 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	–	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	–	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	–	Ultraviolet Flourescense; Spectrophotometry (Paraosaniline Method)
	3 Hour	–		–	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[11]	–	
Lead 8[12,13]	30-Day Average	1.5 µg/m^3	Atomic Absorption	–	–	–
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Avg	–		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	**No Federal Standards**		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Footnotes

1 California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter – PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year, with a 24-hour average concentration above 150 $\mu g/m^3$, is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.

3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4 Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7 Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the EPA.

8 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9 On December 14, 2012, the national PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primarily and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primarily and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10 To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11 On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12 The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13 The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 j.tg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14 In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Table III-2
HEALTH EFFECTS OF MAJOR CRITERIA POLLUTANTS

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Fine Particulate Matter (PM-10)	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Baseline Air Quality

Existing and probable future levels of air quality in the project area can be best inferred from ambient air quality measurements conducted by the South Coast Air Quality Management District (SCAQMD) at its Fontana monitoring station. This station measures both regional pollution levels such as dust (particulates) and smog, as well as levels of primary vehicular pollutants such as carbon monoxide. Table 3 summarizes the last four years of the published data from this monitoring station.

Ozone and particulates are seen to be the two most significant air quality concerns. Ozone is the primary ingredient in photochemical smog. Slightly more than 12 percent of all days exceed the California one-hour standard. The 8-hour state ozone standard has been exceeded an average of 21 percent of all days in the past four years. The federal 8-hour standard was exceeded 15 percent of all days for the same time

period. For the last four years, ozone levels have neither improved nor gotten noticeably worse. While ozone levels are still high, they are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.

In addition to gaseous air pollution concerns, San Bernardino experiences frequent violations of standards for 10-micron diameter respirable particulate matter (PM-10). High dust levels occur during Santa Ana wind conditions, as well as from the trapped accumulation of soot, roadway dust and byproducts of atmospheric chemical reactions during warm season days with poor visibility. Table III-3 shows that almost 14 percent of all days in the last four years experienced a violation of the State PM-10 standard. However, the three-times less stringent federal standard has not been exceeded in the same time period.

A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). Peak annual PM-2.5 levels are sometimes almost as high as PM-10, which includes PM-2.5 as a sub-set. However, only slightly more than one percent of monitored days experienced a violation of the 24-hour standard of 35 $\mu g/m^3$.

While many of the major ozone precursor emissions (automobiles, solvents, paints, etc.) have been substantially reduced, most major PM-10 sources (construction dust, vehicular turbulence along roadway shoulders, truck exhaust, etc.) have not been as effectively reduced. Prospects of ultimate attainment of ozone standards are better than for particulate matter.

More localized pollutants such as carbon monoxide, nitrogen oxides, etc. are very low near the project site because background levels, never approach allowable levels. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NOx or CO without any threat of violating applicable AAQS.

Table III-3
AIR QUALITY MONITORING SUMMARY
(Days Standards were Exceeded and Maximum Observed Concentrations 2019-2022)

Pollutant/Standard	2019	2020	2021	2022
Ozone				
1-Hour > 0.09 ppm (S)	41	56	44	44
8-Hour > 0.07 ppm (S)	67	89	83	70
8- Hour > 0.075 ppm (F)	46	65	56	49
Max. 1-Hour Conc. (ppm)	0.124	0.151	0.125	0.144
Max. 8-Hour Conc. (ppm)	0.109	0.111	0.103	0.107
Carbon Monoxide				
8- Hour > 9. ppm (S,F)	0	0	0	0
Max 8-hour Conc. (ppm)	1.0	1.2	1.4	1.0
Nitrogen Dioxide				
1-Hour > 0.18 ppm (S)	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.076	0.066	0.067	0.069
Respirable Particulates (PM-10)				
24-Hour > 50 $\mu g/m^3$ (S)	12/61	6/40	4/53	8/60
24-Hour > 150 $\mu g/m^3$ (F)	0/61	0/40	0/53	0/60
Max. 24-Hr. Conc. ($\mu g/m^3$)	88.	61.	73.	62.
Fine Particulates (PM-2.5)				
24-Hour > 35 $\mu g/m^3$ (F)	2/114	1/117	2/120	1/120
Max. 24-Hr. Conc. ($\mu g/m^3$)	46.5	46.1	55.1	38.1

(S) = state standard, (F) = federal standard
Source: Fontana SCAQMD Air Monitoring Summary (5197) data: www.arb.ca.gov/adam/

Air Quality Planning

The United State Environmental Protection Agency (U.S. EPA) is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for O3, CO, NOx, SO2, PM10, PM2.5, and lead. The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the California Air Resources Board (CARB).

The Air Quality Management District (AQMD) adopted an updated clean air "blueprint" in August 2003. The 2003 Air Quality Management Plan (AQMP) was approved by the EPA in 2004. The AQMP outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM-10) by 2006. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. As previously noted, the attainment date was to "slip" from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because Projected attainment by 2021 required control technologies that did not exist yet, the SCAQMD requested a voluntary "bump-up" from a "severe non-attainment" area to an "extreme non-attainment" designation for ozone. The extreme designation was to allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on "black-box" measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April 2010, the EPA approved the change in the non-attainment designation from "severe-17" to "extreme." This reclassification set a later attainment deadline (2024), but also required the air basin to adopt even more stringent emissions controls.

In other air quality attainment plan reviews, EPA had disapproved part of the SCAB PM-2.5 attainment plan included in the AQMP. EPA stated that the current attainment plan relied on PM-2.5 control regulations that had not yet been approved or implemented. It was expected that several rules that were pending approval would remove the identified deficiencies. If these issues were not resolved within the next several years, federal funding sanctions for transportation Projects could result. The 2012 AQMP included in the current California State Implementation Plan (SIP) was expected to remedy identified PM-2.5 planning deficiencies.

The federal Clean Air Act requires that non-attainment air basins have EPA approved attainment plans in place. This requirement includes the federal one-hour ozone standard even though that standard was revoked almost ten years ago. There was no approved attainment plan for the one-hour federal standard at the time of revocation. Through a legal quirk, the SCAQMD is now required to develop an AQMP for the long since revoked one-hour federal ozone standard. Because the current SIP for the basin contains a number of control measures for the 8-hour ozone standard that are equally effective for one-hour levels, the 2012 AQMP was believed to satisfy hourly attainment planning requirements.

AQMPs are required to be updated at regular intervals. The 2012 AQMP was adopted in early 2013. An updated 2016 AQMP was adopted by the SCAQMD Board in March 2017. The 2016 AQMD demonstrated the emissions reductions compared to the 2012 AQMP.

SCAQMD has initiated the development of the 2022 AQMP to address the attainment of the 2015 8-hour ozone standard (70 ppb) for South Coast Air Basin and Coachella Valley which will focus on attaining the 70 ppb 8-hour ozone National Ambient Air Quality Standard (NAAQS) by 2037. On-road vehicles and off-road mobile sources represent the largest categories of NOx emissions. Accomplishment of attainment goals requires an approximate 70% reduction in NOx emissions. Large scale transition to zero emission technologies is a key strategy. To this end, Governor Executive Order N-79-20 requires 100 percent EV

sales by 2035 for automobiles and short haul drayage trucks. A full transition to EV buses and heavy-duty long-haul trucks is required by 2045.

The proposed project does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing water supply projects. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the project has therefore been analyzed on a project-specific basis.

CEQA Standards of Significance

Primary Pollutants
Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during Project construction.

Secondary Pollutants
Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified number of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects with daily emissions that exceed any of the following emission thresholds are recommended by the SCAQMD to be considered significant under CEQA guidelines.

Table III-4
DAILY EMISSIONS THRESHOLDS

Pollutant	Construction	Operations
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

Impact Analysis

a. *Less Than Significant Impact* – Projects such as the proposed installation of a new production well do not directly relate to the AQMP in that there are no specific air quality programs or regulations governing general infrastructure development. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use are the primary yardsticks by which impact significance of planned growth is determined. Based on the analysis of the City's General Plan Land Use sections, the proposed project is consistent with the infrastructure needs identified in adopted General Plan. Thus, the proposed project is consistent with regional planning forecasts maintained by the SCAG regional plans. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less than significant only because of consistency with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis. As the analysis of project-related emissions provided below indicates, the proposed project will not cause or be exposed to significant air pollution, and is, therefore, consistent with the applicable air quality plan.

b. *Less Than Significant With Mitigation Incorporated* – Air pollution emissions associated with the proposed project would occur over both a short and long-term time period. Short-term emissions include fugitive dust from construction activities (i.e., site prep, demolition, grading) and exhaust emissions at the project site. Long-term emissions generated by future operation of the proposed well would be through a demand for energy to operate.

Construction Emissions
In May 2023 the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of CalEEMod2022.1. CalEEMod provides a model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions.

The project proposes drilling a new well to a depth of approximately 1,000 feet below ground surface and is expected to take 6-10 weeks with 24-hour drilling. In addition, there will be approximately 2 weeks of piping to connect the well water to the District's distribution system via a connection within the adjacent paved utility easement at the southern boundary of the site along Knox Avenue and a small section of drain line.

Table III-5
CONSTRUCTION ACTIVITY EQUIPMENT FLEET (650 LF TRANSMISSION MAIN)

Phase Name and Duration	Equipment
Well Drilling 4 weeks	1 Drill Rig
	1 Loader/Backhoe
	1 Pump
Well Equipping 6 weeks	1 Crane
	1 Welder
	1 Loader/Backhoe
	1 Generator Set
	1 Forklift
Install Pipeline 2 weeks	1 Loader/Backhoe
	1 Crane
	1 Excavator
	1 Water Truck

Phase Name and Duration	Equipment
	1 Pavement Saw
Backfill and Compact 2 weeks	1 Paver
	1 Loader/Backhoe
	1 Roller
	1 Compactor
	1 Cement Mixer

Utilizing this indicated equipment fleet and durations shown in Table III-5 the following worst-case daily construction emissions are calculated by CalEEMod as provided in Table III-6:

Table III-6
CONSTRUCTION ACTIVITY EMISSIONS MAXIMUM DAILY EMISSIONS (POUNDS/DAY)
2024 MAXIMAL DAILY EMISSIONS

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5
Drill Well	0.7	7.5	12.1	0.0	0.3	0.3
Equip Well	0.7	6.9	8.6	0.0	0.6	0.2
Install Piping	0.8	5.7	8.8	0.0	3.6	0.6
Backfill and Pave	0.5	3.0	6.1	0.0	3.5	0.5
SCAQMD Thresholds	75	100	550	150	150	55

Peak daily construction activity emissions are estimated to be below SCAQMD CEQA thresholds without the need for added mitigation. Though construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds, emissions minimization through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin. As such, the following mitigation measure shall be implemented:

AQ-1 ***<u>Fugitive Dust Control</u>. The following measures shall be incorporated into project plans and specifications for implementation during construction:***

- ***Apply soil stabilizers to inactive areas.***
- ***Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.***
- ***Stabilize previously disturbed areas if subsequent construction is delayed.***
- ***Apply water to disturbed surfaces 3 times/day.***
- ***Replace ground cover in disturbed areas quickly.***
- ***Reduce speeds on unpaved roads to less than 15 mph.***
- ***Trenches shall be left exposed for as short a time as possible.***
- ***Identify proper compaction for backfilled soils in construction specifications.***

This measure shall be implemented during construction, and shall be included in the construction contract as a contract specification.

Similarly, ozone precursor emissions (ROG and NOx) are calculated to be below SCAQMD CEQA thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control options include:

AQ-2 ***<u>Exhaust Emissions Control</u>. The following measures shall be incorporated into Project plans and specifications for implementation:***

- ***Utilize off-road construction equipment that has met or exceeded the maker's recommendations for vehicle/equipment maintenance schedule.***
- ***Contactors shall utilize Tier 4 or better heavy equipment.***
- ***Enforce 5-minute idling limits for both on-road trucks and off-road equipment.***

With the above mitigation measures, any impacts related to construction emissions are considered less than significant. No further mitigation is required.

Operational Impacts
Operational air pollution emissions will be minimal. Electrical generation of power will be used for pumping. Electrical consumption has no single uniquely related air pollution emissions source because power is supplied to and drawn from a regional grid. Electrical power is generated regionally by a combination of non-combustion (nuclear, hydroelectric, solar, wind, geothermal, etc.) and fossil fuel combustion sources. There is no direct nexus between consumption and the type of power source or the air basin where the source is located. Operational air pollution emissions from electrical generation are therefore not attributable on a project-specific basis.

Conclusion
With the incorporation of mitigation measures (**MMs**) **AQ-1** and **AQ-2**, the development of the Well No. 57 Project would have a less than significant potential to 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.

c. *Less Than Significant With Mitigation Incorporated* – The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For the proposed project, the primary source of possible LST impact would be during construction. LSTs are applicable for a sensitive receptor where it is possible that an individual could remain for 24 hours such as a residence, hospital or convalescent facility.

LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NOx), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST screening tables are available for 25, 50, 100, 200 and 500 meter source-receptor distances. For this project, the most stringent standards for a 1-acre site were used.

The SCAQMD has issued guidance on applying CalEEMod to LSTs. LST pollutant screening level concentration data is currently published for 1, 2 and 5 acre sites. For this project, the most stringent standards for a 1-acre disturbance area were used.

The following thresholds and emissions are therefore determined (pounds per day):

Table III-7
LST AND PROJECT EMISSIONS (pounds/day)

LST 1.0 acres/25 meters Central San Bernardino Valley	CO	NOx	PM-10	PM-2.5
LST Significance Threshold	667	118	4	3
Drill Well	12	8	<1	<1
Equip Well	9	7	<1	<1
Install Piping	9	6	4	<1
Backfill and Pave	6	3	4	<1

LSTs were compared to the maximum daily construction activities. As seen in Table III-7, LST impacts are less than significant.

Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. The SCAQMD does not generally require the analysis of construction-related diesel emissions relative to health risk due to the short period for which the majority of diesel exhaust would occur. Health risk analyses are typically assessed over a 9-, 30-, or 70-year timeframe and not over a relatively brief construction period due to the lack of health risk associated with such a brief exposure. With the incorporation of **MMs AQ-1** and **AQ-2**, the development of the Well No. 57 Project would have a less than significant potential the proposed project would have a less than significant potential to expose sensitive receptors to substantial pollutant concentrations.

d. *Less Than Significant Impact* – Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The project does not propose any such uses or activities that would result in potentially significant operational source odor impacts. New water wells are generally not associated with odor impacts such as those often found in wastewater treatment. There are few biological organisms in the water supply and any such sources of odor are further removed in the pre-treatment process. The District would use chemicals in the water production process, specifically chlorine to disinfect the water extracted from the proposed well. Some treatment chemicals have strong pungent odors. However, they are injected into the water stream and have no airborne pathways; furthermore, sensitive receptors are not located within 100 feet of any location in which chemicals are used. Thus, odor impacts are considered less than significant. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

SUBSTANTIATION: The following information is provided based on a study *titled "Biological Resources Assessment for West Valley Water District's Proposed Well Number 57 Project Located in the City of Fontana, San Bernardino County, California"* (BRA) prepared by ELMT Consulting dated March 18, 2024 and provided as Appendix 2.

General Site Conditions

The proposed project site is located in an area that historically supported agricultural land uses and rural communities and has undergone significant urbanization in recent decades. At present, the site is bounded to the northwest by an electrical easement largely supporting undeveloped land with residential tract developments beyond; to the south by Knox Avenue with residential tract developments beyond; and to the east by residential tract developments. The site itself supports developed land and undeveloped, vacant land that has been impacted by historic agricultural uses and several decades of vehicle access and weed abatement regimes, and, more recently, adjacent and on-site development.

On-site elevation ranges from approximately 1,686 to 1,703 feet above mean sea level and slopes marginally from northeast to southwest. On-site topography is generally flat with no areas of significant topographic relief. Based on the NRCS USDA Web Soil Survey, the project site is historically underlain by Tujunga gravelly loamy sand (0 to 9 percent slopes). Soils on-site are generally very rocky and have been mechanically disturbed and compacted from grading activities, historic and ongoing land uses, and on-site and surrounding development.

The project site supports one (1) plant community: non-native grassland. In addition, the site supports two (2) land cover types that would be classified as disturbed and developed. The majority of the project site supports non-native grassland that occurs in varying densities throughout the site, except on the paved and dirt roads that intersect the site. This plant community is dominated by non-native grasses such as common Mediterranean grass (Schismus barbatus) and oats (Avena spp.) and supports primarily weedy/early successional species.

Common plant species observed in the non-native grassland plant community include doveweed (*Croton setiger*), telegraph weed (*Heterotheca grandiflora*), and common non-native species observed include wild oat (*Avena sp.*), longbeak stork's bill (*Erodium botrys*), redstem stork's bill (*Erodium cicutarum*), spotted spurge (*Euphorbia maculata*), shortpod mustard (*Hirschfeldia incana*), Russian thistle (*Salsola tragus*), Mediterranean grass (*Schismus barbatus*), common sunflower (*Helianthus annus*), and puncture vine (*Tribulus terrestris*).

Disturbed land occurs throughout the site in the form of an unpaved access road which runs along the western boundary, and areas along the eastern and southern boundary which have been subjected to disturbances such as illegal dumping and off-road vehicular use. Vegetative cover in these areas range from barren to sparse. Representative plant species in disturbed areas onsite include those present within the non-native grassland community.

Developed areas onsite occur along the southern boundary in association with the paved city sidewalks and flood control infrastructure. These areas are generally void of vegetation or contain verges which have been vegetated with installed ornamental species.

Special-Status Plants
According to the CNDDB and CNPS, twenty (20) special-status plant species have been recorded in the Devore quadrangle (refer to Attachment D of the BRA). No special-status plant species were observed on-site during the field investigation. The project site has been subject to anthropogenic disturbances from weed-abatement and adjacent and surrounding development; the latter of which has removed on-site habitats from historic hydrological regimes that once shaped the vegetative structure of plant communities in the area. These disturbances have reduced, if not eliminated, the suitability of the habitat to support special-status plant species known to occur in the general vicinity of the project site.

Based on habitat requirements for specific special-status plant species, the availability and quality of habitats needed by each species, and known distributions, it was determined that the project site does not have potential to support any of the special-status plant species known to occur in the vicinity and all are presumed to be absent. No further surveys are recommended.

Special-Status Wildlife
According to the CNDDB, forty-five (45) special-status wildlife species have been reported in the Devore quadrangle (refer to Attachment D of the BRA). No special-status wildlife species were observed during the field investigation. Based on habitat requirements for specific species and the availability and quality of on-site habitats, Cooper's hawk is not expected to nest on-site due to the lack of suitable nesting opportunities and California horned lark is not expected to nest on-site do to routine weed abatement and disturbance from access road use.

Based on regional significance, the potential occurrence of burrowing owl, San Bernardino kangaroo rat, and California gnatcatcher within the project site are described in further detail below:

Burrowing Owl
The burrowing owl is currently listed as a California Species of Special Concern. It is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with well-drained, level to gently-sloping areas characterized by sparse vegetation and bare ground. Burrowing owls are dependent upon the presence of burrowing mammals (such as ground squirrels) whose burrows are used for roosting and nesting. The presence or absence of colonial mammal

burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. Burrowing mammals may burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. They also require open vegetation allowing line-of-sight observation of the surrounding habitat to forage as well as watch for predators.

No burrowing owls or recent sign (i.e., pellets, feathers, castings, or whitewash) were observed during the field investigation. Portions of the project site are unvegetated and/or vegetated with low-growing plant species that allow for line-of-sight observation favored by burrowing owls. However, the project site lacks suitable burrows (>4 inches in diameter) capable of providing nesting opportunities. In addition, the site is surrounded by electrical and light poles which provide perching opportunities for larger raptor species (i.e., red-tailed hawk [*Buteo jamaicensis*]) that prey on burrowing owls. Burrowing owl is further precluded from establishing on-site due to the presence of free-roaming domestic cats.

Based on the results of the field investigation, it was determined that the project site does not have potential to support burrowing owl and focused surveys are not recommended. However, out of an abundance of caution, a preconstruction burrowing owl clearance survey shall be conducted prior to development to ensure burrowing owl remain absent from the project site.

San Bernardino Kangaroo Rat
The San Bernardino kangaroo rat, federally listed as endangered, is one of several kangaroo rat species in its range. The Dulzura, the Pacific kangaroo rat (*Dipodomys agilis*) and the Stephens kangaroo rat (*Dipodomys stephensi*) occur in areas occupied by the San Bernardino kangaroo rat, but these other species have a wider habitat range. The habitat of the San Bernardino kangaroo rat is described as being confined to pioneer and intermediate Riversidean Alluvial Fan Sage Scrub (RAFSS) habitats, with sandy soils deposited by fluvial (water) rather than Aeolian (wind) processes. Burrows are dug in loose soil, usually near or beneath shrubs.

The San Bernardino kangaroo rat is one of three subspecies of the Merriam's kangaroo rat. The Merriam's kangaroo rat is a widespread species that can be found from the inland valleys to the deserts. The subspecies known as the San Bernardino kangaroo, however, is confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainages. Most of the drainages have been historically altered as a result of flood control efforts and the resulting increased use of river resources, including mining, off-road vehicle use and road and housing development. This increased use of river resources has resulted in a reduction in both the amount and quality of habitat available for the San Bernardino kangaroo rat. The past habitat losses and potential future losses prompted the emergency listing of the San Bernardino kangaroo rat as an endangered species. Primary Constituent Elements (PCEs) are physical or biological features essential to the conservation of a species for which its designated critical habitat is based on. Examples of PCE's include food, water, space for individual and population growth, cover or shelter, etc. The PCEs essential to support the biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering for San Bernardino kangaroo rat are:

1. River, creek, stream, and wash channels; alluvial fans, flood plains, flood benches and terraces; and historic braided channels that are subject to dynamic geomorphological and hydrological processes;
2. Alluvial sage scrub and associated vegetation such as coastal sage scrub and chamise chaparral with a moderately open canopy;
3. Soil series consisting of sand, sandy loam, or loam within its geographical range; and
4. Upland areas proximal to flood plains containing suitable habitat (land adjacent to alluvial fan that provides refugia).

San Bernardino kangaroo rat is known to occur within Lytle Creek floodplain. The project site has been generally removed from the hydrological influences of Lytle Creek since the installation of Interstate 15 and associated flood control infrastructure since the mid-1900's, resulting in the on-site RAFSS plant community no longer exhibiting the dynamic vegetative succession and diversity typical of this plant community. In

addition, the development of extensive residential neighborhood tracts in the mid-1990's thoroughly isolated the project site from suitable habitats within downstream portions of Lytle Creek.

The project site supports disturbed and developed land. Undeveloped portions of the project site are underlain with rocky soils that have been heavily disturbed and compacted following decades of anthropogenic disturbance. Field sign for kangaroo rat, including San Bernardino kangaroo rat, is distinctive and readily noted in the field. No sign (e.g., San Bernardino kangaroo rat characteristic burrows, dusting baths, and/or tail drags) was observed during the field investigation. Additionally, the project site no longer is subject to the hydrologic influence of Lytle Creek due to the channelization of Lytle Creek for flood control purposes.

Based on these conditions, it was determined that the project site does not provide the requisite habitat elements needed by San Bernardino kangaroo rat to be present. Therefore, it was determined that San Bernardino kangaroo rat is presumed absent from the project site. No focused surveys are recommended.

California Gnatcatcher
California gnatcatcher is a federally threatened species with restricted habitat requirements, being an obligate resident of sage scrub habitats that are dominated by California sagebrush. This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. According to J. Atwood and J. Bolsinger, 99% of all California gnatcatcher observations are in areas with elevations below 950 feet. There are reported occurrences of California gnatcatcher at 1,600 feet elevation (500 meters).

California gnatcatcher ranges from Ventura County south to San Diego County and northern Baja California and is less common in sage scrub with a high percentage of tall shrubs. It prefers habitat with more low-growing vegetation. California gnatcatchers breed between mid-February and the end of August, with peak activity from mid-March to mid-May. Population estimates indicate that there are approximately 1,600 to 2,290 pairs of coastal California gnatcatcher remaining. Declines are attributed to loss of sage scrub habitat due to development, as well as cowbird nest parasitism.

California gnatcatcher are ground and shrub-foraging insectivores, feeding on small insects and other arthropods. A California gnatcatcher's territory is highly variable in size and seems to be correlated with distance from the coast, ranging from less than 1 ha to over 9 ha. In a 1998 study, biologist Patrick Mock concluded that California gnatcatcher in the inland region require a larger territory than those on the coast in order to meet the nutritional requirements needed for survival and breeding.

The Primary Constituent Elements (PCEs)[1] essential to support the biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering for California gnatcatcher that were surveyed for include:
1. Dynamic and Successional sage scrub Habitats and Associated Vegetation (Diegan Coastal Sage Scrub, Coastal Sage-Chaparral Scrub, etc.) that provide space for individual and population growth, normal behavior, breeding, reproduction, nesting, dispersal and foraging; and
2. Non-sage scrub habitats such as chaparral, grassland, and riparian areas, in proximity to sage scrub habitats have the potential to provide linkages to help with dispersal, foraging and nesting.

The project site ranges in approximate elevation from 1,560 to 1,585 feet above mean sea level, which is just below the known elevational range of California gnatcatcher. Ninety-nine percent of all California gnatcatcher observations occur below 950 feet above msl. California gnatcatcher's preferred habitat is coastal sage scrub dominated by California sage brush. The project site does not support coastal sage scrub habitat. In addition, the site is isolated from California gnatcatcher occupied coastal sage scrub habitats and linkage areas in the region by surrounding development. Given the degraded condition of the site, plus the lack of any observation of California gnatcatcher in north Fontana and isolation of the site due to the recent development of surrounding properties, it is highly unlikely that the site might support this

[1] Specific elements of physical and biological features that provide for a species' life-history process and are essential to the conservation of the species.

species. Therefore, California gnatcatcher is presumed to be absent from the project site. No further surveys are recommended.

Special-Status Plant Communities
According to the CNDDB, three (3) special-status plant communities have been reported in the Devore USGS 7.5-minute quadrangle: RAFSS, Southern Riparian Forest, and Southern Sycamore Alder Riparian Woodland (refer to Attachment D). No special-status plant communities were observed onsite at the time of the investigation.

Due to recent and historic disturbances associated with surrounding construction, weed-abatement activities, and on-site and surrounding development, the vegetation supported by the project site does not support characteristics for special-status plant communities to reside.

Critical Habitats
Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the USFWS regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a Clean Water Act Permit from the United States Army Corps of Engineers). If there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

In 2002 the USFWS designated Critical Habitat for San Bernardino kangaroo rat, and the project site was included within the designated area. Subsequently, in 2008 the USFWS reduced the boundaries of their previously designated Critical Habitat which removed the project site from designation. The lack of the needed habitat features within the project site, as well as in north Fontana, prompted USFWS to remove the Critical Habitat designation in this area. Finally, at the beginning of 2011 the original (2002) designated Critical Habitat was reinstated by a federal district court ruling which overturned the reduced (2008) designated Critical Habitat. Currently the project site is located within designated Critical Habitat Unit 2, Lytle Creek/Cajon Wash. Refer to Exhibit 5, *Critical Habitat* in Attachment A of the BRA. However, since the project does not have a federal nexus, a Section 7 consultation with the USFWS would not be required for loss or adverse modification of Critical Habitat. If a federal nexus does occur, a Section 7 Consultation will have to be initiated with USFWS.

Jurisdictional Waters
There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

No jurisdictional drainage and/or wetland features were observed on the project site during the field investigation. Further no blueline streams have been recorded on the project site. Therefore, development of the project will not result in impacts to Corps, Regional Board, or CDFW jurisdiction and regulatory approvals will not be required.

Conclusion

Based literature review and field survey, and existing site conditions discussed in this report, implementation of the project is not expected to have significant impacts on federally or State listed species known to occur in the general vicinity of the project site. Additionally, the project will have no effect on designated Critical Habitat, since there is no federal nexus, or regional wildlife corridors/linkages because none exist within the area. No jurisdictional drainage and/or wetland features were observed on the project site during the field investigation. No further surveys are recommended beyond the preconstruction survey for burrowing owl. With completion of the recommendations provided below, no impacts to year-round, seasonal, or special-status avian residents or special-status species will occur from implementation of the proposed project.

Impact Analysis

a. *Less Than Significant Impact* – Implementation of the project has minimal potential for a significant adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. The project site is vacant and no longer supports any native habitat, but there is some non-native grassland within and adjacent the proposed impact area. The BRA provided as Appendix 2 to this Initial Study determined that the project site does not contain suitable habitat for the following species with a potential to occur in the project area:

- San Bernardino kangaroo rat (*Dipodomys merriami parvus*)
- Coastal California gnatcatcher (*Polioptila californica californica*)
- Least Bell's vireo (*Vireo bellii pusillus*)
- Burrowing owl (*Athene cunicularia)*

No State- and/or federally listed threatened or endangered species, or other sensitive species were observed on site during the field survey. However, although no BUOW were observed during the survey of the site, habitat for this species exists within the project site. As such, although the project is not likely to adversely affect this species, there is still a potential for the project area to become occupied by BUOW between the time the survey was conducted and the commencement of project-related construction activities. Therefore, the following precautionary avoidance measures are recommended to ensure the project does not result in any impacts to BUOW:

BIO-1 ***Preconstruction presence/absence surveys for burrowing owl shall be conducted no more than 3 days prior to any onsite ground disturbing activity by a qualified biologist, including prior to each phase of new ground disturbance. The burrowing owl surveys shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife in the "California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation." In the event this species is not identified within the project limits, no further mitigation is required, and a letter shall be prepared by the qualified biologist documenting the results of the survey. The letter shall be submitted to CDFW prior to commencement of project activities. If during the preconstruction survey, the burrowing owl is found to occupy the site, Mitigation Measure BIO-2 shall be required.***

BIO-2 ***If burrowing owls are identified during the survey period, the District shall take the following actions to offset impacts prior to ground disturbance:***

The District shall notify CDFW within three business days of determining that a burrowing owl is occupying the site to discuss the observed location, activities and behavior of the burrowing owl(s) and appropriate avoidance and minimization measures.

Active nests within the areas scheduled for disturbance or degradation shall be avoided until fledging has occurred, as confirmed by a qualified biologist. Following fledging, owls may be passively relocated by a qualified biologist, as described below.

If impacts on occupied burrows are unavoidable, onsite passive relocation techniques may be used if approved by the CDFW to encourage owls to move to alternative burrows provided by the District outside of the impact area.

If relocation of the owls is approved for the site by CDFW, CDFW shall require the District to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site and conduct an impact assessment. A qualified biologist shall prepare and submit a passive relocation program in accordance with Appendix E (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 Staff Report on Burrowing Owl Mitigation (CDFG 2012) to the CDFW for review/approval prior to the commencement of disturbance activities onsite.

The relocation plan must include all of the following and as indicated in Appendix E:

- ***The location of the nest and owls proposed for relocation.***
- ***The location of the proposed relocation site.***
- ***The number of owls involved and the time of year when the relocation is proposed to take place.***
- ***The name and credentials of the biologist who will be retained to supervise the relocation.***
- ***The proposed method of capture and transport for the owls to the new site.***
- ***A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control).***

The District shall conduct an impact assessment, in accordance with the Staff Report on Burrowing Owl Mitigation prior to commencing project activities to determine appropriate mitigation, including the acquisition and conservation of occupied replacement habitat at no less than a 2:1 ratio.

Prior to passive relocation, suitable replacement burrows site(s) shall be provided at a ratio of 2:1 and permanent conservation and management of burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owl impacts are replaced consistent with the Staff Report on Burrowing Owl Mitigation including its Appendix A within designated adjacent conserved lands identified through coordination with CDFW and the District. A qualified biologist shall confirm the natural or artificial burrows on the conservation lands are suitable for use by the owls. Monitoring and management of the replacement burrow site(s) shall be conducted and a reporting plan shall be prepared. The objective shall be to manage the replacement burrow sites for the benefit of burrowing owls (e.g., minimizing weed cover), with the specific goal of maintaining the functionality of the burrows for a minimum of 2 years.

A final letter report shall be prepared by the qualified biologist documenting the results of the passive relocation. The letter shall be submitted to CDFW.

This is a contingency mitigation measure since the site does not contain any evidence of burrowing owls at present. This measure will ensure that any burrowing owl that may come to inhabit the site

between the date of the BRA survey and the start of construction will be protected. Given that no other State- and/or federally-listed threatened or endangered species, or other sensitive species are anticipated to occur within the project site based on the results of the BRA, the proposed project would have a less than significant potential to have a substantial adverse effect on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS with implementation of **MMs BIO-1** and **BIO-2**.

b. *Less Than Significant Impact* – Implementation of the proposed project has a potential to have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. The project footprint does not contain suitable habitat for any of the sensitive species with a potential to occur in the project APE, and it does not contain any known riparian habitat or any other sensitive natural community identified by any agency In 2002 the USFWS designated Critical Habitat for San Bernardino kangaroo rat, and the project site was included within the designated area. Subsequently, in 2008 the USFWS reduced the boundaries of their previously designated Critical Habitat which removed the project site from designation. The lack of the needed habitat features within the project site, as well as in north Fontana, prompted USFWS to remove the Critical Habitat designation in this area. Finally, at the beginning of 2011 the original (2002) designated Critical Habitat was reinstated by a federal district court ruling which overturned the reduced (2008) designated Critical Habitat. Currently the project site is located within designated Critical Habitat Unit 2, Lytle Creek/Cajon Wash. Refer to Exhibit 5, Critical Habitat in Attachment A. However, since the project does not have a federal nexus, a Section 7 consultation with the USFWS would not be required for loss or adverse modification of Critical Habitat. If a federal nexus does occur, a Section 7 Consultation will have to be initiated with USFWS. Therefore, there is a less than significant potential for implementation of this project to have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

c. *No Impact* – According to the data gathered by ELMT in the BRA, no federally protected wetlands occur within the project footprint. ELMT assessed the project APE for the presence of any state and/or federal jurisdictional waters. The result of the jurisdictional waters assessment is that there are no wetland or non-wetland WOTUS or waters of the State potentially subject to regulation by the USACE under Section 404 of the CWA, the RWQCB under Section 401 of the CWA and/or Porter Cologne Water Quality Control Act, or the CDFW under Section 1602 of the FGC, respectively. Therefore, the project will not impact and jurisdictional waters and no state or federal jurisdictional waters permitting will be required. Therefore, implementation of the proposed project will have no potential to impact any federally protected wetlands through direct removal, filling, hydrological interruption, or other means. No mitigation is required.

d. *Less Than Significant With Mitigation Incorporated* – Based on the field survey of the project site, the project will not substantially interfere with or impede the use of native nursery sites. Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

According to the San Bernardino County General Plan, the project site is not mapped as occurring within or adjacent to any Major Open Space Areas. The nearest Major Open Space Area to the project site is Cajon Pass; in proximity to the site, the Cajon Pass is composed of the Lytle Creek and Cajon Creek washes. However, in the years since the Major Open Space Areas were mapped, the southwest portion of the Cajon Pass has been largely developed and presently supports mostly residential tract neighborhoods. At present, remaining open space in proximity to the project site

occurs approximately 0.64 miles to the northeast beyond existing development. Additionally, there are no riparian corridors, creeks, or useful patches of steppingstone habitat (natural areas) within or connecting the project site to these, or any other, identified wildlife corridors or linkages. As a result, implementation of the proposed project will not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area.

The State protects all migratory and nesting native birds. Several bird species were identified as potentially occurring in the project area, and the proposed project site contains suitable habitat for nesting birds within the site. To avoid impacting nesting birds as required by the MBTA and California FGC, the following mitigation measure shall be implemented:

BIO-3 ***Nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to vegetation clearing or ground disturbance activities. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented by the qualified avian biologist. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, ongoing monitoring, establishment of avoidance and minimization measures, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, individual/pair's behavior, nesting stage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity. To avoid impacts to nesting birds, any grubbing or vegetation removal should occur outside peak breeding season (typically February 1 through September 1).***

Thus, with implementation of the above measure, any effects on wildlife movement or the use of wildlife nursery sites can be reduced to a less than significant impact.

e. *Less Than Significant Impact* – Based on the field survey, there are no species that are specifically protected by a local policy or ordinance specific to the proposed project site. As no biological resources located within the project footprint are protected under local policies or ordinances, impacts under this issue are considered less than significant.

f. *No Impact* – Please refer to the discussion under response IV(a) above. The Biological Resources Assessment provided as Appendix 2 concluded that the project, is not located in an area within a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, and implementation of the project will therefore not result in a significant impact to any such plans. No further mitigation is necessary.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

SUBSTANTIATION: The following information is provided based on the *"Cultural Resources Assessment for the West Valley Water District Well No. 57 Project"* that was prepared by Michelle Hart of Mojave Archaeological Consulting. The report is dated January 2024 and is provided as Appendix 3 to this Initial Study. The following information is abstracted from this report. It provides an overview and findings regarding the cultural resources found within the project area.

Background

At the request of Tom Dodson & Associates, Mojave Archaeological Consulting, LLC, conducted a cultural resources investigation for the West Valley Water District's proposed Well No. 57 project, in the City of Fontana, San Bernardino County, California. The report was prepared in accordance with the California Environmental Quality Act (CEQA) as part of the initial study for the project. Pursuant to the provisions of CEQA and state and local CEQA guidelines, the West Valley Water District (District) is the Lead Agency for the proposed project.

The District proposes to install Well No. 57 on an approximately 1.6-acre portion of three parcels (Assessor's Parcel Numbers [APNs] 110-752-174, 110-752-176, and 110-752-171). The project will include the installation of the well, a vertical turbine pump, shade structure, and other potential components including a sand separator, deaeration tank, and pipeline and utility connections. The project area is located northwest of the intersection of Vesta Way and Knox Avenue, just northeast of the intersection of Knox Avenue and Walsh Lane in northern Fontana on the USGS 7.5-minute maps for Devore, CA, within Section 24, Township 1 North, and Range 6 West.

The report describes the methods and results of the cultural resources investigation of the project area, which included a records search and literature review, a Sacred Lands File (SLF) search with the Native American Heritage Commission (NAHC), and an intensive pedestrian survey. The purpose of the investigation was to provide the West Valley Water District with the information and analysis necessary to determine the potential for the proposed project to impact "historical resources" and "archaeological resources" under CEQA.

The records search performed by the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS), included a 0.5-mile-wide buffer (study area), and indicated twenty previous cultural resource investigations and four cultural resources are documented within the 0.5-mile study area. Of the previous investigations, three covered the project area. No cultural resources have been previously documented within the 1.6-acre project area. The SLF search with the NAHC was completed with positive results and a recommendation to contact the Gabrieleño Band of Mission Indians – Kizh Nation. An outreach letter and invitation to participate in the field survey was sent to the Kizh Nation on 15 December and a follow up inquiry and request for information was sent 03 January 2024. To date, a response has not been received but it is expected that the Kizh Nation and other Native American tribes with potential associations to the project area will seek consultation with the West Valley

Water District under Assembly Bill (AB) 52. In fact, the Gabrieleño Band of Mission Indians – Kizh Nation did request consultation during the AB 52 consultation process.

Due to the age of the previous cultural resource investigations, Mojave Archaeological Consulting conducted new intensive pedestrian survey of the entire 1.6-acre project area on the 22nd of December 2023. The only cultural remains identified within the project area were historic concrete and masonry rubble that is not considered eligible for listing in the California Register of Historical Resources (CRHR). No other cultural materials, either prehistoric or historic, were identified within the project area. The paucity of cultural materials identified during the survey and the project area's previously disturbed context indicate that intact and significant buried archaeological deposits are unlikely.

Considering these findings, Mojave Archaeological Consulting recommends to the West Valley Water District that the proposed project will have no impact on historical or archaeological resources. No further cultural resources work is recommended necessary for the proposed project activities. However, in the event that potentially significant archaeological materials are encountered during construction, all work must be halted in the vicinity of the discovery until a qualified archaeologist can assess the significance and integrity of the find. If intact and significant archaeological remains are encountered, the impacts of the project should be mitigated appropriately. Any such discoveries, and subsequent evaluation and treatment, should be documented in a cultural resources report, which would be submitted to the SCCIC for archival purposes. Additionally, Health and Safety Code Section 7050.5, CEQA Statute & Guidelines Section 15064.5(e), and PRC Section 5097.98 mandate the process to be followed in the event of an accidental discovery of human remains. Finally, if the project area is expanded to include areas not covered by the survey or other recent cultural resource assessments in the study area, additional cultural resource investigations may be required.

Impact Analysis

a&b. *Less Than Significant With Mitigation Incorporated* – CEQA establishes that "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

Per the above discussion and definition, no archaeological sites or isolates were recorded within the project boundaries. Thus, no archaeological or historical isolates requires further consideration during this study. In light of this information and pursuant to PRC §21084.1, the following conclusions have been reached for the project:

- No historical resources within or adjacent to the project area have any potential to be disturbed as they are not within the proposed area in which the facilities will be constructed and developed, and thus, the project as it is currently proposed will not cause a substantial adverse change to any known historical resources.
- No further cultural resources investigation is necessary for the proposed project unless construction plans undergo such changes as to include areas not covered by this study.

However, if buried cultural materials are discovered during any earth-moving operations associated with the project, the following mitigation measure shall be implemented:

CUL-1 Should any cultural resources be encountered during construction of these facilities, ground disturbing activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the District. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.

Additionally, the Yuhaaviatam of San Manuel Nation (YSMN) have requested the following cultural mitigation measures to be implemented as follows:

CUL-2 ***In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within TCR-1, regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.***

CUL-3 ***If significant pre-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.***

With the above mitigation measures, the potential for impacts to cultural resources will be reduced to a less than significant level. No additional mitigation is required.

c. *Less Than Significant Impact* – As noted in the discussion above, no available information suggests that human remains may occur within the Area of Potential Effect (APE) and the potential for such an occurrence is considered very low. Human remains discovered during the project will need to be treated in accordance with the provisions of HSC §7050.5 and PRC §5097.98, which is mandatory. State law (Section 7050.5 of the Health and Safety Code) as well as local laws requires that the Police Department, County Sheriff and Coroner's Office receive notification if human remains are encountered. Additionally, the Yuhaaviatam of San Manuel Nation (YSMN) have requested the following mitigation measure to that would minimize potential impacts related to human remains and funerary objects as follows:

CUL-4 ***If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.***

As such, the potential for discovery and treatment of human remains will be reduced to a less than significant level through compliance with existing laws and through the implementation of mitigation.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VI. ENERGY: Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operations?	☐	☒	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

SUBSTANTIATION

a&b. *Less Than Significant With Mitigation Incorporated* – Energy consumption encompasses many different activities. For example, construction can include the following activities: delivery of equipment and material to a site from some location (note it also requires energy to manufacture the equipment and material, such as harvesting, cutting and delivering wood from its source); employee trips to work, possibly offsite for lunch (or a visit by a catering truck), travel home, and occasionally leaving a site for an appointment or checking another job; use of equipment onsite (electric or fuel); and sometimes demolition and disposal of construction waste. For the proposed project the number of construction workers will be limited to about 5 persons at a given time during construction with no new employees anticipated to be required once construction has concluded. The project would require ground disturbance in paved and undeveloped areas in places where trenching is required to install piping. To minimize energy costs of construction debris management, laws are in place that require diversion of all material subject to recycling. During construction, the proposed project will utilize construction equipment that is CARB approved, minimizing emissions generated and electricity required to the extent feasible (through **MM AQ-2** provided under Section III, Air Quality, above). As stated in Section III, Air Quality, the construction of the proposed Well No. 57 Project would require mitigation to minimize emissions impacts from construction equipment use. This mitigation measure also applies to energy resources as they require equipment not in use for 5 minutes to be turned off, and for electrical construction equipment to be used where available. This measure would prevent a significant impact during construction due to wasteful, inefficient, or unnecessary consumption of energy resources, and would also conform to the CARB regulations regarding energy efficiency.

The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana that will pump water continuously to contribute to the District's existing potable water distribution. No new employees are anticipated to be required in support of the project once the well is in operation. The project will be supplied power from Southern California Edison (SCE). Additionally, a backup generator will be installed at the site that will be utilized in the event of a power failure, and as such is not anticipated to be an inefficient or wasteful energy utilizing source. As such, the project is not anticipated to require a significant amount of electricity in the context of existing available power sources. The well and supporting infrastructure must be constructed in conformance with a variety of existing energy efficiency regulatory requirements or guidelines including, but not limited to the following:

- Compliance California Green Building Standards Code, AKA the CALGreen Code (Title 24, Part 11), which became effective on January 1, 2017. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of building through the use of building concepts encouraging sustainable construction practices.
- Compliance with the Building Energy Efficiency Standards would ensure that the building energy use associated with the proposed project would not be wasteful or unnecessary.
- Compliance with diversion of construction and demolition materials from landfills.
- Compliance with AQMD Mandatory use of low-pollutant emitting finish materials.
- Compliance with AQMD Rules 431.1 and 431.2 to reduce the release of undesirable emissions.

- Compliance with diesel exhaust emissions from diesel vehicles and off-road diesel vehicle/equipment operations.

Compliance with these regulatory requirements for operational energy use and construction energy use would not be wasteful or unnecessary use of energy. Further, SCE is presently in compliance with State renewable energy supply requirements and SCE will supply electricity to the project. The proposed project does not include any substantive new stationary or mobile sources of emissions, and therefore, by its very nature, will not generate substantial amounts of energy demand from project operations. The project does not propose a trip-generating land use or facilities that would generate any substantive amount of on-going energy demands. While it is anticipated that the project would require intermittent maintenance, such maintenance would be minimal requiring a negligible amount of traffic trips on an annual basis. As such, under the operational scenario for the proposed project, the proposed project will not result in wasteful, inefficient, or unnecessary energy consumption that could result in a significant adverse impact to energy issues based on compliance with the referenced laws, regulations and guidelines. No mitigation is required.

b. *Less Than Significant Impact* – Based on the analysis in the preceding discussion, the proposed project will not conflict with current State energy efficiency or electricity supply requirements or any local plans or programs for renewable energy or energy efficiency requirements. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VII. GEOLOGY AND SOILS: Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(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.	☐	☐	☒	☐
(ii) Strong seismic ground shaking?	☐	☐	☒	☐
(iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
(iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
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 onsite or offsite land-slide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

SUBSTANTIATION

a. i. Ground Rupture

Less Than Significant Impact – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The project footprint is located in the City of Fontana. The nearest Alquist-Priolo fault zones are the San Andreas Fault and the Cucamonga Fault to the north; these fault zones are depicted on **Figure VII-1**, the San Bernardino Countywide Plan Earthquake Fault Zones Map. These fault zones are greater than one mile north/northwest of the project site. Therefore, the proposed well would not be installed in an area encompassed by an active fault zone. Based on this information, the risk for ground rupture at the project location is low; furthermore, the project will not include any human occupancy structures, but will install a new well to connect to the District's potable water distribution system. The design and construction of well is controlled by both state and local design

construction standards. Compliance with these standards and requirements of the City is mandatory and considered adequate mitigation for potential impacts associated with this project. Therefore, the potential for this project to expose people or property to the hazard of earthquake fault rupture is considered less than significant. No mitigation is required.

ii. Strong Seismic Ground Shaking

Less Than Significant Impact – As stated in the discussion above, several faults run through the County, and as with much of southern California, the proposed well will be subject to strong seismic ground shaking impacts should any major earthquakes occur in the future, particularly due to the site's location near two fault zones, as shown in **Figure VII-1**. As a result, and like all other development projects in the City and throughout the southern California region, the proposed project will be required to comply with all applicable seismic design standards contained in the 2022 California Building Code (CBC). Compliance with the CBC and the use of best management design practices will enable maximum structural integrity of the well to be maintained in the event of an earthquake. Many such facilities exist and function within areas susceptible to strong ground shaking effects. Therefore, given that the proposed project consists of a well that will be constructed in compliance with the CBC, there is a less than significant potential for people or structures to be exposed to strong seismic ground shaking.

iii. Seismic-Related Ground Failure Including Liquefaction

Less Than Significant Impact – The three factors determining whether a site is likely to be subject to liquefaction include seismic shaking, type and consistency of earth materials, and groundwater level. Liquefaction of saturated cohesionless soils can be caused by strong ground motion resulting from earthquakes. Soil liquefaction is a phenomenon in which saturated, cohesionless soils lose their strength due to the build-up of excess pore water pressure during cyclic loading such as that induced by earthquakes. According to the map prepared for the County of San Bernardino Countywide Plan Liquefaction & Landslides Map (**Figure VII-2**), the project site is not located in an area known to be susceptible to liquefaction. Therefore, it is not anticipated that the proposed project would be susceptible to seismic-related ground failure, including liquefaction. No impacts are anticipated and no mitigation is required.

iv. Landslide

Less Than Significant Impact – Landslides in the project area are generally known to occur around the foothills of the San Gabriel Mountains. The proposed project footprint is located in the valley region of San Bernardino County, and generally is not located in an area that would be susceptible to landslide. According to the map prepared for the San Bernardino Countywide Plan Liquefaction & Landslides Map (**Figure VII-2**), the project site is not located in an area that is considered susceptible to landslides. No potential events can be identified that would result in adverse effects from landslides or that would cause landslides that could expose people or structures to such an event as a result of project implementation. No impacts are anticipated and no mitigation is required.

b. *Less Than Significant With Mitigation Incorporated* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The proposed project would not result in substantial soil erosion or the loss of topsoil. The project may result in exposing some soil to erosion during site development activities before the well is drilled and completed. Due to the disturbed nature of the existing sites and the flat topography, it is concluded that the potential for this project to cause substantial soil erosion is low. Implementation of BMPs through the mitigation measures provided below, in conjunction with **MM HYD-3** in the Hydrology and Water Quality section to control erosion is considered adequate to mitigate potential impacts associated with the water-related erosion of soil. Please refer to the detailed discussion and mitigation measures addressing wind-related soils erosion (fugitive dust) in the Air Quality section.

GEO-1 ***Excavated areas shall be backfilled and compacted such that erosion does not occur. Paved areas disturbed by this project shall be repaved in such a manner that roadways and other disturbed areas are returned to the pre-project conditions or better.***

GEO-2 ***All exposed, disturbed soil (trenches, stored backfill, etc.) will be sprayed with water or soil binders twice a day or more frequently if fugitive dust is observed migrating from the site.***

GEO-3 ***The District shall identify any additional BMPs to ensure that the discharge of surface water does not cause erosion downstream of the discharge point. This shall be accomplished by reducing the energy of any site discharge through an artificial energy dissipater or equivalent device. If any substantial erosion or sedimentation occurs, any erosion or sedimentation damage shall be restored to pre-discharge conditions.***

With implementation of the above mitigation measures, any impacts are considered less than significant. No further mitigation is necessary.

c. *Less Than Significant Impact* – The coarse alluvial soils located at the project sites exhibit stability. Based on a review of the United States Department of Agriculture (USDA) Natural Resource Conservation Service Web Soil Survey of the project footprint, the soil underlying the project site are Tujunga gravelly loam sand[2] (Appendix 4). The Tujunga series is excessively well drained, and is in a negligible to low runoff class. As stated under issues VII(a[iii]) and VII(a[iv]) above, the project footprint is not located in an area that is susceptible to landslides and liquefaction. This indicates that the project footprint and general area are unlikely to be underlain by unstable soils, or be affected by subsidence, lateral spreading, or collapse. Furthermore, damage to wells and associated piping can occur, but can be repaired and placed back into operation with no loss of human life. Therefore, due to the nature of the proposed project, and the type of soil unit underlying the project site, the proposed project has a less than significant potential to 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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse. No mitigation is required.

d. *Less Than Significant Impact* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The project site is generally flat. The proposed project would develop a well within the City of Fontana in support of the District's service area. As stated above, the USDA Web Soil Survey indicates that the majority of the project area of potential effect (APE) is underlain by Tujunga gravelly loam sand. This soil type is not classified as being expansive under Table 18-1-B of the Uniform Building Code (1994), particularly as expansive soils are typically in the clay soil family. This class of soil is well drained and are not considered expansive. Expansive soils are typically in the clay soil family, which are not present within the project footprint; furthermore, while damage to wells and associated piping can occur, the damage can be repaired and placed back into operation with no loss of human life. Given the above, the proposed project would have a less than significant potential to be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

e. *No Impact* – The proposed project proponent is WVWD, and the overall purpose of the proposed project is to expand WVWD's water system to accommodate future demand by development in the project area. No septic systems or alternative wastewater disposal systems are proposed as part of the project. Thus, no impacts related to the use of septic tanks or alternative water disposal systems will occur.

[2] USDA, 2017. Tujunga Series. https://soilseries.sc.egov.usda.gov/OSD_Docs/T/TUJUNGA.html (accessed 01/04/24)

f. *Less Than Significant With Mitigation Incorporated* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The potential for discovering paleontological resources during development of the project is considered unlikely based on the fact that the project area is underlain by granite bedrock and the alluvial soils/sediment is relatively young. No unique geologic features are known or suspected to occur on or beneath the project footprint. However, because the project has not been surveyed at depth in recent history, and the fact that these resources are located beneath the surface and can only be discovered as a result of ground disturbance activities, the following measure shall be implemented:

GEO-4 ***Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the District's onsite inspector. The paleontological professional shall assess the find, determine its significance, and determine appropriate mitigation measures within the guidelines of the California Environmental Quality Act that shall be implemented to minimize any impacts to a paleontological resource.***

With incorporation of this contingency mitigation, the potential for impact to paleontological resources will be reduces to a less than significant level. No additional mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VIII. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

SUBSTANTIATION: The following information utilized in this section of the Initial Study was obtained from the following technical study: *Air Quality and GHG Impact Analyses, West Valley Water District Well No. 57 Project, San Bernardino, California* prepared by Giroux & Associates dated January 16, 2024. This technical study is provided as Appendix 1 to this document.

GHG Background

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07. AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California's reputation as a "national and international leader on energy conservation and environmental stewardship." A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions, are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate "early action" control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California's GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy and from increased structural energy efficiency. Additionally, through the California Climate Action Registry (CCAR now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been developed. GHG sources are categorized into direct sources (i.e. company owned) and indirect sources (i.e. not company owned). Direct sources include combustion emissions from on-and off-road mobile sources, and fugitive emissions. Indirect sources include off-site electricity generation and non-company owned mobile sources.

Thresholds of Significance

In response to the requirements of SB 97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of Project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to "select the model or methodology it considers most appropriate." The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008, the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit Projects, rules, plans, etc.) of 10,000 Metric Tons (MT) CO_2 equivalent/year. However, the more conservative 3,000 MT CO_2 equivalent per year (CO_2e/year) SCAQMD recommended threshold has been used as a guideline for this analysis.

Impact Analysis

a. *Less Than Significant Impact* – On December 5, 2008, the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit Projects, rules, plans, etc.) of 10,000 Metric Tons (MT) CO2 equivalent/year. However, the more conservative 3,000 MT CO2 equivalent per year (CO2e/year) SCAQMD recommended threshold has been used as a guideline for this analysis. As such, should the project emit over 3,000 MT CO_2e/year, it would result in a significant impact under this issue.

The project is assumed to require less than one year for construction. During project construction, the CalEEMod2022.1 computer model predicts that the construction activities will generate the annual CO_2 emissions identified in Table VIII-1.

Table VIII-1
GHG EMISSIONS (MT CO_2e)

Year 2024	MT CO_2(e)
Construction	57.9
30 Year Annual Amortized Rate	1.9
Operations	280
Total Amortized Construction + Operations	**281.9**

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. Except for minor system maintenance, the only operational source of GHG emissions would be associated with pumping operations. Electricity is generated from a variety of resources at various locations in the western United States. In "A Comparisons of California Utilities 2016 Power Sources and Emissions Analysis" it was calculated that there is a range for California emissions of 0.43-0.57 lbs. CO2(e) per kWh for all utility companies. For SCE specifically, the rate was 0.55 CO2 per kWh .

Information was provided by SCE for a neighboring well for both 2017 and 2021 and this data was used as a prototype for this project. The estimated amount of energy for the neighboring well used as a baseline for Well 57 is 255/256 kWh at peak demand. This would equate to a pump size of approximately 733 hP. Electricity use will result in GHG emissions from the fossil fueled fraction of Southern California's electrical resource calculated as follows, if the pumps would run continuously at a 50% load factor:

365 days/year x 24 hrs/day x 256 kW x 0.5 = 1,121 MW/year.
1,121 MW/year x 550 lbs CO2/MWh x 2,204 lbs per MT = 280 MT/year

The new pumping operations for the well are anticipated to produce 280 MT CO2e per year when operating 24-hours per day at a 50% power load.

Adding the amortized construction GHG emissions of 1.9 MT/year to the operational emissions of 280 MT CO2(e)/year yields a yearly total of about 282 MT CO2(e)/year.

The screening threshold of 3,000 MT CO_2e/year GHG emissions will not be exceeded. Both the construction and operations GHG emissions are far below the 3,000 MT CO_2e/year advisory threshold for impact significance.

The amortized level is also provided and given that the proposed project would not generate GHG emissions in excess of 3,000 MT CO_2e/year, GHG impacts from construction are considered individually less than significant. Hence, neither project operation nor construction would not result in generation of a significant level of greenhouse gases. As such, the proposed project would have a less than significant potential to generate GHG emissions, directly or indirectly, that may have a significant impact on the environment.

b. *Less Than Significant Impact* – Pursuant to 15604.4 of the *CEQA Guidelines*, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions.

Construction

40% below 1990 levels by 2030

By using newer and electrified construction equipment as it is phased in pursuant to requirements under AB 197 and similar laws, policies and programs, the project will be aligned with applicable plans and policies and would, therefore, not otherwise conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

This is consistent with SB 32's goal of reducing statewide emissions of greenhouse gases by 40% below 1990 levels by 2030.

85% below 1990 levels by 2045 / 2050

While construction activities associated with the implementation of the project would result in emissions of CO_2 and CH_4 (see previous section regarding threshold 1), most of the emissions will come from the burning of fossil fuel in construction equipment. These emissions from construction equipment will decrease even more as emissions technology improves in the next 20 years. Additionally, it is likely that diesel equipment will be cleaner and more efficient, powered by renewable diesel, and/or phased out due to local Climate Action Plans and state requirements (such by AB 197) by 2045. Newer electrified construction equipment will also become more broadly available, further decreasing construction emissions.

This is consistent with AB 1279's goal of reducing emissions to 85% below 1990 levels and carbon neutrality by 2045 and, by extension, Executive Order S-03-05's goal of reducing emissions to 80% below 1990 levels by 2050.

Operations

40% below 1990 levels by 2030
Operational emissions are powered primarily by electricity, so the project's GHG emissions will decline as renewable and carbon neutral energy sources make up a larger and larger percentage of power on the grid in compliance with state's plans, policies, and regulations.

This is consistent with SB 32's goal of reducing statewide emissions of greenhouse gases by 40% below 1990 levels by 2030.

85% below 1990 levels by 2045 / 2050
Operational emissions are powered primarily by electricity, so the project's GHG emissions will decline as renewable and carbon neutral energy sources make up a larger and larger percentage of power on the grid in compliance with state's plans, policies, and regulations.

Finally, the implementation of the project will increase local water supplies, thereby avoiding the need to import water from remote sources. By reducing the demand for importing water, which is energy intensive and generates GHG emissions, the project will offset GHG emissions that would otherwise have occurred absent implementation of the project.

This is consistent with AB 1279's goal of reducing emissions to 85% below 1990 levels and carbon neutrality by 2045 and, by extension, Executive Order S-03-05's goal of reducing emissions to 80% below 1990 levels by 2050. This is also consistent with CARB's 2022 Scoping Plan goals and objectives, which are based on compliance with AB 1279.

Conclusion
Results of the assessment indicate that the project is not anticipated to result in a significant impact during construction or operational activities associated with air quality and GHG.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
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?	☐	☒	☐	☐
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?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☒	☐	☐

SUBSTANTIATION: A Phase I Environmental Assessment Report (ESA) was prepared by Geo Forward, and is dated July 25, 2023, for the project site. The Phase I ESA is provided as Appendix 5 to this Initial Study.

Phase I ESA Findings

1. No identified Recognized Environmental Condition (RECs) were found during the course of the Phase I ESA.
2. No identified Controlled Recognized Environmental Condition (CRECs) were found during the course of the Phase I ESA.
3. The following environmental issues were identified:
   a. Because of the historical agricultural use of the site, some agricultural pollutants may exist within the subsurface of the onsite soils, including nitrate and organochlorine pesticides.
   b. The Rialto-Colton subbasin groundwater has known perchlorate contamination that could be an issue for the groundwater extracted by the well.

a. *Less Than Significant Impact* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. However,

operation of the proposed well is anticipated to require treatment prior to connecting to the District's existing distribution system. It is anticipated that the well would store chemicals required for the treating of water extracted from the well. It is unknown at this time what treatment will be required for the well to meet the standards of the State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW). However, the proposed project is anticipated to install a container to store the sodium hypochlorite required to chlorinate the water extracted at the well, and this substance is considered a potentially hazardous substance. Additionally, if sand is an issue at the new well, a small sand separator and deaeration tank may be required. The District will comply with state and standards for handling this material. If any other constituents of concern (COCs) are found in the groundwater extracted by the proposed well, the District will implement the appropriate treatment method. If water quality is degraded it must be blended to a level below Maximum Contaminant Levels (MCLs) or any specific pollutant exceeding MCLs must be treated and brought into compliance with General Permit discharge requirements prior to discharge to meet the MCL requirements for that pollutant. Furthermore, the District has developed safety standards and operational procedures for safe transport and use of its operational and maintenance materials that are potentially hazardous. These procedures will comply with all federal, state and local regulations will ensure that the project operates in a manner that poses no substantial hazards to the public or the environment. No additional mitigation is necessary to ensure the impact of managing these chemicals result in a less than significant impact on the environment. Therefore, potential impacts to the public or the environment through accidental release due to the routine transport, use, or disposal of hazardous materials would be less than significant. The District has standard operational procedures for safe transport and use of its operational and maintenance materials. No additional measures are necessary to ensure the impact of managing this chemical result in a less than significant impact on the environment.

b. *Less Than Significant With Mitigation Incorporated* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. During construction or maintenance activities in support of the proposed project, fuels, oils, solvents, and other petroleum materials classified as "hazardous" will be used to support these operations. Mitigation designed to reduce, control or remediate potential accidental releases must be implemented to prevent the creation of new contaminated areas that may require remediation in the future and to minimize exposure of humans to public health risks from accidental releases. The following mitigation measure reduce such accidental spill hazards to a less than significant level:

HAZ-1 All spills or leakage of petroleum products during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility.

By implementing this measure, potentially substantial adverse environmental impacts from accidental releases associated with installation of the proposed well can be reduced to a less than significant level. Additionally, roadways adjacent to and within the project footprint are public roads that can be used by any common carrier to or from the local area. For such transporters, the existing regulatory mandates ensure that the hazardous materials and any hazardous wastes transported to and from the project site will be properly managed. These regulations are codified in Titles 8, 22, and 26 of the California Code of Regulations. For example, maintenance trucks for construction equipment must transport their hazardous materials in appropriate containers, such as tanks or other storage devices. In addition, the haulers must comply with all existing applicable federal, state and local laws and regulations regarding transport, use, disposal, handling and storage of hazardous wastes and material, including storage, collection and disposal. Compliance with these laws and regulations related to transportation will minimize potential exposure of humans or the environment to significant hazards from transport of such materials and wastes. Therefore, through the implementation of mitigation, potentially substantial adverse environmental impacts from accidental releases associated with installation of the proposed well can be reduced to a less than significant level.

c. *Less Than Significant Impact* – The project site is not located within one quarter mile of a school; the nearest school is Sierra Lakes Elementary School, located a little over a half mile southeast of the project site at 5740 Avenal Place, Fontana, CA 92336. There is a proposed Middle School that has not yet been developed within one quarter mile of the project site to the east, located at the northeast corner of Citrus Avenue and Casa Grande Avenue. Additionally, there is a proposed Elementary school that has not yet been developed within one quarter mile of the project site to the west, located at the Lytle Creek Road and Three Mile Road (which is a continuation of Knox Avenue). The proposed project is not anticipated to emit hazardous emissions or handle large quantities of hazardous materials or substances that would cause a significant impact to a local school. Furthermore, the District will develop further safety standards and operational procedures and continue to enforce existing safety standards and operational procedures for safe transport and use of its operational and maintenance materials that are potentially hazardous. As such, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste during construction or operation in a quantity that would pose any danger to people adjacent to, or in the general vicinity of, the project site. Therefore, the impacts of the proposed project to this issue area would be considered less than significant.

d. *Less Than Significant With Mitigation Incorporated* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The proposed project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. None of the proposed actions related to the development of the proposed well would be near to or impact a site known to have hazardous materials or a site under remediation for hazardous materials or associated issues. A review of the California State Water Resources Control Board GeoTracker database indicates that no open hazardous materials cleanup sites are located within a 2,500-foot radius of the proposed well development site (**Figure IX-1**). However, as shown on **Figures IX-2 through IX-5**, the proposed elementary school and middle schools referenced under issue IX(c), above, are listed as Department of Toxic Substance Control (DTSC) site cleanup program sites. DTSC investigations are required at locations where schools are proposed. In the case of the middle school, no contaminants were found. In the case of the elementary school, the preliminary environmental assessment revealed soil contamination of organic pesticides and metals, but not at a level of concern requiring further action. These contaminants are not expected to be encountered at the project site.

A Phase I Environmental Assessment Report (ESA) was prepared by Geo Forward, and is dated July 25, 2023, for the project site. The Phase I ESA is provided as Appendix 5 to this Initial Study. Based on the Phase I ESA, any subsurface excavation or exploration may encounter pesticide contamination from the historic agricultural use of the site. Once encountered there are existing protocols to address such contamination in the regulations, however implementation of **MM HAZ-2**, which would identify recommendations and cleanup measures to reduce risk to the public and the environment from development on hazardous materials sites.

HAZ-2 ***Should any contamination be encountered during construction of the project, all work in the immediate area shall cease; the type of contamination and its extent shall be determined; and the local Certified Unified Program Agency or other regulatory agencies (such as the DTSC or Regional Board) shall be notified. Based on investigations of the contamination, the site may be closed and avoided or the contaminant(s) shall be remediated to a threshold acceptable to the Certified Unified Program Agency or other regulatory agency threshold and any contaminated soil or other material shall be delivered to an authorized treatment or disposal site.***

Therefore, through the implementation of **MM HAZ-2**, the proposed project is not forecast to result in a significant hazard to the public or the environment associated with this issue area.

e. *No Impact* – The project site is located at a great distance from any nearby airport. As shown on the Airport Safety & Planning Areas map prepared for the San Bernardino Countywide Plan (**Figure IX-6**), the proposed project is not located within an Airport Safety Review Area for the Ontario International Airport. Therefore, there is no potential safety hazard for people residing or working in the project area as a result of proximity to a public airport or private airstrip. No mitigation is required.

f. *Less Than Significant With Mitigation Incorporated* – The proposed well would be confined to the project site, with only minor encroachment onto the adjacent sidewalk to connect to existing District water distribution pipelines as shown on **Figure 4**, including the required easements from both MWD and the City of Fontana. At no time during the installation of the well will adjacent roadways be closed. The project may require one lane to be closed for a short duration of construction, but as the District's connection is located within the sidewalk adjacent to the roadway, this may not be necessary. Regardless, if encroachment onto the adjacent roadway is necessary, only one lane would be impacted, which would allow for through-traffic so long as a traffic management plan is developed and implemented. As such, please refer to the Transportation/Traffic Section of this document, Section XVII. **MMs TRAN-1** and **TRAN-2** would be implemented to address any potential traffic disruption and emergency access issues on area roadways. Furthermore, nearly the entire project would occur within the boundaries of the project site with the only potential for construction within the roadways occurring as a result of installation of the connecting pipeline. With implementation of these measures requiring construction traffic control and that roadways are returned to their original or better condition; impacts are reduced to a less than significant. No additional mitigation is required.

g. *Less Than Significant With Mitigation Incorporated* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. The proposed project area is located at a distance from the San Gabriel Mountains, but the project is still located within a high fire hazard severity zone (**Figure IX-7**). The proposed project footprint is located within a Local Responsibility Area (LRA)(**Figure IX-8**). However, the project will not construct any habitable structures. The proposed well would function to pump and distribute water throughout the WVWD service area, and would not be constructed of flammable materials or involve any spark-producing activities, or human occupancy. Operational impacts of the proposed well would be less than significant with no mitigation. The use of spark-producing construction machinery within a fire risk area could create hazardous fire conditions and expose people or structures to wildfire risks. Based on past experience with wildfires in the area, the Valley Region does not experience the same level of wildfire hazards as do the mountain areas where fuel loads are greater, and as such, this part of the project area can be successfully evacuated and life preserved, even if property is damaged. The implementation of **MM HAZ-3** would require the preparation of a fire management plan/fuel modification plan for the proposed well, and it would identify comprehensive strategies to reduce fire potential during construction and over long-term operation. Therefore, potential significant impacts due to installation of proposed well infrastructure would be reduced to less than significant level with implementation of **MM HAZ-3**.

HAZ-3 ***Prior to construction, fire hazard reduction measures shall be incorporated into a fire management/fuel modification plan for the proposed facility, and shall be implemented during construction and over the long-term for protection of the site. These measures shall address all staging areas, welding areas, or areas slated for development that are planned to use spark-producing equipment. These areas shall be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be equipped with a spark arrestor in good working order. During the construction of the project, all vehicles and crews working at the project site shall have access to functional fire extinguishers and related fire prevention equipment (such as emergency sand bags, etc.) at all times. In addition, construction crews shall have a spotter during welding activities to***

look out for potentially dangerous situations, including accidental sparks. This plan shall be reviewed by the District and CAL FIRE for review and comment, where appropriate, and approved prior to construction and implemented once approved. The fire management plan shall also include sufficient defensible space or other measures at a facility site located in a high or very high FHSZ to minimize fire damage to a level acceptable to the District over the long term.

Therefore, though the proposed project is located within an area considered susceptible to wildfire hazards, with the implementation of **MM HAZ-3,** the proposed project would have a less than significant expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	☐	☒	☐	☐
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 onsite or offsite?	☐	☒	☐	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?	☐	☒	☐	☐
(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,	☐	☒	☐	☐
(iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

SUBSTANTIATION

a. *Less Than Significant With Mitigation Incorporated* – Installation of the proposed well, associated appurtenances, and connecting piping, and obtainment of the required easements from both MWD and the City of Fontana includes activities that have a potential to violate water quality standards or waste discharge requirements due to direct discharge of water brought to the surface during well testing. Prior to pumping large quantities of water from the proposed municipal-supply water well, WVWD will need to test the quality of the water to verify that it does not contain contaminants that would exceed the standard water quality objectives for this portion of the Santa Ana River Watershed. The Santa Ana Regional Water Quality Control Board (RWQCB) would have jurisdiction over the groundwater quality and surface water discharges for the new well. A General Permit within the Regional Board's jurisdiction covers the discharge of groundwater generated from well drilling and development activities. This General Permit establishes specific performance requirements for discharges from well activities and the proposed project must comply with these requirements. Before discharge from the well test program can proceed, sampling must be completed to ensure that maximum contaminant levels (MCLs) of all pollutants are not exceeded in the groundwater brought to the surface and discharged. According to the Phase I ESA provided as Appendix 5, the Rialto-

Colton subbasin groundwater has known perchlorate contamination that could be an issue for the groundwater extracted by the well. If water quality is degraded it must be blended to a level below MCLs or any specific pollutant exceeding MCLs must be treated and brought into compliance with General Permit discharge requirements prior to discharge to meet the MCL requirements for that pollutant. The following mitigation measure ensures that no significantly degraded groundwater (above MCLs) will be discharged during well testing:

HYD-1 The District shall test the groundwater produced from the well prior to discharge. Prior to or during discharge any contaminants shall be blended below the pertinent MCL or treated prior to discharge, including sediment or other material.

The proposed project may result in some soil erosion during drilling and construction activities. Due to the disturbed nature of the project site, and the flat topography of each site, it is concluded that the potential for this project to cause substantial soil erosion, and subsequent water quality impacts, is low. Due to the small size of the proposed project (less than one acre), a Storm Water Pollution Prevention Plan (SWPPP) is not required. However, the District shall implement Best Management Practices (BMPs) during construction, which will be enforced by the following mitigation measure:

HYD-2 The District shall require that the construction contractor to implement specific Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. These practices shall include a Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals or materials released during construction activities that are compatible with applicable laws and regulations. BMPs to be implemented by the District include the following:

- ***The use of silt fences or coir rolls;***
- ***The use of temporary stormwater desilting or retention basins;***
- ***The use of water bars to reduce the velocity of stormwater runoff;***
- ***The use of wheel washers on construction equipment leaving the site;***
- ***The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads;***
- ***The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and***
- ***Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles.***

Implementation of the above mitigation measures, as well as **MMs HAZ-1**, and **HYD-3** below, is considered adequate to reduce potential impacts to stormwater runoff to a less than significant level. The project would have a less than significant impact under this issue. No further mitigation is required.

b. *Less Than Significant With Mitigation Incorporated* – The proposed project would not deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a substantial lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). The proposed well would extract water from the Rialto Colton Subbasin. The Rialto Colton Subbasin was adjudicated under the 1961 Decree No. 81,264 of the Superior Court of San Bernardino County, and is managed by the Rialto Basin Management Association (stipulated parties of the judgment). WVWD participates in the Rialto Basin Groundwater Council (Rialto Basin GC), which was formed in 2021. WVWD has a right to 6,104

acre feet (AF) of water from the Rialto Colton Subbasin, of which 5,596 AF are adjustable, and 510 AF are fixed. The estimated safe yield of the Rialto Colton Basin is 13,623 AF. The proposed new well is forecast to increase groundwater extraction by an estimated 1,600 AFY. This is anticipated to fall within WVWD's water rights, and WVWD must comply with the 1961 Decree in operating the proposed well. The proposed depth of water production from these well is anticipated to be approximately 100 feet below the ground surface (bgs), or as directed by the hydrogeologist. The well is not designed to interfere with any private wells located within the same aquifer. However, since pumping tests will not be conducted until the proposed well is completed, the following mitigation measure shall be implemented by the District to ensure that other wells within this local aquifer do not incur a significant adverse impact from pumping the proposed well.

HYD-3 The District shall conduct a pump test of the new well and determine whether any other wells are located within the cone of depression once the well reaches equilibrium. If any private wells are adversely impacted by future groundwater extractions from the proposed well, the District shall offset this impact through provision of water service; or adjusting the flow rates or hours of operation to mitigate adverse impacts.

Ultimately, through compliance with the 1961 Decree in increasing its water supply, and through implementation of the above mitigation measure, the potential to substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin would be reduced to less than significant. No additional mitigation is required.

c.

(i-iii) *Less Than Significant With Mitigation Incorporated* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite, or 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.

The proposed project will be implemented within a site containing compacted dirt, and, once the proposed well is installed, the drainage pattern of the area of disturbance would not change substantially. It is not anticipated that substantial erosion or siltation would occur on site, given that the drainage will be managed as it is at present with discharge to the existing catch basin. The well site will require minimal grading and site clearing in the small areas in which the well will be installed, and as such would have a less than significant potential to interfere with the discharge of stormwater over the long-term as the site will remain essentially the same, with only the small area that will be temporarily or permanently disturbed as a result of the well development and associated piping installation. Furthermore, because the development of the well would alter the site only minimally, the project would not substantially increase the amount of surface runoff, such that flooding on- or off-site would occur.

The District will implement of a set of BMPs to control discharges that surface runoff with pollutants could cause that may cause a significant adverse impact to surface water quality. Storm water pollution prevention BMPs will be incorporated to control potential pollution from construction activities in the vicinity of the selected project site. These measures, such as silt fencing, detention basins, etc., are mandatory, as are the measures for ongoing non-point source pollution controls implemented by the local jurisdictions once the project is completed. The mandatory BMPs applied in conjunction with **MMs HAZ-1 and HYD-2,** in conjunction with **MM HYD-4** below, are deemed sufficient to reduce potential surface water quality impacts to a less than significant level. This is because the stormwater discharge will be treated to the point that the discharge will meet requirements for stormwater runoff from construction sites.

HYD-4 The District and construction contractor shall select best management practices applicable to the project site and activities on the site to achieve a reduction in pollutants to the maximum extent practicable, both during and following development of the proposed municipal-supply water well and associated pipeline, and to control urban runoff after the Project is constructed and the well (if approved for operation post well testing) is in operation.

Adequate drainage facilities exist or will be developed by this proposed project to accommodate future drainage flows, and will therefore result in a less than significant impact. Based on the data outlined above, this project will not substantially alter the existing drainage pattern of the site or area; result in substantial erosion or siltation onsite or offsite; substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite; or, 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. Therefore, with the mitigation measure identified above, impacts under these issues are considered less than significant. No further mitigation is required.

c.
(iv). *No Impact* – According to the County of San Bernardino General Plan 100-Year Floodplain Map (**Figure X-1**), the proposed project is not located in a 100-year or 500-year flood hazard area. Furthermore, according to the Federal Emergency Management Agency (FEMA), the project is located within Zone X and is therefore not delineated as being within a FEMA or Department of Water Resources (DWR) flood plain. Development of the well at this site, which, as previously stated would only require minimal ground disturbance, and therefore would not impede or redirect flows. The location is outside of roadways, and drainage will be managed within the site. Therefore, the proposed project would not substantially alter the existing drainage pattern of the sites or area, including through the alteration of the course of a stream or river, in a manner that would impede or redirect flows. No impacts are anticipated under this issue. No mitigation is required.

d. *Less Than Significant Impact* – As stated above under issue X(c[iv]), the proposed project is located within Zone X and is therefore not delineated as being within a FEMA or Department of Water Resources (DWR) flood plain (**Figure X-2**). The project site is not located near any large bodies of water, so impacts associated with seiche or tsunami cannot occur. Mudflow typically occurs on hillsides and the proposed project is not located on a hillside or in an area exposed to significant mudflow. The project is not located within a flood hazard zone, and based on the BMPs required to ensure that any hazardous materials are handled according to State and District standards, it is not anticipated that a release of pollutants would occur at the project site. As previously stated, BMPs in place would ensure that the minimal potential for pollutants that may occur on site would not be released in the event of project inundation. Therefore, impacts under this issue are considered less than significant.

e. *Less Than Significant Impact* – The project site is located in the Upper Santa Ana Valley Basin, Rialto Colton Subbasin (shown on **Figure X-3**, the Countywide Plan Groundwater Basins Map), which has been designated very low priority by the Sustainable Groundwater Management Act (SGMA). The project is located in the Upper Santa Ana River Watershed. The SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins and requires GSAs to adopt Groundwater Sustainability Plans (GSPs) for crucial groundwater basins in California. The SGMA "requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline."[3] The Rialto Colton Subbasin was adjudicated under the 1961 Decree No. 81,264 of the

[3] California Department of Water Resources (DWR), 2024. Sustainable Groundwater Management Act (SGMA) https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management (accessed 02/12/24)

Superior Court of San Bernardino County, and is managed by the Rialto Basin Management Association (stipulated parties of the judgment). When the Subbasin's three index wells (WVWD Well No. 11, and 16, and Rialto's Well 4) average mean groundwater level elevations are above 1002.3 amsl when measured during March, April, or May, the stipulated parties have no restrictions on yearly extractions. When the average standing water levels in the three index wells (Duncan Well, Willow Street Well, and Boyd Well) falls below 1002.3 feet msl and is above 969.7 feet msl, the Rialto Basin Decree stipulated parties are restricted to total extraction rights of 15,290 AFY distributed amongst the parties. When the average of the three index wells drops below 969.7 feet msl, groundwater extractions are reduced for all parties stipulated in the decree by 1 percent per foot below the 969.7-foot level, but not to exceed 50-percent reduction. WVWD participates in the Rialto Basin Groundwater Council (Rialto Basin GC), which was formed in 2021. The Rialto Basin GC will develop, adopt and implement a sustainable groundwater management plan, which will include implementing groundwater recharge projects to restore groundwater levels. As WVWD must comply with the Rialto Basin Decree, the expansion of water extraction in the Rialto Colton Subbasin would not result in a conflict with the SGMA. Furthermore, WVWD is participating in drafting and implementing a sustainable groundwater management plan (SGMP), which will ensure that WVWD's operations would be in compliance with the SGMA and Rialto Basin Decree. Thus, it is not anticipated that the proposed well development project would have a significant potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Furthermore, by controlling water quality during construction and operations through implementation of both short- and long-term best management practices at the site, no potential for conflict or obstruction of the Regional Board's water quality control plan has been identified. Impacts are less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XI. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒

SUBSTANTIATION

a. *No Impact* – The Well No. 57 Project footprint is located within the City of Fontana. The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. There are no features of the well or project as a whole that would create a barrier or physically divide an established community, particularly given that well would be integrated into the landscape unobtrusively. Thus, the project does not involve construction of new structures that would cause any physical division of communities. Since the proposed project occurs within and supports existing land use designations, no potential exists for the proposed project to physically divide an existing community. No impact will result and no mitigation is required.

b. *No Impact* – Please refer to the discussion under issue XI(a) above. The well would be located on a vacant parcel. In general, water production facilities are zone independent because they are needed to support all types of land uses. Per Government Code Section 53091, building ordinances of local cities or counties do not apply to the location or construction of facilities for the projection, generation, storage, treatment, or transmission of water or wastewater. Therefore, any project facilities that could potentially conflict with local General Plan land use designations would not be subject to a conditional use permit or general plan amendment. The City of Fontana supports the provision of adequate infrastructure; therefore, the project would not conflict with the goals and policies of the applicable General Plans. Thus, implementation will not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. No impacts are anticipated and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XII. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒

SUBSTANTIATION

a&b. *No Impact* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The Well No. 57 Project footprint is located within the City of Fontana and will occur within a vacant site. The project is located in a residential area of newer development located to the east of the I-15 Freeway, and much of the land adjacent to the footprint has been recently developed. The San Bernardino Countywide Plan Mineral Resource Zones map indicates that the proposed project is located within the MRZ-3 zone—a moderate potential or possible location for mineral resources to occur—for aggregate resources (**Figure XII-1**). Additionally, the proposed project is not within an area designated by the State Mining and Geology Board in 1987 or 2013 as a Regional Significant Construction Aggregate Resource Areas in the San Bernardino Production-Consumption Region. Given that the proposed project is not located on a delineated state or regionally significant site, and that no mineral extraction currently occurs or is known to have ever occurred on the property, it is anticipated that the development of the site would not result in in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. No impacts are anticipated under this issue and no mitigation is required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIII. NOISE: Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of 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?	☐	☒	☐	☐
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?	☐	☐	☐	☒

SUBSTANTIATION: The following information utilized in this section was obtained from the technical study *"West Valley Water District Well No. 57 Noise Assessment*" (NA) prepared by Urban Crossroads dated March 29, 2024, and provided as Appendix 6 to this document.

Background

Noise is generally described as unwanted sound. The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana, and would be installed within the City of Fontana. The proposed project is located within a site nearby the I-15 freeway and within the existing 65 Community Noise Equivalent Level (CNEL) rating scale (a 24-hour integrated noise measurement scale) noise contour as a result of the proximity thereof (refer to **Figure XIII-1**). Therefore, the project is located in a reactively high background noise level environment. For this project, the nearest sensitive use is a residential use is more than 700-feet to the northeast of the project site. Traffic along Lytle Creek Road and Citrus Avenue is minimal to moderate in the vicinity of the project site; however, the background noise is dominated by the I-15 freeway located between these two roadways.

The unit of sound pressure ratio to the faintest sound detectable to a person with normal hearing is called a decibel (dB). Sound or noise can vary in intensity by over one million times within the range of human hearing. A logarithmic loudness scale, similar to the Richter scale for earthquake magnitude, is therefore used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all sound frequencies within the entire spectrum. Noise levels at maximum human sensitivity from around 500 to 2,000 cycles per second are factored more heavily into sound descriptions in a process called "A-weighting," written as "dBA."

Leq is a time-averaged sound level; a single-number value that expresses the time-varying sound level for the specified period as though it were a constant sound level with the same total sound energy as the time-varying level. Its unit of measure is the decibel (dB). The most common averaging period for Leq is hourly.

Because community receptors are more sensitive to unwanted noise intrusion during more sensitive evening and nighttime hours, state law requires that an artificial dBA (A-weighted decibel) increment be added to quiet time noise levels. The State of California has established guidelines for acceptable community noise levels that are based on the Community Noise Equivalent Level (CNEL) rating scale (a 24-hour integrated noise measurement scale). The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," and "clearly unacceptable" noise levels for various land use types. The State Guidelines, Land Use Compatibility for Community Noise Exposure, single-family homes are "normally acceptable" in exterior noise environments up to 60 dB CNEL and "conditionally

acceptable" up to 70 dB CNEL based on this scale. Multiple family residential uses are "normally acceptable" up to 65 dB CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries and churches are "normally acceptable" up to 70 dB CNEL, as are office buildings and business, commercial and professional uses with some structural noise attenuation.

Introduction to Vibration

Per the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual, vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

Additionally, in contrast to airborne noise, ground-borne vibration outdoors is not a common environmental problem and annoyance from ground-borne vibration is almost exclusively an indoor phenomenon. Therefore, the effects of vibrations should only be evaluated at a structure and the effects of the building structure on the vibration should be considered. Wood-frame buildings, such as typical residential structures, are more easily excited by ground vibration than heavier buildings. In contrast, large masonry buildings with spread footings have a low response to ground vibration. In general, the heavier a building is, the lower the response will be to the incident vibration energy. However, all structurers reduce vibration levels due to the coupling of the building to the soil.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. However, the RMS amplitude and PPV are related mathematically, and the RMS amplitude of equipment is typically calculated from the PPV reference level. The RMS amplitude is approximately 70% of the PPV. Thus, either can be used on the description of vibration impacts.

While not universally accepted, vibration decibel notation (VdB) is another vibration notation developed and used by the FTA in their guidance manual to describe vibration levels and provide a background of common vibration levels and set vibration limits . Decibel notation (VdB) serves to reduce the range of numbers used to describe vibration levels and is used in this report to describe vibration levels.

As stated in the FTA guidance manual, the background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

City of Fontana Property Line Noise Standards

To analyze noise impacts originating from a designated fixed location or private property, stationary- source (operational) noise such as the expected drill rig, mud pumps, compressors, and generators are typically evaluated against standards established under a jurisdiction’s Municipal Code. The City of Fontana noise control guidelines for determining and mitigating non-transportation or stationary noise source impacts from operations in neighboring residential areas are found in the Zoning and Development Code (Section 30-649), provided in Appendix 1. For residential zoning districts, Section 30- 649 indicates that no person shall create or cause to be created any sound which exceeds the noise levels in this section as measured at the

property line of any residentially zoned property. The performance standards found in Section 30-649 limit the exterior noise level to 65 dBA Leq during the daytime and nighttime hours at sensitive receiver locations as shown on Table XIII-1.

Table XIII-1
OPERATIONAL NOISE STANDARDS

Jurisdiction	Land Use	Noise Level Standards (dBA Leq)1	
		Daytime	Nighttime
City of Fontana[1]	Residential	65	65

1 Source: Section 30-469 of the City of Fontana Development Code (Appendix 3.1).
2 Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Construction Noise Sources

Using reference construction equipment noise levels level measurements and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearest sensitive receiver locations were completed. To assess the worst-case construction noise levels, the Project construction noise analysis relies on the equipment with the highest reference noise level operating continuously over a 24-hour period.

Drill rigs have several substantial noise sources, each with their own characteristics. The main sources of noise are the generator sets; the compressors; the mud pumps; and the top drive. Pumps/compressors and generator noise sources were placed five feet above ground level and the drill rig top drive was placed fifteen feet above ground level. Drill rig and associated equipment noise levels were developed from a noise survey conducted by Behrens and Associates, Inc. of three different drill rig systems in 2006. Each of the drill rigs were rated at 1,000 horsepower and were capable of drilling depths ranging from 12,000 to 15,000 feet. The surveyed drill rigs are similar in capability to the drill rig proposed for the Project. Based on peak noise levels provided by the survey, reference noise levels with a uniform distance of 50 feet were calculated and are provided in Table XIII-2.

Table XIII-2
CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)	Highest Reference Noise Level (dBA Leq)
Borehole Drilling	Drill Rig Top Drive	82	87.6
	Compressors/Pumps	80	
	Generators	85	

Impact Analysis

a. *Less Than Significant With Mitigation Incorporated* – The Well No. 57 Project footprint is located within the City of Fontana and will occur within a vacant site set in a residential area. However, once installed, the well would be designed to pump noise, and would generate only minimal operational noise. Furthermore, all associated pipelines would be located underground. The background noise in the vicinity of the project is relatively low, as the project is in a residential area, with some vacant land in the vicinity. As shown on the San Bernardino County General Plan Existing and Future Noise Contour Map showing Existing Noise Contours in the vicinity of the project (**Figures XIII-1 and XIII-2**), nearly the entire project footprint is located outside of any identified noise contour.

Short Term Construction Noise

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the project construction noise levels with all equipment operating simultaneously were

completed. As shown in Table XIII-3, the unabated construction noise levels for activities at Location 1 are expected to range from 59.6 to 77.0 dBA Leq at the nearest residential uses.

Table XIII-3
UNABATED DRILLING EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location[1]	Project Construction Noise Levels (dBA Leq)[2]		Noise Level Standards (dBA Leq)[3]		Threshold Exceeded?	
	Daytime	Nighttime	Daytime	Nighttime		
R1	77	77	65	65	Yes	Yes
R2	75.7	75.7	65	65	Yes	Yes
R3	59.6	59.6	65	65	No	No
R4	66.5	66.5	65	65	Yes	Yes

1 Noise receiver locations are shown on **Figure XIII-1**.
2 Highest construction noise level operating at the Project site boundary to nearby receiver locations. 3 City of Fontana Municipal Code, Section 30-469.

As shown on Table XIII-3, the unabated construction noise levels for activities at Location 2 are expected at Construction Noise Level Compliance Location 1.

To demonstrate compliance with local noise regulations, the project-only construction noise levels are evaluated against exterior noise level thresholds established by Section 30-649 City of Fontana. As shown on Table XIII-4, the estimated construction noise levels at R3 will satisfy the 65 dBA Leq. However, the construction noise levels at R1, R2, and R4 will exceed the City of Fontana construction noise level standard of 65 dBA Leq. Therefore, additional modeling was completed for various barrier heights surrounding the Project site. Based on the modeling, the minimum barrier height that would allow the project to comply with the City of Fontana daytime and nighttime noise level standards would be a 20-foot-high barrier along the eastern property line and a 16-foot barrier along the southern property line, as shown in Figure XIII-4. As shown on Table XIII-4, the mitigated construction noise levels are expected to range from 59.6 to 64.0 dBA Leq at the nearest residential land uses.

Table XIII-4
ABATED DRILLING EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location[1]	Project Construction Noise Levels (dBA Leq)[2]		Noise Level Standards (dBA Leq)[3]		Threshold Exceeded?	
	Daytime	Nighttime	Daytime	Nighttime		
R1	64	64	65	65	No	No
R2	63	63	65	65	No	No
R3	59.6	59.6	65	65	No	No
R4	63.6	63.6	65	65	No	No

1 Noise receiver locations are shown on Figure XIII-1.
2 Highest construction noise level operating at the Project site boundary to nearby receiver locations. 3 City of Fontana Municipal Code, Section 30-469.

To comply with the City of Fontana the City of Fontana Municipal Code Section 30-469 during daytime and nighttime hours, the following mitigation measure is required:

NOI-1 ***The Project shall erect noise barriers with a minimum height of 20 feet should be erected along the eastern Project site boundary and a minimum height of 16 feet should be erected along the southern Project site boundary such that the drill rig, mud pumps, compressors, and generators are completely shielded from nearby residential areas. An effective barrier requires a weight of at least 2 pounds per square foot of face area with no decorative cutouts, perforations, or***

line-of-sight openings between shielded areas and the source. Examples of temporary barrier material includes 5/8-inch plywood, 5/8-inch oriented-strand board, or sound blankets capable of providing a minimum sound transmission loss (STC) of 27 or a Noise Reduction Coefficient (NRC) of 0.85.

This Noise Assessment demonstrates that the drill rig noise levels associated with West Valley Water District Well No. 57 Project can satisfy the City of Fontana exterior noise level standards at all nearby receiver locations with the use of barriers shielding the receivers to the east and south of the project site. Unabated noise levels at R3 would not exceed the City of Fontana noise level standards and would not require a barrier along the northwest side of the project site. Therefore, with implementation of the identified noise abatement measure (**MM NOI-1**) shown on **Figure XIII-4**, the construction noise levels would comply with the City of Fontana noise level limits during daytime and nighttime hours and impacts would be less than significant.

Long-Term Operational Noise

Well pump noise can be mitigated, as outlined in the mitigation measure below by constructing a wooden or concrete housing unit to reduce operational noise levels to a less than significant impact, should the noise levels from the well pump exceed County of San Bernardino standards. The connecting pipelines will not generate any noise once constructed. Additionally, to reduce potential long-term noise effects from the well pump to the greatest extent feasible, the mitigation measure presented below will be implemented.

NOI-2 Well pump noise levels to be limited to 50 dB(A) or below at the exterior of the nearest sensitive noise receptor. A manner in which this may be accomplished is by installing surface well housing, housed in concrete block structure that attenuates noise to meet this performance standard. Another manner in which this may be accomplished is through installing the pump belowground. The aforementioned or other noise reducing measures shall be implemented should the District be unable to demonstrate that noise levels are limited to 50 dBA at the nearest sensitive receptor.

Conclusion

Therefore, through the implementation of the mitigation measures identified above, neither operation or construction of the proposed project would violate City of Fontana noise standards outlined in the City's Development Code. Impacts under this issue are considered less than significant with mitigation incorporated.

b. *Less Than Significant With Mitigation Incorporated* – Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by vibration of room surfaces is called structure borne noises. Sources of groundborne vibrations include natural phenomena (e.g. earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g. explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous or transient. Vibration is often described in units of velocity (inches per second), and discussed in decibel (VdB) units in order to compress the range of numbers required to describe vibration. Vibration impacts related to human development are generally associated with activities such as train operations, construction, and heavy truck movements.

The background vibration-velocity level in residential areas is generally 50 VdB; levels would generally be considered even less in rural areas such as the area surrounding the project footprint. Groundborne vibration is normally perceptible to humans at approximately 65 VdB, while 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible. Construction activity can result in varying degrees of groundborne vibration, but is generally associated with pile driving and rock blasting. Other construction equipment, such as air compressors, light trucks, hydraulic loaders, etc. generates little or no ground vibration. While no enforceable regulations for vibration exist within the City, the Federal Transit Association (FTA) guidelines identify a level of 80 VdB for sensitive land uses. This threshold provides a basis for determining the relative significance

of potential project related vibration impacts. As shown in Table XIII-5, the use of vibration-generating construction equipment would generate vibration levels ranging from 0.003 to 0.089 in/sec PPV, or 58 to 94 VdB, at a distance of 25 feet. Table XIII-6 summarizes the minimum distances at which vibration generated by construction equipment would attenuate to less than significant levels at various receivers. Construction activities utilizing equipment at the minimum distances shown in Table XIII-6 would have a less than significant construction vibration impact.

Table XIII-5
VIBRATION LEVELS MEASURED DURING CONSTRUCTION ACTIVITIES

Equipment	PPV at 25 feet (in/sec)	VdB at 25 feet
Drill Rig[1]	0.089	87
Loaded Truck	0.076	83

PPV = peak particle velocity; in/sec = inches per second; VdB = vibration decibels
[1] Vibration levels from caisson drilling were used as a proxy for drill rigs.
Source: FTA. 2018. *Transit Noise and Vibration Impact Assessment Manual.* https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed 04/03/24).

Table XIII-6
VIBRATION LEVEL CONTOURS DURING CONSTRUCTION ACTIVITIES

Equipment	Minimum Distance to Receiving Land Use for a Less Than Significant Impact (feet)			
	Historic Sites[1]	All Other Structures[2]	Daytime Vibration-Sensitive Land Uses[3]	Nighttime Vibration-Sensitive Land Uses[4]
Loaded Truck	20	10	10	35
Drill Rig[5]	20	15	15	55

PPV = peak particle velocity in inches per second; VdB = vibration decibels
Note: Distances are rounded to the nearest 5 feet.
[1] Distance to the 0.12 in/sec PPV contour (FTA construction vibration damage criteria for buildings extremely susceptible to vibration damage, as shown in Table XIII-1).
[2] Distance to the 0.2 in/sec PPV contour (FTA construction vibration damage criteria for non-engineered timber and masonry buildings, as shown in Table XIII-1).
[3] Distance to the 0.24 in/sec PPV contour (the level at which vibration associated with transient vibration sources is distinctly perceptible, as shown in Table XIII-1).
[4] Distance to 80 VdB contour (the recommended threshold to evaluate human annoyance impacts at residences and buildings where people normally sleep).
[5] Caisson drilling was used as a proxy for drill rigs.

For well drilling activities, the proposed project would be installed outside of the minimum distances from historic and other structures, daytime vibration-sensitive land use, and nighttime vibration-sensitive land use because the well will not be installed along the property line, it will be installed at a greater distance from the residences than shown on **Figure XIII-1** (the drill will be greater than 55 feet from the nearest sensitive receptor, and loaded trucks will operate 35 feet from the nearest sensitive receptor, per **MM NOI-3**, below). As such, though well drilling activities generate relatively substantial vibration, given the distance between where the ground disturbance activities will be located, and the distance to the nearest sensitive receptor, it is not anticipated that vibration from either construction or operation activities would reach any nearby residences.

NOI-3 ***The well shall be drilled at a distance of 55' or greater from the nearest sensitive receptor, shown on Figure XIII-1. Loaded trucks delivering materials to the site and hauling materials away shall be operated at a distance at or greater than 35' or greater from the nearest sensitive receptor, shown on Figure XIII-1, for the duration of construction.***

The project does not include any facilities that would result in substantial operational vibration, such as heavy truck deliveries, or use of equipment that generates substantial vibration, and therefore no operational vibration impacts are anticipated to occur that would be perceptible at the nearest sensitive receptor. Thus, through the implementation of **MM NOI-3**, above, vibration impacts associated with the project would be less than significant with mitigation.

c. *No Impact* – The project site is located at a great distance from any nearby airport. As shown on the Airport Safety & Planning Areas map prepared for the San Bernardino Countywide Plan (**Figure IX-6**), the proposed project is not located within an Airport Safety Review Area at any of the nearest airport shown on the Map (Ontario International Airport), and therefore is not located within the noise contours for the Airport. Therefore, there is no potential for the project to expose people residing or working in the project area to excessive noise levels as a result of proximity to a public airport or private airstrip. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIV. POPULATION AND HOUSING: Would the project:				
a) Induce substantial 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)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

SUBSTANTIATION

a. *Less Than Significant Impact* – Implementation of the project will not induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). The project is considered a vital infrastructure project because it would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana, and would be installed within the City of Fontana. The proposed project will require a temporary work force; however, this is short-term and with a maximum of about 5 employees will not induce substantial population growth. Furthermore, according to the Southern California Association of Governments (SCAG), the total population of City of Fontana was 211,519 persons.[4] The SCAG Connect SoCal Demographics and Growth Forecast[5] notes that the City of Fontana is anticipated to grow to 286,700 residents by 2045. This indicates that the City has room for population growth in the future. As such, given that no additional employees will be required once the well is in operation, the proposed project would have a less than significant potential to induce substantial population growth in an area, either directly or indirectly. No mitigation is required.

b. *No Impact* – The proposed Well No. 57 Project will occur within a vacant site with no housing or persons located therein. No housing is proposed as part of the project and no housing exists and no persons reside within the project footprint. Therefore, implementation of the project as a whole will not displace any existing housing or displace a substantial number of people that would necessitate the construction of replacement housing elsewhere. No impacts will occur as a result of project implementation. No mitigation is required.

[4] SCAG, 2021. Local Profiles Spreadsheet. https://scag.ca.gov/sites/main/files/file-attachments/2021_local_profiles_dataset.xlsx?1661892901 (accessed 02/13/24)
[5] SCAG, 2020. Demographics and Growth Forecast. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579 (accessed 02/13/24)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XV. PUBLIC SERVICES: Would the project 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 public services:				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

SUBSTANTIATION

a. *Less Than Significant Impact* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The City of Fontana is currently served by the San Bernardino County Fire Department (SBCFD). The nearest SBCFD stations nearest to the project site are Fire Station 79, located at 5075 Coyote Canyon Road, Fontana, CA 92336. Medic Engine 79 and Brush Engine 79 provide paramedic and fire services to northern Fontana residents and business owners. The station also responds to the urban / wildland interface of the Front Country, including Lytle Creek and the I-15 corridor. The proposed project may require the use of chemicals such as sodium hypochlorite at the well site. Proper storage and handling are required to prevent any potential fire hazards; however, compliance with Federal, State, and local standards pertaining to hazardous materials would prevent a significant impact from occurring. The sodium hypochlorite container and well itself at the well site—would not present a substantial fire hazard because the materials used to construct the enclosure are considered fire-resistant. Thus, with compliance to Federal, State, and local standards, no new or altered fire protection facilities will be required to serve this project. Any impact to the existing fire protection system is considered random and less than significant. No mitigation is required.

b. *Less Than Significant Impact* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The proposed project receives police services through the Fontana Police Department. The Department enforces local, state, and federal laws within the project area; performs investigations and makes arrests; administer emergency medical treatment; and responds to emergencies. The project site is served by the Sheriff Service Agency – Fontana and by the Fontana Police Department as shown on **Figure XV-1**, which depicts the service area of Sheriff Operations and Police Department Operations delineated by the San Bernardino Countywide Plan. The Sheriff's Station is located at 17780 Arrow Blvd, Fontana, CA 92335, which is approximately 10 miles to the south of the project site, the Police Department is located at 17005 Upland Ave, Fontana, CA 92335, which is about 10 miles to the south of the project site, just west of the Sheriff Department, and the project is located within existing patrol routes. The project is not anticipated to generate growth within the project area that would create a new demand for police protection because no additional employees will be required once the well is installed and is in operation. The construction of the well will require only a temporary work force. The proposed project will not include the kind of use that would likely attract criminal activity, except for random trespass and theft; however, construction equipment will be stored in such a manner that public will not have access to it, and once in operation,

the project will be fenced. Thus, due to the type of project proposed, no new or expanded police or sheriff facilities would need to be constructed as a result of the project. Therefore, impacts to police protection resources from implementation of the proposed project are considered less than significant; no mitigation measures are required.

c. *Less Than Significant Impact* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The proposed project is located within the Fontana Unified School District, which consists of 45 schools. The nearest school is Sierra Lakes Elementary School, located a little over a half mile southeast of the project site at 5740 Avenal Place, Fontana, CA 92336. As discussed under Chapter XIV, Population and Housing, above, the project would not induce population growth within the City or County, as it will neither construct housing, nor result in a growth in employment opportunities within the area. Because the project would install new infrastructure through the development of a new well, and would not develop any facilities that are commercial, residential, or industrial in nature, the proposed project is not required to pay any fees to offset impacts to school facilities. Thus, the proposed project will not generate an increase in elementary, middle, or high school population. Therefore, any impacts under this issue are considered less than significant. No mitigation is required.

d. *No Impact* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. Because the project would develop infrastructure through the installation of a new well and would not develop any facilities that are commercial, residential, or industrial in nature, the proposed project is not required to pay any fees to offset impacts to park facilities. As stated in the preceding sections, the proposed project is not anticipated to create a substantial increase in population because it does require additional WVWD staff to operate this new well. Implementation of the proposed project will not impact any current or planned park use, as it will be constructed within a vacant site that has not been designated for nor developed as a park use. Thus, implementation of the proposed project would not cause a substantial adverse physical impact to any parks within the City. No impacts are anticipated, and no mitigation is required.

e. *No Impact* – Other public facilities include library and general municipal services. The library system in the County of San Bernardino is operated by the San Bernardino County Library System. Since the project will not directly induce substantial population growth, it is not forecast that the use of such facilities will increase as a result of the proposed project. As a result, the implementation of the project will not 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 public services to include other public facilities. Thus, no impacts are anticipated under this issue and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVI. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
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?	☐	☐	☐	☒

SUBSTANTIATION

a. *No Impact* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. As previously discussed in Section XIV, Population and Housing and Section XV, Public Services, this project will not contribute to an increase in the population beyond that already allowed or planned for by local and regional planning documents. Therefore, this project will not result in an increase in the demand for parks and other recreational facilities and implementation of the proposed project would not increase the use of any parks within the area, nor would it result in the physical deterioration of other surrounding facilities. No impacts are anticipated. No mitigation is required.

b. *No Impact* – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The proposed project does not include recreational facilities, nor does it require the construction or expansion of recreational facilities. The project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana, and would be installed within the City of Fontana. The well will be installed and operated by the District. The project does not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. As previously stated, the proposed project will occur within a vacant site, which is not designated for recreational use and does not contain recreational uses at present. Furthermore, the proposed project is not forecast to induce substantial population growth as the well will operate without daily in-person supervision; visits will occur by District employees on an as needed or scheduled maintenance basis. Therefore, no impacts are anticipated to occur under this issue, and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVII. TRANSPORTATION: Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
d) Result in inadequate emergency access?	☐	☒	☐	☐

SUBSTANTIATION

a. *Less Than Significant With Mitigation Incorporated* – The project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana, and would be installed within the City of Fontana. The proposed well would be confined to the project site, with only minor encroachment onto the adjacent sidewalk to connect to existing District water distribution pipelines as shown on **Figure 4**, including the required easements from both MWD and the City of Fontana. At no time during the installation of the well will adjacent roadway be closed. The project may require one lane to be closed for a short duration of construction, but as the District's connection is located within the sidewalk adjacent to the roadway, this may not be necessary. Regardless, if encroachment onto the adjacent roadway is necessary, only one lane would be impacted, which would allow for through-traffic so long as a traffic management plan is developed and implemented. The installation of the proposed Well No. 57 Project may temporarily reduce the capacity of the adjacent roadway along Knox Avenue due to possibility of open-trenching within existing roadway rights-of-way (ROWs) to connect the pipeline to the District's existing distribution system, and the resulting temporary lane closures on the affected roadways. The impact of the temporary lane closure would likely require active traffic control (flaggers) to allow alternate one-way traffic flow on the available road width or allow traffic control to minimize lane width to ensure two-way traffic can resume for the short (less than one week) duration of construction that may occur within the adjacent roadway. **MM TRAN-1**—addressed below—would be required to reduce potential impacts to traffic and transportation conditions. Implementation of this measure, in conjunction with the temporary character of the construction impacts, is considered sufficient to ensure adequate flow of traffic in a safe manner for the connecting pipeline installation.

TRAN-1 ***For any encroachment along adjacent roadways, WVWD shall require that contractors prepare a construction traffic control plan. Elements of the plan shall include, but are not necessarily limited to, the following:***

- ***Develop circulation and detour plans, if necessary, to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible.***
- ***To the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours.***
- ***Install traffic control devices as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones.***

- ***For roadways requiring lane closures that would result in a single open lane, maintain alternate one-way traffic flow and utilize flagger-controls.***
- ***Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities.***

During construction, an estimated 10-15 roundtrips from construction workers per day will occur to install the proposed new well. An average of 15 roundtrips per day would occur to support construction efforts (i.e., delivery or removal of construction materials). Once constructed, no traffic would be generated by this project other than visits to the well by WVWD personnel to inspect and maintain facilities where necessary, resulting in minimal vehicle miles traveled once the well is in operation. Implementation of the project has the potential to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. However, with implementation of the above mitigation measure requiring a construction traffic management plan, and the following **MM TRAN-2** requiring disturbances within public roadways to be returned to their original or better condition, the proposed project would result in a less than significant impact pertaining to the circulation system, particularly given that impacts to transit, bicycle, and pedestrian facilities will be temporary, and will not permanently disrupt circulation thereof.

TRAN-2 WVWD shall require that all disturbances to public roadways be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable County of San Bernardino or City of Fontana standard design requirements.

b. *Less Than Significant Impact* – The project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana, in WVWD's service area. The proposed project will require minimal vehicle miles traveled to accomplish once constructed. In the short term, construction of the proposed facilities will result in the generation of an average of about 15 roundtrips per day on the adjacent roadways by construction personnel and trucks removing any excavated materials on site. The vehicle miles traveled in these instances would likely average less than 80 miles round trip. The number of temporary truck trips will be minimized by using 15 cubic yard material haulers instead of smaller 10 cubic yard trucks to haul material onto and off of the site. Additionally, the same trucks that haul material onto the site would also carry material off of the site. As such, VMT standards, which are intended to monitor and address long-term transportation impacts resulting from future development, do not apply to temporary impacts associated with construction activities. Therefore, no construction impact associated with VMT per CEQA Guidelines Section 15064.3 would occur.

Once constructed, no daily traffic would be generated by this project other than visits to the well by WVWD personnel to inspect and maintain facilities when necessary, resulting in minimal vehicle miles traveled once the well is in operation. The Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA (2018) states, "Projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant VMT impact." Scheduled maintenance visits would also occur in the future with one trip per maintenance event, with occasional trips also occurring when unforeseen circumstances arise that would require maintenance or repair of certain facilities. As such, the proposed project would generate less than 110 trips per day, which is below the recommended screening threshold. As such, development of the Well No. 57 Project is not anticipated to result in a significant impact related to vehicle miles travelled, and thus would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Impacts under this issue are considered less than significant.

c. *Less Than Significant With Mitigation Incorporated* – The proposed project would not substantially increase hazards due to a design feature or incompatible uses. The construction of the well would occur at a vacant site within the District's service area. With the exception of the aforementioned trip

generation during the construction phase and the installation of the connection pipeline from the well to the District's distribution system, the proposed project will not alter any adjacent roadways. The construction within the adjacent roadway will be limited to approximately one weeks or less. The adjacent roadway, Knox Avenue, is not a heavily traveled roadway, as it is a local roadway. The project may require one lane to be closed for a short duration of construction, but as the District's connection is located within the sidewalk adjacent to the roadway, this may not be necessary. Regardless, if encroachment onto the adjacent roadway is necessary, only one lane would be impacted, which would allow for through-traffic so long as a traffic management plan is developed and implemented. As stated under issue XVII(a) above, the with the implementation of **MMs TRAN-1 and TRAN-2** above, which require implementation of a construction traffic management plan where encroachment into adjacent roadways is necessary, any potential increase in hazards due to design features or incompatible use will be considered less than significant in the short term. In the long term, no impacts to any roadway hazards or incompatible uses in existing roadways are anticipated because once the pipeline is installed, the roadway will be returned to its original condition. Thus, any potential increase in hazards due to design features or incompatible use will be considered less than significant. No mitigation is required.

d. *Less Than Significant With Mitigation Incorporated* – Please refer to the discussions under issue XVII(a) and XVII(c) above. The project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana, and would be installed within the City of Fontana. The project may require one lane to be closed for a short duration of construction, but as the District's connection is located within the sidewalk adjacent to the roadway, this may not be necessary. Regardless, if encroachment onto the adjacent roadway is necessary, only one lane would be impacted, which would allow for through-traffic so long as a traffic management plan is developed and implemented. The majority of the project will occur outside of the roadway, but connections to Knox Avenue may be required. This roadway is local/modestly traveled, and any lane closure required to install the proposed connecting pipeline would not impact major routes of circulation within the area. Primary roadways within the project footprint that would be used during an emergency or evacuation order would be Knox Avenue and Walsh Lane. There are no emergency access roadways located within the project footprint (refer to **Figure XVII-1**). Adequate emergency access will be provided along the adjacent roadway throughout construction. Though the possible closure of up to one lane will impact traffic, the implementation of **MMs TRAN-1 and TRAN-2** will ensure that impacts are reduced to a level of less than significant. No additional mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVIII. TRIBAL CULTURAL RESOURCES: Would the project cause a substantial change in the significance of tribal cultural resources, 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 the California Native American tribe, and that is:				
a) 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	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in sub-division (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.	☐	☒	☐	☐

SUBSTANTIATION

A Tribal Resource is defined in the Public Resources Code section 21074 and includes the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following: included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources as defined in subdivision (k) of Section 5020.1;
- 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purpose of this paragraph, the lead agency shall consider the significance of the resources to a California American tribe;
- A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape;
- A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "non-unique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal resource if it conforms with the criteria of subdivision (a).

a&b. *Less Than Significant With Mitigation Incorporated* – The District has been contacted by four California tribes: Torres Martinez Desert Cahuilla Indians, Yuhaaviatam of San Manuel Nation, Morongo Band of Mission Indians, Gabrieleño Band of Mission Indians – Kizh Nation. Three tribes responded to the District's AB 52 consultation notification: the Yuhaaviatam of San Manuel Nation (YSMN), Morongo Band of Mission Indians, and Gabrieleño Band of Mission Indians – Kizh Nation. YSMN responded with a request for the Project Plans and the Cultural Report. The Project Plans were sent to the tribe on November 17, 2023, while the Cultural Report was sent on February 14, 2024.

The representative from the YSMN provided mitigation that the Tribe would like to see incorporated in the environmental documentation to protect potential tribal cultural resources. As such, the following mitigation measures shall be implemented to protect such resources:

TCR-1 ***The Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN) shall be contacted, as detailed in CUL-2, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project on an alternating basis in coordination with the Gabrieleño Band of Mission Indians – Kizh Nation and Morongo Band of Mission Indians, should YSMN elect to place a monitor on-site.***

TCR-2 ***Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the Lead Agency for dissemination to YSMN. The Lead Agency shall, in good faith, consult with YSMN throughout the life of the project.***

YSMN also requested that **MMs CUL-2, CUL-3, and CUL-4** provided in Subsection V, Cultural Resources be implemented to protect cultural and tribal cultural resources.

Additionally, the Morongo Band of Mission Indians (MBMI) has also requested consultation under AB 52 in an email dated January 18, 2024. The District conducted a second meeting the MBMI in order to discuss the approach for tribal monitoring and mitigation for the project. The resulting meeting lead to an agreement between MBMI and the District to enable alternating schedules for tribal monitoring to ensure that each tribe has equal time monitoring the project construction. MBMI requested the implementation of the following mitigation measures:

TCR-3 ***The District shall enter into a Tribal Monitoring Services Agreement with the Morongo Band of Mission Indians (MBMI) for the project. A Tribal Monitor shall be on-site during all ground-disturbing activities (including, but not limited to, clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all utility and irrigation lines, and landscaping phases of any kind), whether from the Morongo Band of Mission Indians, from the Gabrieleño Band of Mission Indians – Kizh Nation, or from the YSMN in the event that the YSMN elects to monitor ground disturbing activities. While monitoring ground disturbing activities, MBMI's Tribal Monitor shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources.***

TCR-4 ***Prior to any ground-disturbing activities (including, but not limited to, clearing, grubbing, tree and bush removal, grading, trenching, fence post replacement and removal, construction excavation, excavation for all utility and irrigation lines, and landscaping phases of any kind), and prior to the issuance of grading permits, a Qualified Archaeologist who meets the U.S. Secretary of the Interior Standards (SOI). The Archaeologist shall be present during all ground-disturbing activities to identify any known or suspected archaeological and/or cultural resources. The Archaeologist will conduct a Cultural Resource Sensitivity Training, in conjunction with the Tribe[s] Tribal Historic Preservation Officer (THPO), and/or designated Tribal Representative. The***

training session will focus on the archaeological and tribal cultural resources that may be encountered during ground-disturbing activities as well as the procedures to be followed in such an event.

TCR-5 ***Prior to any ground-disturbing activities the project Archaeologist shall develop a Cultural Resource Management Plan (CRMP) and/or Archaeological Monitoring and Treatment Plan (AMTP) to address the details, timing, and responsibilities of all archaeological and cultural resource activities that occur on the project site. This Plan shall be written in consultation with the consulting Tribe[s] and shall include the following: approved Mitigation Measures (MM)/Conditions of Approval (COA), contact information for all pertinent parties, parties' responsibilities, procedures for each MM or COA, and an overview of the project schedule.***

TCR-6 ***The Qualified archeologist and Consulting Tribe[s] representative shall attend the pre-grade meeting with the grading contractors to explain and coordinate the requirements of the monitoring plan.***

TCR-7 ***During all ground-disturbing activities the Qualified Archaeologist shall be on site full time, and the Tribal Monitor shall be on-site part-time, in a manner that would accommodate roughly equal tribal monitoring time for MBMI and the Gabrieleño Band of Mission Indians – Kizh Nation tribal monitors, and YSMN in the event that the YSMN elects to monitor ground disturbing activities . The frequency of inspections shall depend on the rate of excavation, the materials excavated, and any discoveries of Tribal Cultural Resources as defined in California Public Resources Code Section 21074. Archaeological and Tribal Monitoring will be discontinued when the depth of grading and the soil conditions no longer retain the potential to contain cultural deposits. The Qualified Archaeologist, in consultation with the Tribal Monitor, shall be responsible for determining the duration and frequency of monitoring.***

TCR-8 ***In the event that previously unidentified cultural resources are unearthed during construction, the Qualified Archaeologist and the Tribal Monitor shall have the authority to temporarily divert and/or temporarily halt ground-disturbance operations in the area of discovery to allow for the evaluation of potentially significant cultural resources. Isolates and clearly non- significant deposits shall be minimally documented in the field and collected so the monitored grading can proceed.***

If a potentially significant cultural resource(s) is discovered, work shall stop within a 60-foot perimeter of the discovery and an Environmentally Sensitive Area physical demarcation/barrier constructed. All work shall be diverted away from the vicinity of the find, so that the find can be evaluated by the Qualified Archaeologist and Tribal Monitor[s]. The Archaeologist shall notify the Lead Agency and consulting Tribe[s] of said discovery. The Qualified Archaeologist, in consultation with the Lead Agency, the consulting Tribe[s], and the Tribal Monitor, shall determine the significance of the discovered resource. A recommendation for the treatment and disposition of the Tribal Cultural Resource shall be made by the Qualified Archaeologist in consultation with the Tribe[s] and the Tribal Monitor[s] and be submitted to the Lead Agency for review and approval. Below are the possible treatments and dispositions of significant cultural resources in order of CEQA preference:

A. Full avoidance.
B. If avoidance is not feasible, Preservation in place.

C. If Preservation in place is not feasible, all items shall be reburied in an area away from any future impacts and reside in a permanent conservation easement or Deed Restriction.

D. If all other options are proven to be infeasible, data recovery through excavation and then curation in a Curation Facility that meets the Federal Curation Standards (CFR 79.1).

TCR-9 The Morongo Band of Mission Indians requests the following specific conditions to be imposed in order to protect Native American human remains and/or cremations. No photographs are to be taken except by the coroner, with written approval by the consulting Tribe[s].

A. Should human remains and/or cremations be encountered on the surface or during any and all ground-disturbing activities (i.e., clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all water supply, electrical, and irrigation lines, and landscaping phases of any kind), work in the immediate vicinity of the discovery shall immediately stop within a 100-foot perimeter of the discovery. The area shall be protected; project personnel/observers will be restricted. The County Coroner is to be contacted within 24 hours of discovery. The County Coroner has 48 hours to make his/her determination pursuant to State and Safety Code §7050.5. and Public Resources Code (PRC) § 5097.98.

B. In the event that the human remains and/or cremations are identified as Native American, the Coroner shall notify the Native American Heritage Commission within 24 hours of determination pursuant to subdivision (c) of HSC §7050.5.

C. The Native American Heritage Commission shall immediately notify the person or persons it believes to be the Most Likely Descendant (MLD). The MLD has 48 hours, upon being granted access to the Project site, to inspect the site of discovery and make his/her recommendation for final treatment and disposition, with appropriate dignity, of the remains and all associated grave goods pursuant to PRC §5097.98

D. If the Morongo Band of Mission Indians has been named the Most Likely Descendant (MLD), the Tribe may wish to rebury the human remains and/or cremation and sacred items in their place of discovery with no further disturbance where they will reside in perpetuity. The place(s) of reburial will not be disclosed by any party and is exempt from the California Public Records Act (California Government Code § 6254[r]). Reburial location of human remains and/or cremations will be determined by the Tribe's Most Likely Descendant (MLD), the landowner, and the lead agency.

TCR-10 FINAL REPORT: The final report[s] created as a part of the project (AMTP, isolate records, site records, survey reports, testing reports, etc.) shall be submitted to the Lead Agency and Consulting Tribe[s] for review and comment. After approval of all parties, the final reports are to be submitted to the Eastern Information Center, and the Consulting Tribe[s].

Additionally, the Gabrieleño Band of Mission Indians – Kizh Nation has also requested consultation under AB 52 in an email dated November 9, 2023. The Kizh Nation requested a consultation meeting with the District and its environmental consultant, which occurred on February 6, 2024. The Kizh Nation has indicated that it is the ancestral tribe of the project area, and as such, requested that a tribal representative be present in monitoring activities throughout all of the project's ground-disturbing activities. The Kizh Nation provided the District with maps and materials reflecting the ancestral areas that are applicable to the Gabrielino people as well as the Cahuilla people. These materials do indicate that the project area falls within the ancestral territory of the Gabrielino people (i.e. the Kizh Nation), but do not provide indication of overlap between the two territories. Furthermore,

the MBMI Reservation was created by Presidential Executive Order by President Ulysses S. Grant. Eventually, members of several Indian groups and clans were mandated to live on the reservation located in the traditional Cahuilla territory. The Serrano people from the north migrated and joined the Cahuilla people who already resided on the lands that make up the Reservation. Hence, the MBMI came to include members from the Cupeno, Luisena, Chemeuevi, Gabrileno, Paiute and Kumeyaay tribes.[6] Thus, the District has determined that it is appropriate to incorporate the requests from not only MBMI for tribal monitoring, but also to include YSMN's requests to be included in tribal monitoring in the event the tribal cultural resources are found, all in order to ensure the tribal cultural resources are protected as part of implementation of the proposed project. It should be noted that the YSMN also indicates that its territory overlaps with the project area in materials provided on its website,[7] thereby indicating that the YSMN, MBMI and Kizh Nation have ties to the area within which the project is proposed. The District, with the agreement of the Kizh Nation, has proposed the following mitigation measures to ensure that the Kizh Nation can participate in the monitoring efforts for the project on a full-time basis, which would ensure that representatives from the three tribes would be present in the event of discovery of any tribal cultural resources, and would further ensure protection of such resources in accordance with the procedures of the MLD. This would minimize impacts to tribal cultural resources.

TCR-11 Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities

A. The District shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground- disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

B. A copy of the executed monitoring agreement shall be submitted to the District prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground- disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.

D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the District that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

[6] MBMI, 2024. Historical Overview. https://morongonation.org/about-us/#Historical-Overview (accessed 05/09/24)
[7] YSMN, 2024. History. https://www.sanmanuel-nsn.gov/culture/history (accessed 05/09/24)

TCR-12 Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial)

- ***A. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.***

TCR-13 Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects

- ***A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.***
- ***B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.***
- ***C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).***
- ***D. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.***
- ***E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.***

Ultimately, based on the implementation of **MMs CUL-1 through CUL-4**, and **MMs TCR-1 through TCR-13,** impacts to tribal cultural resources would be minimized to a level of less than significant. **MM CUL-1** will ensure proper handling of buried cultural materials should any be discovered during any earth-moving operations associated with the project. Furthermore, implementation of **MMs CUL-1 through CUL-4**, and **MMs TCR-1 through TCR-13** above, which would ensure that YSMN and the Kizh Nation are able to protect any inadvertently discovered tribal cultural resources within the project footprint. Thus, the project has a less than significant potential to cause a substantial change in the significance of tribal cultural resources, 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 the California Native American tribe and that is either **a)** 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 **b)** 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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

SUBSTANTIATION

a. Water

Less Than Significant Impact – The proposed project is a well development project within the WVWD service area. As discussed in the preceding sections, the development of the proposed well would not have a significant impact on the environment. As discussed under Hydrology and Water Quality issue X(b), the proposed well will extract groundwater from the Rialto Colton Subbasin. The amount of water the District plans to extract from the Basin is minimal compared to the overall amount of water extracted the Rialto Colton Subbasin. The proposed new well is forecast to increase groundwater extraction by an estimated 1,600 AFY. This is anticipated to fall within WVWD's water rights, and WVWD must comply with the 1961 Decree in operating the proposed well. As such, though the project would install a well that will connect to District's existing service area should they be viable, the project would not result in a significant impact. Therefore, impacts under this issue are considered less than significant.

Wastewater

No Impact – The proposed project would install a well and connecting pipelines to connect to the District's existing potable water distribution system. The well development is not anticipated to require expansion or development of new wastewater treatment facilities. This project would not require connection to wastewater treatment collection services once in operation. As such, this project is not anticipated to require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. No impacts under this issue are anticipated.

Stormwater

Less Than Significant Impact – The proposed project will manage stormwater at the well site. The proposed project site is vacant, containing an access road that has been paved, and compacted dirt containing non-native vegetation, as such, once the well is installed, the drainage pattern of the area of disturbance would not change substantially. The well site would require minimal grading and site clearing in the small areas in which the well will be installed, and as such would have a less than significant potential to interfere with the discharge of stormwater over the long-term as the site will remain essentially the same, with only the small area that will be disturbed as a result of the well development. Adequate drainage facilities exist or will be developed by this project to accommodate future onsite drainage flows. The well will occupy a minimal portion of the site, and as such, the project is not anticipated to result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects. Impacts under this issue are considered less than significant.

Electric Power

Less Than Significant Impact – The proposed project would install a new well, associated appurtenances, and connecting piping, and would require easements from both MWD and the City of Fontana. The new well and connection pipelines will require electricity to operate the well pump. The project area is served by Southern California Edison (SCE), and is not anticipated to require extension of electricity in order to operate as the site is currently connected to the electrical system with available supply of electricity at the site. The project will install internal electricity. Given that the project will not require additional construction or relocation of electrical power facilities, and that the project is not anticipated to result in a significant impact under any issue, the proposed project would have no potential to require or result in the relocation or construction of new or expanded electric power facilities, the construction or relocation of which could cause significant environmental effects. No impacts are anticipated under this issue.

Natural Gas

No Impact – Development of the new well would not demand natural gas. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded natural gas facilities. No impacts are anticipated.

Telecommunications

No Impact – Development of the new well would not require installation of wireless internet service or phone serve. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded telecommunication facilities. No impacts are anticipated.

b. *Less Than Significant Impact* – Please refer to issue X(b), Hydrology and Water Quality, above. The proposed project will develop a well to supply water to the District's service area. The proposed well would extract water from the Rialto Colton Subbasin. The Rialto Colton Subbasin was adjudicated under the 1961 Decree No. 81,264 of the Superior Court of San Bernardino County, and is managed by the Rialto Basin Management Association (stipulated parties of the judgment). WVWD participates in the Rialto Basin Groundwater Council (Rialto Basin GC), which was formed in 2021. WVWD has a right to 6,104 AF of water from the Rialto Colton Subbasin, of which 5,596 AF are adjustable, and 510 AF are fixed. The estimated safe yield of the Rialto Colton Subbasin is 13,623 AF. The proposed new well is forecast to increase groundwater extraction by an estimated 1,600 AFY. This is anticipated to fall within WVWD's water rights, and WVWD must comply with the 1961 Decree in operating the proposed well. Based on this information, it is anticipated that there will be available water supply within the Rialto Colton Subbasin to support the District's new well pumping operations. Therefore, the proposed project is anticipated to have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. Impacts under this issue are less than significant. No mitigation is required.

c. *No Impact* – Please refer to the discussion under XIX(a) above. The well operation will not require installation of restroom facilities; construction will require portable toilets that will be handled by the provider of such facilities. As such, given that the well operation will not require any new connection to wastewater treatment services, it is not anticipated that the project would 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. No impacts under this issue are anticipated.

d&e. *Less Than Significant Impact* – Other than a small amount of construction wastes (concrete, wood, etc.) and a small amount of waste associated with operating the proposed well, the project will not generate a substantial amount of solid wastes and will not adversely affect the existing solid waste disposal system. Any construction and demolition (C&D) waste will be recycled to the maximum extent feasible and any residual materials will be delivered to one of several C&D disposal sites in the area surrounding the project site. Many of these C&D materials can be reused or recycled, thus prolonging our supply of natural resources and potentially saving money in the process.

In accordance with CALGreen Code 5.408.4, 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing must be reused or recycled. As this is a mandatory requirement, no mitigation is required to ensure compliance by WVWD for this project.

Because of increased construction recycling efforts resulting from CalGreen and other regulations, opportunities for construction recycling are becoming easier to find, such as one in Fontana that accepts a wide range of construction and demolition debris materials: Asphalt, Concrete, Brick, Concrete with Rebar, Mixed Loads, Rock, Roof Tile, Cardboard, Wood, Metals, Dirt, and Appliances. There are additional facilities that accept C&D materials located in the surrounding areas[8] including facilities in Mira Loma and Rialto.

The facilities that accept C&D materials, combined with the landfills in the surrounding area, have adequate capacity to serve the proposed project. Solid waste will be disposed of in accordance with existing regulations at an existing licensed landfill. The project will not conflict with any state, federal, or local regulations regarding solid waste.

The San Bernardino Countywide Plan identifies landfills that serve the planning area. The San Timoteo Sanitary Landfill and Mid-Valley Sanitary Landfill serve the project area. The San Timoteo Sanitary Landfill has a maximum permitted daily capacity of 2,000 tons per day, with a permitted capacity of 20,400,000 cubic yards (CY), with 11,402,000 CY of capacity remaining. The Mid-Valley Sanitary Landfill has a maximum permitted daily capacity of 7,500 tons per day, with a permitted capacity of 101,300,000 CY, with 67,520,000 CY of capacity remaining. The County anticipates an increase in solid waste generation of 5,979,355 pounds per day at Build-Out of the Countywide Plan.

The above landfills permit thousands of tons of waste per day, which is beyond what the expected amount of waste would be generated by the proposed well during construction. Furthermore, the proposed project is not anticipated to generate municipal waste. As such, the proposed project would comply with all federal, State, and local statues related to solid waste disposal.

Any hazardous materials collected within the project footprint during either construction or operation of the project will be transported and disposed of by a permitted and licensed hazardous materials service provider. Therefore, the project is expected to comply with all regulations related to solid waste under federal, state, and local statutes. The project is expected to comply with all regulations related to solid waste under federal, state, and local statutes and be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs. No mitigation is necessary.

[8] San Bernardino County, 2021. The County of San Bernardino County Construction & Demolition Waste Recycling Guide. https://www.sbcounty.gov/uploads/DPW/docs/RecyclingGuide-2021.pdf (accessed 02/15/24)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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 wildfire?	☐	☐	☒	☐
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?	☐	☒	☐	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

SUBSTANTIATION

a. *Less Than Significant with Implementation of Mitigation* – The proposed project area is an area susceptible to wildland fires, and is located within an area delineated as a High Fire Hazard Severity Zone (VHFHSZ) in a Local Responsibility Area (LRA) shown on **Figures IX-7 and IX-8**. As stated under Section XVII, Transportation under issue (d), the proposed project is not located along this emergency route, nor would implementation of the project impede emergency response from accessing the site or surrounding area. As stated under issue XVIII(c), the proposed project would install a well that would occur within a vacant site. Construction activities could also temporarily block access to some roadways that are currently used by emergency response vehicles or in emergency evacuations. **MM TRAN-1** would require implementation of transportation control measures and coordination with emergency response providers to minimize impacts to emergency access in the project construction area due to possible lane closure during project construction. Therefore, implementation of **MM TRAN-1** would reduce construction impacts related to fire protection and emergency response service response times to a less than significant level. Additionally, during construction, because the well would be installed in a location designated within a high FHSZ, construction may exacerbate fire risk temporarily as a result of accidental sparks generated by spark-producing equipment, which could result in a potentially significant impact on fire protection and emergency response. As such, the **MM HAZ-2** is required, which would minimize fire risk during activities that would utilize spark-producing equipment by requiring spark arrestors for construction equipment that could create a spark, and requiring construction crews and vehicles to have access to functional fire extinguishers and fire prevention equipment at all times during construction. Implementation of **MM HAZ-2** is required to ensure that construction of the proposed facilities would not significantly impair an adopted emergency response plan or emergency evacuation plan. Thus, well construction activities would have a less than significant potential to impair an adopted emergency response plan or emergency evacuation plan with the implementation of mitigation.

Operation and maintenance of the proposed well would be anticipated to be provided by the District personnel. It is unknown at this time what treatment will be required for the well to meet the standards of the State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW). However, the proposed project is anticipated to install a container for storage of sodium hypochlorite required

to chlorinate the water extracted at the well, and this substance is considered a potentially hazardous substance. Additionally, if sand is an issue at the new well, a small sand separator and deaeration tank may be required. The District will comply with state and standards for handling this material. Furthermore, the District has developed safety standards and operational procedures for safe transport and use of its operational and maintenance materials that are potentially hazardous. These procedures will comply with all federal, state and local regulations will ensure that the project operates in a manner that poses no substantial hazards to the public or the environment. As a result, operation of the proposed well would have a less than significant potential to impair an adopted emergency response plan or emergency evacuation plan with the implementation of mitigation.

b. *Less Than Significant Impact* – The proposed project is located within a vacant site well site is at a site northwest of the intersection of Vesta Way and Knox Ave; it is located in a flat area. The proposed project does not propose any human occupancy structures or other structures that will place people on the project site for long periods of time or pose a significant threat to people or property from wildfire risk. The site is located in an area containing only scattered vegetation, with the majority of the area cleared of vegetation. This would not present substantial fire risk due to the low profile of the vegetation. Because the proposed project is a water infrastructure project, as it would develop a well, and because the provision of water supply is considered a benefit to the prevention of the spreading of wildfire in high risk areas, it is not anticipated that development at this site would expose occupants to pollutant concentrations from a wildfire. Therefore, given that the proposed project does not contain any human occupancy structures, it is not anticipated that the project would exacerbate fire risks thereby exposing project occupants to pollutant concentrations from a wildfire or uncontrolled spread of wildfire. Impacts under this issue are considered less than significant and no mitigation is required.

c. *Less Than Significant With Mitigation Incorporated* – The project will install a new well and associated infrastructure within a vacant site. The site contains minimal vegetation where it occurs on the project site, which could exacerbate fire risk during construction at this site located within a High Fire Hazard Severity Zone in a State Responsibility Area (SRA). The proposed project does not include any new uses, such as power lines, that would have a potential to result in random fire risk under accidental circumstances (such as a downed wire, etc.). However, during construction, because the proposed project is located within a High Hazard Severity Zone in an SRA, construction may exacerbate fire risk temporarily. As such, the proposed project requires the following mitigation measure, which would minimize fire risk during activities that would utilize electric equipment by requiring construction crews to carry fire prevention equipment during activities involving electrical equipment.

WF-1 ***During site clearing within the project site when any electrical construction equipment is in use, the construction crew shall have fire prevention equipment (such as fire extinguishers, emergency sand bags, etc.) to put out any accidental fires that could result from the use of construction/maintenance equipment.***

The proposed project would not result in any ongoing impacts to the environment that would exacerbate fire risk as the proposed project would not be manned, and would increase water supply availability. Therefore, with the implementation of **MM WF-1** above, the project would not have a significant potential to exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Impacts under this issue are considered less than significant.

d. *Less Than Significant Impact* – The proposed project is located within a site that is flat. The discussion under Section VII, Geology and Soils, concluded that the project would not have a significant potential to experience landslides or slope instability, particularly given that this project area has not been delineated as containing potential for landslides or slope instability by the San Bernardino Countywide Plan. The proposed project is located in an area that has not been historically subject to flooding. Furthermore, the project does not propose any habitable structures and thus the exposure of persons to such an event is minimal. As stated under the Hydrology Subchapter, flood risks at the project site are minimal, and therefore downslope flooding is not anticipated to occur as a result of post-fire slope

instability or drainage changes. As such, the development of the Well No. 57 Project at this site is anticipated to have a less than significant potential to expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XXI. MANDATORY FINDINGS OF SIGNIFICANCE:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project 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)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

SUBSTANTIATION

The analysis in this Initial Study and the findings reached indicate that the proposed project can be implemented without causing any new project specific or cumulatively considerable unavoidable significant adverse environmental impacts. Mitigation is required to control potential environmental impacts of the proposed project to a less than significant impact level. The following findings are based on the detailed analysis of the Initial Study of all environmental topics and the implementation of the mitigation measures identified in the previous text and summarized in this section.

a. *Less Than Significant With Mitigation Incorporated* – The project has no potential to cause a significant impact any biological or cultural resources. The project has been identified as having no potential to degrade the quality of the natural environment, substantially reduce habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. The project requires mitigation to prevent significant impacts from occurring as a result of implementation of the project, including mitigation to protect burrowing owl and nesting birds. Based on the historic disturbance of the site, and its current disturbed condition, the potential for impacting cultural resources is low. Based on the past disturbance of the project footprint, it has been determined that no cultural resources of importance are anticipated to occur within the project area of potential effects (APE), so it is not anticipated that any resources could be affected by the project because no cultural resources exist. However, because it is not known what could be unearthed upon any excavation activities, contingency mitigation measures are provided to ensure that, in the unlikely event that any resources are found, they are protected from any potential significant adverse impacts. Please see biological and cultural sections of this Initial Study.

b. *Less Than Significant With Mitigation Incorporated* – Based on the analysis in this Initial Study, the proposed Well No. 57 Project has the potential to cause impacts that are individually or cumulatively considerable. While there may be cumulatively significant impacts under various issues discussed in this Initial Study as a result of cumulative projects, the proposed project's contribution to such impacts would not be cumulatively considerable. Furthermore, the provision of additional water

infrastructure, such as the proposed well, is generally viewed as a benefit to the community. The issues of Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation, Tribal Cultural Resources, and Wildfire require the implementation of mitigation measures to reduce impacts to a less than significant level and ensure that cumulative effects are not cumulatively considerable. All other environmental issues were found to have no significant impacts without implementation of mitigation. The potential cumulative environmental effects of implementing the proposed project have been determined to be less than considerable and thus, less than significant impacts.

c. *Less Than Significant With Mitigation Incorporated* – The project will achieve long-term community goals by providing additional water supply, which would serve existing, planned, and future uses within WVWD's service area. The short-term impacts associated with the project, which are mainly construction-related impacts, are less than significant with mitigation, and the proposed project is compatible with long-term environmental protection. The issues of Air Quality, Geology and Soils, Hazards and Hazardous Materials, Noise, and Wildfire require the implementation of mitigation measures to reduce human impacts to a less than significant level. All other environmental issues were found to have no significant impacts on humans without implementation of mitigation. The potential for direct human effects from implementing the proposed project have been determined to be less than significant.

Conclusion

This document evaluated all CEQA issues contained in the Initial Study Checklist form. The evaluation determined that either no impact or less than significant impacts would be associated with the issues of Aesthetics, Agricultural and Forestry Resources, Greenhouse Gas Emissions, Land Use and Planning, Mineral Resources, Population/Housing, Public Services, Recreation, and Utilities and Service Systems. The issues of Air Quality, Biology, Cultural Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire require the implementation of mitigation measures to reduce impacts to a less than significant level. The required mitigation has been proposed in this Initial Study to reduce impacts for these issues to a less than significant impact and will be implemented by the District.

Based on the findings in this Initial Study, West Valley Water District (WVWD or District) proposes to adopt a Mitigated Negative Declaration (MND) for the West Valley Water District Well No. 57 Project. A Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) will be issued for this project by the District. The Initial Study and NOI will be circulated for 30 days of public comment because this project does involve state agencies as either a responsible or trustee agency. At the end of the 30-day review period, a final MND package will be prepared and it will be reviewed and considered by the District. WVWD will hold a future hearing for project adoption at their offices, the date for which has not yet been schedule. If you or your agency comments on the MND/NOI for this project, you will be notified about the meeting date in accordance with the requirements in Section 21092.5 of CEQA (statute).

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Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County of Mendocino*,(1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors*, (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; San *Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

Revised 2019
Authority: Public Resources Code sections 21083 and 21083.09
Reference: Public Resources Code sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3/ 21084.2 and 21084.3

SUMMARY OF MITIGATION MEASURES

Aesthetics

AES-1 A facilities lighting plan shall be prepared and shall demonstrate that glare from construction operations and safety night lights that may create light and glare affecting adjacent occupied property are sufficiently shielded to prevent light and glare from spilling into occupied structures. This plan shall specifically verity that the lighting doesn't exceed 1.0 lumen at the nearest residence to any lighting site within the project footprint. This plan shall be implemented by the District to minimize light or glare intrusion onto adjacent properties.

Air Quality

AQ-1 Fugitive Dust Control. The following measures shall be incorporated into project plans and specifications for implementation during construction:

- Apply soil stabilizers to inactive areas.
- Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.
- Stabilize previously disturbed areas if subsequent construction is delayed.
- Apply water to disturbed surfaces 3 times/day.
- Replace ground cover in disturbed areas quickly.
- Reduce speeds on unpaved roads to less than 15 mph.
- Trenches shall be left exposed for as short a time as possible.
- Identify proper compaction for backfilled soils in construction specifications.

This measure shall be implemented during construction, and shall be included in the construction contract as a contract specification.

AQ-2 Exhaust Emissions Control. The following measures shall be incorporated into Project plans and specifications for implementation:

- Utilize off-road construction equipment that has met or exceeded the maker's recommendations for vehicle/equipment maintenance schedule.
- Contactors shall utilize Tier 4 or better heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

Biological Resources

BIO-1 Preconstruction presence/absence surveys for burrowing owl shall be conducted no more than 3 days prior to any onsite ground disturbing activity by a qualified biologist, including prior to each phase of new ground disturbance. The burrowing owl surveys shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife in the "California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation." In the event this species is not identified within the project limits, no further mitigation is required, and a letter shall be prepared by the qualified biologist documenting the results of the survey. The letter shall be submitted to CDFW prior to commencement of project activities. If during the preconstruction survey, the burrowing owl is found to occupy the site, Mitigation Measure BIO-2 shall be required.

BIO-2 If burrowing owls are identified during the survey period, the District shall take the following actions to offset impacts prior to ground disturbance:

The District shall notify CDFW within three business days of determining that a burrowing owl is occupying the site to discuss the observed location, activities and behavior of the burrowing owl(s) and appropriate avoidance and minimization measures.

Active nests within the areas scheduled for disturbance or degradation shall be avoided until fledging has occurred, as confirmed by a qualified biologist. Following fledging, owls may be passively relocated by a qualified biologist, as described below.

If impacts on occupied burrows are unavoidable, onsite passive relocation techniques may be used if approved by the CDFW to encourage owls to move to alternative burrows provided by the District outside of the impact area.

If relocation of the owls is approved for the site by CDFW, CDFW shall require the District to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site and conduct an impact assessment. A qualified biologist shall prepare and submit a passive relocation program in accordance with Appendix E (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 Staff Report on Burrowing Owl Mitigation (CDFG 2012) to the CDFW for review/approval prior to the commencement of disturbance activities onsite.

The relocation plan must include all of the following and as indicated in Appendix E:

- The location of the nest and owls proposed for relocation.
- The location of the proposed relocation site.
- The number of owls involved and the time of year when the relocation is proposed to take place.
- The name and credentials of the biologist who will be retained to supervise the relocation.
- The proposed method of capture and transport for the owls to the new site.
- A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control).

The District shall conduct an impact assessment, in accordance with the Staff Report on Burrowing Owl Mitigation prior to commencing project activities to determine appropriate mitigation, including the acquisition and conservation of occupied replacement habitat at no less than a 2:1 ratio.

Prior to passive relocation, suitable replacement burrows site(s) shall be provided at a ratio of 2:1 and permanent conservation and management of burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owl impacts are replaced consistent with the Staff Report on Burrowing Owl Mitigation including its Appendix A within designated adjacent conserved lands identified through coordination with CDFW and the District. A qualified biologist shall confirm the natural or artificial burrows on the conservation lands are suitable for use by the owls. Monitoring and management of the replacement burrow site(s) shall be conducted and a reporting plan shall be prepared. The objective shall be to manage the replacement burrow sites for the benefit of burrowing owls (e.g., minimizing weed cover), with the specific goal of maintaining the functionality of the burrows for a minimum of 2 years.

A final letter report shall be prepared by the qualified biologist documenting the results of the passive relocation. The letter shall be submitted to CDFW.

BIO-3 Nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to vegetation clearing or ground disturbance activities. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented by the qualified avian biologist. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, ongoing monitoring, establishment of avoidance and minimization measures, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, individual/pair's behavior, nesting stage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity. To avoid impacts to nesting birds, any grubbing

or vegetation removal should occur outside peak breeding season (typically February 1 through September 1).

Cultural Resources

CUL-1 Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the District. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.

CUL-2 In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within TCR-1, regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

CUL-3 If significant pre-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

CUL-4 If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

Geology and Soils

GEO-1 Excavated areas shall be backfilled and compacted such that erosion does not occur. Paved areas disturbed by this project shall be repaved in such a manner that roadways and other disturbed areas are returned to the pre-project conditions or better.

GEO-2 All exposed, disturbed soil (trenches, stored backfill, etc.) will be sprayed with water or soil binders twice a day or more frequently if fugitive dust is observed migrating from the site.

GEO-3 The District shall identify any additional BMPs to ensure that the discharge of surface water does not cause erosion downstream of the discharge point. This shall be accomplished by reducing the energy of any site discharge through an artificial energy dissipater or equivalent device. If any substantial erosion or sedimentation occurs, any erosion or sedimentation damage shall be restored to pre-discharge conditions.

GEO-4 Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the District's onsite inspector. The paleontological professional shall assess the find, determine its significance, and determine appropriate mitigation measures within the guidelines of the California Environmental Quality Act that shall be implemented to minimize any impacts to a paleontological resource.

Hazards and Hazardous Materials

HAZ-1 All spills or leakage of petroleum products during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility.

HAZ-2 Should any contamination be encountered during construction of the project, all work in the immediate area shall cease; the type of contamination and its extent shall be determined; and the local Certified Unified Program Agency or other regulatory agencies (such as the DTSC or Regional Board) shall be notified. Based on investigations of the contamination, the site may be closed and avoided or the contaminant(s) shall be remediated to a threshold acceptable to the Certified Unified Program Agency or other regulatory agency threshold and any contaminated soil or other material shall be delivered to an authorized treatment or disposal site.

HAZ-3 Prior to construction, fire hazard reduction measures shall be incorporated into a fire management/fuel modification plan for the proposed facility, and shall be implemented during construction and over the long-term for protection of the site. These measures shall address all staging areas, welding areas, or areas slated for development that are planned to use spark-producing equipment. These areas shall be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be equipped with a spark arrestor in good working order. During the construction of the project, all vehicles and crews working at the project site shall have access to functional fire extinguishers and related fire prevention equipment (such as emergency sand bags, etc.) at all times. In addition, construction crews shall have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks. This plan shall be reviewed by the District and CAL FIRE for review and comment, where appropriate, and approved prior to construction and implemented once approved. The fire management plan shall also include sufficient defensible space or other measures at a facility site located in a high or very high FHSZ to minimize fire damage to a level acceptable to the District over the long term.

Hydrology and Water Quality

HYD-1 The District shall test the groundwater produced from the well prior to discharge. Prior to or during discharge any contaminants shall be blended below the pertinent MCL or treated prior to discharge, including sediment or other material.

HYD-2 The District shall require that the construction contractor to implement specific Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. These practices shall include a Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals or materials released during construction activities that are compatible with applicable laws and regulations. BMPs to be implemented by the District include the following:

- The use of silt fences or coir rolls;
- The use of temporary stormwater desilting or retention basins;
- The use of water bars to reduce the velocity of stormwater runoff;
- The use of wheel washers on construction equipment leaving the site;
- The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads;
- The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and
- Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles.

HYD-3 The District shall conduct a pump test of the new well and determine whether any other wells are located within the cone of depression once the well reaches equilibrium. If any private wells are adversely impacted by future groundwater extractions from the proposed well, the District shall offset this impact through provision of water service; or adjusting the flow rates or hours of operation to mitigate adverse impacts.

HYD-4 The District and construction contractor shall select best management practices applicable to the project site and activities on the site to achieve a reduction in pollutants to the maximum extent practicable, both during and following development of the proposed municipal-supply water well and associated pipeline, and to control urban runoff after the Project is constructed and the well (if approved for operation post well testing) is in operation.

Noise

NOI-1 The Project shall erect noise barriers with a minimum height of 20 feet should be erected along the eastern Project site boundary and a minimum height of 16 feet should be erected along the southern Project site boundary such that the drill rig, mud pumps, compressors, and generators are completely shielded from nearby residential areas. An effective barrier requires a weight of at least 2 pounds per square foot of face area with no decorative cutouts, perforations, or line-of-sight openings between shielded areas and the source. Examples of temporary barrier material includes 5/8-inch plywood, 5/8-inch oriented-strand board, or sound blankets capable of providing a minimum sound transmission loss (STC) of 27 or a Noise Reduction Coefficient (NRC) of 0.85.

NOI-2 Well pump noise levels to be limited to 50 dB(A) or below at the exterior of the nearest sensitive noise receptor. A manner in which this may be accomplished is by installing surface well housing, housed in concrete block structure that attenuates noise to meet this performance standard. Another manner in which this may be accomplished is through installing the pump belowground. The aforementioned or other noise reducing measures shall be implemented should the District be unable to demonstrate that noise levels are limited to 50 dBA at the nearest sensitive receptor.

NOI-3 The well shall be drilled at a distance of 55’ or greater from the nearest sensitive receptor, shown on **Figure XIII-1**. Loaded trucks delivering materials to the site and hauling materials away shall be operated at a distance at or greater than 35’ or greater from the nearest sensitive receptor, shown on **Figure XIII-1,** for the duration of construction.

Transportation

TRAN-1 For any encroachment along adjacent roadways, WVWD shall require that contractors prepare a construction traffic control plan. Elements of the plan shall include, but are not necessarily limited to, the following:

- Develop circulation and detour plans, if necessary, to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible.
- To the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours.
- Install traffic control devices as specified in Caltrans’ Manual of Traffic Controls for Construction and Maintenance Work Zones where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones.
- For roadways requiring lane closures that would result in a single open lane, maintain alternate one-way traffic flow and utilize flagger-controls.
- Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities.

TRAN-2 WVWD shall require that all disturbances to public roadways be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable County of San Bernardino or City of Fontana standard design requirements.

Tribal Cultural Resources

TCR-1 The Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN) shall be contacted, as detailed in CUL-2, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project on an alternating basis in coordination with the Gabrieleño Band of Mission Indians – Kizh Nation and Morongo Band of Mission Indians, should YSMN elect to place a monitor on-site.

TCR-2 Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the Lead Agency for dissemination to YSMN. The Lead Agency shall, in good faith, consult with YSMN throughout the life of the project.

TCR-3 The District shall enter into a Tribal Monitoring Services Agreement with the Morongo Band of Mission Indians (MBMI) for the project. A Tribal Monitor shall be on-site during all ground-disturbing activities (including, but not limited to, clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all utility and irrigation lines, and landscaping phases of any kind), whether from the Morongo Band of Mission Indians, from the Gabrieleño Band of Mission Indians – Kizh Nation, or from the YSMN in the event that the YSMN elects to monitor ground disturbing activities. While monitoring ground disturbing activities, MBMI's Tribal Monitor shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources.

TCR-4 Prior to any ground-disturbing activities (including, but not limited to, clearing, grubbing, tree and bush removal, grading, trenching, fence post replacement and removal, construction excavation, excavation for all utility and irrigation lines, and landscaping phases of any kind), and prior to the issuance of grading permits, a Qualified Archaeologist who meets the U.S. Secretary of the Interior Standards (SOI). The Archaeologist shall be present during all ground- disturbing activities to identify any known or suspected archaeological and/or cultural resources. The Archaeologist will conduct a Cultural Resource Sensitivity Training, in conjunction with the Tribe[s] Tribal Historic Preservation Officer (THPO), and/or designated Tribal Representative. The training session will focus on the archaeological and tribal cultural resources that may be encountered during ground-disturbing activities as well as the procedures to be followed in such an event.

TCR-5 Prior to any ground-disturbing activities the project Archaeologist shall develop a Cultural Resource Management Plan (CRMP) and/or Archaeological Monitoring and Treatment Plan (AMTP) to address the details, timing, and responsibilities of all archaeological and cultural resource activities that occur on the project site. This Plan shall be written in consultation with the consulting Tribe[s] and shall include the following: approved Mitigation Measures (MM)/Conditions of Approval (COA), contact information for all pertinent parties, parties' responsibilities, procedures for each MM or COA, and an overview of the project schedule.

TCR-6 The Qualified archeologist and Consulting Tribe[s] representative shall attend the pre-grade meeting with the grading contractors to explain and coordinate the requirements of the monitoring plan.

TCR-7 During all ground-disturbing activities the Qualified Archaeologist shall be on site full time, and the Tribal Monitor shall be on-site part-time, in a manner that would accommodate roughly equal tribal monitoring time for MBMI and the Gabrieleño Band of Mission Indians – Kizh Nation tribal monitors, and YSMN in the event that the YSMN elects to monitor ground disturbing activities . The frequency of inspections shall depend on the rate of excavation, the materials excavated, and any discoveries of Tribal Cultural Resources as defined in California Public Resources Code Section 21074. Archaeological and Tribal Monitoring will be discontinued when the depth of grading and the soil conditions no longer retain the potential to contain cultural deposits. The Qualified Archaeologist, in consultation with the Tribal Monitor, shall be responsible for determining the duration and frequency of monitoring.

TCR-8 In the event that previously unidentified cultural resources are unearthed during construction, the Qualified Archaeologist and the Tribal Monitor shall have the authority to temporarily divert and/or temporarily halt ground-disturbance operations in the area of discovery to allow for the evaluation of potentially significant cultural resources. Isolates and clearly non- significant deposits shall be minimally documented in the field and collected so the monitored grading can proceed.

If a potentially significant cultural resource(s) is discovered, work shall stop within a 60-foot perimeter of the discovery and an Environmentally Sensitive Area physical demarcation/barrier constructed. All work shall be diverted away from the vicinity of the find, so that the find can be evaluated by the Qualified Archaeologist and Tribal Monitor[s]. The Archaeologist shall notify the Lead Agency and consulting Tribe[s] of said discovery. The Qualified Archaeologist, in consultation with the Lead Agency, the consulting Tribe[s], and the Tribal Monitor, shall determine the significance of the discovered resource. A recommendation for the treatment and disposition of the Tribal Cultural Resource shall be made by the Qualified Archaeologist in consultation with the Tribe[s] and the Tribal Monitor[s] and be submitted to the Lead Agency for review and approval. Below are the possible treatments and dispositions of significant cultural resources in order of CEQA preference:

A. Full avoidance.
B. If avoidance is not feasible, Preservation in place.
C. If Preservation in place is not feasible, all items shall be reburied in an area away from any future impacts and reside in a permanent conservation easement or Deed Restriction.
D. If all other options are proven to be infeasible, data recovery through excavation and then curation in a Curation Facility that meets the Federal Curation Standards (CFR 79.1).

TCR-9 The Morongo Band of Mission Indians requests the following specific conditions to be imposed in order to protect Native American human remains and/or cremations. No photographs are to be taken except by the coroner, with written approval by the consulting Tribe[s].

A. Should human remains and/or cremations be encountered on the surface or during any and all ground-disturbing activities (i.e., clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all water supply, electrical, and irrigation lines, and landscaping phases of any kind), work in the immediate vicinity of the discovery shall immediately stop within a 100-foot perimeter of the discovery. The area shall be protected; project personnel/observers will be restricted. The County Coroner is to be contacted within 24 hours of discovery. The County Coroner has 48 hours to make his/her determination pursuant to State and Safety Code §7050.5. and Public Resources Code (PRC) § 5097.98.
B. In the event that the human remains and/or cremations are identified as Native American, the Coroner shall notify the Native American Heritage Commission within 24 hours of determination pursuant to subdivision (c) of HSC §7050.5.
C. The Native American Heritage Commission shall immediately notify the person or persons it believes to be the Most Likely Descendant (MLD). The MLD has 48 hours, upon being granted access to the Project site, to inspect the site of discovery and make his/her recommendation for final treatment and disposition, with appropriate dignity, of the remains and all associated grave goods pursuant to PRC §5097.98

D. If the Morongo Band of Mission Indians has been named the Most Likely Descendant (MLD), the Tribe may wish to rebury the human remains and/or cremation and sacred items in their place of discovery with no further disturbance where they will reside in perpetuity. The place(s) of reburial will not be disclosed by any party and is exempt from the California Public Records Act (California Government Code § 6254[r]). Reburial location of human remains and/or cremations will be determined by the Tribe's Most Likely Descendant (MLD), the landowner, and the lead agency.

TCR-10 FINAL REPORT: The final report[s] created as a part of the project (AMTP, isolate records, site records, survey reports, testing reports, etc.) shall be submitted to the Lead Agency and Consulting Tribe[s] for review and comment. After approval of all parties, the final reports are to be submitted to the Eastern Information Center, and the Consulting Tribe[s].

TCR-11 Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities

E. The District shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.
F. A copy of the executed monitoring agreement shall be submitted to the District prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.
G. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.
H. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the District that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

TCR-12 Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial)

B. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

TCR-13 Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects

A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.
C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).
D. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.
E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

Wildfire

WF-1 During site clearing within the project site when any electrical construction equipment is in use, the construction crew shall have fire prevention equipment (such as fire extinguishers, emergency sand bags, etc.) to put out any accidental fires that could result from the use of construction/maintenance equipment.

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FIGURES

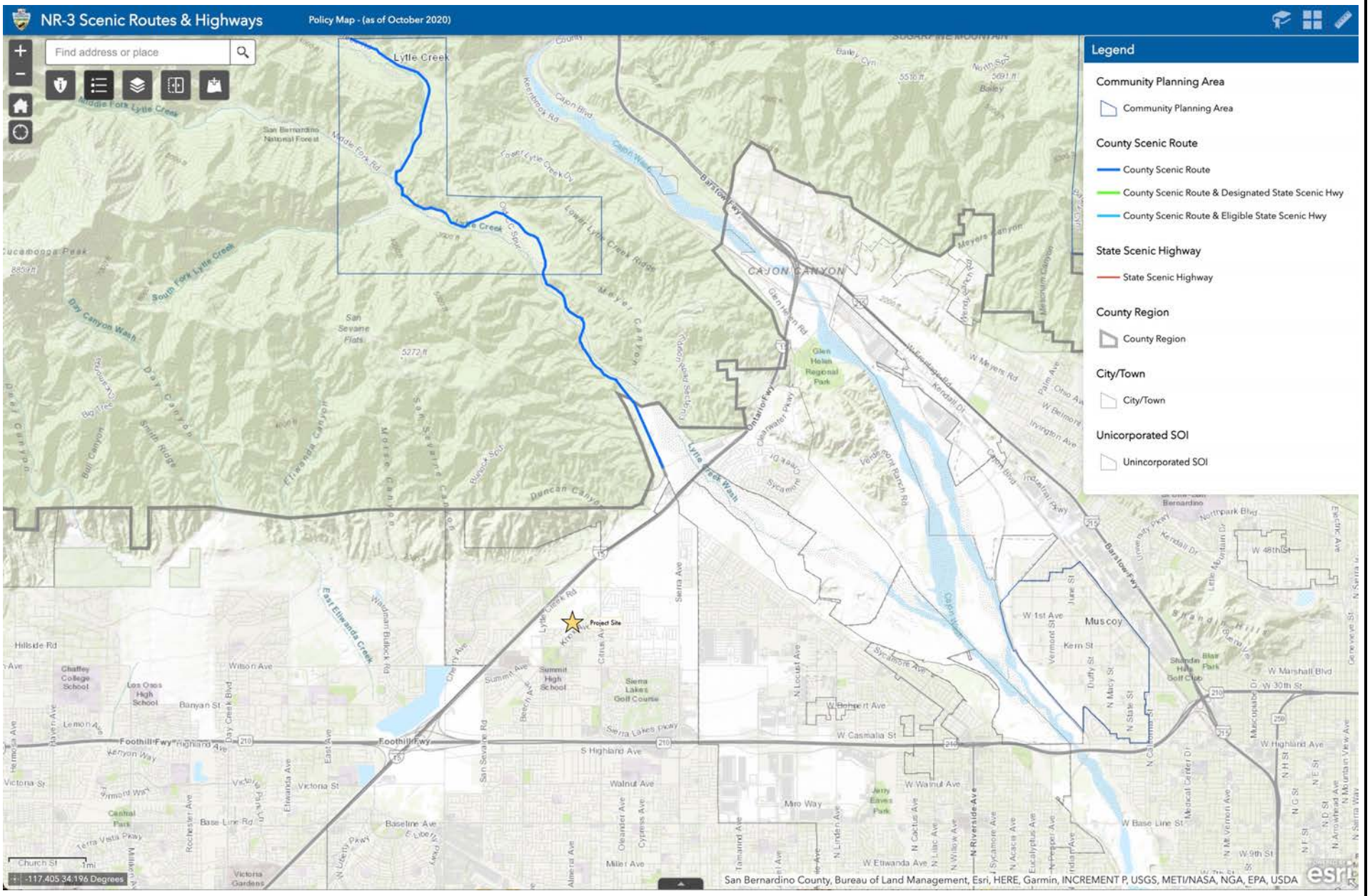

FIGURE I-1

Tom Dodson & Associates
Environmental Consultants

Scenic Routes & Highways

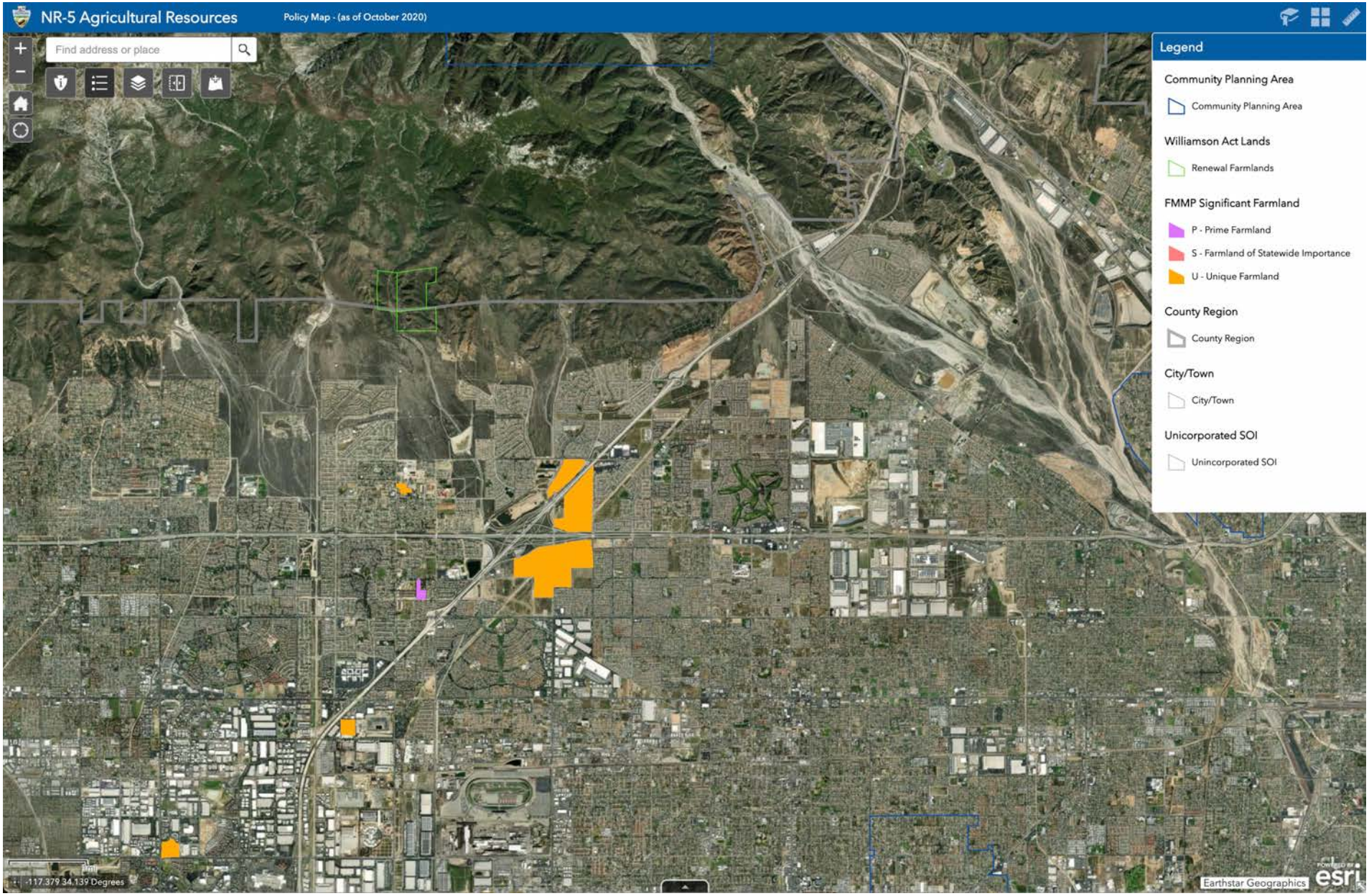

FIGURE II-1

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Environmental Consultants

Agricultural Resources

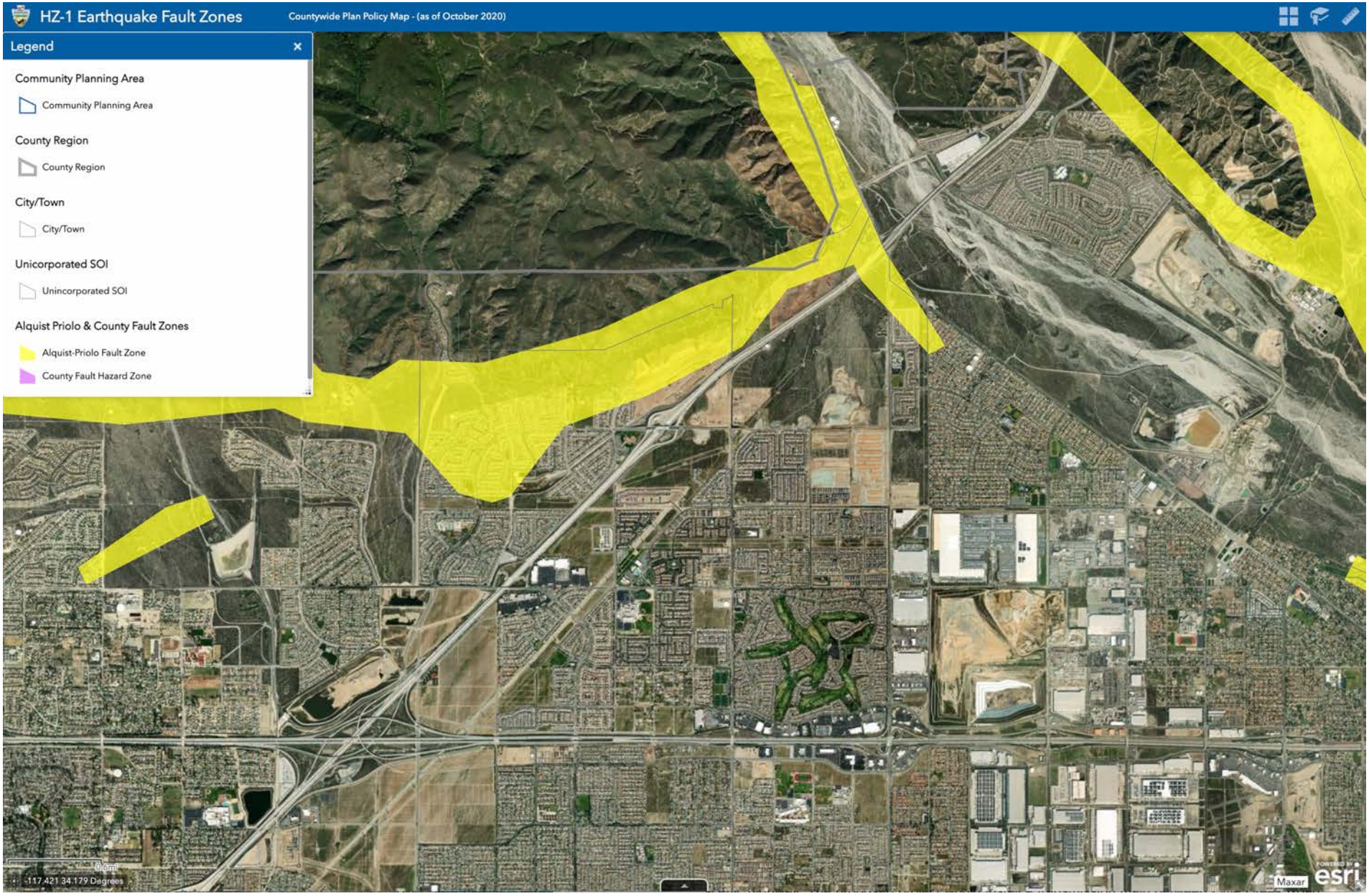

FIGURE VII-1

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Environmental Consultants

Earthquake Fault Zones

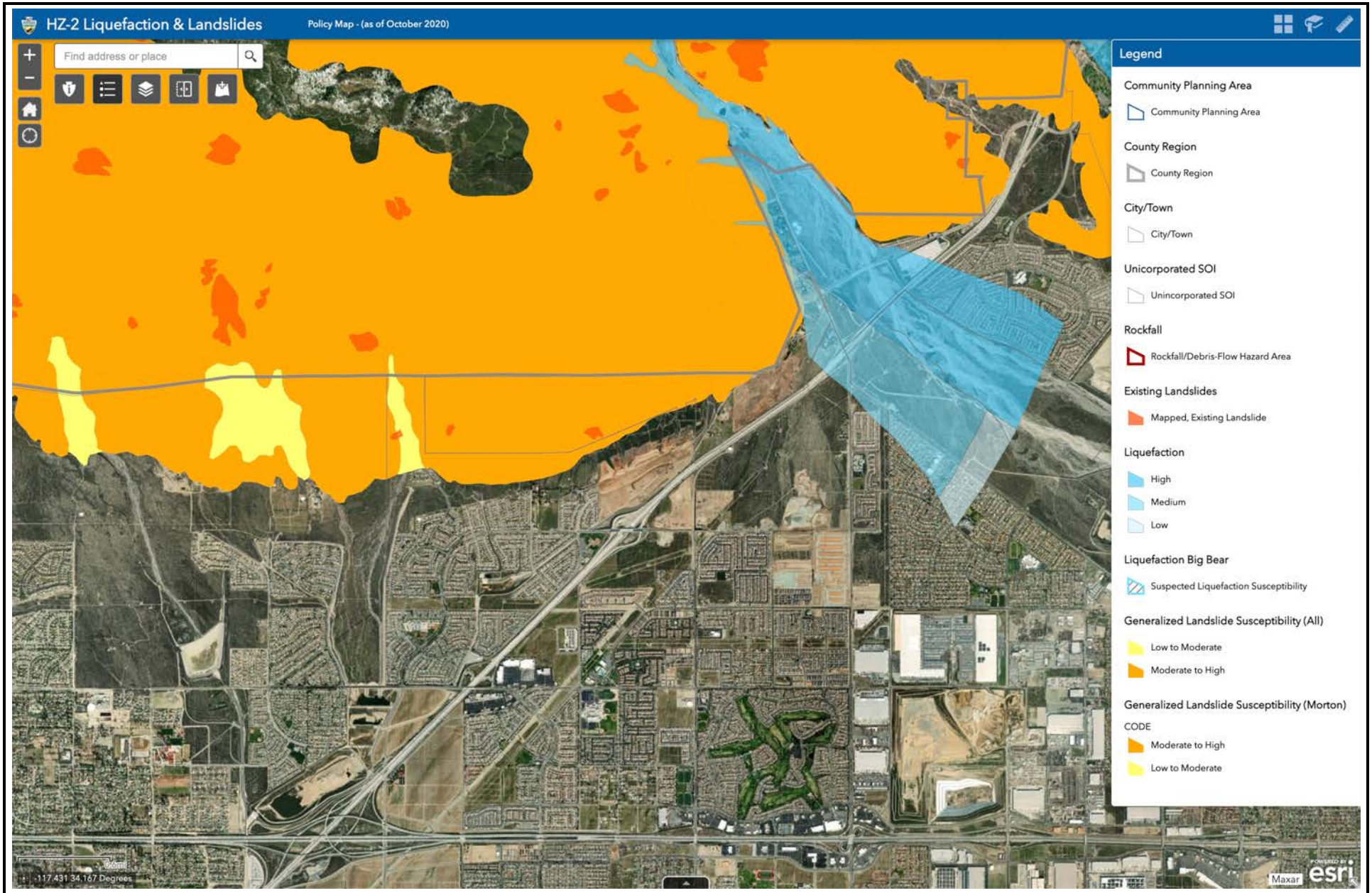

FIGURE VII-2

Tom Dodson & Associates
Environmental Consultants

Liquefaction & Landslides

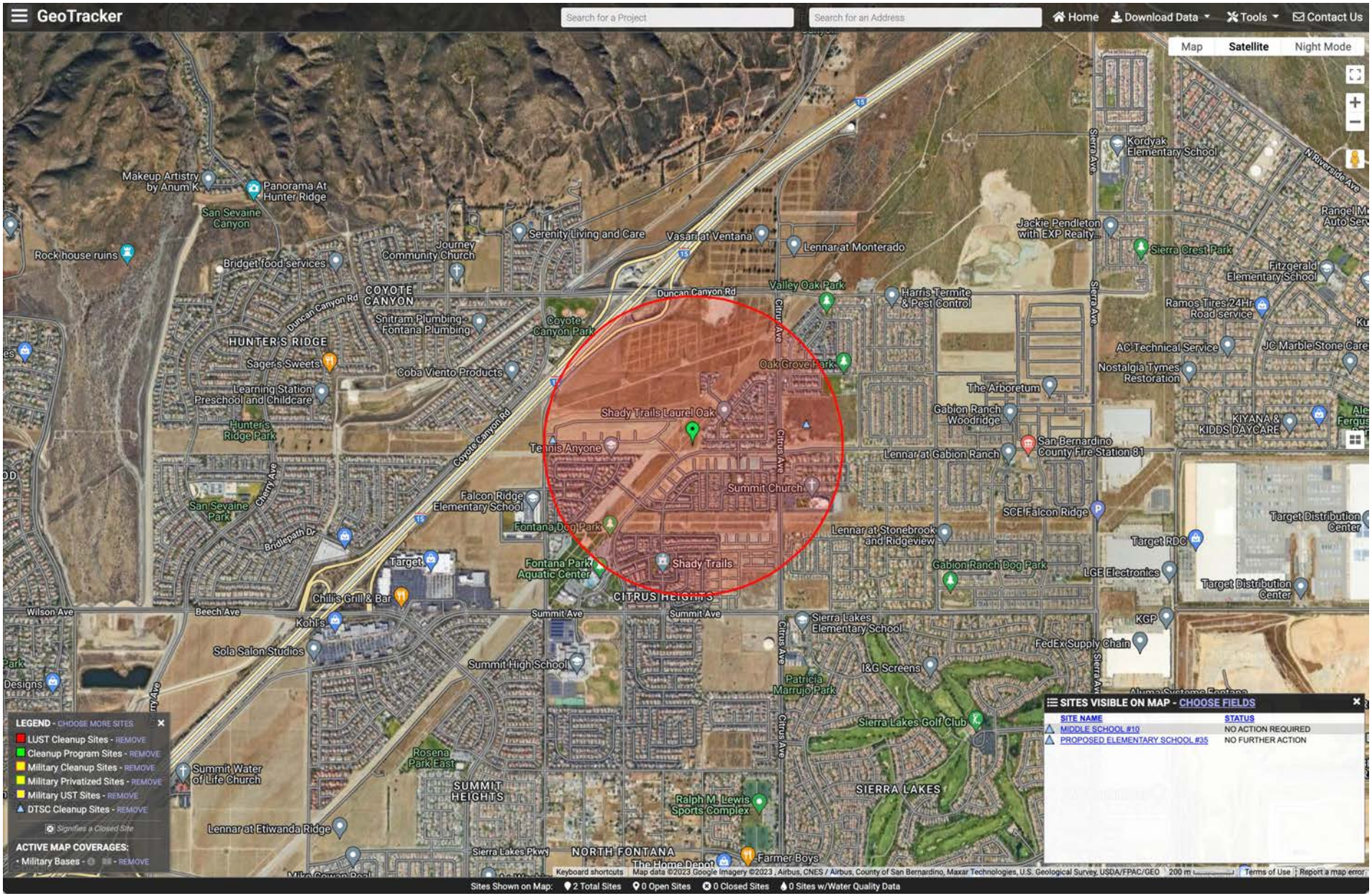

FIGURE IX-1

Tom Dodson & Associates
Environmental Consultants

GeoTracker 1

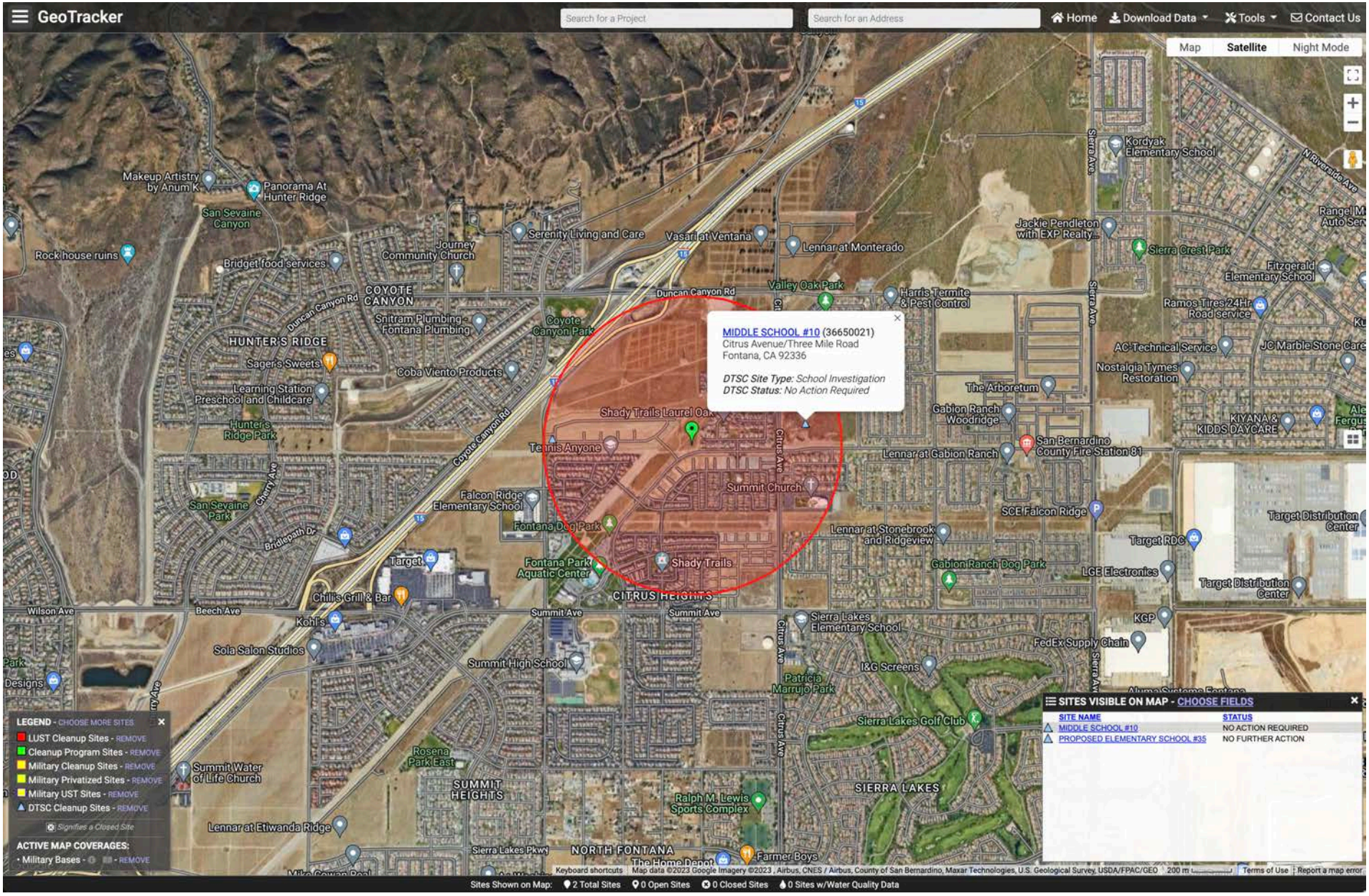

FIGURE IX-2

Tom Dodson & Associates
Environmental Consultants

GeoTracker 2

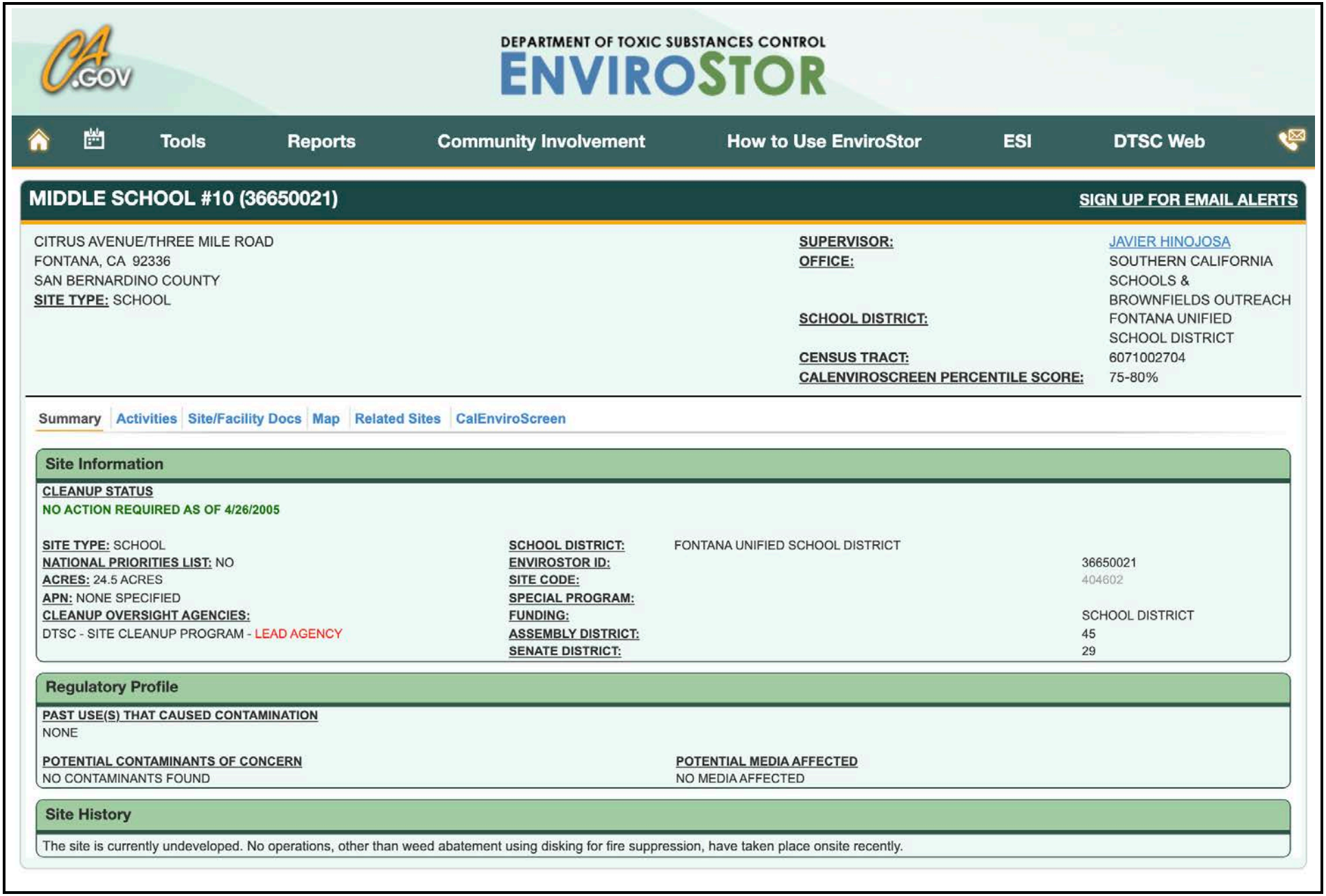
DEPARTMENT OF TOXIC SUBSTANCES CONTROL
ENVIROSTOR
Tools
Reports
Community Involvement
How to Use EnviroStor
ESI
DTSC Web
MIDDLE SCHOOL #10 (36650021)
SIGN UP FOR EMAIL ALERTS
CITRUS AVENUE/THREE MILE ROAD
FONTANA, CA 92336
SAN BERNARDINO COUNTY
SITE TYPE: SCHOOL
SUPERVISOR: JAVIER HINOJOSA
OFFICE: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
SCHOOL DISTRICT: FONTANA UNIFIED SCHOOL DISTRICT
CENSUS TRACT: 6071002704
CALENVIROSCREEN PERCENTILE SCORE: 75-80%
Summary
Activities
Site/Facility Docs
Map
Related Sites
CalEnviroScreen
Site Information
CLEANUP STATUS
NO ACTION REQUIRED AS OF 4/26/2005
SITE TYPE: SCHOOL
NATIONAL PRIORITIES LIST: NO
ACRES: 24.5 ACRES
APN: NONE SPECIFIED
CLEANUP OVERSIGHT AGENCIES:
DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
SCHOOL DISTRICT: FONTANA UNIFIED SCHOOL DISTRICT
ENVIROSTOR ID: 36650021
SITE CODE: 404602
SPECIAL PROGRAM:
FUNDING: SCHOOL DISTRICT
ASSEMBLY DISTRICT: 45
SENATE DISTRICT: 29
Regulatory Profile
PAST USE(S) THAT CAUSED CONTAMINATION
NONE
POTENTIAL CONTAMINANTS OF CONCERN
NO CONTAMINANTS FOUND
POTENTIAL MEDIA AFFECTED
NO MEDIA AFFECTED
Site History
The site is currently undeveloped. No operations, other than weed abatement using disking for fire suppression, have taken place onsite recently.

FIGURE IX-3

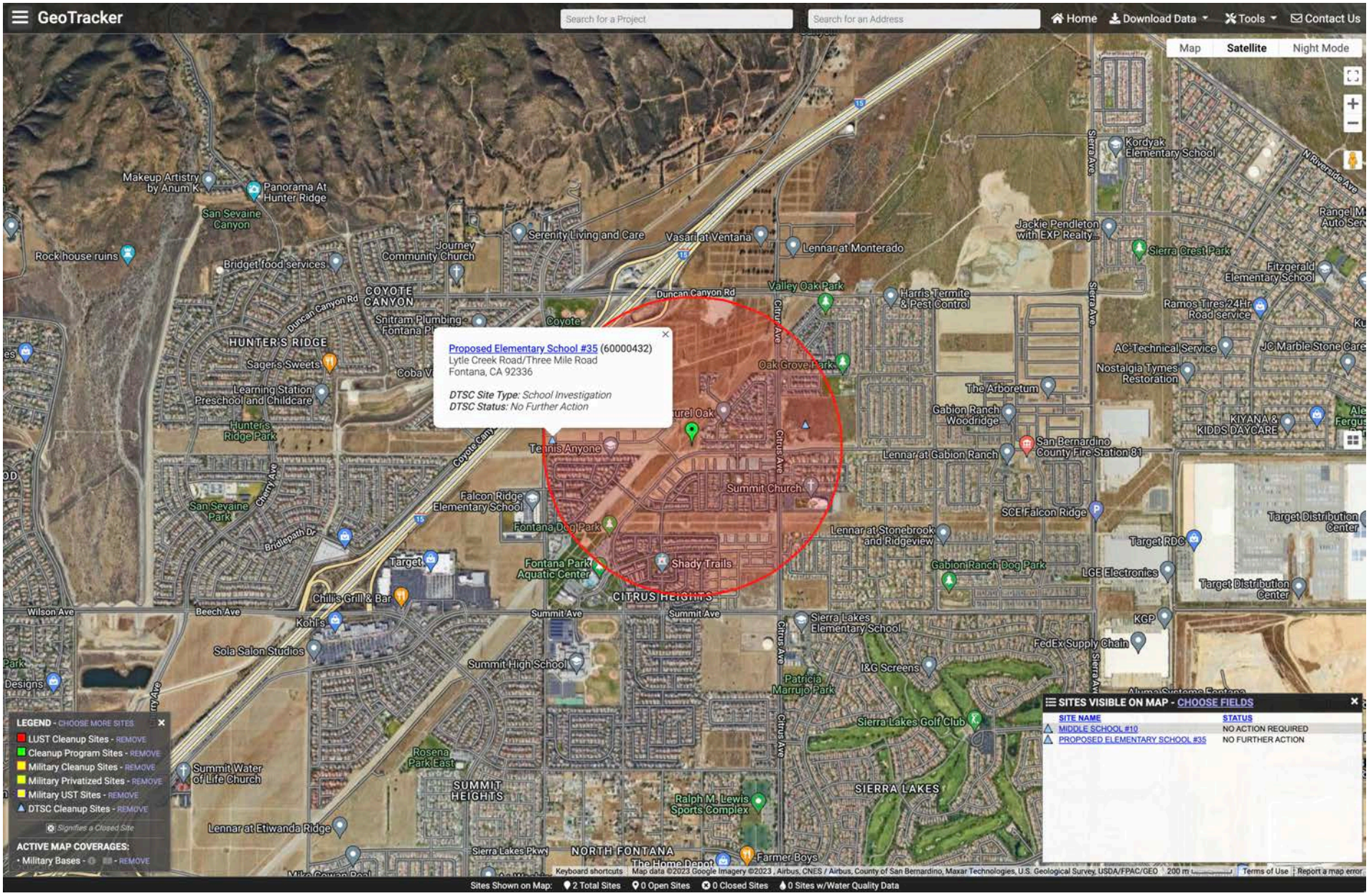

FIGURE IX-4

Tom Dodson & Associates
Environmental Consultants

GeoTracker 4

PROPOSED ELEMENTARY SCHOOL #35 (60000432)

SIGN UP FOR EMAIL ALERTS

LYTLE CREEK ROAD/THREE MILE ROAD
FONTANA, CA 92336
SAN BERNARDINO COUNTY
SITE TYPE: SCHOOL

SUPERVISOR: SHAHIR HADDAD
OFFICE: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
SCHOOL DISTRICT: FONTANA UNIFIED SCHOOL DISTRICT
CENSUS TRACT: 6071002010
CALENVIROSCREEN PERCENTILE SCORE: 35-40%

Summary | Activities | Site/Facility Docs | Map | Related Sites | CalEnviroScreen

Site Information

CLEANUP STATUS
NO FURTHER ACTION AS OF 2/26/2007

SITE TYPE: SCHOOL
NATIONAL PRIORITIES LIST: NO
ACRES: 12 ACRES
APN: NONE SPECIFIED
CLEANUP OVERSIGHT AGENCIES:
DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY

SCHOOL DISTRICT: FONTANA UNIFIED SCHOOL DISTRICT
ENVIROSTOR ID: 60000432
SITE CODE: 404719
SPECIAL PROGRAM:
FUNDING: SCHOOL DISTRICT
ASSEMBLY DISTRICT: 45
SENATE DISTRICT: 29

Regulatory Profile

PAST USE(S) THAT CAUSED CONTAMINATION
AGRICULTURAL - ROW CROPS

POTENTIAL CONTAMINANTS OF CONCERN
DIOXIN (AS 2,3,7,8-TCDD TEQ)
METALS
METHOXYCHLOR
ORGANOCHLORINE PESTICIDES (8081 OCPS)

POTENTIAL MEDIA AFFECTED
SOIL

Site History

Site consists of 12.0 acres of vacant land. Historically used for vineyards from about 1938-1980. Site is currently undeveloped land that is being used as a staging point for residential construction activities associated with the adjacent property to the south. Pile of roofing material observed on eastern portion of site and stained/discolored soils observed on western portions although, recently, stained soils have been removed and placed on tarp for disposal purposes. In 2004 a site assessment was performed; soil samples were analyzed for OCPs at that time. Concentrations of DDE and DDT present in samples.

Site originally 13.93 acres, reduced to 12.0 acres. Pile of roofing material no longer within site boundaries after reduction. PEA investigation for OCPs and metals due to past ag. use. Sample results below levels of concern. PEA determined no further action and approved Feb. 23, 2007.

FIGURE IX-5

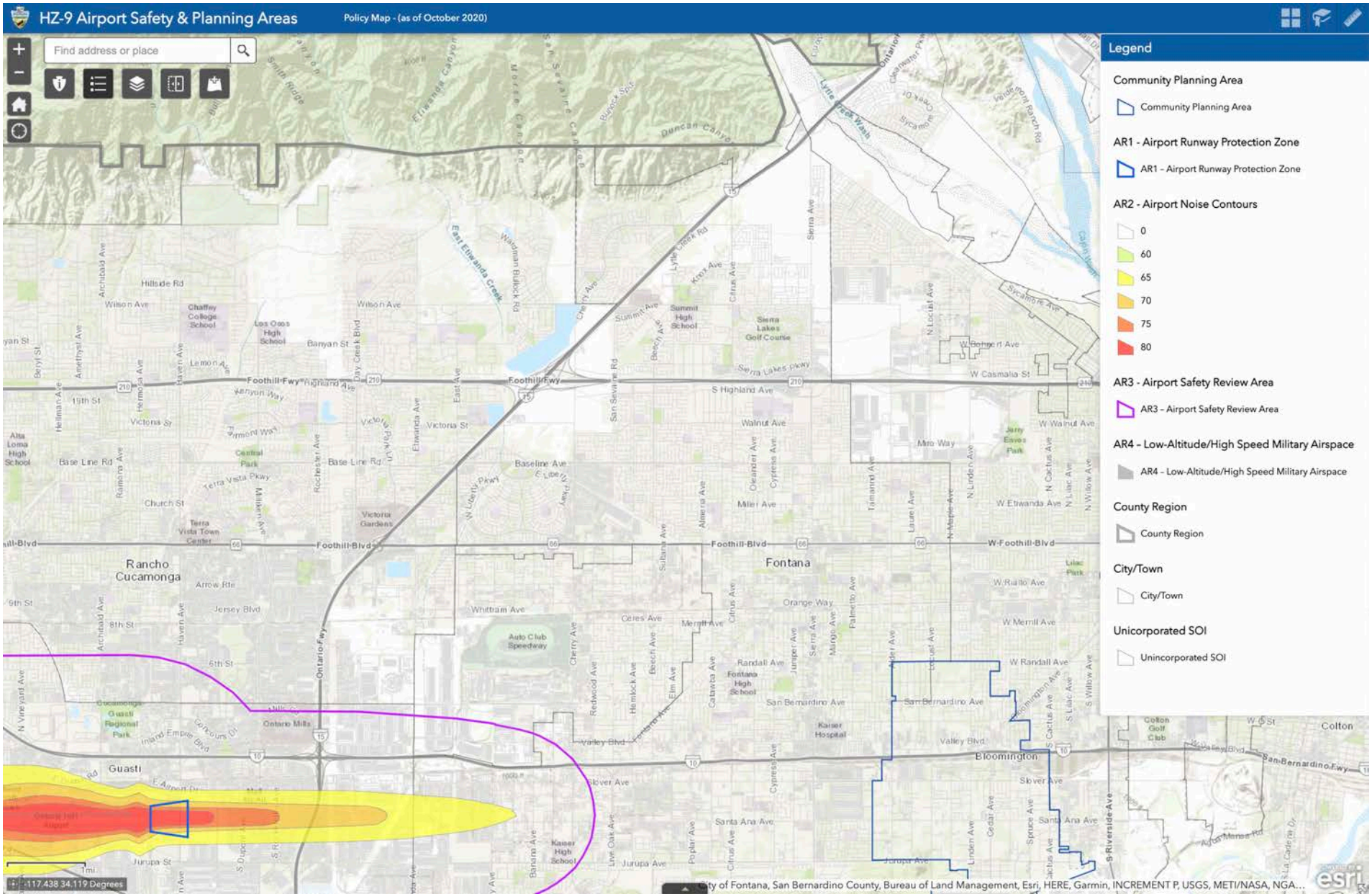

FIGURE IX-6

Tom Dodson & Associates
Environmental Consultants

Airport Safety & Planning Areas

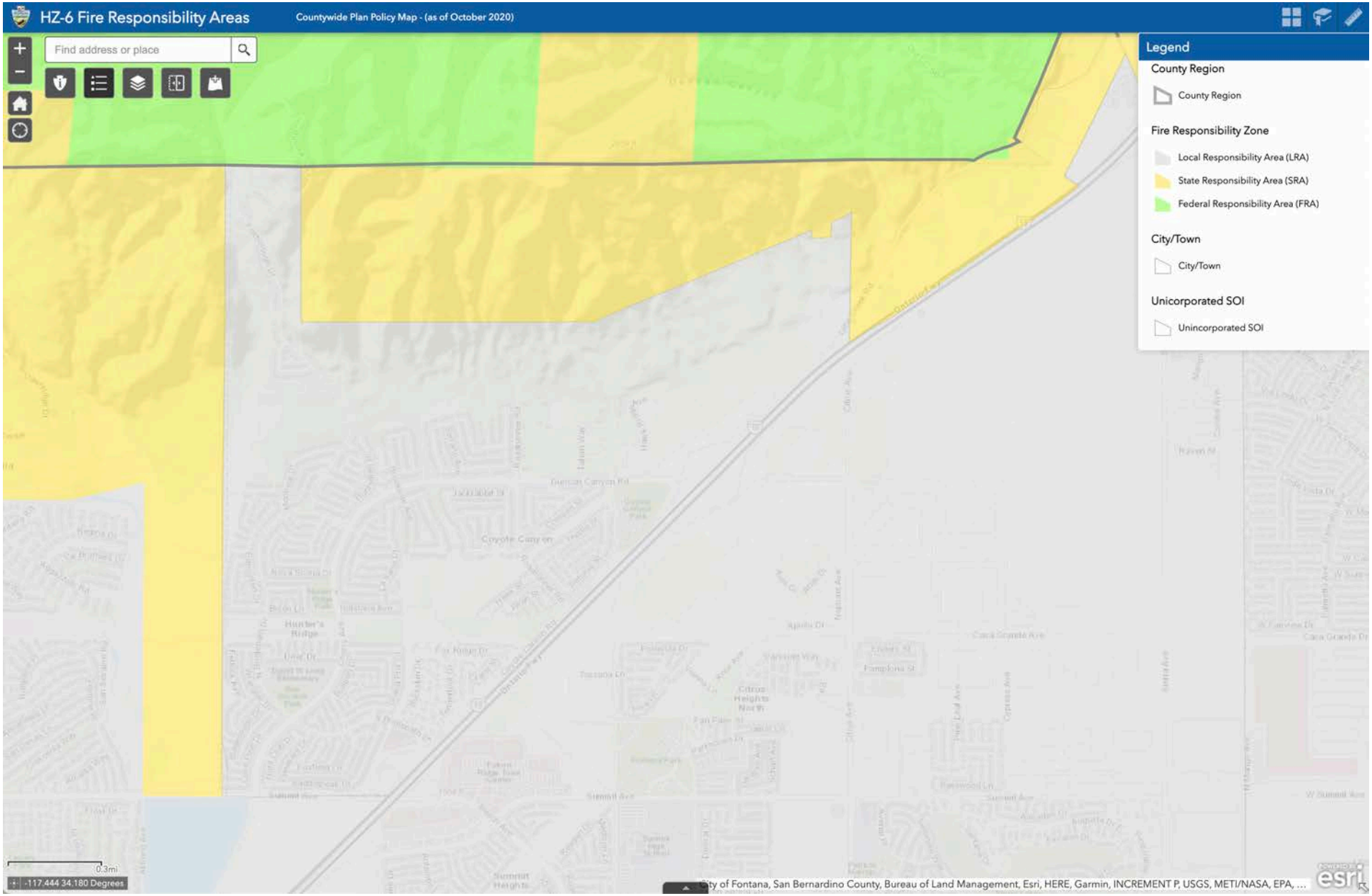

FIGURE IX-7

Tom Dodson & Associates
Environmental Consultants

Fire Responsibility Areas

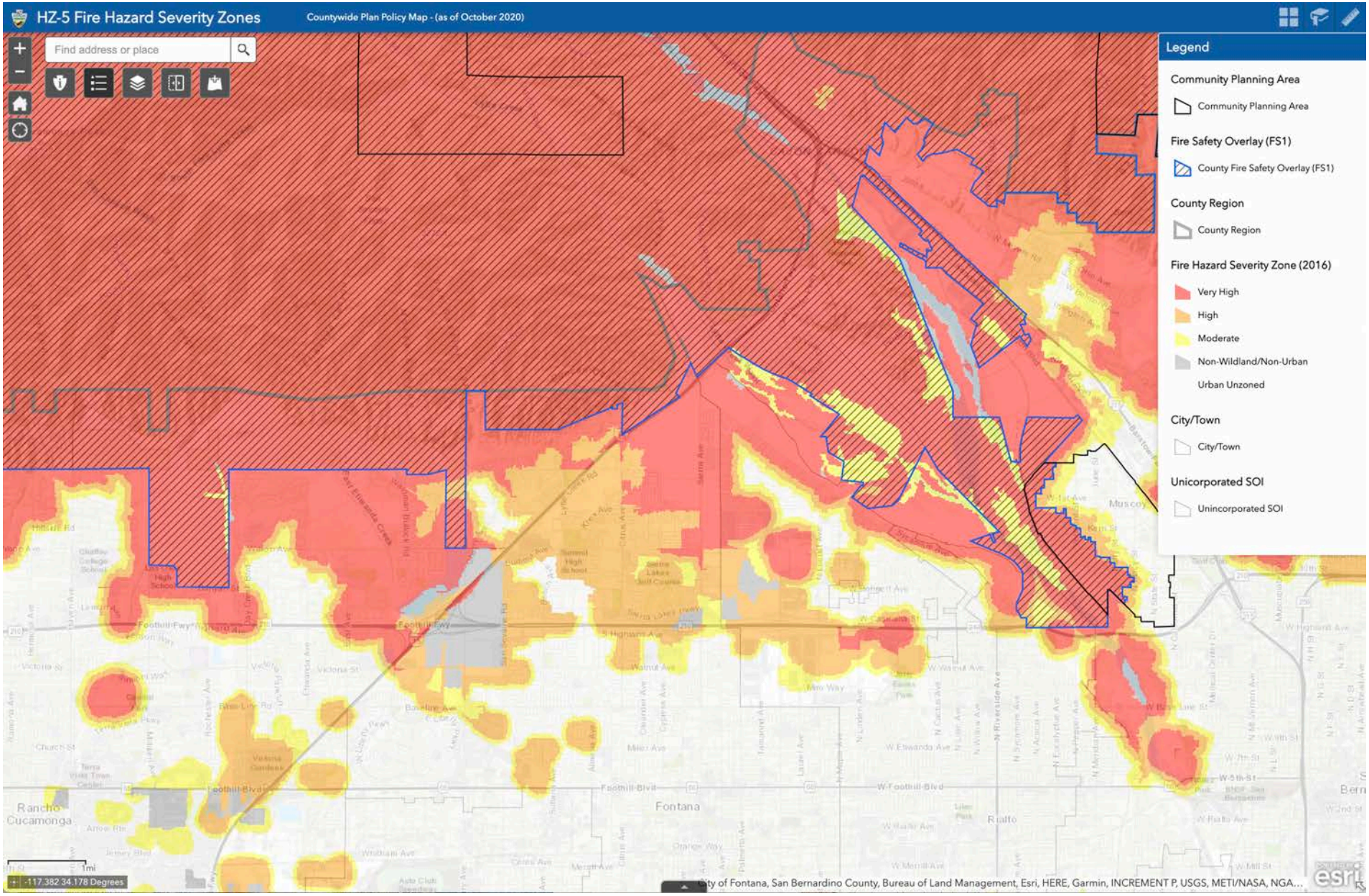

FIGURE IX-8

Tom Dodson & Associates
Environmental Consultants

Fire Hazard Severity Zones

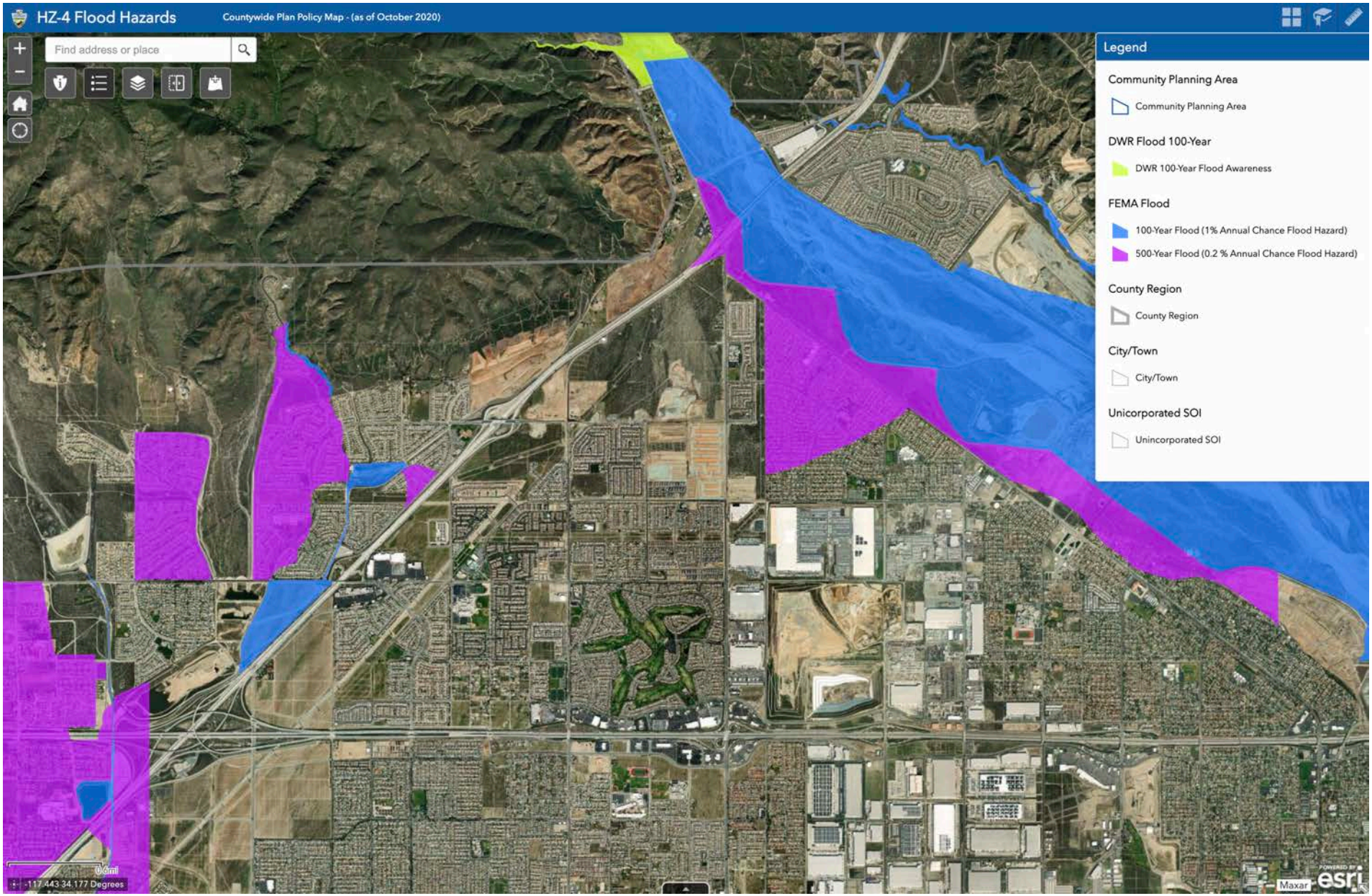

FIGURE X-1

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Flood Hazards

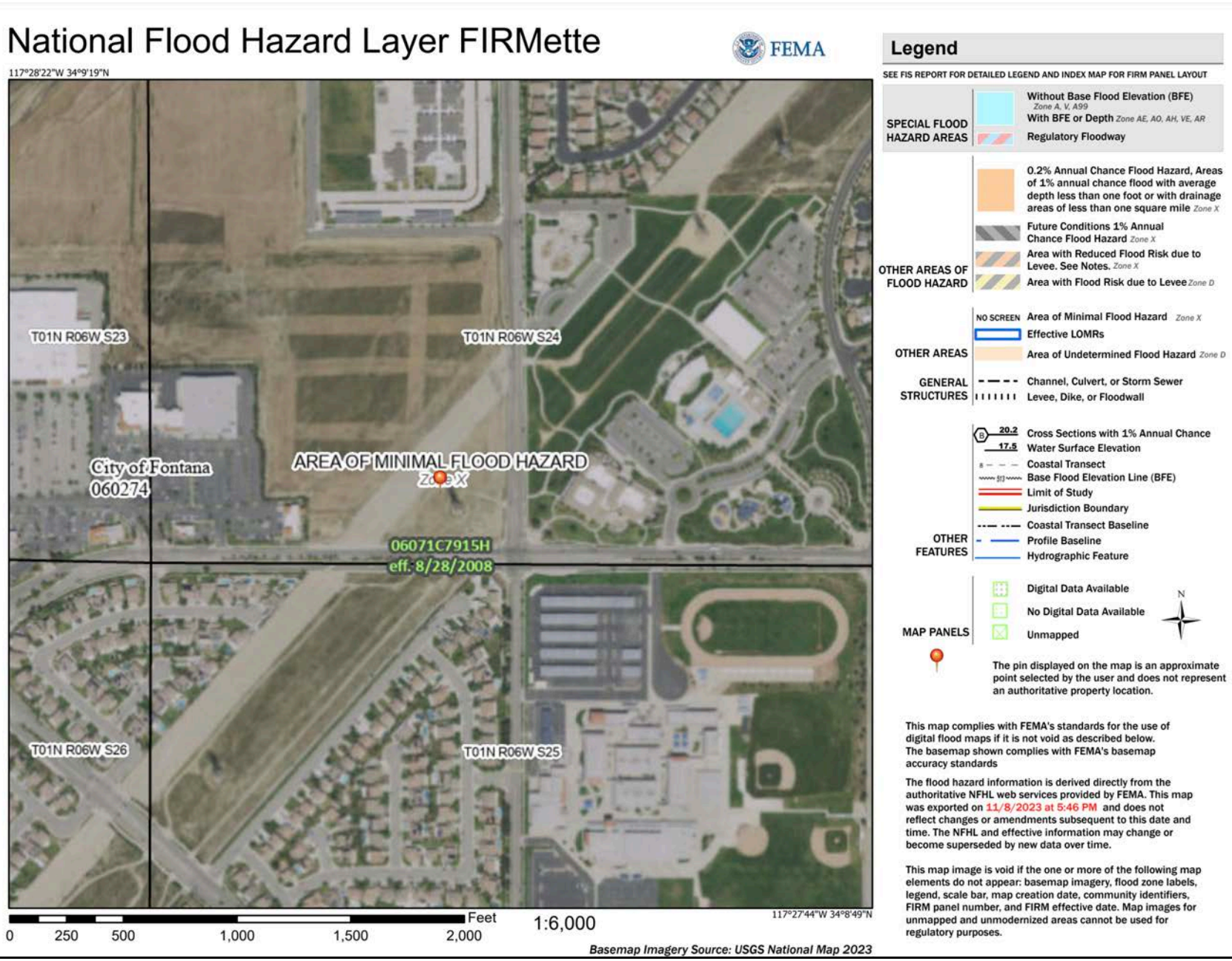

FIGURE X-2

Tom Dodson & Associates
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FEMA FIRM Panel

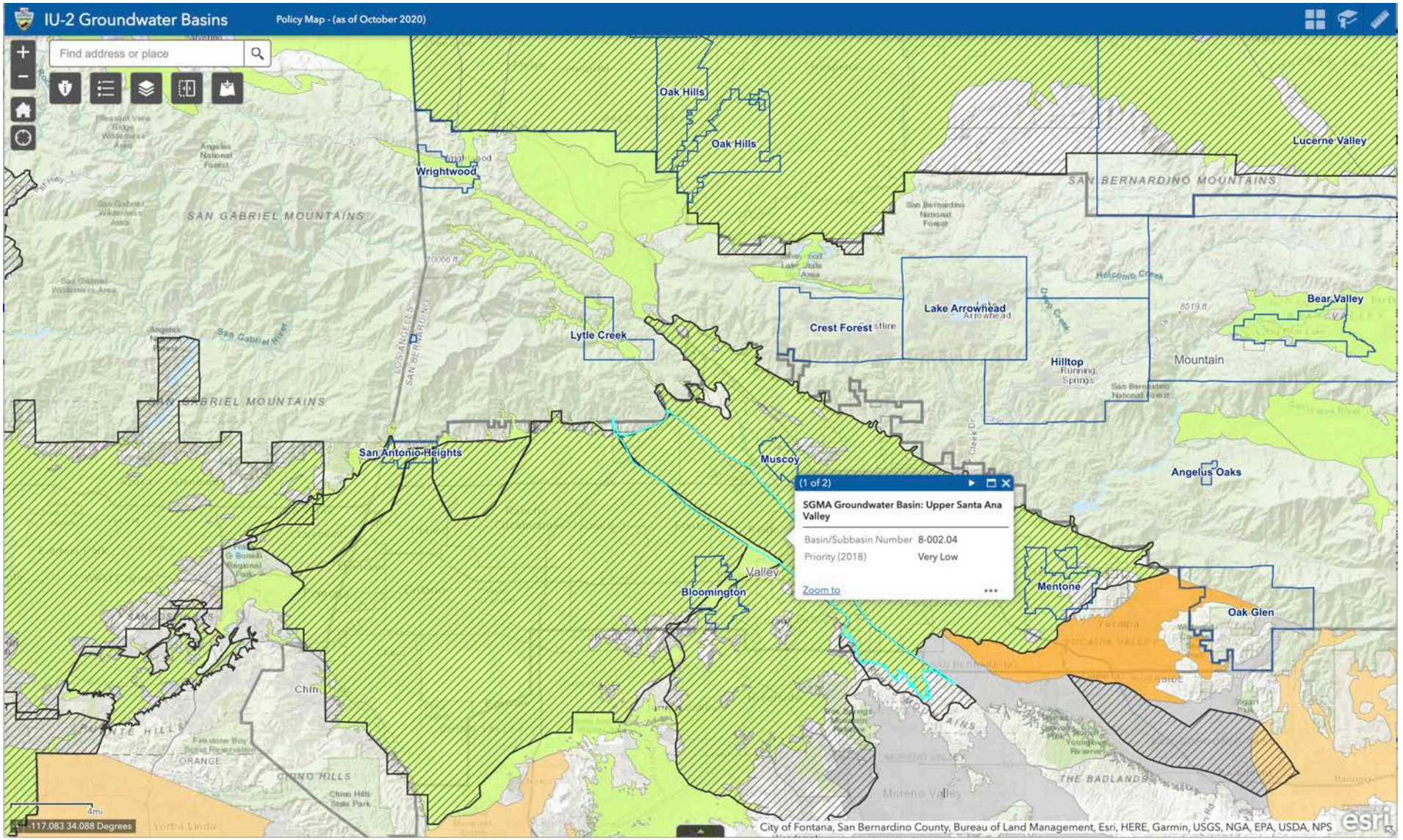

FIGURE X-3

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Groundwater Basins

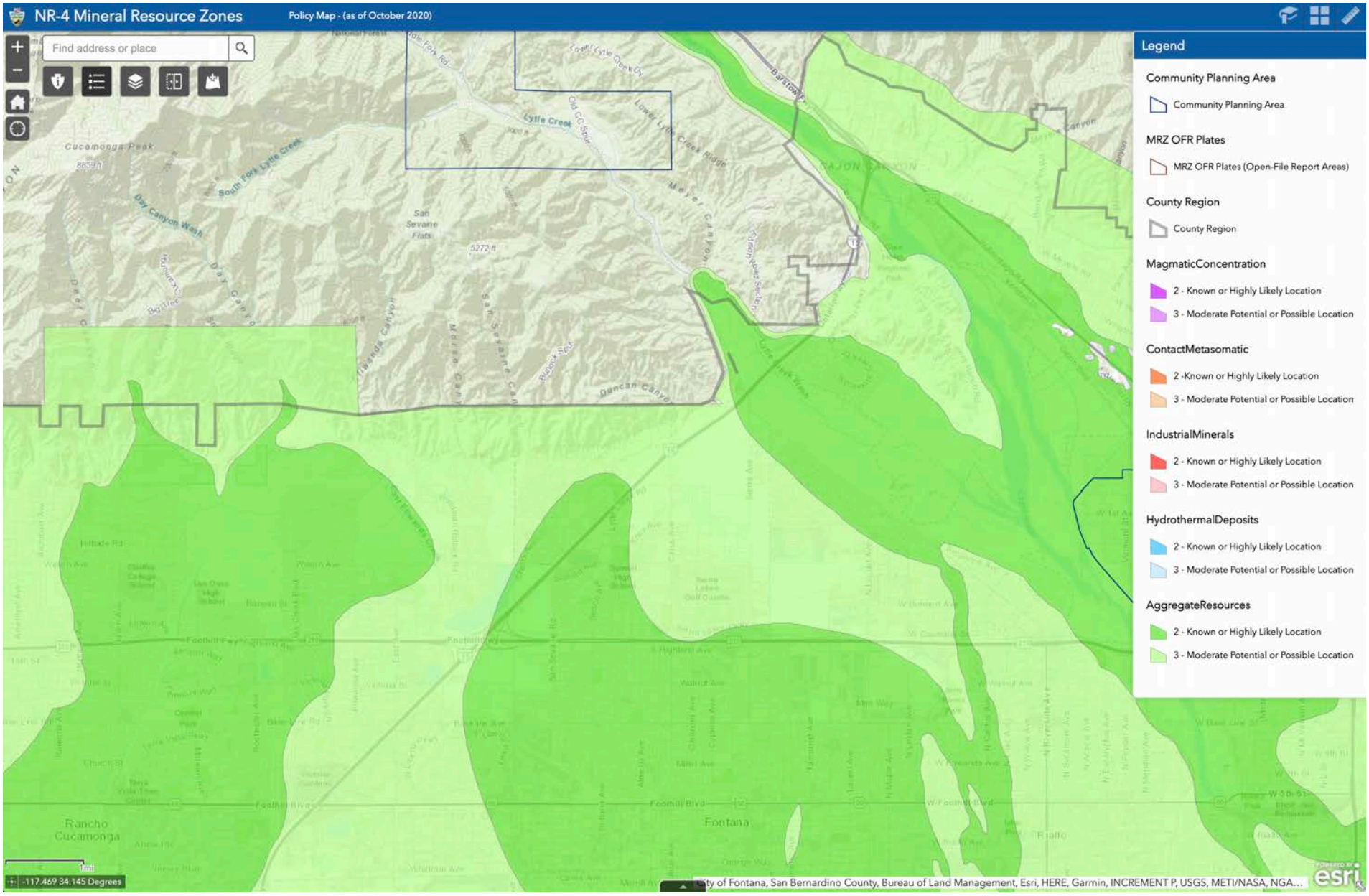

FIGURE XII-1

Tom Dodson & Associates
Environmental Consultants

Mineral Resources

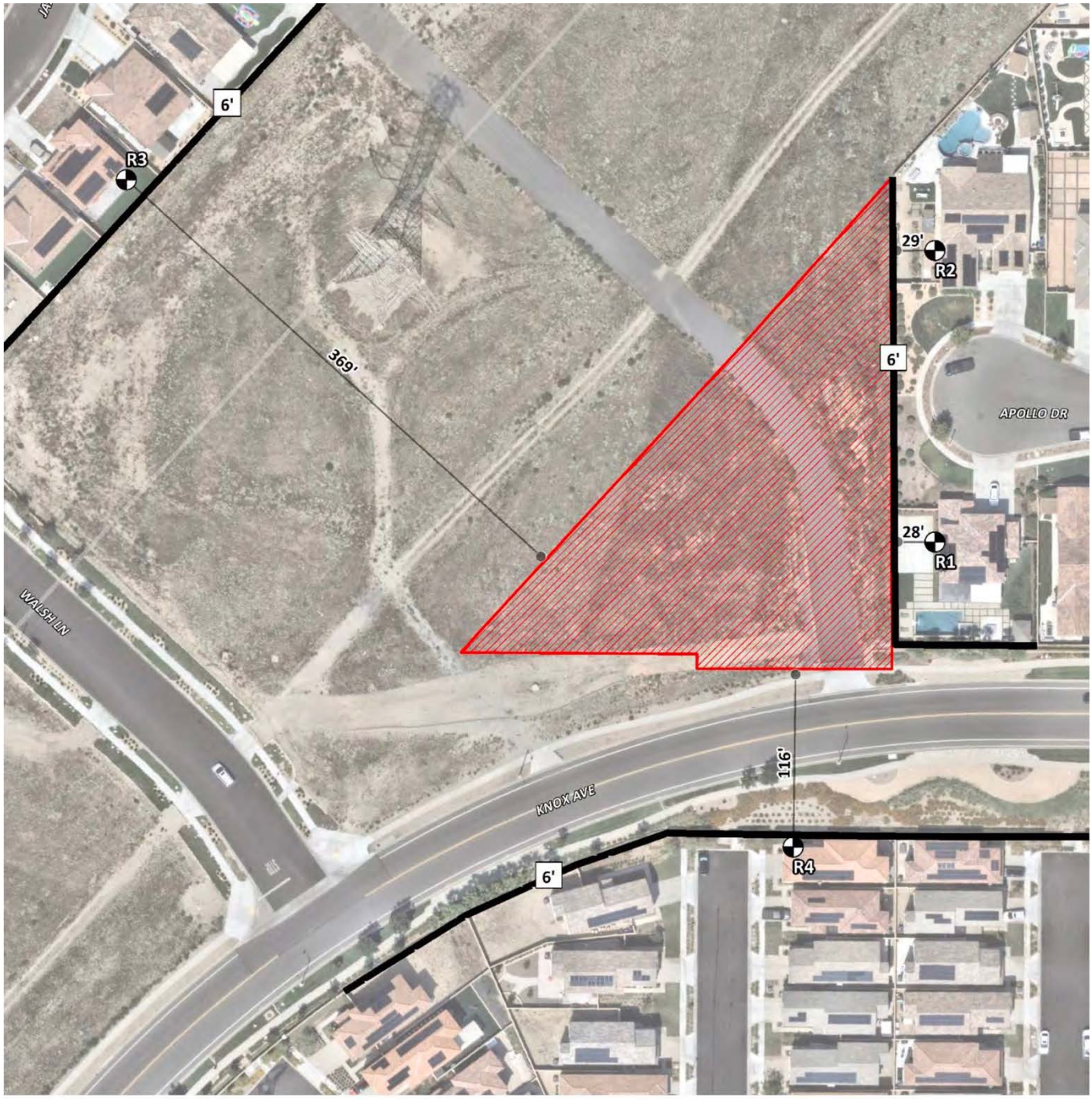

FIGURE XIII-1

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Environmental Consultants

Construction Noise Source and Receiver Locations

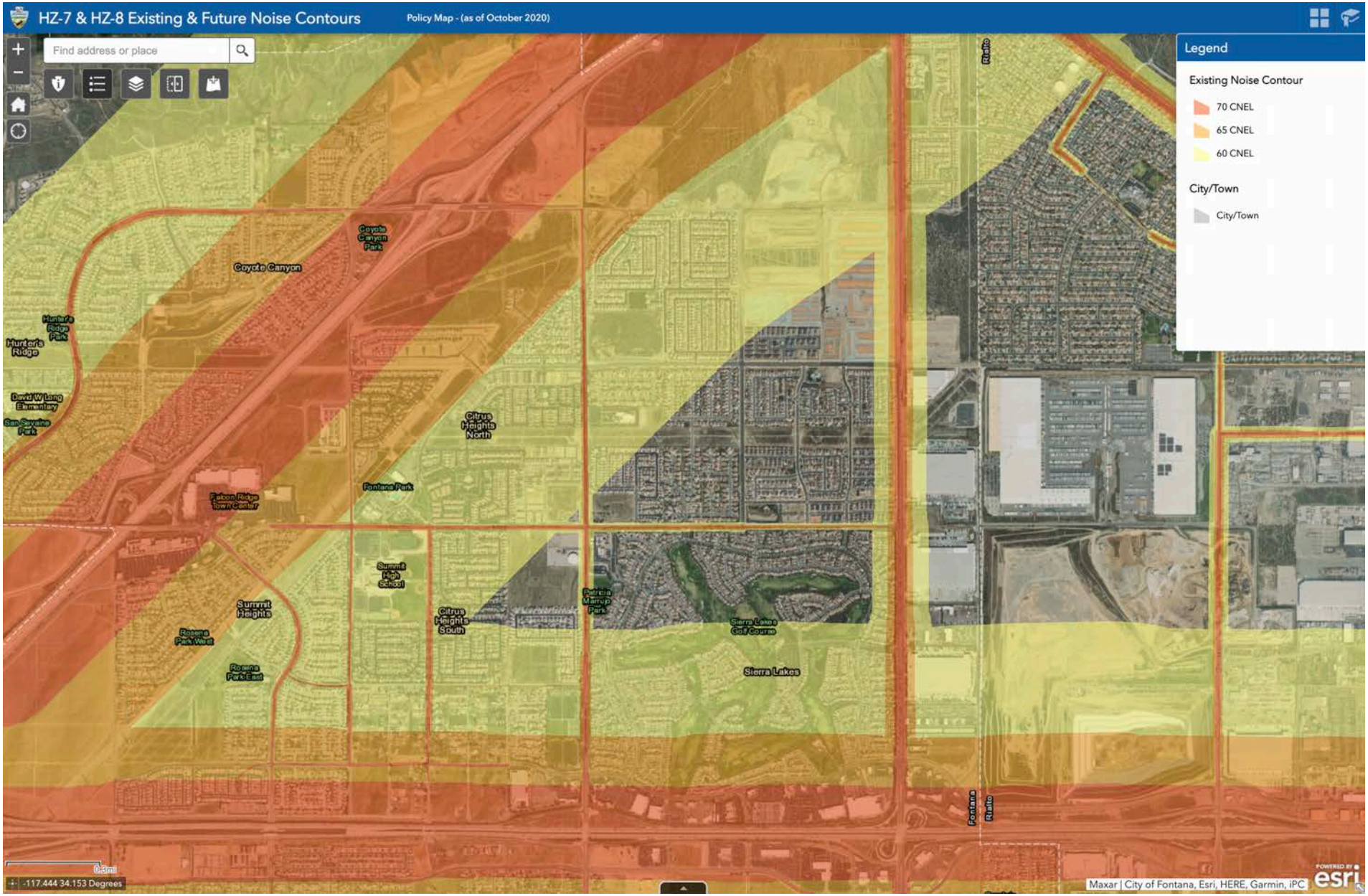

FIGURE XIII-2

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Existing Noise Contours

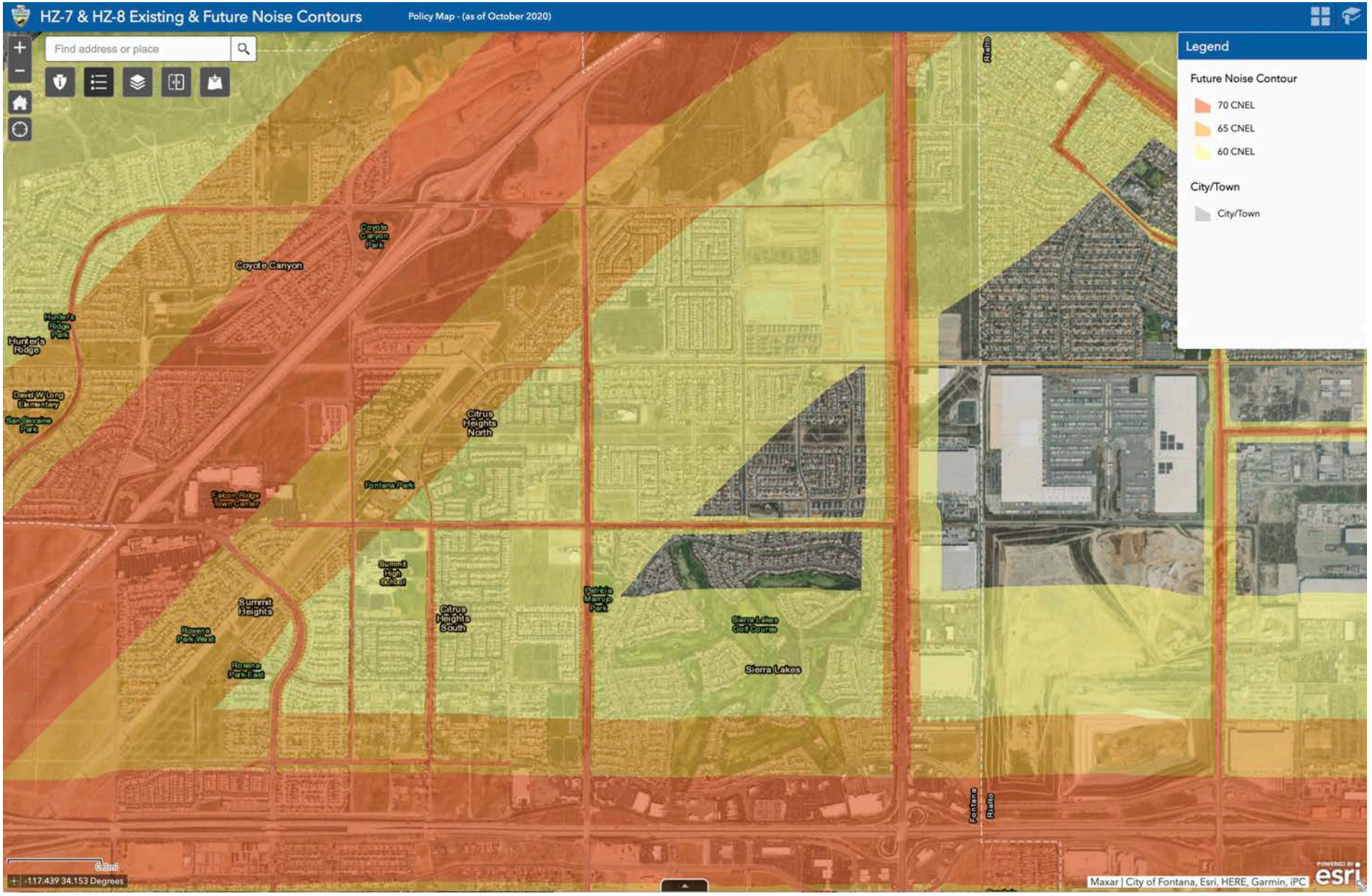

FIGURE XIII-3

Tom Dodson & Associates
Environmental Consultants

Future Noise Contours

FIGURE XIII-4

Tom Dodson & Associates
Environmental Consultants

Drill Rig Noise Abatement

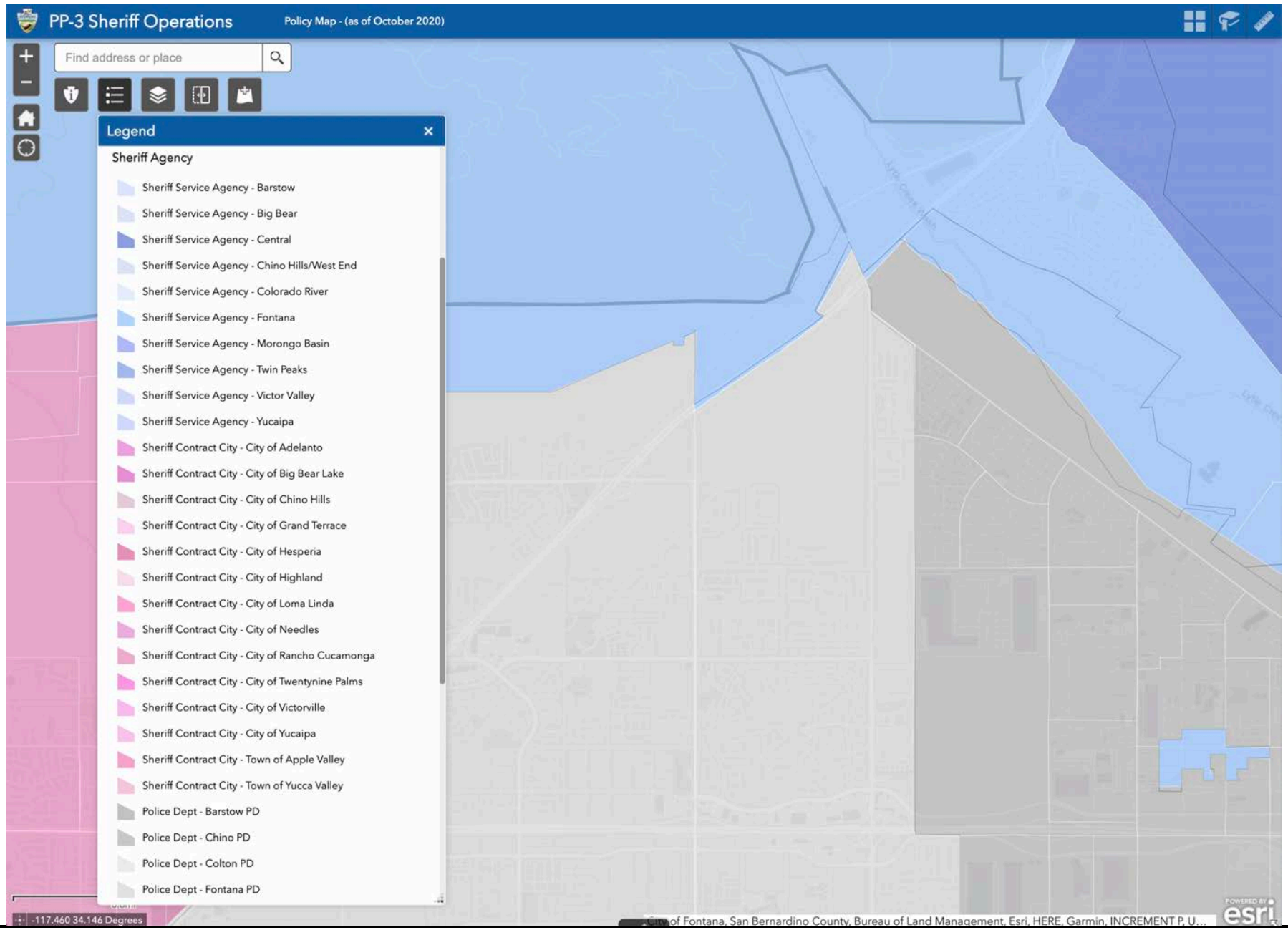

FIGURE XV-1

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Sheriff Operations

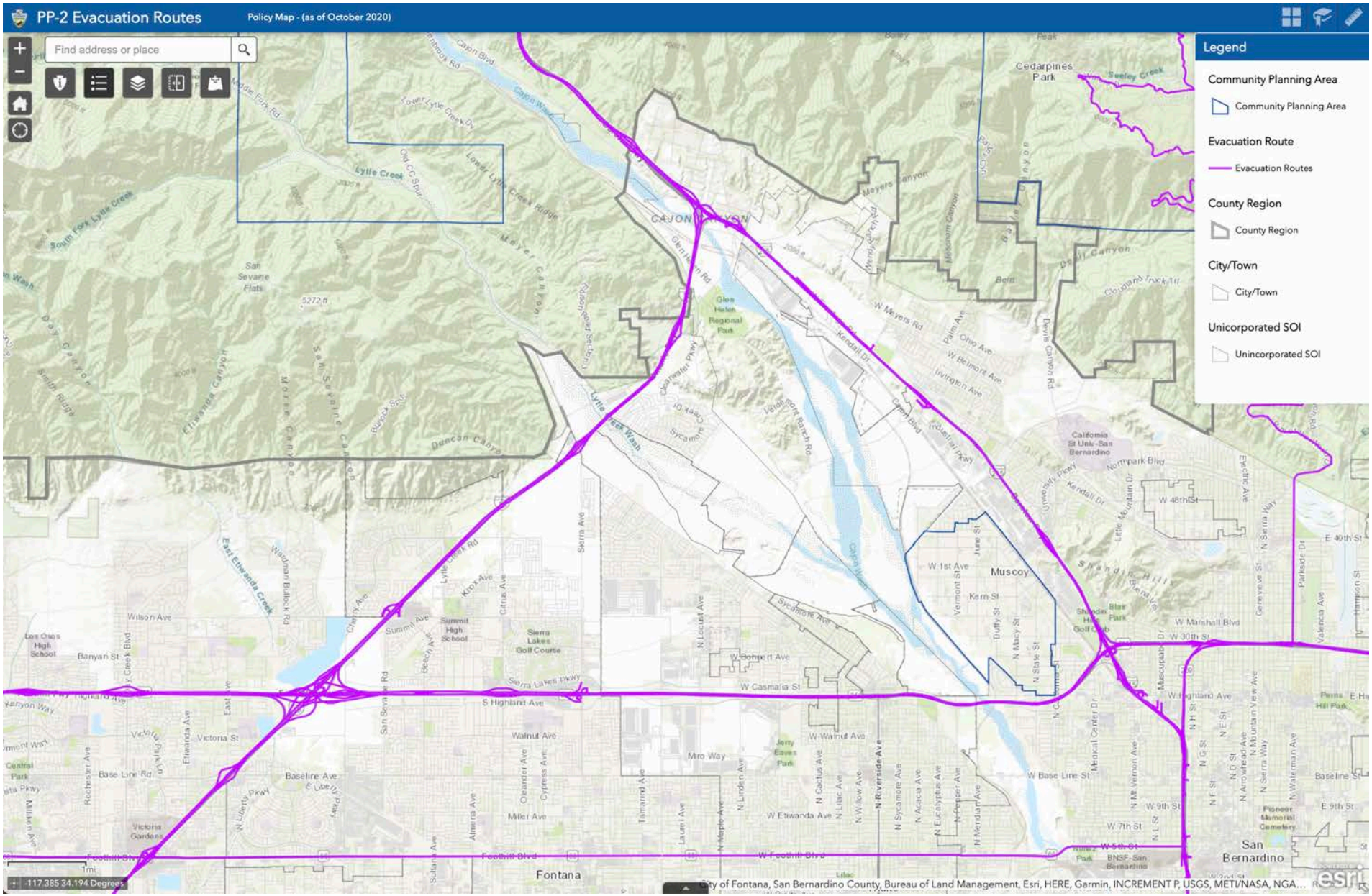

FIGURE XVII-1

Tom Dodson & Associates
Environmental Consultants

Evacuation Routes

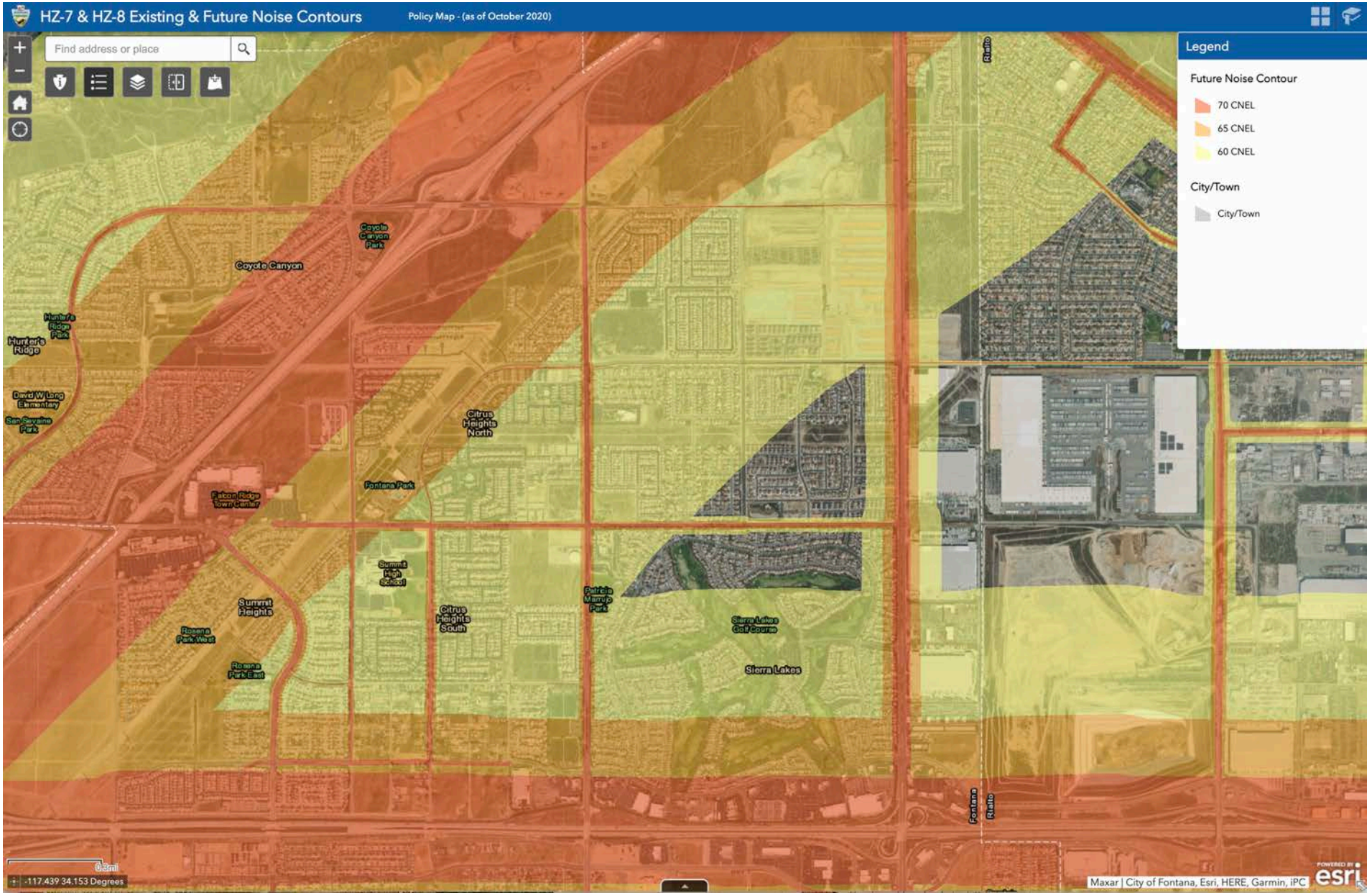

FIGURE XIII-3

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Environmental Consultants

Future Noise Contours

APPENDIX 1

AIR QUALITY and GHG IMPACT ANALYSES

WV-102
WEST VALLEY WATER DISTRICT WELL NO. 57 PROJECT

CITY OF FONTANA, CALIFORNIA

Prepared by:

Sara Friedman Gerrick
Gerrick Environmental

Prepared for:

Tom Dodson & Associates
Attn: Kaitlyn Dodson
PO Box 2307
San Bernardino, CA 92406-2307

Date:

January 16, 2024

Project No.: P24-001 CEQA

METEOROLOGICAL SETTING

The climate of western San Bernardino County, as with all of Southern California, is governed largely by the strength and location of the semi-permanent high-pressure center over the Pacific Ocean and the moderating effects of the nearby vast oceanic heat reservoir. Local climatic conditions are characterized by very warm summers, mild winters, infrequent rainfall, daytime onshore breezes, and comfortable humidities. Unfortunately, the same climatic conditions that create such a desirable living climate combine to severely restrict the ability of the local atmosphere to disperse the large volumes of air pollution generated by the population and industry attracted in part by the climate.

Fontana is situated in an area where the pollutants generated in coastal portions of the Los Angeles basin undergo photochemical reactions and then move inland across the project site during the daily sea breeze cycle. The resulting smog at times gives western San Bernardino County some of the worst air quality in all of California. Fortunately, significant air quality improvement in the last decade suggests that healthful air quality may someday be attained despite the limited regional meteorological dispersion potential.

Winds across the project area are an important meteorological parameter because they control both the initial rate of dilution of locally generated air pollutant emissions as well as controlling their regional trajectory. Winds across the project site display a very unidirectional onshore flow from the southwest west that is strongest in summer with a weaker offshore return flow from the northeast that is strongest on winter nights when the land is colder than the ocean. The onshore winds during the day average 6-10 mph while the offshore flow is often calm or drifts slowly westward at 1-3 mph.

During the daytime, any locally generated air emissions are readily transported northeastward toward Cajon Pass without generating any localized air quality impacts. The nocturnal drainage winds which move slowly across the area have some potential for localized stagnation, but fortunately, these winds have their origin in the adjacent mountains where background pollution levels are low such that any localized contributions do not create any unhealthful impacts. In conjunction with the two characteristic wind regimes that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. The summer onshore flow is capped by a massive dome of warm, sinking air which caps a shallow layer of cooler ocean air. These marine/subsidence inversions act like a giant lid over the basin. They allow for local mixing of emissions, but they confine the entire polluted air mass within the basin until it escapes into the desert or along thermal chimneys formed along heated mountain slopes. In winter, when the air near the ground cools while the air aloft remains warm, radiation inversions are formed that trap low-level emissions such as automobile exhaust near their source.

AIR QUALITY SETTING

AMBIENT AIR QUALITY STANDARDS (AAQS)

In order to gauge the significance of the air quality impacts of the proposed project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule, which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to “non-attainment” for the 8-hour ozone standard.

Table 1

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page …

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

Table 1 (continued)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

For more information please call ARB-PIO at (916) 322-2990 **California Air Resources Board (5/4/16)**

Table 2
Health Effects of Major Criteria Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Respirable Particulate Matter (PM-10)	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the exposure period for the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide ($NO_{2)}$ that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO_2 standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted. In December, 2012, the federal annual standard for PM-2.5 was reduced from 15 $\mu g/m^3$ to 12 $\mu g/m^3$ which matches the California AAQS. The severity of the basin's non-attainment status for PM-2.5 may be increased by this action and thus require accelerated planning for future PM-2.5 attainment.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA had proposed a further strengthening of the 8-hour standard. A new 8-hour ozone standard was adopted in 2015 after extensive analysis and public input. The adopted national 8-hour ozone standard is 0.07 ppm which matches the current California standard. It will require three years of ambient data collection, then 2 years of non-attainment findings and planning protocol adoption, then several years of plan development and approval. Final air quality plans for the new standard are likely to be adopted around 2022. Ultimate attainment of the new standard in ozone problem areas such as Southern California might be after 2025.

In 2010 a new federal one-hour primary standard for nitrogen dioxide (NO_2) was adopted. This standard is more stringent than the existing state standard. Based upon air quality monitoring data in the South Coast Air Basin, the California Air Resources Board has requested the EPA to designate the basin as being in attainment for this standard. The federal standard for sulfur dioxide (SO_2) was also recently revised. However, with minimal combustion of coal and mandatory use of low sulfur fuels in California, SO_2 is typically not a problem pollutant.

BASELINE AIR QUALITY

Existing and probable future levels of air quality in the project area can be best inferred from ambient air quality measurements conducted by the South Coast Air Quality Management District (SCAQMD) at its Fontana monitoring station. This station measures both regional pollution levels such as dust (particulates) and smog, as well as levels of primary vehicular pollutants such as carbon monoxide. Table 3 summarizes the last four years of the published data from this monitoring station.

Ozone and particulates are seen to be the two most significant air quality concerns. Ozone is the primary ingredient in photochemical smog. Slightly more than 12 percent of all days exceed the California one-hour standard. The 8-hour state ozone standard has been exceeded an average of 21 percent of all days in the past four years. The federal 8-hour standard was exceeded 15 percent of all days for the same time period. For the last four years, ozone levels have neither improved nor gotten noticeably worse. While ozone levels are still high, they are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.

In addition to gaseous air pollution concerns, San Bernardino experiences frequent violations of standards for 10-micron diameter respirable particulate matter (PM-10). High dust levels occur during Santa Ana wind conditions, as well as from the trapped accumulation of soot, roadway dust and byproducts of atmospheric chemical reactions during warm season days with poor visibility. Table 3 shows that almost 14 percent of all days in the last four years experienced a violation of the State PM-10 standard. However, the three-times less stringent federal standard has not been exceeded in the same time period.

A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). Peak annual PM-2.5 levels are sometimes almost as high as PM-10, which includes PM-2.5 as a sub-set. However, only slightly more than one percent of monitored days experienced a violation of the 24-hour standard of 35 $\mu g/m^3$.

While many of the major ozone precursor emissions (automobiles, solvents, paints, etc.) have been substantially reduced, most major PM-10 sources (construction dust, vehicular turbulence along roadway shoulders, truck exhaust, etc.) have not been as effectively reduced. Prospects of ultimate attainment of ozone standards are better than for particulate matter.

More localized pollutants such as carbon monoxide, nitrogen oxides, etc. are very low near the project site because background levels, never approach allowable levels. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NOx or CO without any threat of violating applicable AAQS.

Table 3
Air Quality Monitoring Summary (2019-2022)
(Estimated Number of Days Standards Were Exceeded)

Pollutant/Standard	2019	2020	2021	2022
Ozone				
1-Hour > 0.09 ppm (S)	41	56	44	44
8-Hour > 0.07 ppm (S)	67	89	83	70
8- Hour > 0.075 ppm (F)	46	65	56	49
Max. 1-Hour Conc. (ppm)	0.124	0.151	0.125	0.144
Max. 8-Hour Conc. (ppm)	0.109	0.111	0.103	0.107
Carbon Monoxide				
8- Hour > 9. ppm (S,F)	0	0	0	0
Max 8-hour Conc. (ppm)	1.0	1.2	1.4	1.0
Nitrogen Dioxide				
1-Hour > 0.18 ppm (S)	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.076	0.066	0.067	0.069
Respirable Particulates (PM-10)				
24-Hour > 50 $\mu g/m^3$ (S)	12/61	6/40	4/53	8/60
24-Hour > 150 $\mu g/m^3$ (F)	0/61	0/40	0/53	0/60
Max. 24-Hr. Conc. ($\mu g/m^3$)	88.	61.	73.	62.
Fine Particulates (PM-2.5)				
24-Hour > 35 $\mu g/m^3$ (F)	2/114	1/117	2/120	1/120
Max. 24-Hr. Conc. ($\mu g/m^3$)	46.5	46.1	55.1	38.1

S=State Standard
F=Federal Standard

Source: Fontana SCAQMD Air Monitoring Summary (5197)
data: www.arb.ca.gov/adam/

AIR QUALITY PLANNING

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with "serious" or worse ozone problems submit a revision to the State Implementation Plan (SIP). Substantial reductions in emissions of ROG, NOx and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The Air Quality Management District (AQMD) adopted an updated clean air "blueprint" in August 2003. The 2003 Air Quality Management Plan (AQMP) was approved by the EPA in 2004. The AQMP outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM-10) by 2006. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. As previously noted, the attainment date was to "slip" from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because Projected attainment by 2021 required control technologies that did not exist yet, the SCAQMD requested a voluntary "bump-up" from a "severe non-attainment" area to an "extreme non-attainment" designation for ozone. The extreme designation was to allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on "black-box" measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April 2010, the EPA approved the change in the non-attainment designation from "severe-17" to "extreme." This reclassification set a later attainment deadline (2024), but also required the air basin to adopt even more stringent emissions controls.

In other air quality attainment plan reviews, EPA had disapproved part of the SCAB PM-2.5 attainment plan included in the AQMP. EPA stated that the current attainment plan relied on PM-2.5 control regulations that had not yet been approved or implemented. It was expected that several rules that were pending approval would remove the identified deficiencies. If these issues were not resolved within the next several years, federal funding sanctions for transportation Projects could

result. The 2012 AQMP included in the current California State Implementation Plan (SIP) was expected to remedy identified PM-2.5 planning deficiencies.

The federal Clean Air Act requires that non-attainment air basins have EPA approved attainment plans in place. This requirement includes the federal one-hour ozone standard even though that standard was revoked almost ten years ago. There was no approved attainment plan for the one-hour federal standard at the time of revocation. Through a legal quirk, the SCAQMD is now required to develop an AQMP for the long since revoked one-hour federal ozone standard. Because the current SIP for the basin contains a number of control measures for the 8-hour ozone standard that are equally effective for one-hour levels, the 2012 AQMP was believed to satisfy hourly attainment planning requirements.

AQMPs are required to be updated at regular intervals. The 2012 AQMP was adopted in early 2013. An updated 2016 AQMP was adopted by the SCAQMD Board in March 2017. The 2016 AQMD demonstrated the emissions reductions shown in Table 4 compared to the 2012 AQMP.

Table 4
Comparison of Emissions by Major Source Category From 2012 AQMP

Pollutant	Stationary Sources	Mobile Sources
VOC	-12%	-3%
NOx	-13%	-1%
SOx	-34%	-23%
PM2.5	-9%	-7%

*source 2016 AQMP

SCAQMD has initiated the development of the 2022 AQMP to address the attainment of the 2015 8-hour ozone standard (70 ppb) for South Coast Air Basin and Coachella Valley which will focus on attaining the 70 ppb 8-hour ozone National Ambient Air Quality Standard (NAAQS) by 2037. On-road vehicles and off-road mobile sources represent the largest categories of NOx emissions. Accomplishment of attainment goals requires an approximate 70% reduction in NOx emissions. Large scale transition to zero emission technologies is a key strategy. To this end, Governor Executive Order N-79-20 requires 100 percent EV sales by 2035 for automobiles and short haul drayage trucks. A full transition to EV buses and heavy-duty long-haul trucks is required by 2045.

The proposed project does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing water supply projects. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the project has therefore been analyzed on a project-specific basis.

AIR QUALITY IMPACT

STANDARDS OF SIGNIFICANCE

Air quality impacts are considered "significant" if they cause clean air standards to be violated where they are currently met, or if they "substantially" contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following four tests of air quality impact significance. A Project would have a potentially significant impact if it:

a) Conflicts with or obstructs implementation of the applicable air quality plan.

b) Results in a cumulatively considerable net increase of any criteria pollutants for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.
c) Exposes sensitive receptors to substantial pollutant concentrations.

d) Creates objectionable odors affecting a substantial number of people.

Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during Project construction.

Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified number of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects with daily emissions that

exceed any of the following emission thresholds are recommended by the SCAQMD to be considered significant under CEQA guidelines.

Table 5
Daily Emissions Thresholds

Pollutant	Construction	Operations
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

CONSTRUCTION ACTIVITY IMPACTS

In May 2023 the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of CalEEMod2022.1. CalEEMod provides a model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions.

The project proposes drilling a new well to a depth of approximately 1,000 feet below ground surface and is expected to take 6-10 weeks with 24-hour drilling. In addition there will be approximately 2 weeks of piping to connect the well water to the District's distribution system via a connection within the adjacent paved utility easement at the southern boundary of the site along Knox Avenue and a small section of drain line..

Table 6
Construction Equipment and Durations

Phase Name and Duration	Equipment
Well Drilling 4 weeks	1 Drill Rig
	1 Loader/Backhoe
	1 Pump
Well Equipping 6 weeks	1 Crane
	1 Welder
	1 Loader/Backhoe
	1 Generator Set
	1 Forklift
Install Pipeline 2 weeks	1 Loader/Backhoe
	1 Crane
	1 Excavator
	1 Water Truck
	1 Pavement Saw
Backfill and Compact 2 weeks	1 Paver
	1 Loader/Backhoe
	1 Roller
	1 Compactor
	1 Cement Mixer

Utilizing this indicated equipment fleet and durations shown in Table 6 the following worst-case daily construction emissions are calculated by CalEEMod as provided in Table 7.

Table 7
Construction Activity Emissions
2024 Maximal Daily Emissions (lbs/day)

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5
Drill Well	0.7	7.5	12.1	0.0	0.3	0.3
Equip Well	0.7	6.9	8.6	0.0	0.6	0.2
Install Piping	0.8	5.7	8.8	0.0	3.6	0.6
Backfill and Pave	0.5	3.0	6.1	0.0	3.5	0.5
SCAQMD Thresholds	75	100	550	150	150	55

Peak daily construction activity emissions are estimated to be below SCAQMD CEQA daily thresholds without the need for any mitigation.

Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. The SCAQMD does not generally require the analysis of construction-related diesel emissions relative to health risk due to the short period for which the majority of diesel exhaust would occur. Health risk analyses are typically assessed over a 9-, 30-, or 70-year timeframe and not over a relatively brief construction period due to the lack of health risk associated with such a brief exposure.

LOCALIZED SIGNIFICANCE THRESHOLDS

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For the proposed project, the only source of possible LST impact would be during construction. LSTs are applicable for a sensitive receptor where it is possible that an individual could remain for 24 hours such as a residence, hospital or convalescent facility.

LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NOx), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST screening tables are available for 25, 50, 100, 200 and 500 meter source-receptor distances. For this project distances the most stringent 25-meter distance was selected for analysis.

Screening level concentration data is currently published for 1, 2 and 5 acre sites. The most stringent standards for a 1-acre site were used.

The following thresholds and emissions in Table 8 are therefore determined (pounds per day).

Table 8
LST and Project Emissions (pounds/day)

LST 1.0 acres/25 meters Central San Bernardino Valley	**CO**	**NOx**	**PM-10**	**PM-2.5**
LST Significance Threshold	667	118	4	3
Drill Well	12	8	<1	<1
Equip Well	9	7	<1	<1
Install Piping	9	6	4	<1
Backfill and Pave	6	3	4	<1

LSTs were compared to the maximum daily construction activities. As seen in Table 8, emissions meet the LST for construction thresholds without mitigation. LST impacts are less-than-significant.

OPERATIONAL IMPACTS

Except for a vertical turbine pump and chlorine injection equipment both of which connect to the electrical grid there are no operational emissions. Electrical consumption has no single uniquely related air pollution emissions source because power is supplied to and drawn from a regional grid. Electrical power is generated regionally by a combination of non-combustion (nuclear, hydroelectric, solar, wind, geothermal, etc.) and fossil fuel combustion sources. There is no direct nexus between consumption and the type of power source or the air basin where the source is located. Operational air pollution emissions from electrical generation are therefore not attributable on a project-specific basis.

CONSTRUCTION EMISSIONS MINIMIZATION

Construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds. Nevertheless, emissions minimization through enhanced dust control measures is recommended for use because of the non-attainment status of the air and proximity of residential uses. Recommended measures include:

Fugitive Dust Control

- Apply soil stabilizers or moisten inactive areas.
- Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 2-3 times/day).
- Cover all stock piles with tarps at the end of each day or as needed.
- Provide water spray during loading and unloading of earthen materials.
- Minimize in-out traffic from construction zone
- Cover all trucks hauling dirt, sand, or loose material and require all trucks to maintain at least two feet of freeboard
- Sweep streets daily if visible soil material is carried out from the construction site

Similarly, ozone precursor emissions (ROG and NOx) are calculated to be below SCAQMD CEQA thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control options include:

Exhaust Emissions Control

- Utilize well-tuned off-road construction equipment.
- Establish a preference for contractors using Tier 3 or better rated heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

GREENHOUSE GAS EMISSIONS

"Greenhouse gases" (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as "global warming." These greenhouse gases contribute to an increase in the temperature of the earth's atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation in some parts of the infrared spectrum. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. For purposes of planning and regulation, Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California's reputation as a "national and international leader on energy conservation and environmental stewardship." It will have wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate "early action" control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California's GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy and from increased structural energy efficiency. Additionally, through the California Climate Action Registry (CCAR now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been

developed. GHG sources are categorized into direct sources (i.e. company owned) and indirect sources (i.e. not company owned). Direct sources include combustion emissions from on-and off-road mobile sources, and fugitive emissions. Indirect sources include off-site electricity generation and non-company owned mobile sources.

THRESHOLDS OF SIGNIFICANCE

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March, 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,

- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to "select the model or methodology it considers most appropriate." The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008, the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit Projects, rules, plans, etc.) of 10,000 Metric Tons (MT) CO_2 equivalent/year. This 10,000 MT/year recommendation has been used as a guideline for this analysis.

PROJECT RELATED GHG EMISSIONS GENERATION

During project construction, CalEEMod predicts that the construction activities will generate the CO_2(e) emissions identified in Table 9. Because the SCAQMD GHG emissions policy from

construction activities is to amortize emissions over a 30-year lifetime, the amortized annual total is also presented.

Table 9
Construction Emissions (Metric Tons CO_2(e))

Year 2024	MT CO_2(e)
Total	**57.9**
30 Year Annual Amortized Rate	1.9

GHG impacts from construction are considered less-than-significant.

Project Related GHG Emissions Generation

Except for minor system maintenance, the only operational source of GHG emissions would be associated with pumping operations. Electricity is generated from a variety of resources at various locations in the western United States. In "A Comparisons of California Utilities 2016 Power Sources and Emissions Analysis" it was calculated that there is a range for California emissions of 0.43-0.57 lbs. CO_2(e) per kWh for all utility companies. For SCE specifically, the rate was 0.55 CO_2 per kWh[1].

Information was provided by SCE for a neighboring well for both 2017 and 2021 and this data was used as a prototype for this project. The estimated amount of energy for the neighboring well used as a baseline for Well 57 is 255/256 kWh at peak demand. This would equate to a pump size of approximately 733 HP. Electricity use will result in GHG emissions from the fossil fueled fraction of Southern California's electrical resource calculated as follows, if the pumps would run continuously at a 50% load factor:

365 days/year x 24 hrs/day x 256 kW x 0.5 = 1,121 MW/year.

1,121 MW/year x 550 lbs CO_2/MWh x 2,204 lbs per MT = 280 MT/year

The new pumping operations for the well are anticipated to produce 280 MT CO_2e per year when operating 24-hours per day at a 50% power load.

Adding the amortized construction GHG emissions of 1.9 MT/year to the operational emissions of 280 MT CO_2(e)/year yields a yearly total of 282 MT CO_2(e)/year.

The screening threshold of 10,000 MT of CO_2(e) GHG emissions will not be exceeded. Both the construction and operations GHG emissions are far below the 10,000 MT CO_2(e) advisory threshold for impact significance.

[1] https://sites.uci.edu/energyobserver/2017/11/24/comparisons-of-california-utilities-2016-power-sources-and-emissions/#:~:text=There%20is%20a%20range%20for,up%20at%200.59%20from%200.45.

Consistency with GHG Plans, Programs and Policies

Pursuant to 15604.4 of the *CEQA Guidelines*, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions.

Construction

40% below 1990 levels by 2030

By using newer and electrified construction equipment as it is phased in pursuant to requirements under AB 197 and similar laws, policies and programs, the project will be aligned with applicable plans and policies and would, therefore, not otherwise conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

This is consistent with SB 32's goal of reducing statewide emissions of greenhouse gases by 40% below 1990 levels by 2030.

85% below 1990 levels by 2045 / 2050

While construction activities associated with the implementation of the project would result in emissions of CO_2 and CH_4 (see previous section regarding threshold 1), most of the emissions will come from the burning of fossil fuel in construction equipment. These emissions from construction equipment will decrease even more as emissions technology improves in the next 20 years. Additionally, it is likely that diesel equipment will be cleaner and more efficient, powered by renewable diesel, and/or phased out due to local Climate Action Plans and state requirements (such by AB 197) by 2045. Newer electrified construction equipment will also become more broadly available, further decreasing construction emissions.

This is consistent with AB 1279's goal of reducing emissions to 85% below 1990 levels and carbon neutrality by 2045 and, by extension, Executive Order S-03-05's goal of reducing emissions to 80% below 1990 levels by 2050.

Operations

40% below 1990 levels by 2030

Operational emissions are powered primarily by electricity, so the project's GHG emissions will decline as renewable and carbon neutral energy sources make up a larger and larger percentage of power on the grid in compliance with state's plans, policies, and regulations.

This is consistent with SB 32's goal of reducing statewide emissions of greenhouse gases by 40% below 1990 levels by 2030.

85% below 1990 levels by 2045 / 2050

Operational emissions are powered primarily by electricity, so the project's GHG emissions will decline as renewable and carbon neutral energy sources make up a larger and larger percentage of power on the grid in compliance with state's plans, policies, and regulations.

Finally, the implementation of the project will increase local water supplies, thereby avoiding the need to import water from remote sources. By reducing the demand for importing water, which is energy intensive and generates GHG emissions, the project will offset GHG emissions that would otherwise have occurred absent implementation of the project.

This is consistent with AB 1279's goal of reducing emissions to 85% below 1990 levels and carbon neutrality by 2045 and, by extension, Executive Order S-03-05's goal of reducing emissions to 80% below 1990 levels by 2050. This is also consistent with CARB's 2022 Scoping Plan goals and objectives, which are based on compliance with AB 1279.

Conclusion

Results of the assessment indicate that the project is not anticipated to result in a significant impact during construction or operational activities associated with air quality and GHG.

CALEEMOD2022.1 COMPUTER MODEL OUTPUT

WEST VALLEY WATER DISTRICT WELL NO. 57 PROJECT Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	WEST VALLEY WATER DISTRICT WELL NO. 57 PROJECT
Construction Start Date	5/1/2024
Operational Year	2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	6.40
Location	Knox Ave & Vesta Way, Fontana, CA 92336, USA
County	San Bernardino-South Coast
City	Fontana
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5276
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

User Defined Industrial	1.00	User Defined Unit	1.60	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.85	7.54	12.1	0.02	0.29	3.38	3.58	0.27	0.40	0.58	2,054	0.09	0.05	2,074
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	1.21	1.72	< 0.005	0.05	0.29	0.34	0.04	0.04	0.08	347	0.02	0.01	350
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.22	0.31	< 0.005	0.01	0.05	0.06	0.01	0.01	0.01	57.4	< 0.005	< 0.005	57.9

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.85	7.54	12.1	0.02	0.29	3.38	3.58	0.27	0.40	0.58	2,054	0.09	0.05	2,074

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.15	1.21	1.72	< 0.005	0.05	0.29	0.34	0.04	0.04	0.08	347	0.02	0.01	350
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.03	0.22	0.31	< 0.005	0.01	0.05	0.06	0.01	0.01	0.01	57.4	< 0.005	< 0.005	57.9

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Waste	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Waste	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Waste	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Waste	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3. Construction Emissions Details

3.1. Drilling (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	7.37	10.4	0.02	0.29	—	0.29	0.27	—	0.27	1,680	0.07	0.01	1,686
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.40	0.57	< 0.005	0.02	—	0.02	0.01	—	0.01	92.1	< 0.005	< 0.005	92.4
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	15.2	< 0.005	< 0.005	15.3
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.10	0.10	1.69	0.00	0.00	0.26	0.26	0.00	0.06	0.06	288	0.01	0.01	292
Vendor	< 0.005	0.07	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	62.7	< 0.005	0.01	65.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	14.7	< 0.005	< 0.005	14.9
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.44	< 0.005	< 0.005	3.60
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.43	< 0.005	< 0.005	2.46
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.57	< 0.005	< 0.005	0.60
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Well Equip (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.68	6.78	0.01	0.28	—	0.28	0.25	—	0.25	1,386	0.06	0.01	1,391
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.44	0.45	< 0.005	0.02	—	0.02	0.02	—	0.02	91.1	< 0.005	< 0.005	91.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	15.1	< 0.005	< 0.005	15.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	1.69	0.00	0.00	0.26	0.26	0.00	0.06	0.06	288	0.01	0.01	292
Vendor	< 0.005	0.14	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	125	0.01	0.02	132
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	17.6	< 0.005	< 0.005	17.8
Vendor	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.25	< 0.005	< 0.005	8.64
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.91	< 0.005	< 0.005	2.95
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.37	< 0.005	< 0.005	1.43
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Backfill and Pave (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	2.67	3.48	0.01	0.12	—	0.12	0.11	—	0.11	526	0.02	< 0.005	528
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	0.02	0.02	< 0.005	< 0.005	2.94	2.94	< 0.005	0.29	0.29	8.65	< 0.005	< 0.005	9.13
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	20.2	< 0.005	< 0.005	20.3
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	0.33	< 0.005	< 0.005	0.35
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.34	< 0.005	< 0.005	3.35
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	0.05	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	2.54	0.00	0.00	0.39	0.39	0.00	0.09	0.09	432	0.02	0.01	439
Vendor	< 0.005	0.18	0.10	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	157	0.01	0.02	164
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	15.4	< 0.005	< 0.005	15.6
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.01	< 0.005	< 0.005	6.30
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.55	< 0.005	< 0.005	2.59
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.00	< 0.005	< 0.005	1.04
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Piping (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	5.37	6.11	0.01	0.20	—	0.20	0.18	—	0.18	1,457	0.06	0.01	1,462
Onsite truck	< 0.005	0.02	0.02	< 0.005	< 0.005	2.94	2.94	< 0.005	0.29	0.29	8.65	< 0.005	< 0.005	9.13
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	55.9	< 0.005	< 0.005	56.1
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	0.33	< 0.005	< 0.005	0.35

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.25	< 0.005	< 0.005	9.28
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	0.05	< 0.005	< 0.005	0.06
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	2.54	0.00	0.00	0.39	0.39	0.00	0.09	0.09	432	0.02	0.01	439
Vendor	< 0.005	0.18	0.10	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	157	0.01	0.02	164
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	15.4	< 0.005	< 0.005	15.6
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.01	< 0.005	< 0.005	6.30
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.55	< 0.005	< 0.005	2.59
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.00	< 0.005	< 0.005	1.04
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Drilling	Demolition	5/1/2024	5/28/2024	5.00	20.0	Drill Well
Well Equip	Building Construction	5/30/2024	7/2/2024	5.00	24.0	Will Equiping
Backfill and Pave	Paving	8/1/2024	8/20/2024	5.00	14.0	Backfill and Pave
Piping	Trenching	7/5/2024	7/24/2024	5.00	14.0	Install Piles

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Drilling	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Drilling	Bore/Drill Rigs	Diesel	Average	1.00	24.0	83.0	0.50
Drilling	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
Well Equip	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Well Equip	Cranes	Diesel	Average	1.00	6.00	367	0.29
Well Equip	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Well Equip	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Well Equip	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Backfill and Pave	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Backfill and Pave	Rollers	Diesel	Average	1.00	6.00	36.0	0.38
Backfill and Pave	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Backfill and Pave	Plate Compactors	Diesel	Average	1.00	2.00	8.00	0.43
Backfill and Pave	Pavers	Diesel	Average	1.00	2.00	81.0	0.42

Piping	Tractors/Loaders/Backh	Diesel	Average	1.00	8.00	84.0	0.37
Piping	Cranes	Diesel	Average	1.00	2.00	367	0.29
Piping	Excavators	Diesel	Average	1.00	4.00	36.0	0.38
Piping	Concrete/Industrial Saws	Diesel	Average	1.00	6.00	33.0	0.73
Piping	Off-Highway Trucks	Diesel	Average	1.00	4.00	376	0.38

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Drilling	—	—	—	—
Drilling	Worker	20.0	18.5	LDA,LDT1,LDT2
Drilling	Vendor	2.00	10.2	HHDT,MHDT
Drilling	Hauling	0.00	20.0	HHDT
Drilling	Onsite truck	—	—	HHDT
Well Equip	—	—	—	—
Well Equip	Worker	20.0	18.5	LDA,LDT1,LDT2
Well Equip	Vendor	4.00	10.2	HHDT,MHDT
Well Equip	Hauling	0.00	20.0	HHDT
Well Equip	Onsite truck	—	—	HHDT
Backfill and Pave	—	—	—	—
Backfill and Pave	Worker	30.0	18.5	LDA,LDT1,LDT2
Backfill and Pave	Vendor	5.00	10.2	HHDT,MHDT
Backfill and Pave	Hauling	0.00	20.0	HHDT
Backfill and Pave	Onsite truck	1.00	2.00	HHDT
Piping	—	—	—	—
Piping	Worker	30.0	18.5	LDA,LDT1,LDT2

Piping	Vendor	5.00	10.2	HHDT,MHDT
Piping	Hauling	0.00	20.0	HHDT
Piping	Onsite truck	1.00	2.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Drilling	0.00	0.00	0.00	—	—
Backfill and Pave	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
User Defined Industrial	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	23.9	annual days of extreme heat
Extreme Precipitation	8.00	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	19.2	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	0	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	0	0	0	N/A
Wildfire	0	0	0	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	98.7
AQ-PM	90.0
AQ-DPM	45.3
Drinking Water	94.8
Lead Risk Housing	4.71
Pesticides	0.00
Toxic Releases	62.1
Traffic	93.2
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.5
Cardio-vascular	75.0
Low Birth Weights	37.0
Socioeconomic Factor Indicators	—
Education	23.3
Housing	4.51
Linguistic	24.8
Poverty	12.8

Unemployment	44.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	87.02681894
Employed	78.49351983
Median HI	91.59502117
Education	—
Bachelor's or higher	66.94469396
High school enrollment	6.108045682
Preschool enrollment	32.91415373
Transportation	—
Auto Access	90.86359553
Active commuting	14.38470422
Social	—
2-parent households	73.92531759
Voting	67.83010394
Neighborhood	—
Alcohol availability	93.17336071
Park access	55.33170794
Retail density	14.03823945
Supermarket access	22.99499551
Tree canopy	6.236365969
Housing	—
Homeownership	94.67470807

Housing habitability	97.47209034
Low-inc homeowner severe housing cost burden	93.58398563
Low-inc renter severe housing cost burden	86.9626588
Uncrowded housing	83.16437829
Health Outcomes	—
Insured adults	55.13922751
Arthritis	93.9
Asthma ER Admissions	63.1
High Blood Pressure	94.4
Cancer (excluding skin)	80.0
Asthma	65.7
Coronary Heart Disease	96.5
Chronic Obstructive Pulmonary Disease	94.6
Diagnosed Diabetes	90.6
Life Expectancy at Birth	68.7
Cognitively Disabled	60.3
Physically Disabled	84.3
Heart Attack ER Admissions	29.4
Mental Health Not Good	71.0
Chronic Kidney Disease	95.6
Obesity	61.1
Pedestrian Injuries	19.6
Physical Health Not Good	88.1
Stroke	95.7
Health Risk Behaviors	—
Binge Drinking	6.2
Current Smoker	68.2

No Leisure Time for Physical Activity	82.1
Climate Change Exposures	—
Wildfire Risk	22.0
SLR Inundation Area	0.0
Children	31.0
Elderly	96.7
English Speaking	84.4
Foreign-born	33.5
Outdoor Workers	51.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	63.5
Traffic Density	68.7
Traffic Access	23.0
Other Indices	—
Hardship	20.6
Other Decision Support	—
2016 Voting	73.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	35.0
Healthy Places Index Score for Project Location (b)	71.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	actual site size
Construction: Construction Phases	Phases called out in project description
Construction: Off-Road Equipment	per project description
Construction: Trips and VMT	per proj description

APPENDIX 2

March 18, 2024

TOM DODSON & ASSOCIATES
Contact: *Kaitlyn Dodson*
Via email: kaitlyn@tdaenv.com

SUBJECT: Biological Resources Assessment for West Valley Water District's Proposed Well Number 57 Project Located in the City of Fontana, San Bernardino County, California

Introduction

This report contains the findings of ELMT Consulting's (ELMT) biological resources assessment for West Valley Water District's proposed Well Number 57 project (project site or site) located within Assessor Parcel Numbers (APNs) 110-752-174, 110-752-176, and 110-752-171 in the City of Fontana, San Bernardino County, California. The habitat assessment was conducted by Rachael A. Lyons and Megan E. Peukert on December 5th, 2023, to document baseline conditions and assess the potential for special-status[1] plant and wildlife species to occur within the project site that could pose a constraint to implementation of the proposed project. Special attention was given to the suitability of the project site to support burrowing owl (*Athene cunicularia*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), California gnatcatcher (*Polioptila californica californica*), and other special-status plant and wildlife species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), and other electronic databases as potentially occurring in the general vicinity of the project.

Additionally, the report also addresses resources protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (FGC), federal Clean Water Act (CWA) regulated by the United States Army Corps of Engineers (Corps) and Regional Water Quality Control Board (Regional Board) respectively, and Section 1602 of the FGC administered by CDFW.

Project Location

The project site is generally located north of State Route 210, southeast of Interstate 15, and southwest of Interstate 215 in the City of Fontana, San Bernardino County, California. The site is depicted on the Devore quadrangle of the United States Geological Survey's (USGS) 7.5-minute map series within section 24 of Township 1 North, Range 6 West. Specifically, the project site is roughly bounded to the south by Knox Avenue and is located west of Wilbert Drive, east of Walsh Lane within Assessor's Parcel Numbers 1107-521-71, -74, and -76. Refer to Exhibits 1-3 in Attachment A.

1 As used in this report, "special-status" refers to plant and wildlife species that are federally and State listed, proposed, or candidates; plant species that have been designated with a California Native Plant Society Rare Plant Rank; wildlife species that are designated by the CDFW as fully protected, species of special concern, or watch list species; and specially protected natural vegetation communities as designated by the CDFW.

Project Description

The District seeks to install a new well, which would aid the District in meeting current and future demand, and provide backup for an existing well in the District's water supply. Well No. 57 is proposed to be located on an approximately 1.6-acre portion of three parcels within the City of Fontana (Assessor's Parcel Numbers [APNs] 110-752-174, 110-752-176, and 110-752-171) a site northwest of the intersection of Vesta Way and Knox Ave, just northeast of the intersection of Knox Avenue and Walsh Lane in the City of Fontana (refer to the site plan provided as Figure 4). The District owns APNs 110-752-174 and 110-752-176, and are requesting access from the City of Fontana for APN 110-752-171. Additionally, as shown on Figure 4, the District is requesting an easement from Metropolitan Water District (MWD) for access to the site, for power to the site, to enable flush to waste drainage pipeline installation, and discharge to the existing catch basin, and a well pipeline connection to the existing 24" waterline.

The site would include the following features: a 12" in diameter pipeline connecting to the District's distribution system in Knox Avenue; a 6" drain line the purpose for which is to connect to a pump for waste; a 6' x 9' chlorination building adjacent to the proposed well for sodium hypochlorite 12.5% storage; and, a 5" conduit, switch gear, and transformer to connect to the existing powerline pole.

The District anticipates that the well will be drilled utilizing reverse rotary well drilling method to about 1,000 feet below ground surface (bgs), based on the depth of the District's nearby well. The objective for the well is to generate a minimum 1,000 gpm. The District anticipates that the water quality of the water extracted by the new Well No. 57 would be similar to Well No. 54, which only experiences issues with entrained air and sand (which may be location related). If sand is an issue at the new well, a small sand separator and deaeration tank may be required. The well will require installation of a submersible pump, and no booster pump will be necessary, as existing District booster pumps are sufficient to carry water from the proposed new well to customers.

Access to the proposed project site is provided from Knox Avenue and a paved fire access road. Stormwater is removed from the project site by infiltration into and sheet flow across the unpaved surfaces towards stormwater drains located on the adjacent public right of way.

Methodology

A literature review and records search were conducted to determine which special-status biological resources have the potential to occur on or within the general vicinity of the project site. In addition to the literature review, a general habitat assessment or field investigation of the project site was conducted to document existing conditions and assess the potential for special-status biological resources to occur within the project site.

Literature Review

Prior to conducting the field investigation, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the project site. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project site was determined through a query of the CDFW's QuickView Tool in the Biogeographic Information and Observation System (BIOS), CNDDB Rarefind 5, the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-

status species published by CDFW, and the United States Fish and Wildlife Service (USFWS) species listings.

All available reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the project site was reviewed to understand existing site conditions and note the extent of any disturbances that have occurred within the project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-special-status biological resources, as well as the following resources:

- Google Earth Pro historic aerial imagery (1985-2023);
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey[2];
- USFWS Critical Habitat designations for Threatened and Endangered Species; and
- USFWS Endangered Species Profiles.

The literature review provided a baseline from which to inventory the biological resources potentially occurring within the project site. The CNDDB database was used, in conjunction with ArcGIS software, to locate the nearest recorded occurrences of special-status species and determine the distance from the project site.

Field Investigation

Following the literature review, biologist Rachael A. Lyons and Megan E. Peukert inventoried and evaluated the condition of the habitat within the project site on December 5, 2023. Plant communities and land cover types identified on aerial photographs during the literature review were verified by walking meandering transects throughout the project site. In addition, aerial photography was reviewed prior to the site investigation to locate potential natural corridors and linkages that may support the movement of wildlife through the area. These areas identified on aerial photography were then walked during the field investigation.

Soil Series Assessment

On-site and adjoining soils were researched prior to the field investigation using the USDA NRCS Soil Survey for San Bernardino County, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes that the project site has undergone.

Plant Communities

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. The plant communities were classified in accordance with Sawyer, Keeler-Wolf and Evens (2009), delineated on an aerial photograph, and then digitized into GIS Arcview. The Arcview application was used

2 A soil series is defined as a group of soils with similar profiles developed from similar parent materials under comparable climatic and vegetation conditions. These profiles include major horizons with similar thickness, arrangement, and other important characteristics, which may promote favorable conditions for certain biological resources.

to compute the area of each plant community and/or land cover type in acres.

Plants

Common plant species observed during the field investigation were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unusual and less-familiar plants were photographed in the field and identified in the laboratory using taxonomic guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual (Hickman 2012). In this report, scientific names are provided immediately following common names of plant species (first reference only).

Wildlife

Wildlife species detected during the field investigation by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides used to assist with identification of wildlife species during the survey included The Sibley Field Guide to the Birds of Western North America (Sibley 2003), A Field Guide to Western Reptiles and Amphibians (Stebbins 2003), and A Field Guide to Mammals of North America (Reid 2006). Although common names of wildlife species are well standardized, scientific names are provided immediately following common names in this report (first reference only).

Jurisdictional Drainages and Wetlands

Aerial photography was reviewed prior to conducting a field investigation in order to locate and inspect any potential natural drainage features, ponded areas, or water bodies that may fall under the jurisdiction of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory jurisdiction. In addition, ELMT reviewed jurisdictional waters information through examining historical aerial photographs to gain an understanding of the impact of land-use on natural drainage patterns in the area. The USFWS National Wetland Inventory (NWI) and Environmental Protection Agency (EPA) Water Program "My Waters" data layers were also reviewed to determine whether any hydrologic features and wetland areas have been documented on or within the vicinity of the project site.

Existing Site Conditions

The proposed project site is located in an area that historically supported agricultural land uses and rural communities and has undergone significant urbanization in recent decades. At present, the site is bounded to the northwest by an electrical easement largely supporting undeveloped land with residential tract developments beyond; to the south by Knox Avenue with residential tract developments beyond; and to the east by residential tract developments. The site itself supports developed land and undeveloped, vacant land that has been impacted by historic agricultural uses and several decades of vehicle access and weed abatement regimes, and, more recently, adjacent and on-site development.

Topography and Soils

On-site elevation ranges from approximately 1,686 to 1,703 feet above mean sea level and slopes marginally from northeast to southwest. On-site topography is generally flat with no areas of significant topographic relief. Based on the NRCS USDA Web Soil Survey, the project site is historically underlain

by Tujunga gravelly loamy sand (0 to 9 percent slopes). Soils on-site are generally very rocky and have been mechanically disturbed and compacted from grading activities, historic and ongoing land uses, and on-site and surrounding development.

Vegetation

The project site supports one (1) plant community: non-native grassland. In addition, the site supports two (2) land cover types that would be classified as disturbed and developed (refer to Exhibit 4, *Vegetation*, in Attachment A). Refer to Attachment B, *Site Photographs*, for representative site photographs.

The majority of the project site supports non-native grassland that occurs in varying densities throughout the site, except on the paved and dirt roads that interesect the site. This plant community is dominated by non-native grasses such as common mediterranean grass (Schismus barbatus) and oats (Avena spp.) and supports primarily weedy/early successional species.

Common plant species observed in the non-native grassland plant community include doveweed (*Croton setiger*), telegraph weed (*Heterotheca grandiflora*), and common non-native species observed include wild oat (*Avena sp.*), longbeak stork's bill (*Erodium botrys*), redstem stork's bill (*Erodium cicutarum*), spotted spurge (*Euphorbia maculata*), shortpod mustard (*Hirschfeldia incana*), russian thistle (*Salsola tragus*), Mediterranean grass (*Schismus barbatus*), common sunflower (*Helianthus annus*), and puncture vine (*Tribulus terrestris*).

Disturbed land occurs throughout the site in the form of an unpaved access road which runs along the western boundary, and areas along the eastern and southern boundary which have been subjected to disturbances such as illegal dumping and off-road vehicular use. Vegetative cover in these areas range from barren to sparse. Representative plant species in disturbed areas onsite include those present within the non-native grassland community.

Developed areas onsite occur along the southern boundary in association with the paved city sidewalks and flood control infrastructure. These areas are generally void of vegetation or contain verges which have been vegetated with installed ornamental species.

Wildlife

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the project site. The discussion is to be used a general reference and is limited by the season, time of day, and weather conditions in which the field investigation was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation. The project site provides limited habitat for wildlife species except those adapted to a high degree of anthropogenic disturbances and development.

Fish

No fish or hydrogeomorphic features (e.g., creeks, ponds, lakes, reservoirs) with frequent sources of water that would support populations of fish were observed on or within the vicinity of the project site. Therefore, no fish are expected to occur and are presumed absent from the project site.

Amphibians

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on or within the vicinity of the project site. Therefore, no amphibians are expected to occur and are presumed absent from the project site.

Reptiles

The project site provides suitable foraging and cover habitat for a limited variety of local reptile species adapted to routine anthropogenic disturbance and general isolation by nearby development. Common reptilian species that could be expected to occur on-site include great basin fence lizard (*Sceloporus occidentalis longipes*) and San Diego alligator lizard (*Elgaria multicarinata webbii*).

Birds

The project site and surrounding area provide suitable foraging and nesting habitat for a variety of local bird species. Bird species detected during the field investigation include house sparrow (*Passer domesticus*), rock pigeon (*Columba livia*), house finch (*Haemorhous mexicanus*), western meadowlark (*Sturnella neglecta*), and mourning dove (*Zenaida macroura*).

Mammals

The project site provides suitable foraging and cover habitat for a mammalian species adapted to routine anthropogenic disturbance and general isolation from nearby development. No mammalian species were detected during the field investigation. Common mammalian species that could be expected to occur on-site include opossum (*Didelphis virginiana*) and raccoon (*Procyon lotor*).

Nesting Birds

No active avian nests or birds exhibiting nesting behavior were observed during the field investigation, which was conducted outside of breeding season. The project site and surrounding area provide suitable foraging habitat and nesting opportunities for a variety of year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area. In addition, the project site has the potential to provide suitable nesting opportunities for birds that nest on the open ground. Raptors are not expected to nest on-site due to the lack of suitable nesting opportunities.

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for

one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

According to the San Bernardino County General Plan, the project site is not mapped as occurring within or adjacent to any Major Open Space Areas. The nearest Major Open Space Area to the project site is Cajon Pass; in proximity to the site, the Cajon Pass is composed of the Lytle Creek and Cajon Creek washes. However, in the years since the Major Open Space Areas were mapped, the southwest portion of the Cajon Pass has been largely developed and presently supports mostly residential tract neighborhoods. At present, remaining open space in proximity to the project site occurs approximately 0.64miles to the northeast beyond existing development. Additionally, there are no riparian corridors, creeks, or useful patches of steppingstone habitat (natural areas) within or connecting the project site to these, or any other, identified wildlife corridors or linkages. As a result, implementation of the proposed project will not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

No jurisdictional drainage and/or wetland features were observed on the project site during the field investigation. Further no blueline streams have been recorded on the project site. Therefore, development of the project will not result in impacts to Corps, Regional Board, or CDFW jurisdiction and regulatory approvals will not be required.

Special-Status Biological Resources

The CNDDB Rarefind 5 and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California were queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Devore USGS 7.5-minute quadrangle. Only one quadrangle was queried due to the proximity of the project site to quadrangle boundaries, regional topography, and surrounding development. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified twenty (20) special-status plant species, forty-five (45) special-status wildlife species, and three (3) special-status plant communities as having the potential to occur within the Devore 7.5-minute quadrangle. Special-status plant and wildlife species were evaluated for their potential to occur within the project site based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity of the project site is presented in Attachment C*: Potentially Occurring Special-Status Biological Resources*.

Special-Status Plants

According to the CNDDB and CNPS, twenty (20) special-status plant species have been recorded in the Devore quadrangle (refer to Attachment D). No special-status plant species were observed on-site during the field investigation. The project site has been subject to anthropogenic disturbances from weed-abatement and adjacent and surrounding development; the latter of which has removed on-site habitats from historic hydrological regimes that once shaped the vegetative structure of plant communities in the area. These disturbances have reduced, if not eliminated, the suitability of the habitat to support special-status plant species known to occur in the general vicinity of the project site.

Based on habitat requirements for specific special-status plant species, the availability and quality of habitats needed by each species, and known distributions, it was determined that the project site does not have potential to support any of the special-status plant species known to occur in the vicinity and all are presumed to be absent. No further surveys are recommended.

Special-Status Wildlife

According to the CNDDB, forty-five (45) special-status wildlife species have been reported in the Devore quadrangle (refer to Attachment D). No special-status wildlife species were observed during the field investigation. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the proposed project has a high potential to support Cooper's hawk (*Accipiter cooperii*) and California horned lark (*Eremophila alpestris actia*). It was further determined that the project site does not have the potential to support any of the other special-status wildlife species listed in the CNDDB. None of the aforementioned species are federally or state listed as endangered or threatened.

Cooper's hawk is not expected to nest on-site due to the lack of suitable nesting opportunities and California horned lark is not expected to nest on-site due to routine weed abatement and disturbance from access road use.

Based on regional significance, the potential occurrence of burrowing owl, San Bernardino kangaroo rat, and California gnatcatcher within the project site are described in further detail below:

Burrowing Owl

The burrowing owl is currently listed as a California Species of Special Concern. It is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with well-drained, level to gently-sloping areas characterized by sparse vegetation and bare ground (Haug and Didiuk 1993; Dechant et al. 1999). Burrowing owls are dependent upon the presence of burrowing mammals (such as ground squirrels) whose burrows are used for roosting and nesting (Haug and Didiuk 1993). The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. Burrowing mammals may burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. They also require open vegetation allowing line-of-sight observation of the surrounding habitat to forage as well as watch for predators.

No burrowing owls or recent sign (i.e., pellets, feathers, castings, or whitewash) were observed during the field investigation. Portions of the project site are unvegetated and/or vegetated with low-growing plant species that allow for line-of-sight observation favored by burrowing owls. However, the project site lacks suitable burrows (>4 inches in diameter) capable of providing nesting opportunities. In addition, the site is surrounded by electrical and light poles which provide perching opportunities for larger raptor species (i.e., red-tailed hawk [*Buteo jamaicensis*]) that prey on burrowing owls. Burrowing owl is further precluded from establishing on-site due to the presence of free-roaming domestic cats.

Based on the results of the field investigation, it was determined that the project site does not have potential to support burrowing owl and focused surveys are not recommended. However, out of an abundance of caution, a preconstruction burrowing owl clearance survey shall be conducted prior to development to ensure burrowing owl remain absent from the project site.

San Bernardino Kangaroo Rat

The San Bernardino kangaroo rat, federally listed as endangered, is one of several kangaroo rat species in its range. The Dulzura, the Pacific kangaroo rat (*Dipodomys agilis*) and the Stephens kangaroo rat (*Dipodomys stephensi*) occur in areas occupied by the San Bernardino kangaroo rat, but these other species have a wider habitat range. The habitat of the San Bernardino kangaroo rat is described as being confined to pioneer and intermediate Riversidean Alluvial Fan Sage Scrub (RAFSS) habitats, with sandy soils deposited by fluvial (water) rather than Aeolian (wind) processes. Burrows are dug in loose soil, usually near or beneath shrubs.

The San Bernardino kangaroo rat is one of three subspecies of the Merriam's kangaroo rat. The Merriam's kangaroo rat is a widespread species that can be found from the inland valleys to the deserts. The subspecies known as the San Bernardino kangaroo, however, is confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainages. Most of the drainages have been historically altered as a result of flood control efforts and the resulting increased use of river resources, including mining, off-road vehicle use and road and housing development. This increased use of river resources has resulted in a reduction in both the amount and quality of habitat available for the San Bernardino kangaroo rat. The past habitat losses and potential future losses prompted the emergency listing of the San Bernardino kangaroo rat as an endangered species (USFWS, 1998a). PCE's are physical or biological features essential to the conservation of a species for which its designated critical habitat is based on. Examples of PCE's include food, water, space for individual and population growth, cover or shelter, etc. The PCEs essential to support the biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering for San Bernardino kangaroo rat are:

1. River, creek, stream, and wash channels; alluvial fans, flood plains, flood benches and terraces; and historic braided channels that are subject to dynamic geomorphological and hydrological processes;
2. Alluvial sage scrub and associated vegetation such as coastal sage scrub and chamise chaparral with a moderately open canopy;
3. Soil series consisting of sand, sandy loam, or loam within its geographical range; and
4. Upland areas proximal to flood plains containing suitable habitat (land adjacent to alluvial fan that provides refugia).

San Bernardino kangaroo rat is known to occur within Lytle Creek. The project site has been generally removed from the hydrological influences of Lytle Creek since the installation of Interstate 15 and associated flood control infrastructure since the mid-1900's, resulting in the on-site RAFSS plant community no longer exhibiting the dynamic vegetative succession and diversity typical of this plant community. In addition, the development of extensive residential neighborhood tracts in the mid-1990's thoroughly isolated the project site from suitable habitats within downstream portions of Lytle Creek.

The project site supports disturbed and developed land. Undeveloped portions of the project site are underlain with rocky soils that have been heavily disturbed and compacted following decades of anthropogenic disturbance. Field sign for kangaroo rat, including San Bernardino kangaroo rat, is distinctive and readily noted in the field. No sign (e.g., San Bernardino kangaroo rat characteristic burrows, dusting baths, and/or tail drags) was observed during the field investigation. Additionally, the project site no longer is subject to the hydrologic influence of Lytle Creek due to the channelization of Lytle Creek for flood control purposes.

Based on these conditions, it was determined that the project site does not provide the requisite habitat elements needed by San Bernardino kangaroo rat to be present. Therefore, it was determined that San Bernardino kangaroo rat is presumed absent from the project site. No focused surveys are recommended.

California Gnatcatcher

California gnatcatcher is a federally threatened species with restricted habitat requirements, being an obligate resident of sage scrub habitats that are dominated by California sagebrush. This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. According to J. Atwood and J. Bolsinger (1992), 99% of all California gnatcatcher observations are in areas with elevations below 950 feet. There are reported occurrences of California gnatcatcher at 1,600 feet elevation (500 meters).

California gnatcatcher ranges from Ventura County south to San Diego County and northern Baja California and is less common in sage scrub with a high percentage of tall shrubs. It prefers habitat with more low-growing vegetation. California gnatcatchers breed between mid-February and the end of August, with peak activity from mid-March to mid-May. Population estimates indicate that there are approximately 1,600 to 2,290 pairs of coastal California gnatcatcher remaining. Declines are attributed to loss of sage scrub habitat due to development, as well as cowbird nest parasitism.

California gnatcatcher are ground and shrub-foraging insectivores, feeding on small insects and other arthropods. A California gnatcatcher's territory is highly variable in size and seems to be correlated with distance from the coast, ranging from less than 1 ha to over 9 ha. In a 1998 study, biologist Patrick Mock concluded that California gnatcatcher in the inland region require a larger territory than those on the coast in order to meet the nutritional requirements needed for survival and breeding.

The Primary Constituent Elements (PCEs)[3] essential to support the biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering for California gnatcatcher that were surveyed for include:

3 Specific elements of physical and biological features that provide for a species' life-history process and are essential to the conservation of the species.

1. Dynamic and Successional sage scrub Habitats and Associated Vegetation (Diegan Coastal Sage Scrub, Coastal Sage-Chaparral Scrub, etc.) that provide space for individual and population growth, normal behavior, breeding, reproduction, nesting, dispersal and foraging; and
2. Non-sage scrub habitats such as chaparral, grassland, and riparian areas, in proximity to sage scrub habitats have the potential to provide linkages to help with dispersal, foraging and nesting.

The project site ranges in approximate elevation from 1,560 to 1,585 feet above mean sea level, which is just below the known elevational range of California gnatcatcher. Ninety-nine percent of all California gnatcatcher observations occur below 950 feet above msl. California gnatcatcher's preferred habitat is coastal sage scrub dominated by California sage brush. The project site does not support coastal sage scrub habitat. In addition, the site is isolated from California gnatcatcher occupied coastal sage scrub habitats and linkage areas in the region by surrounding development. Given the degraded condition of the site, plus the lack of any observation of California gnatcatcher in north Fontana and isolation of the site due to the recent development of surrounding properties, it is highly unlikely that the site might support this species. Therefore, California gnatcatcher is presumed to be absent from the project site. No further surveys are recommended.

Special-Status Plant Communities

According to the CNDDB, three (3) special-status plant communities have been reported in the Devore USGS 7.5-minute quadrangle: RAFSS, Southern Riparian Forest, and Southern Sycamore Alder Riparian Woodland (refer to Attachment D). No special-status plant communities were observed onsite at the time of the investigation.

Due to recent and historic disturbances associated with surrounding construction, weed-abatement activities, and on-site and surrounding development, the vegetation supported by the project site does not support characteristics for special-status plant communities to reside.

Critical Habitats

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the USFWS regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a Clean Water Act Permit from the United States Army Corps of Engineers). If there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

In 2002 the USFWS designated Critical Habitat for San Bernardino kangaroo rat, and the project site was included within the designated area. Subsequently, in 2008 the USFWS reduced the boundaries of their

previously designated Critical Habitat which removed the project site from designation. The lack of the needed habitat features within the project site, as well as in north Fontana, prompted USFWS to remove the Critical Habitat designation in this area. Finally, at the beginning of 2011 the original (2002) designated Critical Habitat was reinstated by a federal district court ruling which overturned the reduced (2008) designated Critical Habitat. Currently the project site is located within designated Critical Habitat Unit 2, Lytle Creek/Cajon Wash. Refer to Exhibit 5, *Critical Habitat* in Attachment A. However, since the project does not have a federal nexus, a Section 7 consultation with the USFWS would not be required for loss or adverse modification of Critical Habitat. If a federal nexus does occur, a Section 7 Consultation will have to be initiated with USFWS.

Conclusion

Based literature review and field survey, and existing site conditions discussed in this report, implementation of the project will is not expected to have significant impacts on federally or State listed species known to occur in the general vicinity of the project site. Additionally, the project will have no effect on designated Critical Habitat, since there is no federal nexus, or regional wildlife corridors/linkages because none exist within the area. No jurisdictional drainage and/or wetland features were observed on the project site during the field investigation. No further surveys are recommended. With completion of the recommendations provided below, no impacts to year-round, seasonal, or special-status avian residents or special-status species will occur from implementation of the proposed project.

Recommendations

Migratory Bird Treaty Act and Fish and Game Code

In order to ensure impacts to special-status avian species (i.e., Bell's sage sparrow, California horned lark, Cooper's hawk, Costa's hummingbird, and loggerhead shrike) do not occur from implementation of the proposed project, a pre-construction nesting bird clearance survey shall be conducted prior to ground disturbance. With implementation of the pre-construction nesting bird clearance survey, impacts to special-status avian species will be less than significant and no mitigation will be required.

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). In order to protect migratory bird species, a nesting bird clearance survey should be conducted prior to any ground disturbance or vegetation removal activities that may disrupt the birds during the nesting season.

If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer will be determined by the wildlife biologist and will depend on the level of noise and/or surrounding anthropogenic disturbances, line of sight between the nest and the construction activity, type and duration of construction activity, ambient noise, species habituation, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an

active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

As part of the nesting bird clearance, it is recommended that a burrowing owl pre-construction clearance survey be conducted prior to any ground disturbance or vegetation removal activities to ensure that burrowing owls remain absent from the project site.

Please do not hesitate to contact Tom McGill at (951) 285-6014 or tmcgill@elmtconsulting.com or Travis McGill at (909) 816-1646 or travismcgill@elmtconsulting.com should you have any questions this report.

Sincerely,

Thomas J. McGill, Ph.D.
Managing Director

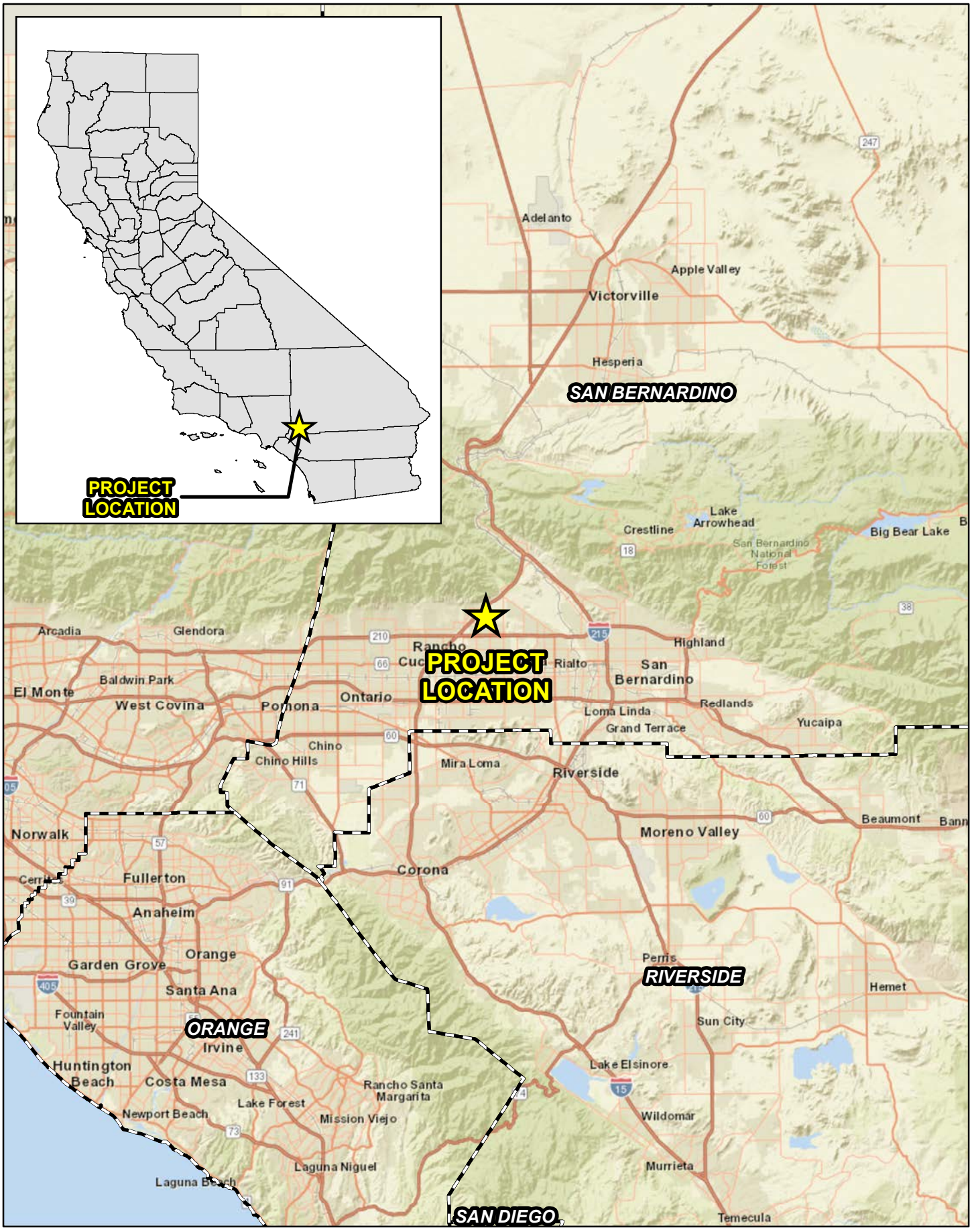
Travis J. McGill
Director

Attachments:

A. *Project Exhibits*
B. *Site Plan*
C. *Site Photographs*
D. *Potentially Occurring Special-Status Biological Resources*
E. *Regulations*

Attachment A

Project Exhibits

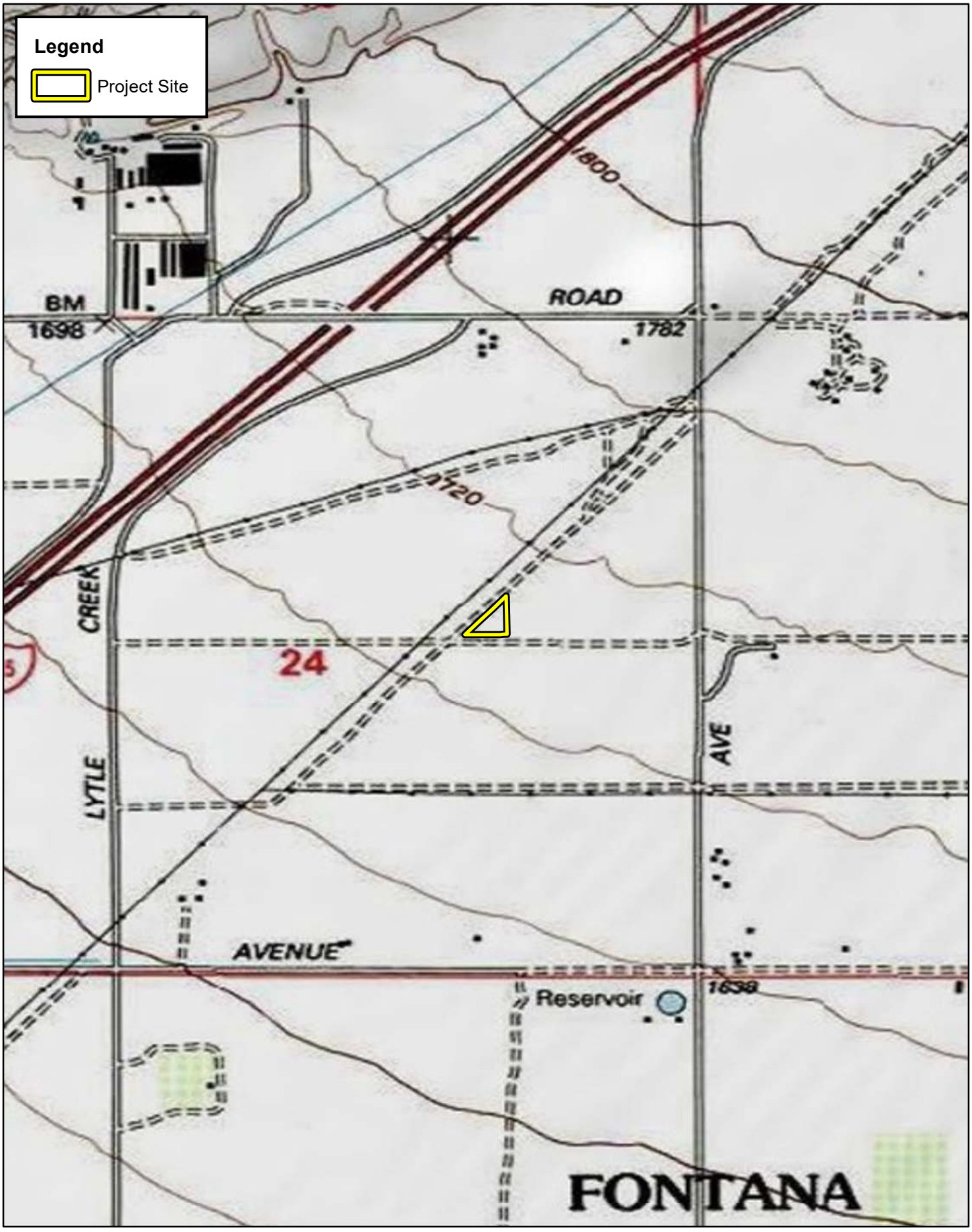


Source: World Street Map, San Bernardino County

BIOLOGICAL RESOURCES ASSESSMENT

Regional Vicinity

Exhibit 1



BIOLOGICAL RESOURCES ASSESSMENT

ELMT CONSULTING

0 500 1,000 2,000 Feet

Source: USA Topographic Map, San Bernardino County

Site Vicinity

Exhibit 2

ELMT CONSULTING

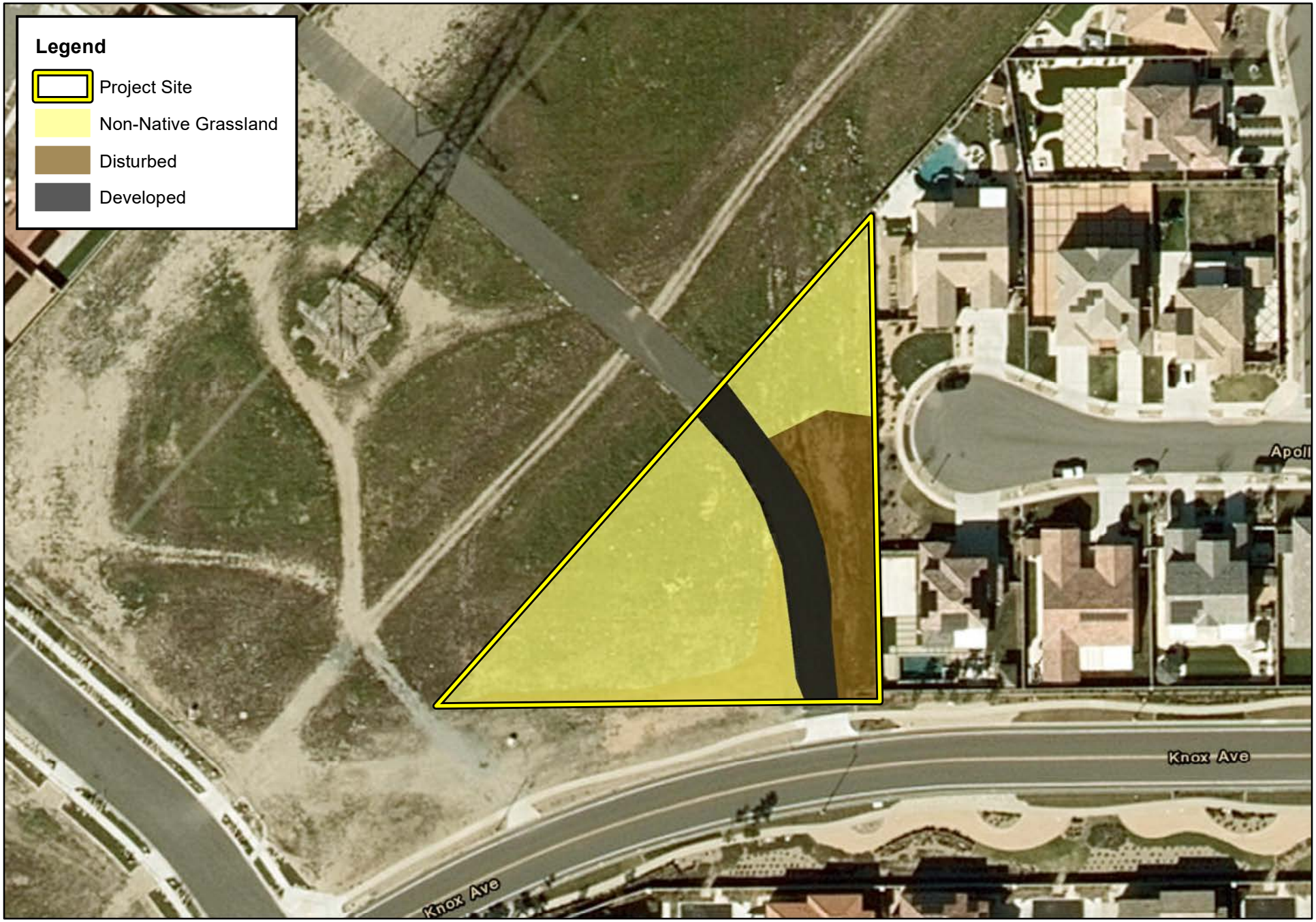
0 62.5 125 250 Feet

Source: ESRI Aerial Imagery, San Bernardino County

BIOLOGICAL RESOURCES ASSESSMENT

Project Site

Exhibit 3



ELMT CONSULTING

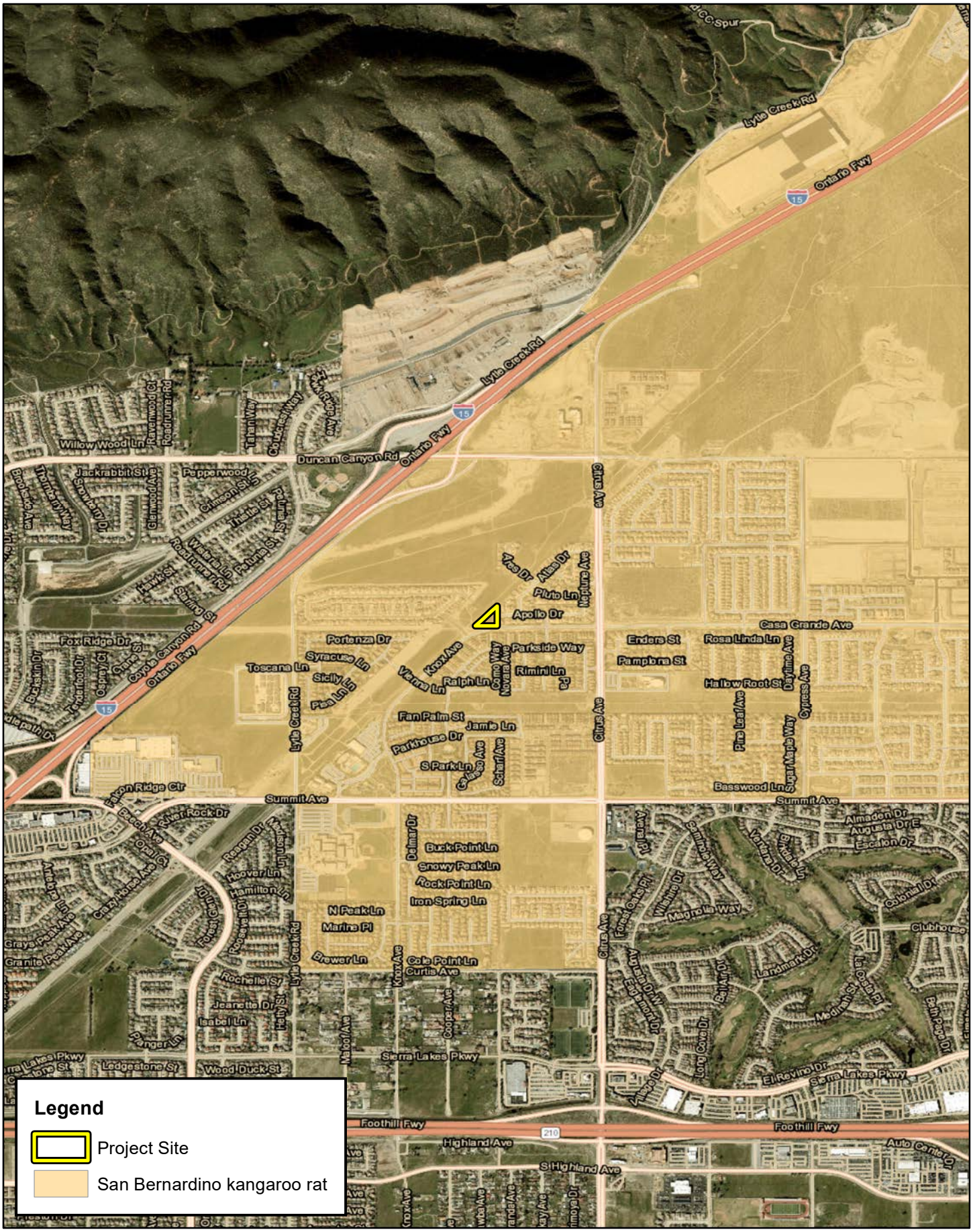
0 62.5 125 250 Feet

Source: ESRI Aerial Imagery, San Bernardino County

BIOLOGICAL RESOURCES ASSESSMENT

Vegetation

Exhibit 4



BIOLOGICAL RESOURCES ASSESSMENT

Critical Haibtat

Exhibit 5

Attachment B

Site Plan

West Valley Water District - Site Exhibit for
W22009 New Production Groundwater Well No. 57
Kick-off Meeting 06/27/2023
10/26/2023 Rev

Attachment C

Site Photographs

Photograph 1: From the western corner of the project site looking northeast along the northwest facing boundary.

Photograph 2: From the western corner of the project site looking east along the southern boundary.

Photograph 3: From the middle of the southern boundary of the project site looking north.

Photograph 4: From the southeast corner of the project site looking west along the southern boundary.

Photograph 5: From the southeast corner of the project site looking north along the eastern boundary.

Photograph 6: From the northeast corner of the project site looking south along the eastern boundary.

Photograph 7: From the northeast corner of the project site looking southwest along the northwest facing boundary.

Photograph 8: From the middle of the northwestern facing boundary looking southeast.

Attachment D

Potentially Occurring Special-Status Biological Resources

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
SPECIAL-STATUS WILDLIFE SPECIES				
Accipiter cooperii Cooper's hawk	Fed: None CA: WL	Generally found in forested areas up to 3,000 feet in elevation, especially near edges and rivers. Prefers hardwood stands and mature forests, but can be found in urban and suburban areas where there are tall trees for nesting. Common in open areas during nesting season.	No	**High** Suitable foraging habitat is present within and surrounding the site. No suitable nesting opportunities are present. This species is adapted to urban environments and occurs commonly.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	Fed: None CA: WL	Typically found between 3,000 and 6,000 feet in elevation. Breed in sparsely vegetated shrublands on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (*Artemisia californica*) but can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Anniella stebbinsi southern California legless lizard	Fed: None CA: SSC	Occurs primarily in areas with sandy or loose loamy soils under sparse vegetation of beaches, chaparral, or pine-oak woodland; or near sycamores, oaks, or cottonwoods that grow on stream terraces. Often found under or in the close vicinity of logs, rocks, old boards, and the compacted debris of woodrat nests.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Aquila chrysaetos golden eagle	Fed: None CA: FP; WL	Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Ardea alba great egret	Fed: None CA: None	Yearlong resident throughout California, except for the high mountains and deserts. Feeds and rests in fresh, and saline emergent wetlands, along the margins of estuaries, lakes, and slow-moving streams, on mudflats and salt ponds, and in irrigated croplands and pastures.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Ardea herodias great blue heron	Fed: None CA: None	Fairly common all year throughout most of California, in shallow estuaries and fresh and saline emergent wetlands. Less common along riverine and rocky marine shores, in croplands, pastures, and in mountains about foothills.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Arizona elegans occidentalis California glossy snake	Fed: None CA: SSC	Occurs in a wide variety of habitat types including open desert, grasslands, shrublands, chaparral, and woodlands. Prefers areas where the soil is loose and sandy which allows for burrowing.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site. On-site soils do not provide suitable burrowing conditions.
Artemisiospiza belli belli Bell's sage sparrow	Fed: None CA: WL	Occurs in chaparral dominated by fairly dense stands of chamise. Also found in coastal sage scrub in south of range.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: None CA: SSC	Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage such as chaparral, woodland, and riparian areas.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Athene cunicularia burrowing owl	Fed: None CA: SSC	Primarily a grassland species, but it persists and even thrives in some landscapes highly altered by human activity. Occurs in open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. The overriding characteristics of suitable habitat appear to be burrows for roosting and nesting and relatively short vegetation with only sparse shrubs and taller vegetation.	No	**Presumed Absent** Portions of the project site are unvegetated or minimally vegetated, providing line-of-sight foraging opportunities preferred by burrowing owl. However, no suitable burrows (>4 inches in diameter) were observed.
Bassariscus astutus octavus southern California ringtail	Fed: None CA: FP	Ringtails can be found at elevations of up to 2900 m but are most common at elevations ranging from sea level to 1400 m. Found in a variety of habitats, they prefer habitats with rocky outcroppings, canyons, or talus slopes and can be found in semi-arid country, deserts, chaparral, oak woodlands, pinyon pine woodlands, juniper woodlands, montane conifer forests, and riparian habitats.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Batrachoseps gabrieli San Gabriel slender salamander	Fed: None CA: None	Known from select localities in the San Gabriel Mountains and the Mt. Baldy area of Los Angeles County and the western end of the San Bernardino Mountains in San Bernardino Co., with an elevation range of 1,200 - 5,085 feet. Occurs on talus slopes surrounded by a variety of conifer and montane hardwood species, including bigcone spruce, pine, white fir, incense cedar, canyon live oak, black oak, and California laurel.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Bombus crotchii Crotch bumble bee	Fed: None CA: CE	Colonial species that lives almost exclusively from coastal California east towards the Sierra-Cascade Crest and can be found uncommonly in western Nevada and south through Baja California. Inhabits grassland and scrub habitats in hotter and drier climates than most other bumblebee species and is only capable of tolerating a narrow range of climatic conditions. Feeds on a variety of annual and perennial plant species, classifying it as a dietary generalist. This species usually nests underground, often in abandoned rodent dens.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Bombus pensylvanicus American bumble bee	Fed: None CA: None	Prefers farmlands, meadows, grasslands, and open fields. Nests below grass or underground. Feeds on pollen of a wide variety of flowering plants including vetches, clovers, goldenrods, and many crop species.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Buteo regalis ferruginous hawk	Fed: None CA: WL	Occurs primarily in open grasslands and fields, but may be found in sagebrush flats, desert scrub, low foothills, or along the edges of pinyon-juniper woodland. Feeds primarily on small mammals and typically found in agricultural or open fields.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Calypte costae Costa's hummingbird	Fed: None CA: None	Desert and semi-desert, arid brushy foothills and chaparral. A desert hummingbird that breeds in the Sonoran and Mojave Deserts. Departs desert heat moving into chaparral, scrub, and woodland habitats.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: None CA: None	Occurs in desert and coastal habitats in southern California, Mexico, and northern Baja California, from sea level to at least 1,400 meters above msl. Found in a variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Requires low growing vegetation or rocky outcroppings, as well as sandy soils for burrowing.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site. On-site soils do not provide suitable burrowing conditions.
Chaetodipus fallax pallidus pallid San Diego pocket mouse	Fed: None CA: None	Occurs in sandy herbaceous areas, usually in association with rocks or coarse gravel in desert wash, desert scrub, desert succulent scrub, and pinyon-juniper communities.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site. On-site soils do not provide suitable burrowing conditions.
Circus hudsonius northern harrier	Fed: None CA: SSC	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Mostly found in flat, or hummocky, open areas of tall, dense grasses moist or dry shrubs, and edges for nesting, cover, and feeding.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Dipodomys merriami parvus San Bernardino kangaroo rat	Fed: **END** CA: CE; SSC	Primarily found in Riversidian alluvial fan sage scrub and sandy loam soils, alluvial fans and flood plains, and along washes with nearby sage scrub. May occur at lower densities in Riversidian upland sage scrub, chaparral and grassland in uplands and tributaries in proximity to Riversidian alluvial fan sage scrub habitats. Tend to avoid rocky substrates and prefer sandy loam substrates for digging of shallow burrows.	No	**Presumed Absent** The RAFSS supported by the project site has been isolated from the hydrological influences of Lytle Creek for several decades and no longer provides suitable habitat.
Dipodomys simulans Dulzura kangaroo rat	Fed: None CA: None	Relatively common in chaparral, coastal sage scrub, Riversidean alluvial fan sage scrub, and peninsular juniper woodland habitats.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site. On-site soils do not provide suitable burrowing conditions.
Elanus leucurus white-tailed kite	Fed: None CA: FP	Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Uses trees with dense canopies for cover. Important prey item is the California vole.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Eremophila alpestris actia California horned lark	Fed: None CA: WL	Generally found in shortgrass prairies, grasslands, disturbed fields, or similar habitat types along the coast or in deserts. Trees are shrubs are usually scarce or absent. Generally rare in montane, coniferous, or chaparral habitats. Forms large flocks outside of the breeding season.	No	**High** Suitable foraging habitat is present within and surrounding the project site. Routine disturbance likely precludes this species from nesting on-site.
Falco mexicanus prairie falcon	Fed: None CA: WL	Commonly occur in arid and semiarid shrubland and grassland community types. Also occasionally found in open parklands within coniferous forests. During the breeding season, they are found commonly in foothills and mountains which provide cliffs and escarpments suitable for nest sites.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Falco peregrinus anatum American peregrine falcon	Fed: DL CA: DL	Uncommon winter resident of the inland region of southern California. Active nesting sites are known along the coast north of Santa Barbara, in the Sierra Nevada, and in other mountains of northern California. Breeds mostly in woodland, forest, and coastal habitats. Riparian areas and coastal and inland wetlands are important habitats yearlong, especially in nonbreeding seasons.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Icteria virens yellow-breasted chat	Fed: None CA: SSC	Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. Breeding habitat must be dense to provide shade and concealment. It winters south the Central America.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Lanius ludovicianus loggerhead shrike	Fed: None CA: SSC	Often found in broken woodlands, shrublands, and other habitats. Prefers open country with scattered perches for hunting and fairly dense brush for nesting.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Lepus californicus bennettii San Diego black-tailed jackrabbit	Fed: None CA: None	Occurs in diverse habitats, but primarily is found in arid regions supporting shortgrass habitats. Openness of open scrub habitat is preferred over dense chaparral.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Microtus californicus mohavensis Mohave river vole	Fed: None CA: SSC	Found in moist habitats including meadows, freshwater marshes and irrigated pastures in the vicinity of the Mojave River. Suitable habitat it associated with ponds and irrigation canals along with the Mojave River proper. Alfalfa fields may also provide habitat.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Neolarra alba white cuckoo bee	Fed: None CA: None	Found in dry, sandy areas (particularly deserts) in the American southwest near the host plants for *Perdita* bee species, of which it is a nest parasite.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Neotoma lepida intermedia San Diego desert woodrat	Fed: None CA: SSC	Occurs in coastal scrub communities between San Luis Obispo and San Diego Counties. Prefers moderate to dense canopies, and especially rocky outcrops.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: None CA: SSC	Often found in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
***Oncorhynchus mykiss irideus* pop. 10** steelhead – southern california DPS	Fed: **END** CA: CE	Found in permanent coastal streams from San Diego to the Smith River.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Pandion haliaetus osprey	Fed: None CA: WL	Associated strictly with large, fish-bearing waters, primarily in ponderosa pine through mixed conifer habitats. Uses large trees, snags, and dead-topped trees in open forest habitats for cover and nesting. Requires open, clear waters for foraging and uses rivers, lakes, reservoirs, bays, estuaries, and surf zones.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: None CA: SSC	Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, instead seeking refuge beneath weeds and dead leaves.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Phrynosoma blainvillii coast horned lizard	Fed: None CA: SSC	Occurs in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (i.e. fire, floods, roads, grazing, fire breaks). The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site. On-site soils do not provide suitable burrowing conditions.
Polioptila californica californica coastal California gnatcatcher	Fed: **THR** CA: SSC	Obligate resident of sage scrub habitats that are dominated by California sagebrush (*Artemisia californica*). This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. Ranges from the Ventura County, south to San Diego County and northern Baja California and it is less common in sage scrub with a high percentage of tall shrubs. Prefers habitat with more low-growing vegetation.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Rana muscosa southern mountain yellow-legged frog	Fed: **END** CA: **END**; WL	Occurs in lower elevation habitats characterized by rocky streambeds and wet meadows, while higher elevation habitats include lakes, ponds, and streams. Occupy streams in narrow, rock-walled canyons. Often found along rock walls or vegetated banks and always within a few feet of the water.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
***Rhinichthys osculus* ssp. 8** Santa Ana speckled dace	Fed: None CA: SSC	Requires permanent flowing streams within summer water temperatures of 17 – 20 degrees Celsius. Inhabits shallow cobble and gravel riffles and small streams that flow through steep, rocky canyons with chaparral covered walls.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Salvadora hexalepis virgultea coast patch-nosed snake	Fed: None CA: SSC	Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains. Requires friable soils for burrowing.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Setophaga petechia yellow warbler	Fed: None CA: SSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes and the eastern side of the Sierra Nevada. Winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Spinus lawrencei Lawrence's finch	Fed: None CA: None	Open woodlands, chaparral, and weedy fields. Closely associated with oaks. Nests in open oak or other arid woodland and chaparral near water.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Strix occidentalis occidentalis California spotted owl	Fed: None CA: SSC	Breeds and roosts in forests and woodland with large old trees and snags, high basal areas of trees and snags, dense canopies, multiple canopy layers, and downed woody debris. Large old trees are key as they provide nest sites and cover from weather.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Taxidea taxus American badger	Fed: None CA: SSC	Primarily occupy grasslands, parklands, farms, tallgrass and shortgrass prairies, meadows, shrub-steppe communities and other treeless areas with sandy loam soils where it can dig more easily for its prey. Occasionally found in open chaparral (with less than 50% plant cover) and riparian zones.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Vireo bellii pusillus least Bell's vireo	Fed: **END** CA: **END**	Primarily occupy Riverine riparian habitat that typically feature dense cover within 1-2 meters of the ground and a dense, stratified canopy. Typically it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodlands, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses, 2,000 feet elevation in the interior.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
SPECIAL-STATUS PLANT SPECIES				
Ambrosia monogyra singlewhorl burrobush	Fed: None CA: None CNPS: 2B.2	Found in sandy soils within chaparral and Sonoran Desert scrub habitat. Found at elevations ranging from 33 to 1,640 feet. Blooming period is from August to November.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Calochortus plummerae Plummer's mariposa-lily	Fed: None CA: None CNPS: 4.2	Prefers openings in chaparral, foothill woodland, coastal sage scrub, valley foothill grasslands, cismontane woodland, lower montane coniferous forest and yellow pine forest. Often found on dry, rocky slopes and soils and brushy areas. Can be very common after a fire. Found at elevations ranging from 330 to 5,580 feet. Blooming period is from May to July.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Chorizanthe parryi* var. *parryi Parry's spineflower	Fed: None CA: None CNPS: 1B.1	Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. Found at elevations ranging from 900 to 4,005 feet. Blooming period is from April to June.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Chorizanthe xanti var. leucotheca white-bracted spineflower	Fed: None CA: None CNPS: 1B.2	Found in sandy or gravelly soils within coastal scrub (alluvial fans), Mojavean desert scrub, pinyon and juniper woodland habitats. Found at elevations ranging from 984 to 3,937 feet. Blooming period is from April to June.	No	**Presumed Absent** There is no suitable habitat present within the project site.
Cryptantha incana Tulare cryptantha	Fed: None CA: None CNPS: 1B.3	Occurs in lower montane coniferous forest (gravelly or rocky). Found at elevations ranging from 4,692 to 7,054 feet above msl. Blooming period is from June to August.	No	**Presumed Absent** There is no suitable habitat present within the project site. The project site occurs outside of the known elevation range for this species.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Dodecahema leptoceras slender-horned spineflower	Fed: **END** CA: **END** CNPS: 1B.1	Grows in sandy soils on flood-deposited terraces and washes within chaparral and coastal scrub (alluvial fan sage scrub) habitats. Found at elevations ranging from 655 to 2,495 feet. Blooming period is from April to June.	No	**Presumed Absent** There is no suitable habitat present within the project site.
Eriastrum densifolium* ssp. *sanctorum Santa Ana River woollystar	Fed: **END** CA: **END** CNPS: 1B.1	Found in sandy soil in association with mature alluvial scrub. Ideal habitat appears to be a terrace or bench that receives overbank deposits every 50 to 100 years. Cryptogamic crusts are frequently present in occupied areas. Found at elevations ranging from 299 to 2,001 feet. Blooming period is from April to September.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Galium jepsonii Jepson's bedstraw	Fed: None CA: None CNPS: 4.3	Found in granitic, rocky or gravelly soils within lower montane coniferous forest and upper montane coniferous forest habitats. Found at elevations ranging from 5,052 to 8,202 feet above msl. Blooming period is from July to August.	No	**Presumed Absent** There is no suitable habitat present within the project site. The project site occurs outside of the known elevation range for this species.
Galium johnstonii Johnston's bedstraw	Fed: None CA: None CNPS: 4.3	Found in granitic, rocky or gravelly soils within lower montane coniferous forest and upper montane coniferous forest habitats. Found at elevations ranging from 5,052 to 8,202 feet. Blooming period is from July to August.	No	**Presumed Absent** There is no suitable habitat present within the project site. The project site occurs outside of the known elevation range for this species.
Horkelia cuneata var. puberula Mesa horkelia	Fed: None CA: None CNPS: 1B.1	Occurs on sandy or gravelly soils in chaparral, woodlands, and coastal scrub plant communities. Found at elevations ranging from 230 to 2,657 feet. Blooming period is from February to September.	No	**Presumed Absent** There is no suitable habitat present within or adjacent to the project site.
Juglans californica southern California black walnut	Fed: None CA: None CNPS: 4.2	Found in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats. Found at elevations ranging from 164 to 2,953 feet. Blooming period is from March to August.	No	**Presumed Absent** Suitable habitat is present within the project site; however, this conspicuous species was not observed on-site or nearby during the field investigation.
Lilium humboldtii* ssp. *ocellatum ocellated humboldt lily	Fed: None CA: None CNPS: 4.2	Found in openings within chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland habitats. Found at elevations ranging from 98 to 5,906 feet in elevation. Blooming period is from March to August.	No	**Presumed Absent** There is no suitable habitat present within the project site.
Lilium parryi lemon lily	Fed: None CA: None CNPS: 1B.2	Prefers lower montane coniferous forest, riparian forests, upper montane coniferous forests, meadows and seeps. Found at elevations ranging from 4,003 to 9,006 feet. Blooming period is from July to August.	No	**Presumed Absent** There is no suitable habitat present within the project site. The project site occurs outside of the known elevation range for this species.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Lycium parishii Parish's desert-thorn	Fed: None CA: None CNPS: 2B.3	Habitats include coastal scrub and Sonoran Desert scrub. Found at elevations ranging from 443 to 3,281 feet. Blooming period is from March to April.	No	**Presumed Absent** There is no suitable habitat present within the project site.
Malacothamnus parishii Parish's bush-mallow	Fed: None CA: None CNPS: 1A	Species is presumed extinct. Habitats include coastal scrub and chaparral. Found at elevations ranging from 1,000 to 1,495 feet. Blooming period is from June to July.	No	**Presumed Absent** There is no suitable habitat present within the project site. The project site occurs outside of the known elevation range for this species.
Monardella saxicola rock monardella	Fed: None CA: None CNPS: 4.2	Found in rocky, usually serpentinite, soils within chaparral, closed-cone coniferous forest, and lower montane coniferous forest habitats. Found at elevations ranging from 1,640 to 5,906 feet. Blooming period is from June to September.	No	**Presumed Absent** There is no suitable habitat present within the project site. The project site occurs outside of the known elevation range for this species.
Opuntia basilaris var. brachyclada short-joint beavertial	Fed: None CA: None CNPS: 1B.2	Habitats include chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodlands. Found at elevations ranging from 1,394 to 5,906 feet. Blooming period is from April to August.	No	**Presumed Absent** There is no suitable habitat present within the project site.
Quercus durata* var. *gabrielensis San Gabriel oak	Fed: None CA: None CNPS: 4.2	Grows in chaparral and cismontane woodland habitats. Found at elevations ranging from 1,476 to 3,280 feet. Blooming period is from April to May.	No	**Presumed Absent** There is no suitable habitat present within the project site.
Senecio astephanus San Gabriel ragwort	Fed: None CA: None CNPS: 4.3	Grows in rocky soils on slopes within chaparral and coastal bluff scrub habitats. Found at elevations ranging from 49 to 2,625 feet. Blooming period is from January to April.	No	**Presumed Absent** There is no suitable habitat present within the project site.
Streptanthus bernardinus Laguna Mountains jewelflower	Fed: None CA: None CNPS: 4.3	Grows in chaparral and lower montane coniferous forest on clay or decomposed granite soils. It is sometimes found in disturbed areas such as streamsides or roadcuts. From 4,724 to 8,202 feet in elevation. Blooming period is from May to August.	No	**Presumed Absent** There is no suitable habitat present within the project site. The project site occurs outside of the known elevation range for this species.
CDFW SENSITIVE HABITATS				
Riversidian Alluvial Fan Sage Scrub	CDFW Sensitive Habitat	Occur within broad washes of sandy alluvial drainages that carry rainfall runoff sporadically in winter and spring but remain relatively dry through the remainder of the year. Is restricted to drainages and floodplains with very sandy substrates that have a dearth of decomposed plant material. These areas do not develop into riparian woodland or scrub due to the limited water resources and scouring by occasional floods.	No	**Absent** A degraded RAFSS is supported on-site. Following decades of on-site disturbances and removal from local hydrological influences by surrounding flood control infrastructure, the RAFSS supported on-site no longer supports characteristic species richness or vegetative cover.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Southern Riparian Forest	CDFW Sensitive Habitat	Dense riparian forests found along streams and rivers. Characteristic plant species include western sycamore, cottonwood, and many other wetland plants.	No	**Absent** This plant community was not observed within or adjacent to the project site.
Southern Sycamore Alder Riparian Woodland	CDFW Sensitive Habitat	Occurs below 2,000 meters in elevation, sycamore and alder often occur along seasonally-flooded banks; cottonwoods and willows are also often present. Poison oak, mugwort, elderberry and wild raspberry may be present in understory.	No	**Absent** This plant community was not observed within or adjacent to the project site.

U.S. Fish and Wildlife Service (USFWS) - Federal
END- Federal Endangered
THR- Federal Threatened

California Department of Fish and Wildlife (CDFW) - California
END- California Endangered
THR- California Threatened
CE - Candidate Endangered
FP- California Fully Protected
SSC- California Species of Concern
WL- Watch List

California Native Plant Society (CNPS)
California Rare Plant Rank
1A Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
4 Plants of Limited Distribution – A Watch List

Threat Ranks
0.1- Seriously threatened in California
0.2- Moderately threatened in California
0.3- Not very threatened in California

Attachment E

Regulations

Special status species are native species that have been afforded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

Federal Regulations

Endangered Species Act of 1973

Federally listed threatened and endangered species and their habitats are protected under provisions of the Federal Endangered Species Act (ESA). Section 9 of the ESA prohibits "take" of threatened or endangered species. "Take" under the ESA is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct." The presence of any federally threatened or endangered species that are in a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the ESA, the United States Fish and Wildlife Service (USFWS) may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

Critical Habitat is designated for the survival and recovery of species listed as threatened or endangered under the ESA. Critical Habitat includes those areas occupied by the species, in which are found physical and biological features that are essential to the conservation of an ESA listed species and which may require special management considerations or protection. Critical Habitat may also include unoccupied habitat if it is determined that the unoccupied habitat is essential for the conservation of the species.

Whenever federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the ESA. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highway Administration or a permit from the U.S. Army Corps of Engineers (Corps)).

If USFWS determines that Critical Habitat will be adversely modified or destroyed from a proposed action, the USFWS will develop reasonable and prudent alternatives in cooperation with the federal institution to ensure the purpose of the proposed action can be achieved without loss of Critical Habitat. If the action is not likely to adversely modify or destroy Critical Habitat, USFWS will include a statement in its biological opinion concerning any incidental take that may be authorized and specify terms and conditions to ensure the agency is in compliance with the opinion.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) makes it unlawful to pursue, capture, kill, possess, or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21).

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered "take." This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protects all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

State Regulations

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines "endangered" and "rare" species separately from the definitions of the California Endangered Species Act (CESA). Under CEQA, "endangered" species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while "rare" species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the state of California implements the CESA which is enforced by CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in "take" of individuals (defined in CESA as; "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") are regulated by CDFW. Habitat degradation or modification is not included in the definition of "take" under CESA. Nonetheless, CDFW has interpreted "take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the

absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

The CDFW has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label species of concern, as an informal term that refers to species which might be in need of concentrated conservation actions. As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

Fish and Game Code

Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the Fish and Game Code which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a project site. Section 3511 of the Fish and Game Code lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected by the State include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). Section 3513 of the Fish and Game Code makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Native Plant Protection Act

Sections 1900–1913 of the Fish and Game Code were developed to preserve, protect, and enhance Rare and Endangered plants in the state of California. The act requires all state agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Native Plant Society Rare and Endangered Plant Species

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status under FESA or CESA are defined as follows:

California Rare Plant Rank

1A- Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere

1B- Plants Rare, Threatened, or Endangered in California and Elsewhere

2A- Plants Presumed Extirpated in California, But More Common Elsewhere

2B- Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3- Plants about Which More Information is Needed - A Review List

4- Plants of Limited Distribution - A Watch List

Threat Ranks

.1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3- Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known).

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFG regulates activities under the Fish and Game Code Section 1600-1616, and the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

Federal Regulations

Section 404 of the Clean Water Act

In accordance with the Revised Definition of "Waters of the United States"; Conforming (September 8, 2023), "waters of the United Sates" are defined as follows:

(a) ***Waters of the United States*** means:

(1) Waters which are:
(i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
(ii) The territorial seas; or
(iii) Interstate waters;

(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;

(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

(4) Wetlands adjacent to the following waters:
(i) Waters identified in paragraph (a)(1) of this section; or
(ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section

(b) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (a)(2) through (5) of this section:

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;

(2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted

cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;

(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;

(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;
(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

(8) Swales and erosional features (*e.g.,* gullies, small washes) characterized by low volume, infrequent, or short duration flow.

(c) In this section, the following definitions apply:

(1) ***Wetlands*** means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(2) ***Adjacent*** means having a continuous surface connection

(3) ***High tide line*** means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

(4) ***Ordinary high water mark*** means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(5) ***Tidal waters*** means those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects.

Section 401 of the Clean Water Act

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits, and helps insure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Water Quality Control Boards (Regional Board) that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board assumed this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

State Regulations

Fish and Game Code

Fish and Game Code Sections 1600 et. seq. establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Fish and Game Code Section 1602 requires any person, state, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

(1) substantially obstruct or divert the natural flow of a river, stream, or lake;
(2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or
(3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. A Section 1602 Streambed Alteration Agreement would be required if impacts to identified CDFW jurisdictional areas occur.

Porter Cologne Act

The California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool in the post SWANCC and Rapanos regulatory environment, with respect to the state's authority over isolated and insignificant waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although "waste" is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include fill discharged into water bodies.

APPENDIX 3

CULTURAL RESOURCES ASSESSMENT FOR THE WEST VALLEY WATER DISTRICT WELL NO. 57 PROJECT

CITY OF FONTANA,
SAN BERNARDINO COUNTY, CALIFORNIA

FOR SUBMITTAL TO:

WEST VALLEY WATER DISTRICT

855 W. BASELINE ROAD

RIALTO, CA 92376

PREPARED FOR:
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Document Details	
Document Title	Cultural Resources Assessment for the West Valley Water District Well No. 57 Project
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Date	8 January 2024
Author	Michelle Hart, M.A.
Consulting Firm	Mojave Archaeological Consulting, LLC
For Submittal to	West Valley Water District
Prepared for	Tom Dodson and Associates
USGS Quadrangle	7.5-minute Devore, California; Section 24, T1N R6W, San Bernardino Baseline and Meridian

ABSTRACT

At the request of Tom Dodson and Associates, Mojave Archaeological Consulting, LLC, conducted a cultural resources investigation for the West Valley Water District's proposed Well No. 57 project, in the City of Fontana, San Bernardino County, California. This report was prepared in accordance with the California Environmental Quality Act (CEQA) as part of the initial study for the project. Pursuant to the provisions of CEQA and state and local CEQA guidelines, the West Valley Water District (District) is the Lead Agency for the proposed project.

The District proposes to install Well No. 57 on an approximately 1.6-acre portion of three parcels (Assessor's Parcel Numbers [APNs] 110-752-174, 110-752-176, and 110-752-171). The project will include the installation of the well, a vertical turbine pump, shade structure, and other potential components including a sand separator, deaeration tank, and pipeline and utility connections. The project area is located northwest of the intersection of Vesta Way and Knox Avenue, just northeast of the intersection of Knox Avenue and Walsh Lane in northern Fontana on the USGS 7.5-minute maps for Devore, CA, within Section 24, Township 1 North, and Range 6 West.

This report describes the methods and results of the cultural resources investigation of the project area, which included a records search and literature review, a Sacred Lands File (SLF) search with the Native American Heritage Commission (NAHC), and an intensive pedestrian survey. The purpose of the investigation was to provide the West Valley Water District with the information and analysis necessary to determine the potential for the proposed project to impact "historical resources" and "archaeological resources" under CEQA.

The records search performed by the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS), included a 0.5-mile-wide buffer (study area), and indicated twenty previous cultural resource investigations and four cultural resources are documented within the 0.5-mile study area. Of the previous investigations, three covered the project area. No cultural resources have been previously documented within the 1.6-acre project area. The SLF search with the NAHC was completed with positive results and a recommendation to contact the Gabrielino Band of Mission Indians – Kizh Nation. An outreach letter and invitation to participate in the field survey was sent to the Kizh Nation on 15 December and a follow up inquiry and request for information was sent 03 January 2024. To date, a response has not been received but it is expected that the Kizh Nation and other Native American tribes with potential associations to the project area will seek consultation with the West Valley Water District under Assembly Bill (AB) 52.

Due to the age of the previous cultural resource investigations, Mojave Archaeological Consulting conducted new intensive pedestrian survey of the entire 1.6-acre project area on 22 December 2023.The only cultural remains identified within the project area were historic concrete and masonry rubble that is not considered eligible for listing in the CRHR. No other cultural materials, either prehistoric or historic, were identified within the project area. The paucity of cultural materials identified during the survey and the project area's previously disturbed context indicate that intact and significant buried archaeological deposits are unlikely.

Considering these findings, Mojave Archaeological Consulting recommends to the West Valley Water District that the proposed project will have no impact on historical or archaeological resources. No further cultural resources work is recommended necessary for the proposed project activities. However, in the event that potentially significant archaeological materials are encountered during construction, all work must be halted in the vicinity of the discovery until a qualified archaeologist can assess the significance and integrity of the find. If intact and significant archaeological remains are encountered, the impacts of the project should be mitigated appropriately. Any such discoveries, and subsequent evaluation and treatment, should be documented in a cultural resources report, which would be submitted to the SCCIC

for archival purposes. Additionally, Health and Safety Code Section 7050.5, *CEQA Statute & Guidelines* Section 15064.5(e), and PRC Section 5097.98 mandate the process to be followed in the event of an accidental discovery of human remains. Finally, if the project area is expanded to include areas not covered by this survey or other recent cultural resource assessments in the study area, additional cultural resource investigations may be required.

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Acronyms and Abbreviations

B.P.	before present
ca.	circa
cal	calibrated years
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CHRIS	California Historical Resources Information System
cm	centimeter
CRHR	California Register of Historical Resources
DPR	California Department of Parks and Recreation
SCCIC	South Central Coastal Information Center
GLO	General Land Office
GPS	Global Positioning System
m	meter
NAHC	Native American Heritage Commission
NPS	National Park Service
OHP	Office of Historic Preservation
PRC	Public Resources Code
SLF	Sacred Lands Files
USGS	United States Geological Survey

1 INTRODUCTION

1.1 Overview

The West Valley Water District proposes to install a new well to meet current and future demands to maintain potable water service, and to provide backup for an existing well in the District's water supply. Well No. 57 is proposed to be located on an approximately 1.6-acre portion of three parcels within the City of Fontana in San Bernardino County (Assessor's Parcel Numbers [APNs] 110-752-174, 110-752-176, and 110-752-171). The site is situated northwest of the intersection of Vesta Way and Knox Avenue, just northeast of the intersection of Knox Avenue and Walsh Lane in northern Fontana (Figures 1 to 3). The project will include the installation of a 1,000 gpm well which will be drilled to about 1,000 feet below ground surface, a vertical turbine pump, shade structure, and other potential components including a sand separator, deaeration tank, and pipeline and utility connections. The well would be connected to the District's distribution system via a connection within the adjacent paved utility easement at the southern boundary of the site. Access to the site would be provided from an existing paved fire access road originating at Knox Avenue.

Currently, the site consists of vacant land containing mowed weeds and other vegetation. A paved fire access road is present through the east side of the site. To the east and south of the project area, parcels are developed with medium-density single-family housing. Paved Knox Avenue and stormwater drains are located on an adjacent public right of way on the south side of the site. On the northwest side of the triangular site is a utility corridor with a transmission line and adjacent access road. Additional housing developments are present to the north and west of the utility corridor.

The project is subject to the California Environmental Quality Act (CEQA). Initial technical studies to evaluate the potential environmental impacts of the project include a Phase I cultural resources assessment of the project area. Tom Dodson and Associates retained Mojave Archaeological Consulting, LLC, to conduct the cultural resources investigation for project compliance with CEQA. The West Valley Water District is the Lead Agency for compliance with CEQA.

Michelle Hart, M.A, served as Principal Investigator for the current study. Ms. Hart initiated records searches with the South Central Coastal Information Center (SCCIC) and the Native American Heritage Commission (NAHC), and completed background research, survey fieldwork, and report writing. SCCIC staff completed the archaeological records search.

This report presents a site description (Section 2); the cultural context, which provides a review of the prehistoric and historic background for the project area (Section 3); the regulatory framework that mandates consideration of cultural resources in project planning (Section 4); the methods used in the field survey and resource evaluation (Section 5); the results of the study (Section 6); conclusions and recommendations (Section 7); and references cited (Section 8).

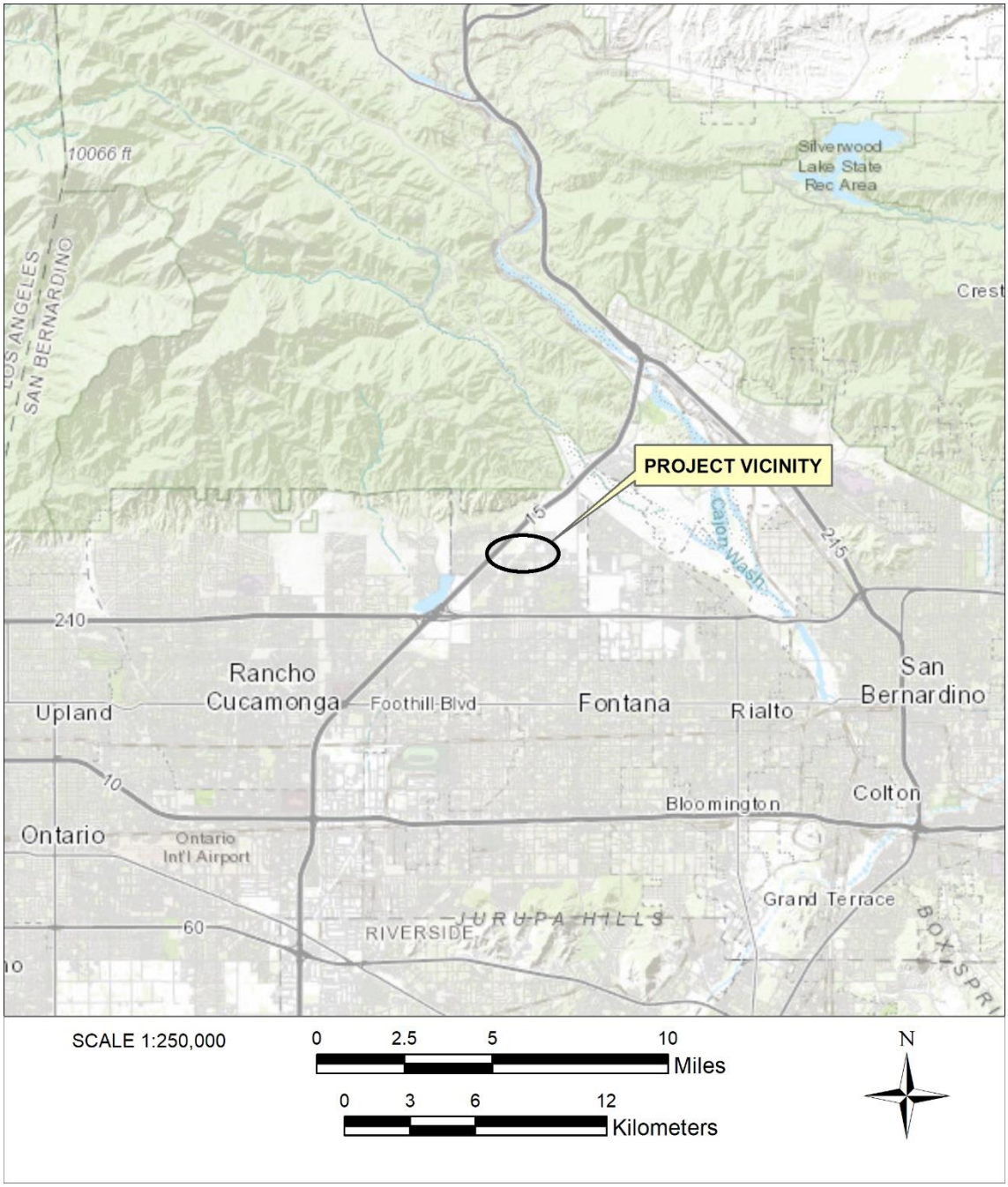

Figure 1: Project Vicinity

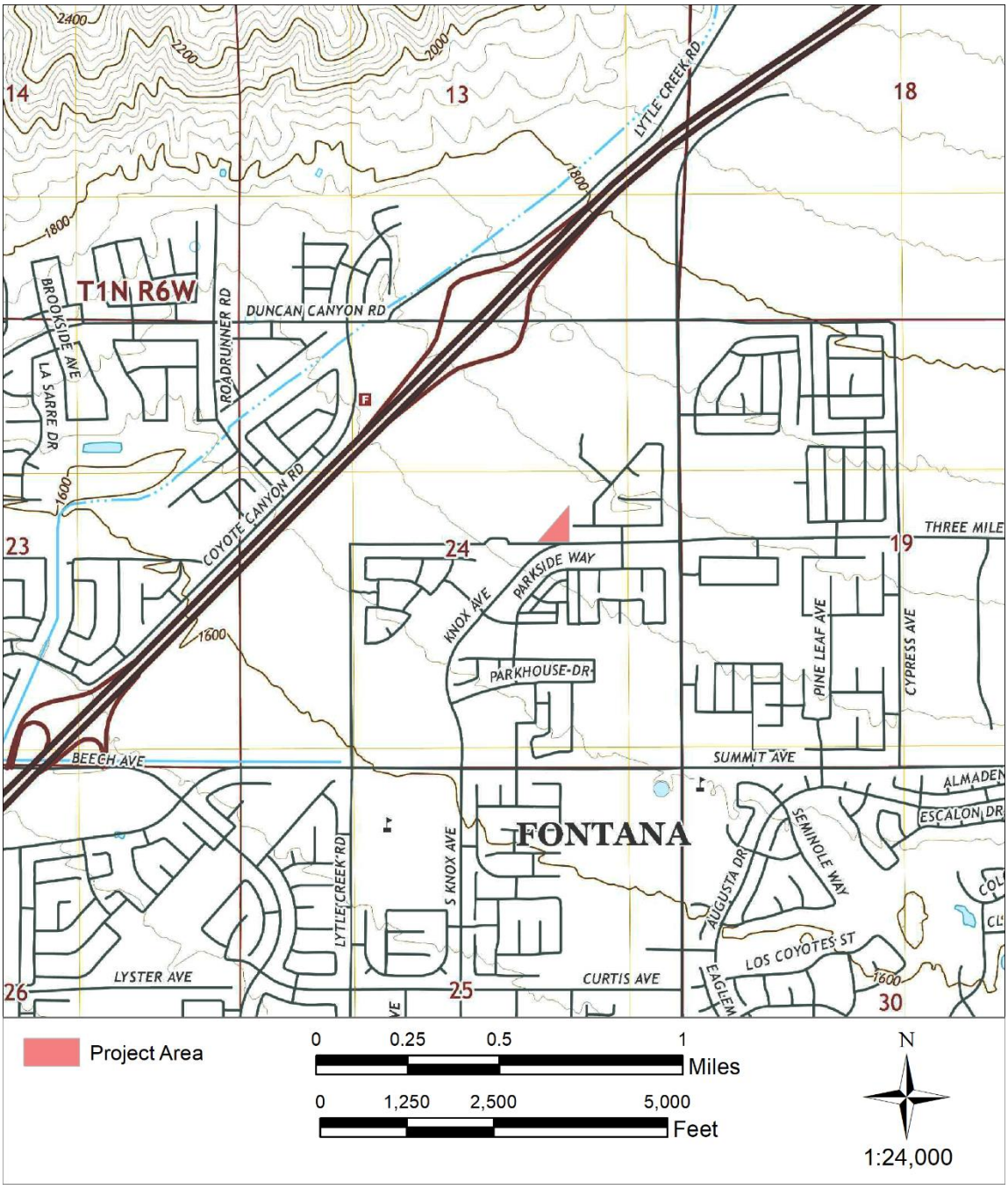

Figure 2: Project Location, USGS 7.5' Topographic Quadrangle: Devore, CA

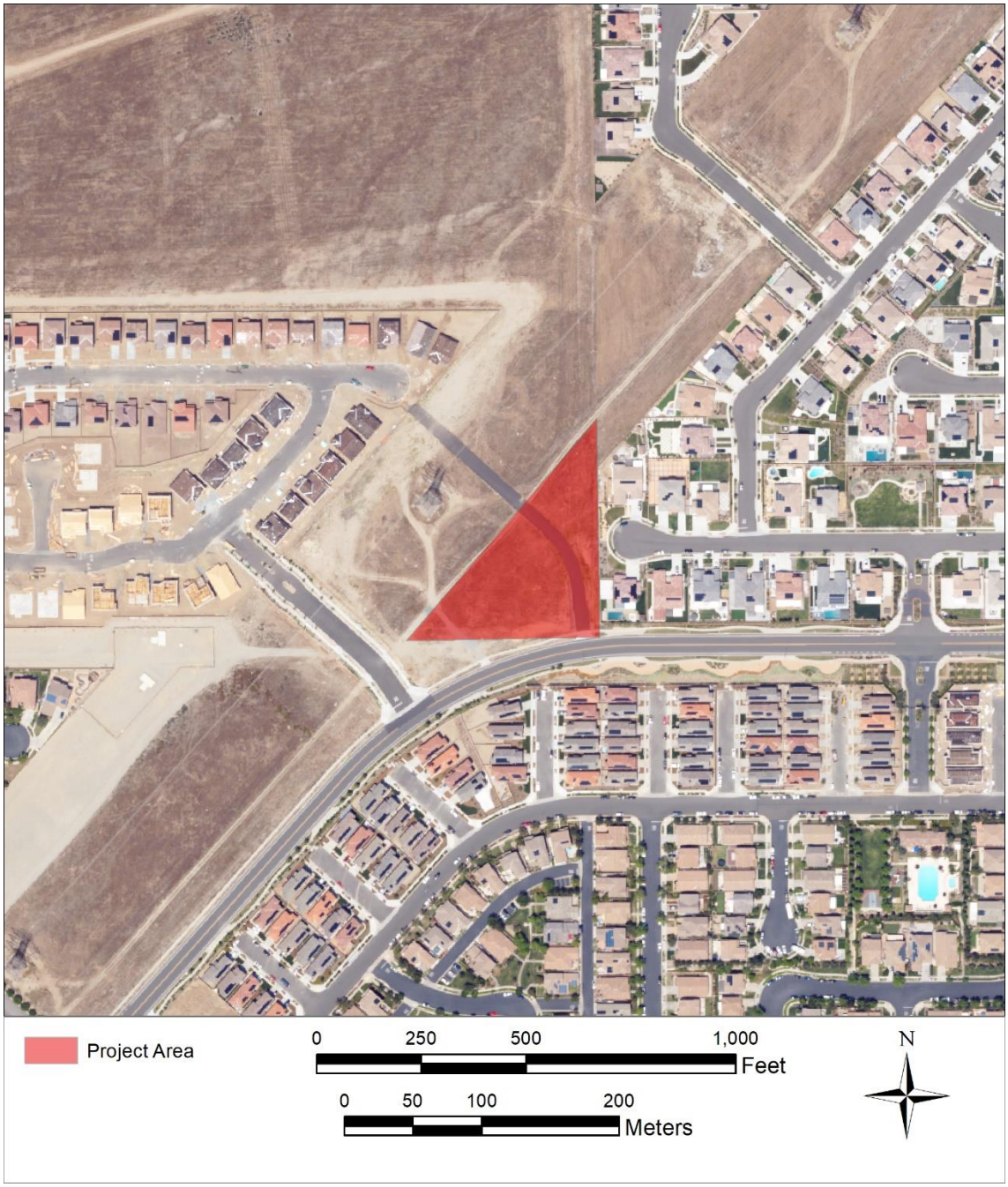

Figure 3: Project Area on NAIP Aerial Imagery (Data Source: USGS Earth Explorer)

2 SITE DESCRIPTION

2.1 Current Site Use

The project area consists of vacant land containing mowed weeds and other vegetation. A paved fire access road is present through the east side of the site trending southeast to northwest from Knox Avenue to a neighborhood cul-de-sac northwest of the site. To the east and south of the project area, parcels are developed with medium-density single-family housing. Paved Knox Avenue and stormwater drains are located on an adjacent public right of way on the south side of the site. A buried gas pipeline trends southwest to northeast across the site denoted by posts and vertical signage. Northwest of the triangular site is a southwest to northeast-trending utility corridor consisting of open space with a transmission line and adjacent access road. Additional housing developments are present to the north and west of the utility corridor. The entirety of the project area appears to have been previously disturbed using heavy equipment. Several piles of rubble and dumped materials are present within the site.

2.2 Topography and Geology

The project area is in northern Fontana, in the inland valley region of San Bernardino County. The area is located on a series of alluvial fans at the base of the San Gabrial Mountain Range. Peaks of the San Gabriel Mountains to the north rise 6,000 to 8,000 feet above the project are and include Mount San Antonio, Cucamonga Peak, Ontario Peak, Telegraph Peak, and Bighorn Peak which drain into steep and deeply incised canyons which feed Lytle Creek and Day Canyon Creek. The geologic units which comprise the project area include young alluvial fan deposits dating from the Holocene (USGS 2023). The project area lies at an elevation of approximately 1,703-feet and slopes gently to the south-southwest. Sediments consist of unconsolidated sand, gravel, rocks, and small boulders.

2.3 Local Climate and Ecology

Fontana has a Mediterranean climate with an average of sixteen inches of precipitation annually. High temperatures in the summer are hot and can exceed 96-degrees Fahrenheit. Winters are comparatively mild and rarely drop below 38 degrees. Prior to historical development, vegetation in the general vicinity of the project area would have been dominated by valley grassland and Riversidian sage-scrub communities, with riparian communities at springs, creeks, and other water sources. Common plant species native to the project area would have included California buckwheat, brittle-bush, black sage, white sage, Yerba Mansa and a variety of grasses, forbs and succulents. The region also would have provided habitat for various fauna including bobcat, gray fox, opossum, raccoons, jackrabbits, cottontail rabbits, kangaroo rats, ground squirrels, Mule deer, coyote, quail, rattlesnakes, and other species.

Plate 1: Overview of the project area, view to the southeast toward Knox Avenue.

Plate 2: Overview of project area with paved fire access road at east side of the site and transmission line to north, view to the northwest.

Plate 3: Overview of project area and adjacent housing development, gas pipeline and transmission line visible at left frame, view towards the east.

Plate 4: Dumped roofing materials and other modern debris at northeast corner of project area; utility corridor two-track access road at right frame, view to the southwest.

3 CULTURAL PERSPECTIVE

The following presents a cultural context for the project vicinity. This overview addresses the broader perspective of prehistoric and historic use in the area and is based upon numerous past reports and synthesis that summarize the history of human occupation in Southern California. This context is summarized from relevant reports (Goldberg et al. 2001), as well as cultural frameworks from several decades of past regional archaeological research, including Horne and McDougal (2003), Rogers (1929, 1939), Warren (1980, 1984); Warren and Crabtree (1986), and Wilke (1978) among others, as cited below.

3.1 Prehistoric Chronology

Prehistoric occupation of the inland valleys of Southern California can be divided into seven cultural periods: Paleoindian (circa 12,000–9,500 B.P.), Early Archaic (9,500–7,000 B.P.), Middle Archaic (7,000–4,000 B.P.), Late Archaic (4,000–1,500 B.P.), Saratoga Springs (1,500–750 B.P.), Late Prehistoric (750–410 B.P.), and Protohistoric (410–180 B.P.), which was followed by the ethnographic period. Due to the nature of most prehistoric archaeological sites identified within the Fontana area, the prehistoric cultural setting discussed below begins in the Late Archaic period. For the most part, the prehistory of the inland valleys of Southern California is less thoroughly understood than that of the nearby desert and coastal regions, and with the exception of research by Horne and McDougal (2003), there is a lack of comprehensive synthesis developed specifically for the interior valley and mountain localities of Southern California that characterize the region.

3.1.1 Late Archaic Period (4,000 to 1,500 B.P.)

Archaeologists discuss the Late Archaic period as a time of cultural intensification in Southern California (Goldberg et al. 2001). The beginning of the Late Archaic coincides with the Little Pluvial period, a time of increased moisture in the region which continued to increase in the desert interior by approximately 3,600 B.P. and lasted throughout most of the Late Archaic period resulting in more extensive occupation of the region. By approximately 2,100 B.P., however, drying and warming increased, possibly providing a catalyst for resource intensification. Archaeological site types typical of this period include residential bases with large diverse artifact assemblages, abundant faunal remains, and cultural features; as well as temporary base camps and task-specific activity areas. Generally, sites showing evidence of the most intensive use tend to be on benches adjacent to mountain ranges and near reliable water sources, such as springs or streams, while less intensively used sites often occur either on upland benches or on the margins of active alluvial fans (Goldberg et al. 2001).

Data from Late Archaic archaeological sites also suggest increased sedentism and a semi-sedentary resource collection strategy. The increase of features and midden deposits in sites with Late Archaic components is suggestive of longer use and more frequent reuse than that seen during the Middle Archaic period, which perhaps can be attributed to increasing moisture which improved the conditions and available resources of Southern California after 3,100 B.P. (Goldberg et al. 2001). A warmer and dryer climate after 2,100 B.P. likely stressed populations and influenced resource procurement strategies, ultimately contributing to subsistence diversification, resource intensification, and perhaps resulting in a permanent trend towards less mobile lifeways (Goldberg et al. 2001).

Advanced resource processing technologies introduced during the Late Archaic period include the mortar and pestle which were used for processing acorns, mesquite pods, and other hard seeds. This development correlates with the warming and drying trend that began around 2,100 B.P. and resulting resource intensification and increased reliance on storable food staples. At the same time, hunting also

presumably gained in importance. Archaeological evidence of this includes many broad leaf-shaped blades and stemmed or notched projectile points that have been found in association with mammal bones. Bone and antler implements and the occasional use of asphaltum and steatite are also characteristic of this period (Goldberg et al. 2001).

Most chronological sequences for Southern California recognize the introduction of the bow and arrow around 1,500 B.P. The transition to this technology is marked by the appearance of small arrow points as well as arrow shaft straighteners. Overall, technology represented in the artifact assemblage of this period is similar to that of the preceding Middle Archaic but new tools were added either as innovations or as "borrowed" cultural items. Common diagnostic projectile points of this period are still consistent with dart points based on their large size, but also include more refined notched, concave base, and small stemmed forms including Elko, Humboldt, and Gypsum types (Warren 1984). Rose Spring arrow points began to appear in the archaeological record as bow and arrow technology from the Great Basin and the Colorado River region spread to California, beginning in the desert regions.

3.1.2 Saratoga Springs Period (1500 to 750 B.P.)

During the beginning of the Saratoga Springs Period, cultural trends that began during the Late Archaic Period continue. These include increasing adaptation to an increasingly arid environment in the desert and increased trade relations (Warren 1984). Warren defined four cultural spheres within the Mojave and Colorado deserts during the early part of this period, including a southern desert sphere influenced by Patayan cultures from the Colorado River. Warren discusses these trends within the Coachella Valley and San Jacinto Mountain regions, but it is less clear whether this influence extended as far west as the inland valley region where the project area is located.

Lake Cahuilla was periodically present within the Coachella Valley, and researchers estimate its last infilling occurred around 1,450 B.P. As a large freshwater lake in an otherwise arid region, it was the focus of Native subsistence activities including the exploitation of fish, waterfowl, and other wetland resources. Linguistic evidence suggests that desert people who spoke Shoshonean languages, may have moved into Southern California at this time. Brown and Buff Ware pottery first appeared on the lower Colorado River at about 1,200 B.P. and started to spread across the California deserts by about 1,100 B.P. (Moratto 1984). By around 1,060 B.P., environmental conditions became notably warmer and drier. This period of intense drought extended throughout the Southwest (Stine 1994; Warren 1984). As desert areas became increasingly marginal, Native American populations are believed to have retreated to more favorable foothill and mountain environments. Human occupation of the inland valley regions may also have declined during this period and use focused on springs and other reliable sources of water (Goldberg et al. 2001).

3.1.3 Late Prehistoric Period (750 to 400 B.P.)

Warmer and drier climate extended into the Late Prehistoric Period, until around 575 B.P. A period of lower temperatures and increased precipitation, known as the "Little Ice Age", resulted in increased resource productivity and corresponding population growth in the inland region. Artifact assemblages that included Cottonwood Triangular arrow points began to appear in inland areas at this time, and obsidian sourced from Obsidian Butte in the Colorado Desert is seen more frequently (Goldberg et al., 2001). By about 500 B.P., distinctive ethic patterns developed among native populations in Southern California, potentially reflective of accelerated cultural change brought about by increased efficiency in cultural adaptation and diffusion of technology from the southern Great Basin as well as the central coastal region of California (Douglas 1981). As Lake Cahuilla receded large shoreline sites occupied by Patayan populations were abandoned and Patayan people move westward into Anza Borrego, Coyote Canyon,

the Upper Coachella Valley, the Little San Bernardino Mountains, and the San Jacinto Plain (Wilke 1976, Waters 1983). It is estimated the final desiccation of Lake Cahuilla occurred by approximately 400 B.P. (A.D. 1640), which resulted in a final population shift away from the lakebed into the Peninsular Ranges to the west, and the Colorado River regions to the east.

3.1.4 Protohistoric Period

Advanced technologies including the utilization of the bow and arrow resulted in increased hunting efficiency while a renewed abundance of mortars and pestles indicates extensive exploitation of various hard nuts and seeds. As a result of increased resource utilization of the area, sedentism intensified with small fully sedentary villages forming during the Protohistoric period. This is demonstrated by sites containing deeper midden deposits suggesting more permanent habitation. Protohistoric Period villages, or rancherias, were noted by the early non-native explorers (True 1966,1970). The cultural assemblage associated with this transitional period included the introduction of locally manufactured ceramic vessels and ceramic smoking pipes, an abundance of Obsidian Butte lithic material, Cottonwood Triangular and Desert Side-notched arrow points, as well as the addition of European trade goods, such as glass trade beads (Meighan 1954).

3.2 Ethnographic Setting

Native peoples who occupied the region of the project area included the Serrano and Gabrielino. Both cultural groups spoke languages belonging to the Takic branch of the Shoshonean family of the larger Uto-Aztecan language stock. Historically, the Serrano occupied a wide-ranging territory, centered out of the San Bernardino Mountains, and including portions of the desert to the east, and the San Bernardino Valley region the south (Kroeber 1925). Estimates of pre-contact populations of most native groups in California vary substantially between sources, but Lowell John Bean suggested that the Serrano may have had a population of perhaps 2,500 people (Bean and Smith 1978). There were multiple localized clans of Serrano across the San Bernardino Mountains and extending into the desert and inland region (Sutton and Earle 2017). The ancestral territory of the Gabrielino includes a large portion of southern California including the areas of what are today, Los Angeles, Riverside, San Bernardino, and Orange County, as well as the Channel Islands. There were an estimated 5,000 Gabrielino people in the region and substantially sized village sites when Spanish settlers arrived (gabrelenoindians.net).

Ethnographically, the Serrano and Gabrielino relied on hunting, gathering, and fishing. Game for hunting included deer, antelope, rabbits, other small mammals, and various birds. Plant staples consisted of acorns, pine nuts, bulbs and tubers, berries, mesquite pods, various cacti, and yucca. Diverse materials were used for foraging and processing food, as well as shelter clothing, and other items. These materials included shell, wood, bone, stone, plant materials, animal skins, and features to make basketry, pottery, blankets, mats, nets, clothing, cordage, bows, arrows, drills, pipes, musical instruments, and other specialized items (Bean and Smith 1978). Reliable water sources dictated settlement locations and most villages were situated near water sources such as springs and streams. Serrano houses and other structures were generally round and constructed of poles covered with bark and tule mats, while Gabrielino structures were typically constructed of willow or reeds. After contact, Serrano and Gabrielino shelters were more commonly rectangular (Kroeber 1925). Villages also often had a ceremonial house which served as a central gathering place; other structures included granaries and sweathouses (Bean and Smith 1978).

Today, most Serrano and Gabrielino descendants are represented by a number of groups and tribal councils including the of the Gabrielino Band of Mission Indians-Kizh Nation, Gabrielino/Tongva San Gabriel Band of Mission Indians, Gabrielino/Tongva Nation, Gabrielino Tongva Indians of California Tribal Council, Gabrielino-Tongva Tribe, Serrano Nation of Mission Indians, San Manuel Band of Mission Indians, and the Morongo Band of Mission Indians.

3.3 Historical Setting

European contact with Southern California Native American groups dates to as early as 1540 with the arrival of the Spanish into California and the Southwest. In the 1770's Father Garces interacted with Southern California Native Americans as he traveled across the Mojave Dester and through the Cajon pass enroute to the coastal region of Southern California (Walker 1986). Shortly after, Father Juniper Serra directed the establishment of nine missions throughout Alta California, including the Mission San Gabriel de Archangel in the San Gabriel Valley. Extensive tracts of land including the current project area in Fontana were administered by the Mission San Gabriel until the Mexican government declared independence from span and ordered the secularization of the California missions in 1824. Following this order, mission lands were transferred and allotted to individuals to relocate populations from Mexico to California for settlement (Perry 2004 citing Mckenna 1995). Following this transfer to private ownership, lands including the valley areas of Fontana were converted to agriculture and a burgeoning fruit and wine industry began to take root (Perry 2004).

According to historic land patents, Don Antonio Maria Lugo received a land grant in 1813, becoming the first recorded landowner in the Fontana area. Lugo's sons obtained subsequent land grants and their ranch became Rancho de San Bernardino. In the 1850's the Lugos sold a portion of their land in what is now Fontana to a group of Mormon settlers. The Morman settlers then sold the property to the Semi Tropical Land & Water Company. In the 1860's the Perdue family homesteaded 160 acres near the current project area. Following additional settlement, the area became known as the Perdew Precinct by the mid 1880's. Alexander Perdue was granted a 160-acre land patent in 1885, which included the current project area (glorecords.blm.gov). The area became known as Grapeland in 1890 and in an attempt to increase the acreage for agricultural purposes, residents of Grapeland formed the Grapeland Irrigation District (Anicic 1983).

In 1913 the agricultural development of Grapeland intensified when the district was sold to the Fontana Development Company by the Grapeland growers. The townsite of Fontana was founded in 1913 by A.B Miller and the area was transformed into a diversified agricultural area which produced citrus, grain, grapes, poultry, and pork. In 1942 the Kaiser steel mill was built in Fontana, spurring an economic transition from agriculture to a focus on steel production. Fontana was incorporated in 1952 and became the number one producer of steel in California through the 1970's until the mill's eventual closure in 1984. The California Speedway, a NASCAR racetrack, was built at the Kaiser steel mill site in the late 1990's (Perry 2004). Today, Fontana's economy relies largely on industrial facilities, warehouses, and distribution centers due to the city's central location on major transportation routes.

4 REGULATORY FRAMEWORK

The project requires review and approval from the West Valley Water District and is subject to the requirements of CEQA. The *CEQA Statute & Guidelines* (Association of Environmental Professionals 2021) direct lead agencies to determine whether a project will have a significant impact on historical resources. Under CEQA, a cultural resource is considered "historically significant" is a "historical resource" if it is included in a local register of historical resources, listed in or determined eligible for listing on the California Register of Historical Resources (CRHR), or meets the requirements for listing on the CRHR under any one of the criteria of historical significance (see Section 4.2).

Compliance with CEQA's cultural resource provisions typically involves several steps. Archival research and field surveys are conducted, and identified cultural resources are inventoried and evaluated in prescribed ways. A prehistoric and historical archaeological site, standing structure, building, or object deemed by the lead agency to be a historical resource must be considered in project planning and development. A project with an impact that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant impact on the environment. The lead agency is responsible for identifying potentially feasible measures to avoid, minimize, or mitigate significant impacts in the significance of historical resources.

4.1 California Environment Quality Act

The *CEQA Statute & Guidelines* include procedures for identifying, analyzing, and disclosing potential adverse impacts to historical resources, which include all resources listed in or formally determined eligible for the CRHR, or local registers. CEQA further defines a "historical resource" as a resource that meets any of the following criteria of historical significance:

- A resource listed, or determined to be eligible by the State Historical Resources Commission for listing, in the CRHR (Public Resources Code [PRC] Section 5024.1, Title 14 of the California Code of Regulations (CCR) Section 4850 et seq.)
- A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k), public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- A resource identified as significant (i.e., rated 1-5) in a historical resource survey meeting the requirements of PRC Section 5024.1(g) (California Department of Parks and Recreation [DPR] 523 Form), unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the determination is supported by substantial evidence in light of the whole record. Generally, a resource is considered "historically significant" if it meets the criteria for listing on the CRHR (PRC Section 5024.1, Title 14 CCR Section 4852), as outlined below.

4.2 California Register of Historical Resources Criteria of Evaluation

Under CEQA, a resource may be considered "historically significant" if it meets one or more of the following criteria:

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California; or

2. It is associated with the lives of persons important in our past; or
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important in prehistory or history.

The fact that a resource is not listed, or determined eligible for listing, in the CRHR, not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or identified in an historical resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC Section 5020.1(j) or 5024.1

4.3 Regulations Concerning Discovery of Human Remains

Health and Safety Code Section 7050.5-7055

California Health and Safety Code Section 7050.5-7055 requires that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in PRC Section 5097.98. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, they should contact the NAHC by telephone within 24 hours.

California Public Resources Code Section 5097.98

This code mandates that the lead agency adhere to the following regulations when a project results in the identification or disturbance of Native American human remains:

a) Whenever the Native American Heritage Commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing of, with appropriate dignity, the human remains and any associated grave goods. The descendants shall complete their inspection and make their recommendation within 24 hours of their notification by the commission. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

b) Whenever the Native American Heritage Commission is unable to identify a descendent, or the descendent identified fails to make a recommendation, or the landowner or his or her authorized representative rejects the recommendation of the descendent, and the mediation provided for in subdivision (k) of Section 5097.94 fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall reinter the human remains and items associated with Native

American burials with appropriate dignity on the property, in a location not subject to further subsurface disturbance.

c) Notwithstanding the provisions of Section 5097.9, the provisions of this section, including those actions taken by the landowner or his or her authorized representative to implement this section, and any action taken to implement an agreement developed pursuant to subdivision (l) of Section 5097.94, shall be exempt from the requirements of the California Environmental Quality Act [Division 13 (commencing with Section 21000)].

d) Notwithstanding the provisions of Section 30244, the provisions of this section, including those actions taken by the landowner or his or her authorized representative to implement this section, and any action taken to implement an agreement developed pursuant to subdivision (1) of Section 5097.94, shall be exempt from the requirements of the California Coastal Act of 1976 [Division 20 (commencing with Section 30000)].

4.4 Senate Bill 18

Senate Bill 18 requires cities and counties to notify and consult with California Native American Tribes about proposed local land use planning decisions for the purpose of protecting Tribal cultural resources. Senate Bill 18 stipulates that, as of March 2005, cities and counties must send any proposals for revisions or amendments to general plans and specific plans to those California Native American Tribes that are on the NAHC's contact list and have traditional lands located within the city or county's jurisdiction. Cities and counties must also conduct consultations with these tribes prior to adopting or amending their general plans or specific plans or designating land as open space.

4.5 Assembly Bill 52

Assembly Bill 52 was enacted to guarantee that Tribal cultural resources are protected to the largest extent possible throughout the development process. Tribal cultural resources are defined by PRC Section 21074 as follows:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

> *(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.*
>
> *(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.*

(2) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

(3) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(4) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

If Tribal cultural resources are identified within a project area, impacts must be avoided or mitigated to the extent feasible. Assembly Bill 52 protects these resources by requiring that lead agencies seek Tribal consultation prior to the release of any CEQA documentation. Lead agencies must notify Tribes

traditionally and culturally affiliated with a potential project area within 14 days of a development application being complete. Upon this initial notification, tribes would confirm consultation within 30 days of notification if consultation is deemed necessary.

5 METHODS

The study was conducted in accordance with the California Office of Historic Preservation (OHP) *Archaeological Resource Management Reports Guidelines* (California OHP 1990), the *Guidelines For Archaeological Research Designs* (California OHP 1991), and *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* [48 Federal Register 44716-44740] (NPS 1983).

5.1 Literature and Records Search

A literature and records search was requested from the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS) on 13 November 2023. The results of the records search were received on 21 December 2023 and are summarized in Section 6.

Additionally, maps and aerial imagery were reviewed to determine the historic land uses in the study area. Available early map sources included General Land Office (GLO) survey plat maps for T1N R6W dating to 1874, 1875, and 1885 (glorecords.blm.gov, accessed 05 January 2024). In 1874 and 1875, several mapped routes are depicted in the area, including the "Road from Santa Ana Cañon to Cajon" which traversed a southwest to northeast trending route passing west of and in very close proximity to the project area in Section 24. By 1885, in addition to the mapped road, two homesteads and an irrigation ditch are depicted in Section 24, approximately 0.5 mile north of the project. No structures or other features of historical interest are depicted within the immediate project area on any of the GLO maps.

USGS topographic quadrangle maps dating from 1896 to 1980, and aerial imagery dating from 1938, 1959, 1966, and the 1980's through 2000's were reviewed (earthexplorer.usgs.gov and neteronline.com, accessed 05 January 2024). The project area is depicted as part of "Grapeland" on topographic maps in 1896. This name is present on maps through 1929. Several roads and homesteads associated with the Grapeland community are present near the project area during this period. By 1939 a homestead is depicted immediately south of the project area on topographic maps. The homestead is also visible on 1938 imagery and appears to have consisted of several structures and other elements that are mostly obscured by trees. The project area itself and surrounding parcels appear to have been developed for agriculture and are planted with a vineyard or orchard rows by 1938. By 1959 the homestead south of the project area is abandoned but a square concrete or masonry structure that appears to be a small reservoir or cistern associated with the homestead is visible at the southeast corner of the project area. A southwest to northeast trending transmission line is present immediately north of the project area by 1959. By 1966 the vineyard or orchard appears to have been cleared from the site and the square structure and other components associated with the homestead adjacent to the south of the site are destroyed and appear as rubble. By 1980 the rubble has been cleared and all agricultural land in the vicinity appears to have been cleared and graded. By 2009, Knox Avenue, south of the project area, is paved, and housing developments are constructed to the southwest and south of the project area. An additional housing development is constructed immediately east of the project area by 2018.

In summary, historic maps and aerial imagery demonstrate the project area was used for agricultural purposes as early as the 1890's. Section 24, on which the site is located, was part of the Grapeland Irrigation District, an agricultural area that spanned 10,600 acres in northern Fontana. Settlers of Grapeland grew grapes and various fruit crops until water rights were lost and Fontana's economy shifted focus to steel production (Anicic 1983). Vineyards, orchards, and homesteads associated with Grapeland in the vicinity of the project area appear to have been mostly abandoned by the late 1950's and were destroyed in the 1960's and subsequent decades.

5.2 Sacred Lands File Search and Native American Outreach

Mojave Archaeological Consulting contacted the Native American Heritage Commission (NAHC) on 13 November 2023, requesting a review of their Sacred Lands Files (SLF) to determine if any known Native American cultural properties (e.g., cultural resources, traditional use or gathering areas, places of religious or sacred activity) are present within or adjacent to the project area. The NAHC responded on 13 December 2023, stating the SLF search results were positive for potential sites or locations of Native American importance within the project vicinity and recommended contacting the Gabrielino Band of Mission Indians – Kizh Nation. An outreach letter and invitation to participate in the field survey was sent via email to the Kizh Nation on 15 December and a follow up inquiry and request for information was sent 03 January 2024. To date, a response has not been received. Mojave Archaeological Consulting was also forwarded an email exchange between the West Valley Water District and the Morongo Band of Mission Indians (MBMI) THPO on 30 November. A response was sent to the MBMI the same day and a follow up inquiry to invite tribal participation in the field survey and coordinate a field date was sent 11 December. Per MBMI's response sent to the West Valley Water District, the proposed project is located within the ancestral territory and traditional use area of the Cahuilla and Serrano people of the MBMI. MBMI recommends tribal participation (a.k.a tribal monitors) during all ground disturbing activities and requested to initiate government-to-government consultation with the West Valley Water District under Assembly Bill (AB) 52.

All tribal correspondence sent and received to date is provided in Appendix A. Compliance with Tribal notification and consultation under AB 52 is the responsibility of the Lead Agency (West Valley Water District) under CEQA. The results of the NAHC SLF search and Native American contact list are also included in Appendix A to assist with government-to-government consultation requirements as needed.

5.3 Field Methods

Mojave Archaeological Consulting's Principal Investigator Michelle Hart performed an intensive pedestrian field survey of the project area on 22 December 2023. The survey began at the western edge of the project area and was completed from south to north along parallel linear transects oriented east to west, spaced 15-meters apart. The entirety of the 1.6-acre project area was systematically surveyed in this manner. A handheld Global Positioning System (GPS) receiver, digital topographic maps, and aerial imagery were used to ensure intensive coverage. To assess the potential for buried cultural deposits, soil profiles were examined along road cuts, rodent burrows, previously excavated and disturbed areas, and other natural and artificial exposures. Ground surface visibility was generally very good (approximately 80-to-90%) throughout the project area, dependent on the density of vegetation cover and level of recent ground disturbance.

6 RESULTS

6.1 Previous Investigations

A CHRIS literature and records search was performed by the SCCIC, which included a 0.5-mile-wide buffer (study area). The results of the search were received on 21 December 2023. A total of twenty cultural resource investigations have been previously conducted within the 0.5-mile study area (Tables 6.1-1 and 6.1-2). Three of these investigations included the current project area and are discussed below.

In 1983 Charles Anicic Jr. of the Fontana Historical Society conducted historic research on Grapeland for the proposed Sierra Heights Development in northern Fontana. Anicic's paper discusses the history of an area of approximately 1500 acres which encompassed the current project area. No intensive survey was conducted but multiple historic sites associated with the Grapeland including residences, a schoolhouse, post office, irrigation ditches, and vineyards, were researched and photographed as part of the project. None of the resources fell within the current project area. Anicic and the San Bernardino Museum noted that archaeological survey of the area was still needed.

In 1992, Archaeological Consulting Services (Alexadrowicz et al.) conducted preliminary identification investigations within a 16-square mile area as part of City of Fontana's update for their General Plan Environmental Impact Report for the "North Fontana" area. Fieldwork included "windshield survey" and limited pedestrian survey of selected locations. As a result of the investigation many archaeological sites and historic buildings and structures were identified, and in some cases limited formal recording was undertaken. The investigation encompassed the current project area. It does not appear that any resources were recorded in the vicinity of the project area, but the available report maps are mostly illegible and resource locations are unclear.

Lastly, in 2004, Richard M. Perry surveyed 210 acres including the current project area for the proposed Citrus Heights North Specific Plan Development. The survey was negative for cultural resources.

Table 6.1-1: Previous Investigations within or intersecting the Project Area

Number	Year	Author(s)	Title
SB-01407	1983	Charles Anicic Jr.	Historical Brief on Grapeland
SB-02621	1992	Steven Alexandrowicz, Anne Duffield-Stoll, Jeanette Mckenna, Susan Alexandrowicz, Arthur Kuhner, and Eric Scott	Cultural and Paleontological Resources Investigations within the North Fontana Infrastructure Area, City of Fontana, San Bernardino County, California
SB-05089	2004	Richard M. Perry	An Intensive Cultural Resources Survey of 210 Acres for the Proposed Citrus Heights North Specific Plan in the City of Fontana, San Bernardino County, California

Table 6.1-2: Additional Previous Investigations within 0.5-Mile of the Project Area

Number	Year	Author(s)	Title
SB-01501	1985	Roger D. Mason	Cultural Resource Survey Report for the Etiwanda Pipeline and Power Plant EIR
SB-01611	1986	Ronald M. Bissell	A Cultural Resources Reconnaissance of the La Cuesta Property, Fontana, San Bernardino County, California

Number	Year	Author(s)	Title
SB-02795	1991	Hampson, R. Paul, James J. Schmidt, and June A. Schmidt	Cultural Resource Investigation: Cajon Pipeline Project
SB-02796	1993	Jeanette A. Mckenna	Cultural Resources Investigations, Site Inventory and Evaluations, the Cajon Pipeline Corridor, Los Angeles and San Bernardino Counties
SB-03050	1995	Jeanette A. Mckenna	A Cultural Resource Reconnaissance Survey of Westgate Property (1000 +/- Acres) in the City of Fontana, San Bernardino County, CA
SB-03537	1999	Bruce Love	Lennar Coyote Canyon Project Near the City of Fontana, CA
SB03957	2004	Kenneth M. Becker and Anne Q. Stoll	Cultural Resource Survey of Fontana Park Project 0226-092-60, Fontana, San Bernardino County, CA
SB-04012	2002	Miriam Duhdal	Historical/ Archaeological Report: West San Bernardino Water District Zones 6 & 7 Reservoir & Waterline Improvements & Installation in & Near the City of Fontana, San Bernardino County, CA
SB-04552	2001	Jeanette A. Mckenna	A Phase I Cultural Resources Investigation of Tentative Tract No. 16621 in the City of Fontana, San Bernardino County, CA
SB-05088	2005	Jeanette A. Mckenna	A Phase I Cultural Resources Investigation of the Fontana Unified School District Middle School No.10, Located in the City of Fontana, San Bernardino County, California
SB-05091	2006	Stacey C. Jordan	Archaeological Survey Report for the Southern California Edison Company DSP-Mora 12kV Circuit Alternatives Project, San Bernardino County, California
SB-06615	2009	Jay K. Sander	Archaeological Survey Report for Southern California Edison's Silva 12kV Facilities Relocation Project: Duncan Canyon Road, Fontana, San Bernardino County, California
SB-06986	2010	Amy Glover and Sherri Gust	Phase I Resources Assessment Report for the Falcon Ridge Substation Project in the Cities of Fontana and Rialto, San Bernardino County, California
SB-07375	2012	Wayne H. Bonner and Sarah A. Williams	Cultural Resource Records Search and Site Visit Results for T-Mobile USA Candidate IE24363-B (SCE Tower), 5458 Citrus Avenue, Fontana, San Bernardino County
SB-07990	2014	Joan George and Josh Smallwood	Phase I Cultural Resources Assessment for the Etiwanda Pipeline North Relining Project, Cities of Fontana and Rancho Cucamonga, San Bernardino County, California
SB-08099	2014	William F. Betts	Tracking the Trackless Trolley: An Archaeological Examination of the Lone Pine Canyon Trolley
SB-08269	2017	Stephen Byrne, Gary Jones, and Gabrielle Duff	Archaeological Survey Report Interstate 15 (I-15) Corridor Project

6.2 Previously Identified Resources

Based on the SCCIC search, four cultural resources have been previously documented within 0.5-miles of the project area. The resources are all historic and include a transmission line, the Perdue school, the Waters home site, and the Lytle Creek Winery site. No prehistoric resources have been previously documented within 0.5-miles of the project area and no cultural resources, either historic or prehistoric, have been previously documented within the project area.

Table 6.2-1: Previously Recorded Resources within 0.5-Mile of the Project Area

Resource Number	Resource Description	NRHP/CRHR Eligibility
P-36-008857 CA-SBR-008857H	Southern California Edison Company's Lugo-Mira Loma No. 1 500kV (Southern Sierras Power Line; Lytle Canyon Transmission Lines)	Unknown/Unevaluated
P-36-012739 CA-SBR-012366H	Stone foundation identified as the Perdue School	Unknown/Unevaluated
P-36-012688	Rock enclosure, concrete reservoir, and trash scatter identified as the Waters home site.	Unknown/Unevaluated
P-36-013511	Lytle Creek Winery site	Recommended Eligible

6.3 Newly Recorded Resources – Intensive Pedestrian Inventory Results

Given the age of the previous investigations, and the unreliability of older survey methods, a new intensive pedestrian inventory of the project area was completed 22 December 2023. During the field survey it was noted that the project area is heavily disturbed. The location appears to have been previously graded using heavy equipment and several piles of debris were observed. A refuse pile in the northeast corner of the project area, adjacent to a two-track utility corridor access road, consists of modern roofing materials, wooden pallets, and assorted garbage, apparently from recent dumping (Plate 4). One cluster of debris within the central portion of the project area appears to be a dozer push pile consisting of local rock and building materials including cobblestone and concrete masonry fragments (Plates 5 and 6). Cobblestone construction was common in the Fontana area in the decades before and after 1900. Stone was abundant in the area and used in the construction of field fences, cisterns, reservoirs, and buildings. Historic research (Section 5.1) concludes the project area was within the Grapeland Irrigation District and several home sites associated with Grapeland were present in the vicinity. As evidenced in 1938 aerial imagery and the1939 topographic map for Devore, CA, a homestead was present adjacent to, and immediately south of the project area. The homestead consisted of several structures and a square masonry reservoir or cistern. These structures were destroyed by 1966 and surrounding orchards and vineyards were subsequently cleared and graded. It is likely the cobblestone masonry debris identified within the project area was pushed to the location during these activities, or during the later construction of Knox Avenue around 2006. Regardless, any structures have been destroyed, the remaining materials are in poor condition, lack integrity of location, and there are no historic artifacts in association. Considering this, the remains no longer retain sufficient integrity for consideration of potential historic significance and did not warrant formal recordation. No other cultural materials, either prehistoric or historic, were identified within the project area.

Plate 5: Pile of debris with fragmented concrete and cobblestone masonry, view to the northeast.

Plate 6: Detail of fragmented concrete and cobblestone masonry.

7 CONCLUSION AND MANAGEMENT RECOMMENDATIONS

Mojave Archaeological Consulting, LLC has prepared this cultural resources assessment on behalf of Tom Dodson and Associates for the construction of the West Valley Water District's Well No. 57. The project area consists of a 1.6-acre portion of three parcels (APNs 110-752-174, 110-752-176, and 110-752-171) situated northwest of the intersection of Vesta Way and Knox Avenue in the City of Fontana, San Bernardino County.

In accordance with CEQA, to determine the potential for the proposed project to impact historical/archaeological resources eligible for or listed on the CRHR, Mojave Archaeological Consulting's assessment included a records search and literature review, an SLF search with the NAHC, and an intensive archaeological survey of the 1.6-acre project area.

In summary of the research presented within this report, the project area is located on land that was used historically for agricultural purposes. The site is heavily disturbed with evidence of past grading activity and several rock and debris piles. The only cultural remains identified within the project area were concrete and masonry fragments that may have originated from a late 19th century to 1930's era homestead which was once situated southeast of the project area. The homestead was one of many in the vicinity associated with the historic community of Grapeland. The homestead's structures were demolished by the 1960's and surrounding orchards and vineyards were subsequently cleared and graded. The identified fragmented masonry rubble is in poor condition, is situated in a push pile lacking integrity of location, and there are no historic artifacts in association. Considering this, the minor remains no longer retain sufficient integrity for consideration of potential historic significance and are not considered eligible for listing in the CRHR. No other cultural materials, either prehistoric or historic, were identified within the project area. The paucity of cultural materials identified during the survey and the project area's previously disturbed context indicate that intact and significant buried archaeological deposits are unlikely.

Considering these findings, Mojave Archaeological Consulting recommends to the West Valley Water District that the proposed project will have no impact on historical or archaeological resources. No further cultural resources work is recommended necessary for the proposed project activities. However, in the event that potentially significant archaeological materials are encountered during construction, all work must be halted in the vicinity of the discovery until a qualified archaeologist can assess the significance and integrity of the find. If intact and significant archaeological remains are encountered, the impacts of the project should be mitigated appropriately. Any such discoveries, and subsequent evaluation and treatment, should be documented in a cultural resources report, which would be submitted to the SCCIC for archival purposes.

Additionally, Health and Safety Code Section 7050.5, *CEQA Statute & Guidelines* Section 15064.5(e), and PRC Section 5097.98 mandate the process to be followed in the event of a discovery of human remains. Finally, if the project area is expanded to include areas not covered by this survey or other recent cultural resource investigations in the study area, additional cultural resource investigations may be required.

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APPENDIX A SACRED LANDS FILE SEARCH AND TRIBAL CORRESPONDENCE

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
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(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

December 13, 2023

Michelle A. Hart
Mojave Archaeological Consulting

Via Email to: michelle@mojavearchaeology.com

Re: West Valley Water District Well No. 57 Project, San Bernardino County

Dear Ms. Hart:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the above referenced project. The results were positive. Please contact the Gabrieleno Band of Mission Indians / Kizh Nation on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cameron.vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
San Bernardino County
12/13/2023

County	Tribe Name	Fed (F) Non-Fed	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
San Bernardino	Agua Caliente Band of Cahuilla Indians	F	Patricia Garcia, Director of Historic Preservation	5401 Dinah Shore Drive Palm Springs, CA, 92264	(760) 699-6907	(760) 699-6919	pagarcia@aguacaliente.net	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	7/20/2023
	Augustine Band of Cahuilla Indians	F	Tribal Operations,	84-001 Avenue 54 Coachella, CA, 92236	(760) 398-4722			Cahuilla	Imperial,Riverside,San Bernardino,San Diego	11/30/2023
	Cabazon Band of Mission Indians	F	Doug Welmas, Chairperson	84-245 Indio Springs Parkway Indio, CA, 92203	(760) 342-2593	(760) 347-7880	jstapp@cabazonindians-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
	Cahuilla Band of Indians	F	BobbyRay Esaprza, Cultural Director	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		besparza@cahuilla-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	6/28/2023
	Cahuilla Band of Indians	F	Daniel Salgado, Chairperson	52701 CA Highway 371 Anza, CA, 92539	(951) 972-2568	(951) 763-2808	chairman@cahuilla-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	6/28/2023
	Cahuilla Band of Indians	F	Anthony Madrigal, Tribal Historic Preservation Officer	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		anthonymad2002@gmail.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	6/28/2023
	Gabrieleno Band of Mission Indians - Kizh Nation	N	Christina Swindall Martinez, Secretary	P.O. Box 393 Covina, CA, 91723	(844) 390-0787		admin@gabrielenoindians.org	Gabrieleno	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	8/18/2023
	Gabrieleno Band of Mission Indians - Kizh Nation	N	Andrew Salas, Chairperson	P.O. Box 393 Covina, CA, 91723	(844) 390-0787		admin@gabrielenoindians.org	Gabrieleno	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	8/18/2023
	Gabrieleno/Tongva San Gabriel Band of Mission Indians	N	Anthony Morales, Chairperson	P.O. Box 693 San Gabriel, CA, 91778	(626) 483-3564	(626) 286-1262	GTTribalcouncil@aol.com	Gabrieleno	Los Angeles,Orange,Riverside,San Bernardino,Ventura	12/4/2023
	Gabrielino /Tongva Nation	N	Sandonne Goad, Chairperson	106 1/2 Judge John Aiso St., #231 Los Angeles, CA, 90012	(951) 807-0479		sgoad@gabrielino-tongva.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Ventura	3/28/2023
	Gabrielino Tongva Indians of California Tribal Council	N	Robert Dorame, Chairperson	P.O. Box 490 Bellflower, CA, 90707	(562) 761-6417	(562) 761-6417	gtongva@gmail.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	3/16/2023
	Gabrielino Tongva Indians of California Tribal Council	N	Christina Conley, Cultural Resource Administrator	P.O. Box 941078 Simi Valley, CA, 93094	(626) 407-8761		christina.marsden@alumni.usc.edu	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	3/16/2023
	Gabrielino-Tongva Tribe	N	Charles Alvarez, Chairperson	23454 Vanowen Street West Hills, CA, 91307	(310) 403-6048		Chavez1956metro@gmail.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Ventura	5/30/2023
	Gabrielino-Tongva Tribe	N	Sam Dunlap, Cultural Resource Director	P.O. Box 3919 Seal Beach, CA, 90740	(909) 262-9351		tongvatcr@gmail.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Ventura	5/30/2023
	Los Coyotes Band of Cahuilla and Cupeño Indians	F	Ray Chapparosa, Chairperson	P.O. Box 189 Warner Springs, CA, 92086-0189	(760) 782-0711	(760) 782-0712		Cahuilla	Imperial,Riverside,San Bernardino,San Diego	

Native American Heritage Commission
Native American Contact List
San Bernardino County
12/13/2023

Morongo Band of Mission Indians	F	Ann Brierty, THPO	12700 Pumarra Road Banning, CA, 92220	(951) 755-5259	(951) 572-6004	abrierty@morongo-nsn.gov	Cahuilla Serrano	Imperial,Los Angeles,Riverside,San Bernardino,San Diego	
Morongo Band of Mission Indians	F	Robert Martin, Chairperson	12700 Pumarra Road Banning, CA, 92220	(951) 755-5110	(951) 755-5177	abrierty@morongo-nsn.gov	Cahuilla Serrano	Imperial,Los Angeles,Riverside,San Bernardino,San Diego	
Pechanga Band of Indians	F	Steve Bodmer, General Counsel for Pechanga Band of Indians	P.O. Box 1477 Temecula, CA, 92593	(951) 770-6171	(951) 695-1778	sbodmer@pechanga-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	8/2/2023
Pechanga Band of Indians	F	Tuba Ebru Ozdil, Pechanga Cultural Analyst	P.O. Box 2183 Temecula, CA, 92593	(951) 770-6313	(951) 695-1778	eozdil@pechanga-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	8/2/2023
Quechan Tribe of the Fort Yuma Reservation	F	Jill McCormick, Historic Preservation Officer	P.O. Box 1899 Yuma, AZ, 85366	(928) 261-0254		historicpreservation@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Quechan Tribe of the Fort Yuma Reservation	F	Manfred Scott, Acting Chairman - Kw'ts'an Cultural Committee	P.O. Box 1899 Yuma, AZ, 85366	(928) 210-8739		culturalcommittee@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Quechan Tribe of the Fort Yuma Reservation	F	Jordan Joaquin, President, Quechan Tribal Council	P.O.Box 1899 Yuma, AZ, 85366	(760) 919-3600		executivesecretary@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Ramona Band of Cahuilla	F	Joseph Hamilton, Chairperson	P.O. Box 391670 Anza, CA, 92539	(951) 763-4105	(951) 763-4325	admin@ramona-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	
Ramona Band of Cahuilla	F	John Gomez, Environmental Coordinator	P. O. Box 391670 Anza, CA, 92539	(951) 763-4105	(951) 763-4325	jgomez@ramona-nsn.gov	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	8/16/2016
Rincon Band of Luiseno Indians	F	Joseph Linton, Tribal Council/Culture Committee Member	One Government Center Lane Valley Center, CA, 92082	(760) 803-3548		jlinton@rincon-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	5/31/2023
Rincon Band of Luiseno Indians	F	Laurie Gonzalez, Tribal Council/Culture Committee Member	One Government Center Lane Valley Center, CA, 92082	(760) 484-4835		lgonzalez@rincon-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	5/31/2023
Rincon Band of Luiseno Indians	F	Denise Turner Walsh, Attorney General	One Government Center Lane Valley Center, CA, 92082	(760) 689-5727		dwalsh@rincon-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	7/7/2023
Rincon Band of Luiseno Indians	F	Cheryl Madrigal, Cultural Resources Manager/Tribal Historic Preservation Officer	One Government Center Lane Valley Center, CA, 92082	(760) 648-3000		cmadrigal@rincon-nsn.gov	Luiseno	Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura	5/31/2023
San Manuel Band of Mission Indians	F	Alexandra McCleary, Cultural Lands Manager	26569 Community Center Drive Highland, CA, 92346	(909) 633-0054		alexandra.mccleary@sanmanuel-nsn.gov	Serrano	Kern,Los Angeles,Riverside,San Bernardino	3/27/2023
Santa Rosa Band of Cahuilla Indians	F	Lovina Redner, Tribal Chair	P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	(951) 659-2228	lsaul@santarosa-nsn.gov	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	
Serrano Nation of Mission Indians	N	Mark Cochrane, Co-Chairperson	P. O. Box 343 Patton, CA, 92369	(909) 578-2598		serranonation1@gmail.com	Serrano	Los Angeles,Riverside,San Bernardino	10/10/2023

Serrano Nation of Mission Indians	N	Wayne Walker, Co-Chairperson	P. O. Box 343 Patton, CA, 92369	(253) 370-0167		serranonation1@gmail.com	Serrano	Los Angeles,Riverside,San Bernardino	10/10/2023
Soboba Band of Luiseno Indians	F	Joseph Ontiveros, Tribal Historic Preservation Officer	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-5279	(951) 654-4198	jontiveros@soboba-nsn.gov	Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	7/14/2023
Soboba Band of Luiseno Indians	F	Jessica Valdez, Cultural Resource Specialist	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-6261	(951) 654-4198	jvaldez@soboba-nsn.gov	Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	7/14/2023
Torres-Martinez Desert Cahuilla Indians	F	Abraham Becerra, Cultural Coordinator	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300		abecerra@tmdci.org	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Torres-Martinez Desert Cahuilla Indians	F	Thomas Tortez, Chairperson	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300	(760) 397-8146	thomas.tortez@tmdci.org	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Torres-Martinez Desert Cahuilla Indians	F	Alesia Reed, Cultural Committee Chairwoman	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300		lisareed990@gmail.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Torres-Martinez Desert Cahuilla Indians	F	Mary Belardo, Cultural Committee Vice Chair	P.O. Box 1160 Thermal, CA, 92274	(760) 397-0300		belardom@gmail.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Torres-Martinez Desert Cahuilla Indians	F	Gary Resvaloso, TM MLD	P.O. Box 1160 Thermal, CA, 92274	(760) 777-0365		grestmtm@gmail.com	Cahuilla	Imperial,Riverside,San Bernardino,San Diego	10/30/2023
Twenty-Nine Palms Band of Mission Indians	F	Nicolas Garza, Cultural Resources Specialist	46-200 Harrison Place Coachella, CA, 92236	(760) 863-2486		nicolas.garza@29palmsbomi-nsn.gov	Chemehuevi	Imperial,Inyo,Riverside,San Bernardino	11/15/2023
Twenty-Nine Palms Band of Mission Indians	F	Christopher Nicosia, Cultural Resources Manager/THPO Manager	46-200 Harrison Place Coachella, CA, 92236	(760) 863-3972		christopher.nicosia@29palmsbomi-nsn.gov	Chemehuevi	Imperial,Inyo,Riverside,San Bernardino	11/15/2023
Twenty-Nine Palms Band of Mission Indians	F	Sarah O'Brien, Tribal Archivist	46-200 Harrison Place Coachella, CA, 92236	(760) 863-2460		sobrien@29palmsbomi-nsn.gov	Chemehuevi	Imperial,Inyo,Riverside,San Bernardino	11/15/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed West Valley Water District Well No. 57 Project, San Bernardino County.

Record: PROJ-2023-006099
Report Type: List of Tribes
County: San Bernardino
NAHC Group: All

Fwd: Western Valley Water District AB52 Well No 57

Mojave Archaeological Consulting <michelle@mojavearchaeology.com> Thu, Nov 30, 2023 at 2:38 PM
To: Kaitlyn Dodson-Hamilton <kaitlyn@tdaenv.com>
Cc: Tribal Historic Preservation Office <thpo@morongo-nsn.gov>, Ann Brierty <ABrierty@morongo-nsn.gov>, Laura Chatterton <lchatterton@morongo-nsn.gov>, Joan Schneider <jschneider@morongo-nsn.gov>, Rosa Gutierrez <rgutierrez@wvwd.org>

Hello Kaitlyn,

Thank you for forwarding! I have not yet completed the field survey for this project and would be happy to coordinate with MBMI to include their participation.

Ann and Laura, I will follow up with you within the next few days so that we can coordinate an upcoming date in December for the pedestrian survey of the project site that works for your schedules so that you or a tribal monitor may join me!

Best Wishes,

Michelle

Michelle A. Hart, M.A.
Owner & Principal Investigator
Mojave Archaeological Consulting
(760) 583-3445

On Thursday, November 30, 2023, Kaitlyn Dodson-Hamilton <kaitlyn@tdaenv.com> wrote:

> Hi Michelle,
>
> Per the MBMI email exchange below, they would live to visit the Well No 57 site with you when you survey the site. I am not sure when you have this planned, but if you could coordinate with them, we would appreciate it.
>
> Thanks again and I am available if anyone needs me to facilitate the timing, or anything else.
>
> -Kaitlyn

West Valley Water District Well #57 Project

1 message

Michelle Hart <michellehart271@gmail.com> Mon, Dec 11, 2023 at 7:24 AM
To: Ann Brierty <ABrierty@morongo-nsn.gov>, Laura Chatterton <lchatterton@morongo-nsn.gov>

Good Morning Ann and Laura,

I am following up on your request with the West Valley Water District for the Tribe/MBMI's participation in the pedestrian survey for the district's Well #57 project in the City of Fontana. I was planning to complete the survey for this project next week, do you have any availability on Friday 12/22? If Friday does not work, I can be available any other day next week, just let me know a time that may work for you. Thank you!

Best Wishes,

Michelle

Michelle A. Hart, M.A.
Owner & Principal Investigator
Mojave Archaeological Consulting
(760) 583-3445

Andrew Salas, Chairperson
Christina Swindall Martinez, Secretary
Gabrieleno Band of Mission Indians-Kizh Nation
P.O. Box 393 Covina, CA, 91723
Transmitted via email to admin@gabrielenoindians.org

RE: West Valley Water District Well No. 57 Project
City of Fontana
San Bernardino County, California

Good Afternoon,

I am writing to bring your attention to the above-referenced project. The West Valley Water District is planning to construct a new well. Well No. 57 is proposed to be located on an approximately 1.6-acre portion of three parcels within the City of Fontana, San Bernardino County (Assessor's Parcel Numbers 110-752-175, 110-752-176, and 110-752-171). The site is located northwest of the intersection of Vesta Way and Knox Avenue, just northeast of the intersection of Knox Avenue and Walsh Lane. The project is located within the UGGS topographic map for Devore, CA within Section 24, Township 1 North and Range 6 West. A project location map is provided for your reference and GIS shapefiles of the location can be sent at your request.

Mojave Archaeological Consulting, LLC is conducting a cultural resource investigation and preparing a Cultural Resources Report as part of the Initial Study for this project. The West Valley Water District will serve as the Lead Agency for the CEQA process.

As part of the cultural resource investigation of the project area, on November 13, 2023, Mojave Archaeological Consulting submitted a CHRIS Data Request with the South Central Coastal Information Center (SCCIC), and also requested a search of the Native American Heritage Commission's (NAHC's) Sacred Lands File on the same day. At this time, results from the SCCIC records search are pending. However, the NAHC responded on December 13, 2023 stating that a search of the NAHC SLF was completed for the information submitted for the above referenced project and results were positive, and instructed the Gabrieleno Band of Mission Indians/ Kizh Nation should be contacted. The NAHC response letter is attached for your reference.

I am reaching out to you to seek any information you may wish to provide regarding potential Native American cultural resources in or near the project area and would welcome any input to consider during the cultural resource investigation. I am planning on completing a pedestrian survey of the project site on Friday, December 22nd and would like to extend my invitation to join me in the survey. I would also be happy to coordinate a visit to the project site at a date convenient to you at your request. Please reach out should the Gabrieleno Band of Mission Indians/Kizh Nation be available and wish to participate in the field survey or visit to the project site.

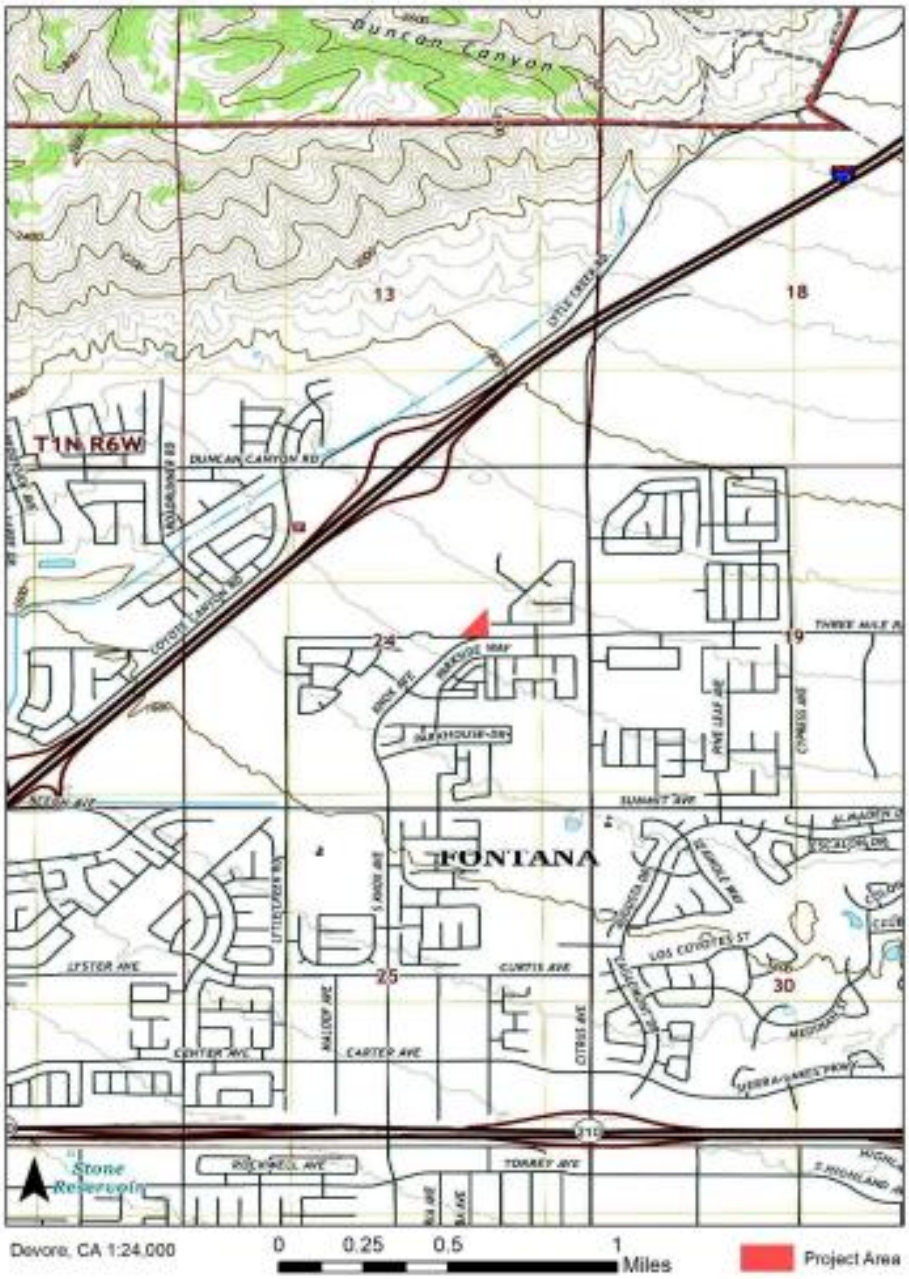
Please respond at your earliest convenience with any information or knowledge you may wish to share to inform the cultural resource investigation. I can be reached at mojave_consulting@outlook.com or 760-583-3445. Any requests for documentation or information I cannot provide will be forwarded to our client and/or the West Valley Water District as the Lead Agency. Please note that as the cultural resources consultant for the project, Mojave Archaeological Consulting is not involved in government-to-government consultation or AB 52 compliance; rather, this letter is intended to seek your input to determine if there are cultural resources/Tribal resources in or near the project area to help assess the cultural resource sensitivity of the project. I look forward to your input and appreciate your time and effort to review this request.

Best Wishes,

M. Hart

Michelle Hart, M.A.
Cultural Resource Specialist/Principal Investigator
Mojave Archaeological Consulting, LLC
Email: mojave_consulting@outlook.com

Project Area
City of Fontana, San Bernardino County, CA



From: Michelle Hart
Sent: Friday, December 15, 2023 12:47 PM
To: admin@gabrielenoindians.org <admin@gabrielenoindians.org>
Subject: West Valley Water District Well #57 Project

Good Afternoon,

Please find the attached information letter and map regarding the West Valley Water District's Well #57 Project in the City of Fontana, San Bernardino County. Please reach out with any questions. Have a great day!

Best Wishes,

Michelle Hart
Mojave Archaeological Consulting

Re: West Valley Water District Well #57 Project

Michelle Hart <mojave_consulting@outlook.com>
Wed 1/3/2024 3:28 PM
To:admin@gabrielenoindians.org <admin@gabrielenoindians.org>

2 attachments (772 KB)
WVWD_Well_No.57_Information_Letter_12152023.pdf; SLF Yes West Valley Water District Well No. 57 Project 12.13.2023.pdf;

Good Afternoon

I am forwarding the previously sent information letter and NAHC response letter and following up with additional information relevant to the cultural resources investigation for the West Valley Water District's Well #57 Project. I would like to confirm if the Gabrieleno Band of Mission Indians/ Kizh Nation would like to provide any input regarding this project.

A response letter from the NAHC regarding the project stated that SLF results for a search of the project area were positive, and instructed the Gabrieleno Band of Mission Indians/ Kizh Nation should be contacted.

Results from a records search with the SCCIC were received December 21st and indicate the project area was previously surveyed in 2004. No cultural resources were recorded within the project area. Four historic resources have been previously documented within ½ mile of the project area and include a historic transmission line, the Perdew School stone foundation, the early-20th century Water's residence, and the Lytle Creek Winery. Per the SCCIC data, no prehistoric resources have been previously documented within ½ mile of the project area.

Due to the age of previous survey coverage, new survey was conducted on December 22nd 2023. The entirety of the 1.6-acre project area was intensively investigated at 15-m transects and no cultural resources were identified. The project area was found to be heavily disturbed by previous agricultural plowing, construction of a gas pipeline through the site, as well as an adjacent transmission line and roads.

At your earliest convenience, please respond if there is any knowledge you may wish to share regarding potential Native American cultural resources in or near the project area or any other information that should be considered in the cultural resources investigation. Your input would be greatly appreciated. Please reach out with any questions you may have.

Best Wishes,

Michelle Hart

Michelle A. Hart, M.A.
Owner & Principal Investigator
Mojave Archaeological Consulting
(760) 583-3445

APPENDIX 4

Soil Map—San Bernardino County Southwestern Part, California
(WV-104)

Map Scale: 1:1,060 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California
Survey Area Data: Version 15, Aug 30, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 17, 2022—Jun 12, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
TvC	Tujunga gravelly loamy sand, 0 to 9 percent slopes	2.5	100.0%
Totals for Area of Interest		**2.5**	**100.0%**

APPENDIX 5

Phase 1 Environmental Site Assessment Report

West Valley Water District, Potential Well Site

NW Lot of Knox Avenue, Fontana, California 92336

Project Number: 2063-2023[1]

July 25, 2023

Prepared by:

Geo Forward

Prepared for:
Kyle Groundwater, Inc.
2377 West Foothill Boulevard, Suite 7, Upland, CA 91786

Executive Summary

This Phase 1 Environmental Site Assessment (Phase 1 ESA) conducted by Geo Forward, Inc. (Geo Forward) is in general accordance with the American Society for Testing and Materials (ASTM) Standard Practice E1527-21, and the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries (AAI) under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) in 40 CFR. This Phase 1 ESA substantially complies with the scope of services and ASTM 1527-21, as amended, except for exceptions and/or limiting conditions as discussed in Section 1.3.

As the responsible professionals of this Phase 1 ESA, we declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of this part [40 CFR Part 312]. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the AAI in conformance with the standards and practices set forth in 40 CFR Part 312.

This Phase 1 ESA is intended to provide Kyle Groundwater, Inc. with an assessment concerning any potential environmental condition (limited to those issues identified in the report) as they exist at the Subject Property.

Any exceptions to, or deletions from, this practice are described above and are also in Section 1.4 of this report.

Site Vicinity

The Subject Property is located:

- Northwest of Knox Avenue;
- Approximately 60 feet east of Walsh Lane;
- In a mixed undeveloped and residential area of Fontana, California.

Adjacent Properties

Adjacent properties currently consist of:

- Vacant Land to the north;
- Single Family Residential Dwellings (15902 & 15903 Wibert Drive) to the east;
- Vacant Land and Single-Family Residential Dwellings (5312 & 5313 Casoria Way) to the south; and
- Vacant Land to the west.

Current Use

The Subject Property currently consists of:

- A vacant, unpaved lot; and
- A paved emergency access road bisecting the plot.
- The Subject Property is presently unoccupied, vacant land with no ongoing issues.
- No other improvements are located at the Subject Property.

Physical Setting

According to the United States Geological Survey (USGS), Devore, California Quadrangle 7.5-minute series topographic map published in 2021:

- The ground surface of the Subject Property is approximately 1,703 feet above mean sea level (AMSL).
- Contour lines in the general area of the Subject Property indicate the ground surface is sloping toward the south-southwest.

Findings

The following are the notable findings of this Phase 1 ESA:

- The Subject Property is comprised of a triangular 1.6 acre plot located within a mixed undeveloped and residential area that is characterized by single-family residences and undeveloped land. The Subject Property is zoned Public Utility Corridor (P-UC) and Multiple Family (R-3) by the City of Fontana. Access to the Subject Property is provided from Knox Avenue and a paved fire access road. Stormwater is removed from the Subject Property by infiltration into and sheet flow action across the unpaved surfaces towards stormwater drains located on the adjacent public right of way. No significant surface- or subsurface- features were noted on the Subject Property at the time of the reconnaissance.
- Based on a review of historical records (topographic maps, aerial images, city directories, and more), the Subject Property was undeveloped in 1896 and is presumed to have been undeveloped prior to 1896. Evidence of agricultural plots on the Subject Property were observed between 1938 to 1966. By 1975, the Subject Property was no longer used for agricultural purposes and was observed as vacant, undeveloped land. From 1975 to 2020 the Subject Property remained vacant land until the installation of a paved emergency access road in 2023. No other improvements were observed during this investigation.
- In consideration of the historical agricultural land use at and around the Subject Property (as early as 1938 and as late as 1966), some agricultural pollutants deriving from crop fertilizers and pesticides could exist in the subsurface at the Subject Property; thus, is considered an Environmental Issue.

- The Subject Property was not identified in the regulatory agency database research report as comprising any current or historical hazardous materials conditions. During Geo Forward's site reconnaissance, there were no apparent observations of the current use, generation, or storage of hazardous materials on-site. The Subject Property is presently undeveloped, vacant land apart from a paved emergency access road bisecting the plot.
- "Rialto Perchlorate Investigation" is a cluster of approximately 17 sites with open regulatory oversight assessment and remediation cases, approximately 2-miles to the east of the Subject Property. According to Santa Ana RWQCB, perchlorate contamination was first identified in groundwater in the Rialto-Colton subbasin in 1997. At that time, the California Department of Health Services (DHS) Action Level for perchlorate in drinking water was 18 parts per billion (ppb). Two (2) wells were found to contain perchlorates above 18 ppb and were subsequently shut down. In January 2002, the DHS lowered the Action Level to 4 ppb. In response to the reduced Action Level, the local water purveyors in the Rialto-Colton area restricted or eliminated the use of additional production wells with perchlorate concentrations exceeding 4ppb. Between 1997 and the present, several suspected Responsible Parties have been identified for perchlorate discharges. Monitoring and remediation of groundwater in the Rialto-Colton subbasin is ongoing (RWQCB 2023). The potential for perchlorate contamination in groundwater underlying the Subject Property is considered an Environmental Issue.

Summary of Recognized Environmental Conditions (REC)	
Per the ASTM Standard, a Recognized Environmental Condition (REC) is defined as the presence or likely presence of any hazardous substance or petroleum product on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or the ground, groundwater, or surface water of the Subject Property. The term includes hazardous substances and petroleum products even under conditions that might comply with laws. The term is not intended to include "de minimis" conditions that do not present a threat to human health and/or the environment and that would not be subject to enforcement action if brought to the attention of appropriate governmental agencies. This table is for summary purposes only. For a detailed description of any concern mentioned here, please refer to Section 7.0 of the report below.	This assessment has revealed no evidence of RECs in connection with the Subject Property, except for the following: • **Geo Forward did NOT identify any RECs during this assessment.**

Summary of Historical Recognized Environmental Conditions (HREC)	
Per the ASTM Standard, a Historical Recognized Environmental Condition (HREC) is defined as an environmental condition which would have been considered a REC in the past, but is no longer an REC based on other environmental assessments, government evaluations and/or regulatory agency closures. This table is for summary purposes only. For a detailed description of any concern mentioned here, please refer to Section 7.0 of the report below.	No HRECs were observed at the Subject Property, other than the following: • **Geo Forward did NOT identify any HRECs during this assessment.**

Summary of Controlled Recognized Environmental Conditions (CREC)

Per the ASTM Standard, a Controlled Recognized Environmental Condition (CREC) is defined as a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. This table is for summary purposes only. For a detailed description of any concern mentioned here, please refer to Section 7.0 of the report below.	No CRECs were observed at the Subject Property, other than the following: • **Geo Forward did NOT identify any CRECs during this assessment.**

Summary of Environmental Issues

Per the ASTM Standard, an Environmental Issue is defined as environmental concerns identified by Geo Forward, which do not qualify as RECs; however, they require discussion. This table is for summary purposes only. For a detailed description of any concern mentioned here, please refer to Section 7.0 of the report below.	No Environmental Issues were observed at the Subject Property, other than the following: • In consideration of the historical agricultural land use at and around the Subject Property, some agricultural pollutants deriving from crop fertilizers and pesticides could exist in the subsurface at the Subject Property; thus, is considered an environmental issue. • Perchlorate contamination was first identified in groundwater in the Rialto-Colton subbasin in 1997. Multiple Responsible Parties have been identified for discharging perchlorates. Monitoring and remediation of groundwater in the Rialto-Colton subbasin is ongoing. The potential for perchlorate contamination in groundwater underlying the Subject Property is considered an Environmental Issue.

Summary of De Minimis Environmental Conditions

De minimis environmental conditions do not present a threat to human health and/or the environment and that would not be subject to enforcement action if brought to the attention of appropriate governmental agencies. This table is for summary purposes only. For a detailed description of any concern mentioned here, please refer to Section 7.0 of the report below.	This assessment has revealed no evidence of De Minimis Concerns in connection with the Subject Property, except for the following: • Geo Forward did NOT identify any De Minimis Concerns during this assessment.

Conclusions & Recommendations

Based on the findings mentioned above, the following are Geo Forward's recommendations:

- Conduct a Geophysical Survey in order to identify possible underground features associated with the gas pipeline caution posts and the raised concrete manhole of unknown utility along the southern border of the Subject Property on the adjoining vacant land. The extent of the underground feature or void is unknown, and it is recommended to conduct a geophysical survey to clear potential underground utilities before development on site.
- During the preliminary design phase of the proposed groundwater production well at the Subject Property, Geo Forward recommends:
  - Reviewing all historical and recent groundwater quality data from nearby wells that have perforated zones within the underlying aquifers. Observations should be used to determine whether the groundwater quality in deep aquifers are acceptable for municipal use, with special attention to the presence of nitrate, nitrite, pesticides, and perchlorates;
  - Conducting zoned groundwater quality testing within the underlying aquifers during drilling activities, and including laboratory analysis of organochlorine pesticides, nitrate, nitrite, and perchlorates.
  - Implementing screened intervals ONLY within the deeper confined aquifers underlying the Subject Property; and
  - Implementing a competent sanitary seal through the shallow semi-confined and unconfined aquifers.

- Based on the conclusions mentioned above, Geo Forward does not recommend obtaining groundwater from, or within vertical proximity of, the shallow semi-confined and unconfined aquifers underlying the Subject Property. As a conservative scope of site assessment, shallow soil and groundwater sampling and testing is recommended if the proposed groundwater production well is planned to include screened intervals within vertical proximity of the semi-confined to unconfined aquifers underlying the Subject Property.

- End of Executive Summary -

Please feel free to contact us at (888) 930-6604 and/or support@geoforward.com to obtain a price quote for any other services recommended by this Phase 1 ESA.

PROFESSIONAL CERTIFICATION (BEGINNING)

As the responsible professionals of this Phase 1 Environmental Site Assessment Report (Phase 1 ESA), we declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of this part [40 CFR Part 312]. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Thank you for the opportunity to be of service. If you have any questions regarding this investigation, please contact the undersigned at (888) 930-6604.

Sincerely,

Michael J. Sabo
Project Manager / Geoscientist

Crystal Toogood
Staff Environmental Scientist

Adam Azad Kaligi, PG 9287
Client Relationship Manager
Professional Geologist

LIST OF FIGURES & APPENDICES

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1.0 OVERVIEW

Geo Forward was hired by Russell Kyle & Kimberly Makar (representing Kyle Groundwater, Inc. [Kyle Groundwater]) to conduct a Phase I Environmental Site Assessment (ESA) of the property located at the Northwest Lot of Knox Avenue, Fontana, California (Subject Property).

This Phase 1 ESA is in general accordance with the American Society for Testing and Materials (ASTM) Standard Practice E1527-21, and the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries (AAI) under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) in 40 CFR.

This Phase 1 ESA substantially complies with the ASTM E1527-21 standard, except for exceptions and/or limiting conditions as discussed in Section 1.3. Building materials were reasonably presumed during this assessment based on limited observations and with reference to the original dates of construction. Please refer to Section 1.3 to review any other project-specific data gaps, exceptions, or deletions in this assessment.

On July 12, 2023, Crystal Toogood of Geo Forward conducted a physical inspection of the Subject Property to assess the possible presence of environmental conditions and other non-ASTM environmental issues. Geo Forward's assessment included a review of ASTM-defined sources of historical information, reconnaissance of adjoining properties, background research, and a review of available local, state, and federal regulatory records.

As the responsible professionals of this Phase 1 ESA, we declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of this part [40 CFR Part 312]. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the AAI in conformance with the standards and practices set forth in 40 CFR Part 312.

1.1 Parties

This Phase 1 ESA is intended to provide Kyle Groundwater with an assessment concerning any potential environmental condition (limited to those issues identified in the report) as they exist at the Subject Property. As indicated by Geo Forward Proposal Number 2063-2023[1], Geo Forward understands that the purpose of this Phase 1 ESA is to assist the Report User (Kyle Groundwater) in making a credit decision in a real estate transaction at or on the Subject Property.

Geo Forward commissioned Environmental Risk Information Services (ERIS) to perform a digital database search for local, state, and federal regulatory records pertaining to environmental concerns for the Subject Property and the properties in the vicinity of the Subject Property.

Geo Forward is an impartial party to this transaction and has no present or future ownership interest or financial interest in the real estate that is the subject of this Environmental Assessment Report. Geo Forward also has no personal interest or gain with respect to the subject matter of the Environmental Assessment Report or the parties involved, and has no relationship with the Subject Property or the owners thereof which would prevent an independent analysis of the environmental or other conditions of the Subject Property.

1.2 Purpose

Geo Forward understands that the purpose of this Phase 1 ESA is for the Report User (Kyle Groundwater) to provisionally check for possible environmental concerns at or on the Subject Property per the industry standards for environmental site assessments. This Phase 1 ESA is intended to provide Kyle Groundwater with an assessment concerning any potential environmental condition (limited to those issues identified in the report) as they exist at the Subject Property. Some observations and notations in this report are purely based on reasonable presumptions, of a professional opinion. These presumptions notations are not to be construed as factual information.

1.3 Scope of Services

Geo Forward's Scope of Services for this Phase 1 ESA generally conforms with the ASTM due diligence standards detailed in the ASTM document "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (ASTM designation E1527-2013). Services provided for this project included:

- A review of available current and historical topographic, geologic, and hydro-geologic information pertaining to the Subject Property, along with aerial photographs and fire insurance maps of the Subject Property and the surrounding areas;
- A review of City Directories and available information regarding the historical land use and activities of the Subject Property;
- A physical inspection of the Subject Property to visually and physically observe the current property conditions for evidence of potential RECs;
- A review of regulatory database reports provided by Environmental Risk Information Services (ERIS) (a review within a 1-mile radius of the Subject Property with regards to the EPA's National Priority List Sites and State Superfund Sites;
- A limited review of federal, state, and local regulatory information records for reported potential environmental hazards on or in the vicinity of the Subject Property;
- A limited evaluation of adjacent properties based on visual inspection interviews with site personnel and government records, and
- Interviews with any of the following available parties: the current property owner, the Client, local agency clerks, and real estate affiliates.

Per the authorized scope of services: neither a Chain of Title Report nor an Environmental Lien and Activity Use Limitations Search Report was included in this Phase 1 ESA. Building materials were reasonably presumed during this assessment based on limited observations and with reference to the original dates of construction.

The findings and conclusions contain all of the limitations inherent in these methodologies, that are referred to in the ASTM E1527-21 standard manual.

1.4 Data Gaps

There are no other exceptions to or deletions from the ASTM E 1527-2013 standard practice and the authorized Scope of Services; except for the following:

- A pre-survey questionnaire was not provided to Geo Forward at the time of this assessment.
    - Geo Forward understands that the user of the assessment has no specific prior knowledge of cleanup liens, activity or land use limitations, specialized user knowledge, information about the fair market value, site history, or current site activities. Valuation and environmental information are being collected as part of due diligence measures for the associated transaction.
- A user-data request form was not provided to Geo Forward at the time of this assessment.
    - Geo Forward understands that the user of the assessment has no specific prior knowledge of cleanup liens, activity or land use limitations, specialized user knowledge, information about the fair market value, site history, or current site activities. Valuation and environmental information are being collected as part of due diligence measures for the associated transaction.
- Interviews with all past or current owners, operators, and occupants were not reasonably ascertainable and thus constitute a data gap. However, based on information obtained from other historical sources, this data gap is not expected to alter the findings of this assessment.
- Geo Forward was unable to determine the property use for every consecutive historical year, which constitutes a data gap. However, based on information obtained from other historical sources, this limitation is not expected to alter the overall findings of this assessment.
- The earliest historical resource available for the Subject Property that documented specific site use was a topographic map dated 1896. In the topographic map, the Subject Property was undeveloped. It is reasonably presumed that before 1896, the Subject Property was undeveloped. Based on this presumption, the limitation is not expected to impact the overall findings of this assessment.
- Geo Forward submitted Freedom of Information Act (FOIA) request to the San Bernardino County Department of Environmental Health Services for information pertaining to hazardous substances, underground storage tanks (USTs), releases, inspection records and more, for the Subject Property and/or adjacent properties. As of this writing, this agency has not responded to Geo Forward's request. Based on information obtained from other historical sources, this limitation is not expected to alter the overall findings of this assessment.

The Client has requested the report despite the above-listed limitations.

This Phase 1 ESA does not constitute a regulatory compliance audit of the Subject Property. Copies of the resumes of Geo Forward staff and affiliates involved in the preparation of this report are included in Appendix A.

1.5 Assumptions

It should be noted by all Users of this report, that there is always a chance that even with the proper use and application of the ASTM Phase 1 ESA methodologies there can remain unknown environmental conditions at the Subject Property, that have not been identified within the scope of the assessment, or which were not reasonably observable. Although Geo Forward believes the information obtained during this assessment is reliable, we cannot and do not warrant or guarantee that the information provided by these other sources.

1.6 Limitations and Exceptions

The findings and conclusions contain all of the limitations inherent in these methodologies, that are referred to in the ASTM E1527-21 standard manual.

The content of this report is strictly limited to the date of the evaluation. No representation of the Subject Property can be made or relied upon after the date of this report. The conclusions are based on the scope of work outlined above, and not on any kind of scientific testing. These methods are a good faith approach to the professional standard practice for conducting a Phase 1 ESA at the Subject Property. No subsurface exploratory drilling or sampling was done under the scope of this work. Unless specifically stated otherwise in the report, no other types of testing, sampling or chemical analyses has been performed.

A fraction of the information used to prepare this report is based on personal interviews with other parties, and a review of the available documents of government agencies. These pieces of information are also subject to the limitations of the accuracy of old documents, reasonable availability, and the accuracy of the recollections of people interviewed. All interviews are only considered if believed to be performed in good faith.

This practice does not address requirements of any state or local laws, state laws or federal laws, and does not intend to address all safety issues (if any).

Potential environmental concerns outside of the ASTM scope for a Phase 1 ESA include asbestos-containing materials (ACMs), lead-based paint (LBP), radon, and lead in drinking water. Although these issues may affect environmental risk at the Subject Property and warrant discussion and/or assessment, they are not included in the scope of ASTM. Supplementary assessment/testing for these out-of-scope issues can be conducted if specifically requested by Kyle Groundwater

The content and conclusions in this report are based on the limited information collected during our investigation, our present understanding of the property conditions, and our professional judgment in light of such information at the time this report was prepared. This report only presents Geo Forward's professional opinion, and no warranty, expressed or implied, is made as fact.

1.7 User Reliance

This Phase 1 ESA Report is furnished to Kyle Groundwater, and may only be used, quoted, or relied upon by Kyle Groundwater, as well as the specific entities that Geo Forward has prepared any reliance letters for. This report has no other purpose and should not be relied upon by any other person or entity without the written permission of Geo Forward.

2.0 SUBJECT PROPERTY CHARACTERISTICS

2.1 User-Provided Information on the Subject Property

As a measure to qualify for the All Appropriate Inquiry (AAI) Landowners Liability Protection program, which is part of the Brownfields Act, the reported User should provide the information with the information listed below. In some cases, not all information can be provided by the Client. In accordance with the ASTM E1527-21 standard, Geo Forward requested any information and topics of knowledge, known by the Client, at the time of this Assessment.

- Geo Forward understands that the user of the assessment has no specific prior knowledge of cleanup liens, activity or land use limitations, specialized user knowledge, information about the fair market value, site history, or current site activities. Valuation and environmental information are being collected as part of due diligence measures for the associated transaction.

2.2 Location and Legal Description

The Subject Property is located:

- North of Knox Avenue;
- Approximately 60 feet east of Walsh Lane;
- In a mixed undeveloped and residential area of Fontana, California.

According to the San Bernardino County Assessor's Map Database, the Subject Property is recorded with existing assessor's parcel number (APN) information:

- **Parcel Number(s) –** 110752172 (portion), 110752174, 110752175 (portion), & 110752176.

2.3 Property and Vicinity General Characteristics

The Subject Property is comprised of a triangular, 1.6 acre plot located within a mixed undeveloped and residential area that is characterized by single-family residences and undeveloped land. The Subject Property is zoned Public Utility Corridor (P-UC) and Multiple Family (R-3) by the City of Fontana.

Access to the Subject Property is provided from Knox Avenue and a paved fire access road. Stormwater is removed from the Subject Property by infiltration and sheet flow action across the unpaved surfaces towards stormwater drains located on the adjacent public right of way. No significant surface features were noted on the Subject Property at the time of the reconnaissance.

2.4 Current Use of the Property

The Subject Property is presently a vacant lot with no ongoing uses.

2.5 Description of Property Improvements

The Subject Property consists of:

- A vacant, unpaved lot; and
- A paved emergency access road bisecting the plot.

As the Subject Property is vacant land, no active water, sewer, electricity or gas connections are maintained. However, water utilities and sewer for the surrounding vicinity are provided by the City of Fontana, electrical utilities are provided by Southern California Edison, and natural gas is provided by The Southern California Gas Company.

No other improvements are located at the Subject Property.

2.6 Nearby and/or Adjacent Properties

Adjacent and adjoining properties currently consist of:

- Vacant Land to the north;
- Single Family Residential Dwellings (15902 & 15903 Wibert Drive) to the east;
- Single Family Residential Dwellings to (5312 & 5313 Casoria Way) the south; and
- Vacant Land to the west.

3.0 RECORDS REVIEW

3.1 Standard Environmental Record Sources

3.1.1 State & Federal Regulatory Review

Information from standard federal and state environmental record sources was provided through Environmental Risk Information Services (ERIS). Data from governmental agency lists are updated and integrated into one digital database, which is periodically updated by ERIS. The data available provides assistance in identifying and assessing the environmental risk associated with the Subject Property.

Geo Forward understands the accuracy of the radius map feature of this database report is approximately +/-300 feet. However, in some cases, geographic data locations can be insufficient to allow ERIS to properly register the facility locations via the map. These facilities are widely termed by the industry as "un-mappables" or "orphan" sites.

- No orphan sites were identified within the database search.

3.1.2 Subject Property

- The Subject Property was not identified within any of the databases.

3.1.3 Adjoining & Nearby Properties

- The adjoining properties were not identified in the regulatory database report.

3.1.4 Other Sites of Concern

- "Rialto Perchlorate Investigation" is a cluster of approximately 17 sites with open regulatory oversight assessment and remediation cases, approximately 2-miles to the east of the Subject Property. According to Santa Ana RWQCB, perchlorate contamination was first identified in groundwater in the Rialto-Colton subbasin in 1997. At that time, the California Department of Health Services (DHS) Action Level for perchlorate in drinking water was 18 parts per billion (ppb). Two (2) wells were found to contain perchlorates above 18 ppb and were subsequently shut down. In January 2002, the DHS lowered the Action Level to 4 ppb. In response to the reduced Action Level, the local water purveyors in the Rialto-Colton area restricted or eliminated the use of additional production wells with perchlorate concentrations exceeding 4ppb. Between 1997 and the present, several suspected Responsible Parties have been identified for perchlorate discharges. Monitoring and remediation of groundwater in the Rialto-Colton subbasin is ongoing (RWQCB 2023). The potential for perchlorate contamination in groundwater underlying the Subject Property is considered an Environmental Issue.

3.1.5 Regulatory Record Review

3.1.5.1 City of Fontana

Geo Forward requested records for all historical Subject Property addresses from the City of Fontana for the Subject Property, to review possible evidence of current and/or historical hazardous materials usage, storage or releases, (as well as underground storage tanks [USTs]).

- No records regarding a release or the presence of AULs on the Subject Property were observed.

3.1.5.3 Air Quality Management District (AQMD)

Geo Forward researched the South Coast Air Quality Management District (SCAQMD) Facility Information Detail (FIND) online database for information regarding any Permits to Operate, Notices of Violation, or Notices to Comply. Record(s) discovered with FIND are related to air emission equipment, which may include dry cleaning machines and underground storage tanks.

- No Permits to Operate, Notices of Violation, or Notices to Comply or the presence of activity use limitations (AULs) were on file for the Subject Property.

3.1.5.4 Regional Water Quality Control Board (RWQCB)

Geo Forward researched the SWRCB online database (GeoTracker) for information regarding any releases to the subsurface which may have impacted or threatened a known body of water. The GeoTracker database contains online records for most subsurface contamination cases overseen by the regional districts of the Water Quality Control Board, as well as local City and County environmental agencies.

- No records regarding a release or the presence of AULs on the Subject Property were observed.

3.1.5.5 Department of Toxic Substances Control (DTSC)

Geo Forward researched the California DTSC online database (EnviroStor) for information regarding any releases to the subsurface which may have impacted or threatened a body of water.

- No records regarding a release or the presence of AULs on the Subject Property were observed.

3.1.5.10 San Bernardino Department of Environmental Health Services

Geo Forward requested records for all historical Subject Property addresses from the San Bernardino County Department of Environmental Health Services (SBCDEHS) for the Subject Property, to review possible evidence of current and/or historical hazardous materials usage, storage or releases, (as well as underground storage tanks [USTs]).

- As of the date of this report, Geo Forward has not received a response from the SBCDEHS.

3.2 Physical Setting Sources

3.2.1 Topography

Based on a review of the United States Geological Survey (USGS), Devore, California Quadrangle 7.5-minute series topographic map published in 2021, the ground surface of the Subject Property is approximately 1,703 feet above mean sea level (AMSL). Contour lines in the general area of the Subject Property indicate the ground surface is sloping toward the south-southwest.

Please refer to Figure 1 to view a site vicinity and topographic map with the Subject Property called out.

3.2.2 Geology

The Subject Property is located approximately 1-mile south of the San Gabriel Mountains in the Rialto-Colton subbasin of the Upper Santa Ana Valley. Stratigraphic units in the Rialto-Colton basin comprise Holocene-aged dune sand, river-channel deposits, younger alluvium, and late Pleistocene-aged older alluvium; partially consolidated Tertiary to Quaternary continental deposits of late Pliocene and early Pleistocene age; consolidated Tertiary continental deposits presumably of Pliocene age; and pre-Tertiary basement complex.

The unconsolidated alluvial material that fills the Rialto-Colton basin consists of sand, gravel, and boulders interbedded with silt and clay lenses. The partly consolidated continental deposits comprising sand, silt, clay and gravel underlie the alluvial deposits, and crop out near the northwestern boundary of the basin, at the base of the San Gabriel Mountains. Underlying the partly consolidated or alluvial deposits are the consolidated continental deposits comprising mostly clay with some compacted sand lenses. Underlying the alluvial and continental deposits, and cropping out visibly in the San Gabriel Mountains, is the basement complex comprising metamorphic and igneous rocks (USGS 1997).

3.2.3 Hydrogeology

The Subject Property is located in the South Coast Hydrologic Region, Upper Santa Ana Valley Groundwater Basin, Rialto-Colton Subbasin. This subbasin is bounded by the San Gabriel Mountains on the north, the San Jacinto fault on the east, the Box Spring Mountains on the south, and the Rialto-Colton fault on the west. Lytle Creek drains this section of the valley southeastward toward its junction with the Santa Ana River in the southern part of the Rialto-Colton Subbasin.

Groundwater in the Rialto-Colton Subbasin is contained within its alluvial deposits (gravel, sand, silt, and clay) and is primarily unconfined to semi-confined. The older (Pliocene and Pleistocene age) deposits are typically somewhat compacted and weathered, existing in discontinuous lenses. Alternatively, the younger (Holocene) deposits are generally less compacted with a higher permeability. The coarsest material with the greatest permeability is found to the southeast, with coarse gravels and well-sorted sands near the Santa Ana River. Specific yield ranges from approximately 6-percent northwest of Rialto to approximately 16-percent closer to the Colton area (DWR 2004).

Based on a review of San Ana Regional Water Quality Control Board (RWQCB) records, nearby site "Mid-Valley Sanitary Landfill Northeast Expansion Area" (2390 North Alder Ave.) is located approximately 2.5 miles southeast of the Subject Property and is overseen as SARWQCB case number 2080029. According to "March 2023 Bi-monthly Groundwater Monitoring Event Report" produced by Geo-Logic on May 30, 2023, groundwater at this nearby site was encountered at depths ranging from 395- to 621- feet below ground surface (bgs). Groundwater at the Subject Property is presumed to flow in accordance with the local topography towards the south-southwest (RWQCB 2023).

3.2.4 Flood Zone Information

A review of the Flood Insurance Rate Maps, published by the Federal Emergency Management Agency, was performed.

According to Panel Number 06071C7915H, dated August 28, 2008, the Subject Property:

- Is located in Flood Zone X;
- At an area located outside of the 100-year and 500-year flood plains.

3.2.5 Oil and Gas Exploration

Web-based information available from the California Division of Geologic Energy Management (CalGEM) provides an indication of current or historical exploration or production of oil, gas, or geothermal resources. Additional information is referenced from the ERIS Physical Settings Report, which is included in the Appendices of this Phase 1 ESA Report.

- Based on a review of the CalGEM online database, the Subject Site is over 500 feet away from the nearest oil well or landfill.

3.2.6 Records of Water Wells

Geo Forward reviewed the findings of the Federal Reporting Data System (FRDS), searched by ERIS for public water supply wells and their treatment facilities. Additional information is referenced from the ERIS Physical Settings Report, which is included in the Appendices of this Phase 1 ESA Report.

- No listings were identified on the FRDS database.

3.3 Historical Land-Use Data

The historical uses of the Subject Property and adjoining/adjacent properties were reviewed utilizing city directory records, topographic maps, fire insurance maps, and aerial photographs available from ERIS.

3.3.1 Historical City Directories

City directories have been recorded for all populated areas since the 1800s, and are now a combination of public and private information. City directories are generally not comprehensive and may contain gaps in periods. Geo Forward reviewed historical city directories prepared by ERIS which includes a search of available city directory data at varying intervals.

No historical city directories were available for the Subject Property.

3.3.2 Historical Topographic Maps

Geo Forward obtained a Historical Topographic Maps from ERIS. The following observations were noted with respect to the Subject Property, and properties surrounding it:

- **Topo Map Date: 1896, 1898, 1901, 1942, 1954, 1936, 1941, 1954, 1966, 1980, 1988, 1996, 2015, 2018, 2021**
  - The Subject Property appears to comprise of vacant land.

Based on a review of the abovementioned content, there are no apparent environmental observations about the Subject Property.

3.3.3 Historical Aerial Photograph

Geo Forward obtained historical aerial photographs from ERIS. The aerial photographs were reviewed to indicate the previous land uses of the Subject Property:

- **Date: 1938, 1948, 1952, 1959, 1966**
  - The Subject Property appears to comprise of agricultural plots. Adjoining properties appear to comprise of agricultural plots.
- **Date: 1975, 1980, 1989, 1994, 2002, 2005, 2009, 2010, 2012, 2014, 2016**
  - The Subject Property appears to comprise of vacant land. Adjoining properties appear to comprise of vacant land.
- **Date: 2018, 2020**
  - The Subject Property appears to comprise of vacant land. Adjoining properties appear to comprise of vacant land and single-family residential dwellings.
- **Date: 2023**
  - The Subject Property appears to comprise of vacant land with the addition of a paved fire access road. Adjoining properties appear to comprise of vacant land and single-family residential dwellings.

Based on a review of the abovementioned content, the following are apparent environmental observations about the Subject Property:

- Possible agricultural land use from 1938 to 1966.

3.3.4 Historical Fire Insurance Maps

Fire insurance maps were created to determine the risk of fire insurance liability in developed and densely populated areas of the country. Geo Forward requested fire insurance maps from ERIS's collection.

There were no historical fire insurance maps available to review for the Subject Property.

3.3.5 Additional Environmental Record Sources

No previous reports or other pertinent documentation was provided to Geo Forward for review during the course of this assessment.

4.0 PROPERTY RECONNAISSANCE

4.1 General Characteristics of the Subject Property

Geo Forward conducted a Site Reconnaissance during a visit to the Subject Property on July 12, 2023. The visit was performed by Crystal Toogood, Geo Forward Field Affiliate. The Site Reconnaissance was conducted under the guidance and approval of Russell Kyle.

4.1.1 Wastewater

- No indications of industrial wastewater disposal or treatment facilities were reported during the Site Reconnaissance.

4.1.2 Solid Waste Disposal

- No solid waste is reportedly currently generated on the Subject Property.

4.1.3 Surface Water Drainage

- Stormwater is removed from the Subject Property primarily by sheet flow action across the unpaved surfaces towards stormwater drains located in the public right of way.
- According to a review of the United States Fish & Wildlife Service National Wetland Inventory Mapper (online), no wetlands are shown on the Subject Property or the adjacent properties.
- A comprehensive wetlands survey would be required to formally determine actual wetlands on the Subject Property.

4.1.4 Wells and Cisterns

- No aboveground evidence of wells or cisterns was reported during the Site Reconnaissance.

4.1.5 Additional Property Observations

- No additional relevant general property characteristics were reported for the Subject Property. However, the southern adjoining vacant land was observed to contain a raised concrete manhole of unknown utility. The extent of the underground feature is unknown, and it is recommended to conduct a geophysical survey to clear potential encroaching underground utilities or voids before development on site.

4.2 Other Potential Environmental Conditions

4.2.1 Hazardous Materials /Wastes

- No evidence of the use of hazardous substances was reported on the Subject Property.

4.2.2 Unlabeled Containers and Drums

- No unlabeled containers or drums were reported on the Subject Property during the Site Reconnaissance.

4.2.3 Evidence of Releases

- No obvious indication of hazardous material, petroleum products or hazardous waste releases, such as stained areas or stressed vegetation, was observed during the Site Reconnaissance or reported to Geo Forward during interviews.

4.2.4 Polychlorinated Biphenyls (PCBs)

- No potential PCB-containing equipment (transformers, hydraulic lifts, oil-filled switches, dock levelers, hydraulic elevators, etc.) expected to contain PCBs were reported on the Subject Property during the Site Reconnaissance.

4.2.5 Landfills

- No evidence of landfilling was reported on the Subject Property during the Site Reconnaissance.

4.2.6 Pits, Sumps, Ponds, Lagoons, and Catch Basins

- No evidence of onsite pits, sumps, ponds, lagoons, or retention/catch basins were observed or reported during the Site Reconnaissance.

4.2.7 On-Property Tanks (ASTs and/or USTs)

- No evidence of current or former aboveground storage tanks (ASTs) or underground storage tanks (USTs) were reported during the Site Reconnaissance.

4.2.8 Vapor Migration

During the performance of this Phase 1 ESA, the potential for a vapor migration condition to exist in the subsurface at the Subject Property was evaluated. This presumption is based on the reasonable practices of the industry standard, and known limited information of the land-use history of the Subject Property, as well as its surrounding properties.

- Based on the information available, there is no potential vapor intrusion risk at the Subject Property during the Site Reconnaissance.

4.2.9 Radiological Hazards

- No radiological substances or equipment was stored, documented, or reported on the Subject Property during the Site Reconnaissance.

4.2.10 Additional Hazard Observations

- No other hazardous substances or equipment were reported on the Subject Property during the Site Reconnaissance, except for aboveground caution signs indicating the presence of a gas pipeline.

4.2.11 Lead in Drinking Water & Overall Drinking Water Quality

The Subject Property is within an area with municipal potable water supply provided by the City of Fontana.

- According to the Fontana Water Company 2022 Consumer Confidence Report, the drinking water supplied to the Subject Property is compliant with state and federal standards, including those for lead and copper.
- Geo Forward did not conduct sampling of drinking water for the presence of total lead content.

4.2.12 Asbestos-Containing Materials (ACM)

Asbestos is the nomenclature used for various naturally occurring, silicate minerals with a fibrous texture. This material is mined and manufactured for thermal insulation and heat transfer stability. It is also known to have high strength when used for building materials. Most aged construction materials are reasonably presumed to already contain asbestos. Almost all building thermal system insulation, and most aged interior- and exterior surface material, are also presumed to contain asbestos. Asbestos-containing materials are also referred to as ACMs. And potential asbestos-containing materials are referred to as PACMs. During the site inspection of the Subject Property, a Geo Forward field staff prepared a brief visual evaluation (limited) of accessible areas for the presence of suspect ACMs and PACMs.

- The Subject Property is a vacant property with no onsite structures. Therefore, the likelihood of ACMs and PACMs at the property is low.

This is not a comprehensive asbestos survey. It is merely a limited evaluation that includes a purely visual observation of available building materials. Only the easily accessible and visible materials were observed. This Phase 1 ESA does NOT comprehend all sources of suspect ACMs or PACMs. The Client is advised to consult an asbestos inspection consultant for a proper comprehensive asbestos survey. A comprehensive asbestos survey is recommended prior to and during demolition, construction, or remodeling at the Subject Property. ACMs and PACMS in good condition can remain onsite for future use, and be managed safely under the regulations of a site-specific Operations and Maintenance (O&M) plan.

4.2.13 Radon

The U.S. EPA has prepared a Radon gas hazard map, to aid building code adaptations. There are three Radon Zones: Radon Zone 1, 2 and 3. A review of the U.S. EPA Map of Radon Zones places the Subject Property in:

- Zone 2 (avg. predicted radon levels are between 2.0 & 4.0 pico curies per liter [pCi/L]).

- Actual Radon gas sampling of the indoor ambient air quality was NOT conducted as part of this Phase 1 ESA.

4.2.14 Lead-Based Paint

Lead (Pb) is a toxic metal that has proven health effects on the human body. Much of the paint which exists in structures today includes lead. This is termed in the industry as LBP." LBP typically exists in the painted surface, varnishes, and other types of cosmetic coating. In general, and per the industry-standard guidelines for LBP, LBP in most buildings is not considered an immediate "hazard," although it should be tested and maintained in quality/condition, to ensure that it does not become deteriorated.

- The Subject Property is a vacant property with no onsite structures. Therefore, the likelihood of lead-based paint at the property is low.

4.2.15 Mold

As part of this assessment, Geo Forward performed a limited visual inspection for any obvious signs of mold growth. Mold thrives in areas with constant moisture, such as humid environments, and includes spores for reproduction. Excessive moisture or water on indoor flooring and baseboards can be a safety hazard. Other building materials such as drywall, wallpaper, particle-wood baseboards, and wood-based framing can also be affected by mold, compromising it's structural and aesthetic integrity.

- The Subject Property is a vacant property with no onsite structures. Therefore, no indications of water damage or mold growth were observed during Geo Forward's visual inspection.

4.2.16 C8 Chemical

The concern for C8 chemical contamination refers to the environmental presence of specific compounds within the family of perfluoroalkyl and polyfluoroalkyl substances (PFAS), specifically those with an 8-carbon chain (C8) structure. The two chemicals in this family are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). C-8 was originally in production for military applications, as early as the 1940s. And shortly thereafter, manufacturers introduced this highly utilitarian compound into household and commercial products. Today, scientists understand that the widespread use of C8 and subsequent disposal of this chemical into landfills and waterways impact the environment. As a result, various ecosystems, plants, animals, and humans contain increased levels of C8. Furthermore, environmental scientists understand that the chemical C-8 does not easily break down in the environment, nor the body. Consequently, chronic exposure to the chemical can remain in the body for many years and cause adverse health effects.

- Historically, the Subject Property has not comprised any occupants known to contribute to C8 chemical contamination.

5.0 INTERVIEWS

Geo Forward conducted interviews with various parties regarding the Subject Property. The interviews were performed by Crystal Toogood of Geo Forward.

Interviews were conducted with the following individuals. Findings from these interviews are discussed in the appropriate sections in this report.

PERSON INTERVIEWED:	AGENCY / COMPANY:	DATE OF INTERVIEW:
Key Site Manager: Rosa Gutierrez	West Valley Water District	July 12, 2023

Please refer to the body of this report to observe any/all information obtained during the interviews listed above.

6.0 FINDINGS

6.1 Findings

6.1.1 On-Property Environmental Conditions

- The Subject Property is comprised of a triangular 1.6 acre plot located within a mixed undeveloped and residential area that is characterized by single-family residences and undeveloped land. The Subject Property is zoned Public Utility Corridor (P-UC) and Multiple Family (R-3) by the City of Fontana. Access to the Subject Property is provided from Knox Avenue and a paved fire access road. Stormwater is removed from the Subject Property by infiltration into and sheet flow action across the unpaved surfaces towards stormwater drains located on the adjacent public right of way. No significant surface- or subsurface- features were noted on the Subject Property at the time of the reconnaissance.
- Based on a review of historical records (topographic maps, aerial images, city directories, and more), the Subject Property was undeveloped in 1896 and is presumed to have been undeveloped prior to 1896. Evidence of agricultural plots on the Subject Property were observed between 1938 to 1966. By 1975, the Subject Property was no longer used for agricultural purposes and was observed as vacant, undeveloped land. From 1975 to 2020 the Subject Property remained vacant land until the installation of a paved emergency access road in 2023. No other improvements were observed during this investigation.
- In consideration of the historical agricultural land use at and around the Subject Property (as early as 1938 and as late as 1966), some agricultural pollutants deriving from crop fertilizers and pesticides could exist in the subsurface at the Subject Property; thus, is considered an Environmental Issue.
- The Subject Property was not identified in the regulatory agency database research report as comprising any current or historical hazardous materials conditions. During Geo Forward's site reconnaissance, there were no apparent observations of the current use, generation, or storage of hazardous materials on-site. The Subject Property is presently undeveloped, vacant land apart from a paved emergency access road bisecting the plot.
- "Rialto Perchlorate Investigation" is a cluster of approximately 17 sites with open regulatory oversight assessment and remediation cases, approximately 2-miles to the east of the Subject Property. According to Santa Ana RWQCB, perchlorate contamination was first identified in groundwater in the Rialto-Colton subbasin in 1997. At that time, the California Department of Health Services (DHS) Action Level for perchlorate in drinking water was 18 parts per billion (ppb). In January 2002, the DHS lowered the Action Level to 4 ppb. In response to the reduced Action Level, the local water purveyors in the Rialto-Colton area restricted or eliminated the use of additional production wells with perchlorate concentrations exceeding 4ppb. Between 1997 and the present, several suspected Responsible Parties have been identified for perchlorate discharges. Monitoring and remediation of groundwater in the Rialto-Colton subbasin is ongoing (RWQCB 2023). The potential for perchlorate contamination in groundwater underlying the Subject Property is considered an Environmental Issue.

6.1.2 Off-Site Environmental Conditions

- "Rialto Perchlorate Investigation" is a cluster of approximately 17 sites with open regulatory oversight assessment and remediation cases, approximately 2-miles to the east of the Subject Property. According to Santa Ana RWQCB, perchlorate contamination was first identified in groundwater in the Rialto-Colton subbasin in 1997. At that time, the California Department of Health Services (DHS) Action Level for perchlorate in drinking water was 18 parts per billion (ppb). Two (2) wells were found to contain perchlorates above 18 ppb and were subsequently shut down. In January, 2002, the DHS lowered the Action Level to 4 ppb. In response to the reduced Action Level, the local water purveyors in the Rialto-Colton area restricted or eliminated the use of additional production wells with perchlorate concentrations exceeding 4ppb. Between 1997 and the present, several suspected Responsible Parties have been identified for perchlorate discharges. Monitoring and remediation of groundwater in the Rialto-Colton subbasin is ongoing (RWQCB 2023). The potential for perchlorate- and VOC-contamination in groundwater underlying the Subject Property is considered an Environmental Issue.

7.0 CONCLUSIONS

7.1 Recognized Environmental Conditions (RECs)

Per the ASTM Standard, a Recognized Environmental Condition (REC) is defined as the presence or likely presence of any hazardous substance or petroleum product on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the Subject Property. The term includes hazardous substances and petroleum products even under conditions that might be in compliance with laws.

The term is not intended to include "de minimis" conditions that do not present a threat to human health and/or the environment and that would not be subject to enforcement action if brought to the attention of appropriate governmental agencies.

This assessment has revealed no evidence of RECs in connection with the Subject Property, except for the following:

- Geo Forward did NOT identify any RECs during the course of this assessment.

7.2 Historical Recognized Environmental Conditions (HRECs)

Per the ASTM Standard, a Historical Recognized Environmental Condition (HREC) is defined as an environmental condition that would have been considered a REC in the past but is no longer an REC based on other environmental assessments, government evaluations and/or regulatory agency closures.

No HRECs were observed at the Subject Property, other than the following:

- Geo Forward did NOT identify any HRECs during the course of this assessment.

7.3 Controlled Recognized Environmental Conditions (CRECs)

Per the ASTM Standard**,** a controlled recognized environmental condition (CREC) is defined as a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

No CRECs were observed at the Subject Property, other than the following:

- Geo Forward did NOT identify any CRECs during the course of this assessment.

7.4 Environmental Issues

Per the ASTM Standard, an Environmental Issue is defined as environmental concerns identified by Geo Forward, which do not qualify as RECs; however, they require discussion.

No Environmental Issues were observed at the Subject Property, other than the following:

- In consideration of the historical agricultural land use at and around the Subject Property (as early as 1938 and as late as 1966), some agricultural pollutants could exist in the subsurface. Pollution sources attributable to agricultural land use include:
    - Nitrate is a form of nitrogen that is found in soil, particularly in agricultural areas. Primary sources of excess nitrate are fertilizers, animal manure and leaking septic tanks. Because high levels of nitrate and chloride indicate contamination from leaking septic tanks or manure, it is also a strong indicator that high bacterial levels may also be present. More public supply wells in California have been closed due to nitrate than any other source of contamination.
    - Organochlorine pesticides were predominantly used in the agricultural industry prior to the 1960s, as opposed to organophosphate pesticides which were predominantly used after the 1960. Typical analytes for organochlorine pesticide tests include: 4,4'-DDD; 4,4'-DDE; 4,4'-DDT; aldrin; chlordane; decaCB; dieldrin; endosulfan I; endosulfan II; endosulfan sulfate; endrin; endrin aldehyde; endrin ketone; famphur; heptachlor; heptachlor epoxide; hexachlorobenzene; kepone; methoxychlor; tetrachloro-m-xylene; toxaphene; alpha-BHC; alpha-Chlordane; beta-BHC; delta-BHC; gamma-BHC; and gamma-chlordane.
- "Rialto Perchlorate Investigation" is a cluster of approximately 17 sites with open regulatory oversight assessment and remediation cases, approximately 2-miles to the east of the Subject Property. According to Santa Ana RWQCB, perchlorate contamination was first identified in groundwater in the Rialto-Colton subbasin in 1997. At that time, the California Department of Health Services (DHS) Action Level for perchlorate in drinking water was 18 parts per billion (ppb). Two (2) wells were found to contain perchlorates above 18 ppb and were subsequently shut down. In January 2002, the DHS lowered the Action Level to 4 ppb. In response to the reduced Action Level, the local water purveyors in the Rialto-Colton area restricted or eliminated the use of additional production wells with perchlorate concentrations exceeding 4ppb. Between 1997 and the present, several suspected Responsible Parties have been identified for perchlorate discharges. Monitoring and remediation of groundwater in the Rialto-Colton subbasin is ongoing (RWQCB 2023). The potential for perchlorate contamination in groundwater underlying the Subject Property is considered an Environmental Issue.

7.5 De Minimis Environmental Conditions

De minimis environmental conditions do not present a threat to human health and/or the environment and that would not be subject to enforcement action if brought to the attention of appropriate governmental agencies.

This assessment has revealed no evidence of De Minimis Concerns in connection with the Subject Property, except for the following:

- Geo Forward did NOT identify any De Minimis Concerns during this assessment.

7.6 Deviations

This Phase 1 ESA substantially complies with the scope of services and ASTM 1527-21, as amended, except for exceptions and/or limiting conditions as discussed in Section 1.3.

7.7 Final Conclusions

This Phase I Environmental Site Assessment (Phase 1 ESA) conducted by Geo Forward, Inc. (Geo Forward) is in general accordance with the American Society for Testing and Materials (ASTM) Standard Practice E1527-21, and the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries (AAI) under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) in 40 CFR. This Phase 1 ESA substantially complies with the scope of services and ASTM 1527-21, as amended, except for exceptions and/or limiting conditions as discussed in Section 1.4.

This assessment has revealed no evidence of RECs, CRECs, HRECs, or Environmental Issues in connection with the Subject Property, except for those previously identified in Sections 7.1 through 7.4.

8.0 RECOMMENDATIONS

8.1 Recommendations

Based on the findings and conclusions mentioned above, Geo Forward recommends the following:

- Conduct a Geophysical Survey in order to identify possible underground features associated with the gas pipeline caution posts and the raised concrete manhole of unknown utility along the southern border of the Subject Property on the adjoining vacant land. The extent of the underground feature or void is unknown, and it is recommended to conduct a geophysical survey to clear potential underground utilities before development on site.
- During the preliminary design phase of the proposed groundwater production well at the Subject Property, Geo Forward recommends:
    - Reviewing all historical and recent groundwater quality data from nearby wells that have perforated zones within the underlying aquifers. Observations should be used to determine whether the groundwater quality in deep aquifers are acceptable for municipal use, with special attention to the presence of nitrate, nitrite, pesticides, and perchlorates;
    - Conducting zoned groundwater quality testing within the underlying aquifers during drilling activities, and including laboratory analysis of organochlorine pesticides, nitrate, nitrite, and perchlorates.
    - Implementing screened intervals ONLY within the deeper confined aquifers underlying the Subject Property; and
    - Implementing a competent sanitary seal through the shallow semi-confined and unconfined aquifers.
- Based on the conclusions mentioned above, Geo Forward does not recommend obtaining groundwater from, or within vertical proximity of, the shallow semi-confined and unconfined aquifers underlying the Subject Property. As a conservative scope of site assessment, shallow soil and groundwater sampling and testing is recommended if the proposed groundwater production well is planned to include screened intervals within vertical proximity of shallow soils underlying the Subject Property.

8.2 Additional Notes

Please feel free to contact us at (888) 930-6604 and/or support@geoforward.com to obtain a price quote for any other services recommended by this Phase 1 ESA.

9.0 REFERENCES

California Department of Agriculture, Soil Conservation Service, 1961, Revised 1969, Report and General Soil Map, Los Angeles County, California.

California Department of Water Resources (DWR), 1961, Planned Utilization of the Ground Water Basins of the Coastal Plain of San Bernardino County, Appendix A: Ground Water Geology, Bulletin No. 104.

California Department of Water Resources (DWR) 2016, California's Groundwater, Bulletin 118, Interim Update 2016.

California Division of Geologic Energy Management, (CalGEM Well Finder Database), Accessed February 2023.

California Geological Survey (CGS). 2014 *Preliminary Geologic Map of the Devore 30' x 60' Quadrangle, California,* Version 2.0, dated 2014.

Environmental Risk Information Services (ERIS) NW Lot of Casa Grande Avenue, Rialto, California, Report No. 23063000242

Hart, E.W., 1992, Fault-rupture hazard zones in California: California Division of Mines and Geology Special Publication 42 (1992 Revision); 24 pp.

Historical Aerial Photographs – Environmental Risk Information Services (ERIS) NW Lot of Casa Grande Avenue, Rialto, California.

Historical Topographic Maps – Environmental Risk Information Services (ERIS) NW Lot of Casa Grande Avenue, Rialto, California.

Historical Fire Insurance Maps – Environmental Risk Information Services (ERIS) NW Lot of Casa Grande Avenue, Rialto, California.

Poland, J.E., Piper, A.M. and others, 1956, *Ground-water geology of the coastal zone Fontana-Santa Ana area, California*: U.S. Geological Survey Water Supply Paper 1109, 162 p., Plate 2, southern half, map scale 1:31,680.

United States Geological Survey (USGS) - 7.5 Minute Topographic Quadrangle Devore, California, 2021.

United States Geological Survey (USGS) – *Geohydrology and Water Chemistry in the Rialto-Colton Basin, San Bernardino County, California*, Water-Resources Investigation Report 97-4012, 1997.

United States Department of Agriculture, Soil Conservation Service (USDA-SCS), 1961, Revised 1969, Report and General Soil Map, San Bernardino County, California.

FINAL PROFESSIONAL CERTIFICATION

As the responsible professionals of this Phase 1 Environmental Site Assessment Report (Phase 1 ESA), we declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of this part [40 CFR Part 312]. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Thank you for the opportunity to be of service. If you have any questions regarding this investigation, please contact the undersigned at (888) 930-6604.

Sincerely,

Michael J. Sabo
Project Manager / Geoscientist

Crystal Toogood
Staff Environmental Scientist

Adam Azad Kaligi, PG 9287
Client Relationship Manager
Professional Geologist

FIGURES

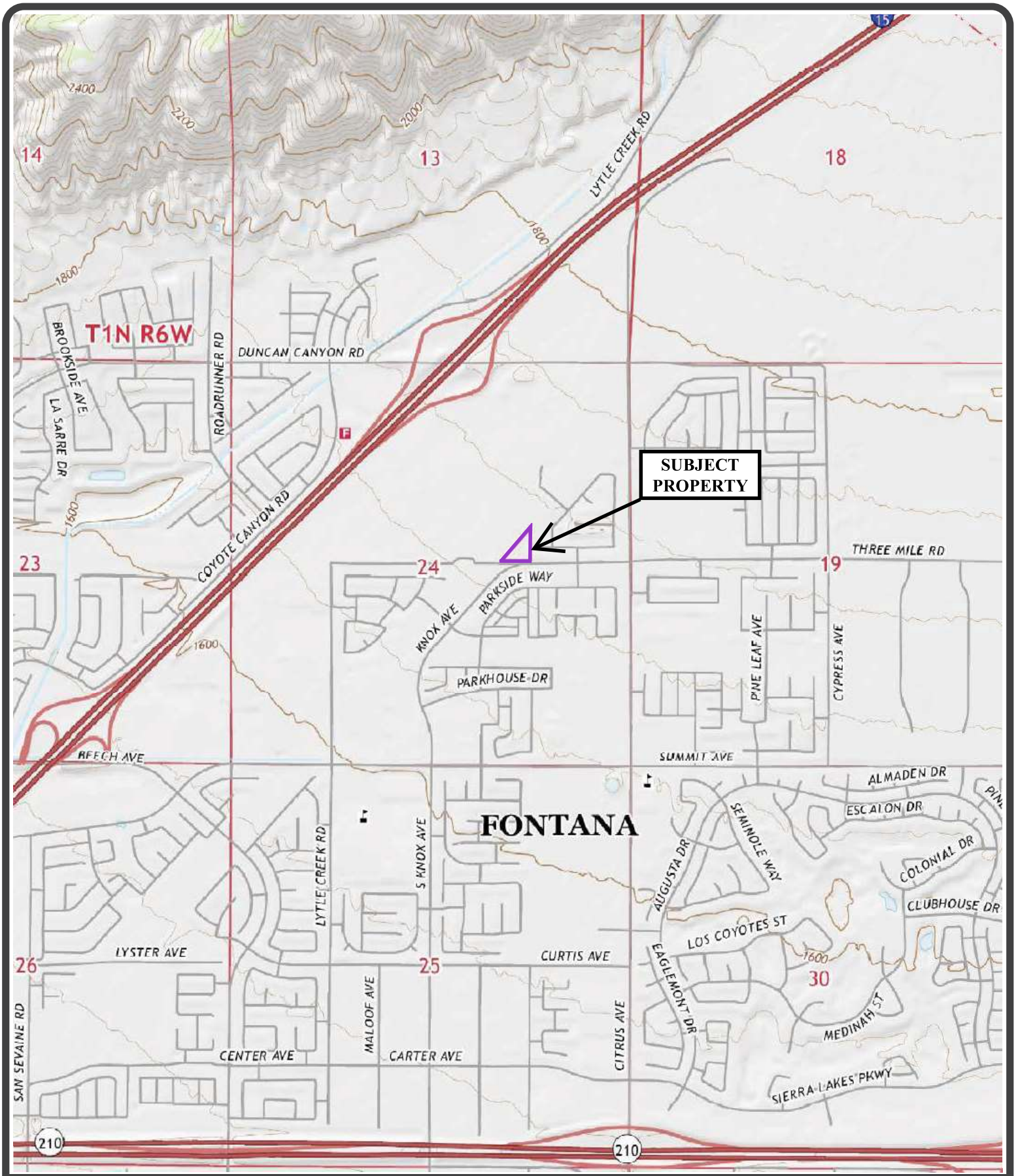
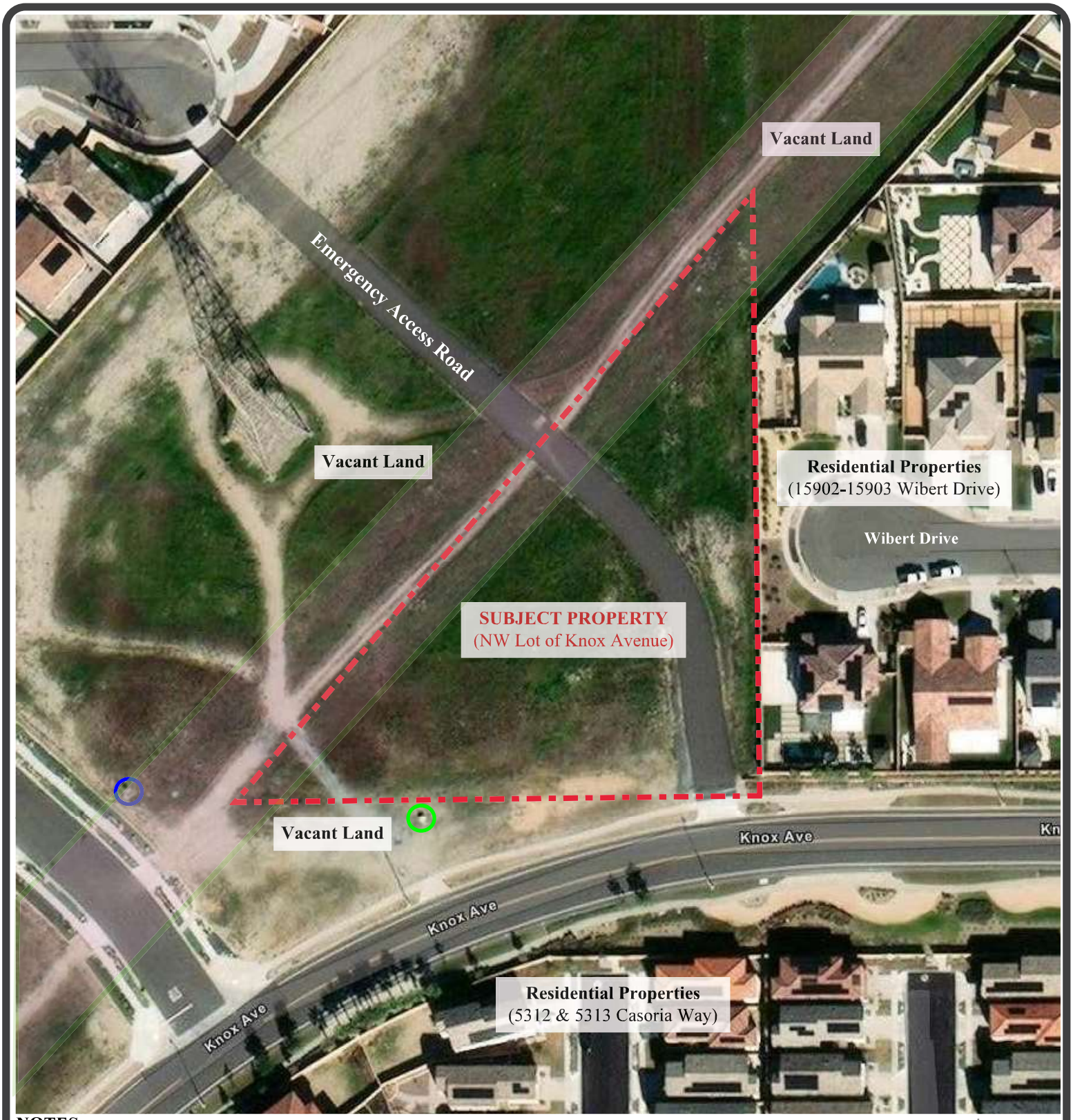


FIGURE:	REGIONAL TOPO MAP	KEY	USGS QUADRANGLE:
1.0	**PROJECT:** 2063-2023[1]	SUBJECT SITE:	Los Angeles, CA.
	DATE: July 25, 2023	NW Lot of Knox Avenue, Fontana, California 92336	
	TECH: Michael J. Sabo		



NOTES:

-MAP DATA SOURCE: GOOGLE EARTH & RECONNAISSANCE BY GEO FORWARD.
-THE REPRESENTATIONS DISPLAYED ON THIS MAP ARE APPROXIMATE BY SCALE AND LOCATION. A LAND SURVEY OF THE SITE WAS NOT CONDUCTED.

FIGURE: **2.0**

SITE MAP

PROJECT: 2063-2023[1]
DATE: July 25, 2023
TECH: Michael J. Sabo

KEY

SUBJECT PROPERTY:
RAISED CEMENT MANHOLE OF UNKNOWN UTILITY:
PRESUMED LOCATION OF GAS PIPELINE:
PRESUMED WATER WELL:

NW Lot of Knox Avenue, Fontana, California 92336

APPENDIX A

Professional Resumes of Environmental Professionals

Lariza A. Damljanovic

Operations Director

Bay Area Office:
75 Broadway, Suite 202
San Francisco, California 94111
www.geoforward.com

Office: (888) 930-6604
Email: lariza@geoforward.com

Education:

- Bachelor of Science Major in Tourism, Centro Escolar University, College of Hotel Management and Tourism, Class of 2006

Primary Responsibilities:

- Client Correspondence & Support
- Deadline Management
- Project Coordination
- Employee Safety Training
- Fieldwork Scheduling
- Marketing & Sales
- Office Administrative Management
- Project Filing & Organization
- Continuing Education & Training

Lariza Damljanovic is a highly personable and dedicated administrative professional with a diverse work experience from various industries. Mrs. Damljanovic is the lead office manager of the Geo Forward headquarters, coordinator of all projects under the Geo Forward umbrella, and a great asset to the team.

SUMMARY OF WORK EXPERIENCE

Lariza Damljanovic holds a Bachelor's degree in Tourism from Centro Escolar University, with an emphasis in Tourism Management. Much of Mrs. Damljanovic's professional experience stems from her background working on global-scale projects in sales and tourism-related services.

Mrs. Damljanovic has over seven years of professional experience working for small- and large- scale enterprises, and has a remarkable talent for managing client-needs, problem solving, and keeping projects on track for success.

Lariza Damljanovic brings many of the beneficial aspects and customer service experience developed overtime from working in sales and travel/airline industry, and has incorporated them into the daily operations of the environmental engineering industry for a more efficient and productive system all-around.

Lastly, Lariza Damljanovic has an outstanding sales, and customer service background in the tourism industry and marketing fields. Her abilities to wear many hats has been a proven asset to the environmental field, and provides ongoing motivation for our team of engineers, scientists and contractors.

Michael Joseph Sabo

Project Manager / Geoscientist

Environmental Professional

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Email:
michael@geoforward.com

Michael Sabo is an experienced environmental professional who specializes in gathering data and communicating environmental information. As a field scientist and an educator, Mr. Sabo has practiced a variety of land assessment methods, and has demonstrated the ability to effectively convey key information and methodology to clients.

Education:

- Bachelor of Science in Environmental Policy & Management
  Ohio State University
  School of Environment and Natural Resources, Class of 2014

Primary Responsibilities:

- Phase 1 Environmental Site Assessments
- Phase 2 Subsurface Investigations
- Contamination Remediation
- Methane Soil Gas Surveys
- Methane Mitigation System Design
- Regulatory Case Management
- Water Board Correspondence
- DTSC Correspondence
- Environmental Compliance
- Vapor Intrusion Investigations
- Vapor Intrusion Mitigation
- Underground Storage Tank Removal

SUMMARY OF WORK EXPERIENCE

Mr. Sabo began conducting field surveys while completing his degree at The Ohio State University. He worked on a variety of wildlife and vegetation identification and management projects for the Ohio Wildlife Center and Preservation Parks of Delaware County. Michael Sabo then found success with the Ohio Department of Natural Resources Division of Forestry in an education and outreach capacity.

Upon moving to Los Angeles, Mr. Sabo began work as an educator for part of a local non-profit organization that offers environmental programming to under-served areas of the LA Unified School District. Working in conjunction with the San Gabriel Basin Water Quality Authority, the team comprised a group of esteemed geologists, hydrogeologists, and environmental scientists, who teach students about groundwater contamination and remediation efforts. The program is proudly accepting a National Ground Water Association award in 2019 and will continue to design and implement special educational opportunities for students in the Greater Los Angeles Area.

Currently, Michael Sabo is functioning as Staff Geoscientist for Geo Forward, where he is positioned to gather and communicate key information to clients and regulatory authorities.

Education:

- Bachelor of Science in Geology California State Polytechnic University Pomona, Class of 2008

Professional Licenses:

- CA Licensed Professional Geologist
- TX Licensed Professional Geologist
- CA Licensed Building Contractor Class-B
- CA Licensed General Engineering Contractor Class-A
- CA Certified Hazardous Substance Removal & Remediation Contractor
- LADBS Methane Testing Agent
- LADBS Licensed Methane Deputy Building Inspector

Occupational Certifications:

- California Occupational Safety & Health Administration (OSHA) Hazardous Waste Operations & Emergency Response (HAZWOPER)
- Mine Safety & Health Administration (MSHA)
- ExxonMobil – LPS

Primary Responsibilities:

- Ground-Up Building Construction – Commercial & Residential
- Property Condition Assessments
- Phase 1 Environmental Site Assessments
- Phase 2 Subsurface Investigations
- Contamination Remediation
- Methane Soil-Vapor Mitigation Design & Barrier Construction
- Regulatory Case Management
- Water Board Correspondence
- DTSC Correspondence
- Environmental Compliance
- Vapor Intrusion Investigations
- Vapor Intrusion Mitigation
- Underground Storage Tank Removal
- Litigation Support
- Expert Testimonies

Adam Azad Kaligi, PG

Senior Geologist

Lic. Contractor / Lic. Geologist (Multi-State)

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Office: (888) 930-6604 x810
Email: azad@geoforward.com

Mr. Kaligi is a California and Texas Licensed Professional Geologist, Licensed General Engineering and Building Contractor, and Certified Hazardous Substance Removal/ Remediation professional. Mr. Kaligi has roughly 15 years of experience in the building construction, environmental engineering, geological and water-resources industries. From his work history at reputable geological/engineering consulting firms, Mr. Kaligi has an extensive understanding about building science, construction and contamination mitigation.

SUMMARY OF WORK EXPERIENCE

Mr. Kaligi started as a journeyman on a variety of construction and grading projects while completing his undergraduate degree in geology. As a chainman land surveyor for City of Los Angeles, Mr. Kaligi participated in projects involving excavation, mapping, road construction, slope stability, erosion control, underground storage tank (UST) and contamination excavations, road demolition projects and water well drilling/construction.

Mr. Kaligi has worked for reputable geologic/engineering firms providing soil and groundwater remediation projects for global oil & gas companies. Notable projects involved scientific assessment, geologic characterization, hydrogeological modeling and engineering methods for remedial design to reduce contamination levels and achieve closure with environmental agencies. Typical projects have included in-situ chemical oxidation for groundwater remediation, groundwater pump-and-treat, and air-sparge with soil vapor extraction. Additionally, Mr. Kaligi has assisted in various contamination migration pathway studies, fate & transport modeling, and responsible party investigations for the State Water Resources Control Board, and various contamination legal disputes.

Recently, Mr. Kaligi provided geologic and hydrogeologic professional services for several high-profile water-supply projects throughout California. Projects included diagonal drilling and slanted-well construction underneath the ocean floor to provide an intake source for a proposed ocean-water desalination plant in Monterey, California. Mr. Kaligi also assisted with a major groundwater and geologic exploration project in the Mojave Desert which required drilling a network of boreholes through limestone bedrock as deep as 2,000 feet below ground surface to characterize karstic features and their water-bearing properties as a drinking water source. Other projects included designing and installing groundwater production wells for major water agencies and municipalities under the supervision of the nation's top hydrogeologists.

APPENDIX B

Site Reconnaissance Photographs

Subject Property; view of vacant lot facing west.

Subject Property; view of paved emergency access road facing north.

APPENDIX: **B**	**SITE PHOTOGRAPHS**	PAGE 1 OF 9	
	PROJECT: 2063-2023[1]		
	DATE: July 25, 2023	NW Lot of Knox Avenue, Fontana, California 92336	
	TECH: Michael J. Sabo		

Subject Property; view of vacant lot facing southwest.

Subject Property; view of vacant lot facing northeast.

Subject Property; view eastern border.

Subject Property; gas pipeline caution post.

Subject Property; view of vacant lot facing southeast.

Subject Property; view of vacant lot facing northeast.

Subject Property; northwestern border.

Subject Property; view from southwest corner of the property boundary.

Subject Property; southeastern border.

Subject Property; view of vacant lot facing north.

Raised cement manhole on adjoining property along the southern border of the Subject Property.

Southern adjoining residential properties.

Northern adjoining vacant land.

Western adjoining vacant land.

Eastern adjoining residential properties.

Western adjoining property containing presumed water well.

APPENDIX C

Regulatory Records Database Report
(With Radius Map)

(888) 930-6604
www.geoforward.com

DATABASE REPORT

Project Property:	*Vacant Land* *NW Lot of Casa Grande Avenue* *Rialto CA*
Project No:	*2063-2023[1]*
Report Type:	*Database Report*
Order No:	*23063000242*
Requested by:	*GEO FORWARD*
Date Completed:	*July 5, 2023*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

Executive Summary

Property Information:

Project Property:	*Vacant Land* *NW Lot of Casa Grande Avenue Rialto CA*
Project No:	*2063-2023[1]*

Coordinates:

Latitude:	*34.1582222*
Longitude:	*-117.45836337*
UTM Northing:	*3,779,794.46*
UTM Easting:	*457,749.61*
UTM Zone:	*UTM Zone 11S*

Elevation: *1,703 FT*

Order Information:

Order No:	*23063000242*
Date Requested:	*June 30, 2023*
Requested by:	*GEO FORWARD*
Report Type:	*Database Report*

Historicals/Products:

Aerial Photographs	*Historical Aerials (with Project Boundaries)*
City Directory Search	*CD - 2 Street Search*
ERIS Xplorer	*ERIS Xplorer*
Excel Add-On	*Excel Add-On*
Fire Insurance Maps	*US Fire Insurance Maps*
Physical Setting Report (PSR)	*Physical Setting Report (PSR)*
Topographic Map	*Topographic Maps*

Executive Summary: Report Summary

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
Standard Environmental Records								
Federal								
NPL	Y	1	0	0	0	0	0	0
PROPOSED NPL	Y	1	0	0	0	0	0	0
DELETED NPL	Y	0.5	0	0	0	0	-	0
SEMS	Y	0.5	0	0	0	0	-	0
ODI	Y	0.5	0	0	0	0	-	0
SEMS ARCHIVE	Y	0.5	0	0	0	0	-	0
CERCLIS	Y	0.5	0	0	0	0	-	0
IODI	Y	0.5	0	0	0	0	-	0
CERCLIS NFRAP	Y	0.5	0	0	0	0	-	0
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1	0	0	0	0	0	0
RCRA TSD	Y	0.5	0	0	0	0	-	0
RCRA LQG	Y	0.25	0	0	0	-	-	0
RCRA SQG	Y	0.25	0	0	0	-	-	0
RCRA VSQG	Y	0.25	0	0	0	-	-	0
RCRA NON GEN	Y	0.25	0	0	0	-	-	0
RCRA CONTROLS	Y	0.5	0	0	0	0	-	0
FED ENG	Y	0.5	0	0	0	0	-	0
FED INST	Y	0.5	0	0	0	0	-	0
LUCIS	Y	0.5	0	0	0	0	-	0
NPL IC	Y	0.5	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	0.5	0	0	0	0	-	0
FEMA UST	Y	0.25	0	0	0	-	-	0
FRP	Y	0.25	0	0	0	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
DELISTED FRP	Y	0.25	0	0	0	-	-	0
HIST GAS STATIONS	Y	0.25	0	0	0	-	-	0
REFN	Y	0.25	0	0	0	-	-	0
BULK TERMINAL	Y	0.25	0	0	0	-	-	0
SEMS LIEN	Y	PO	0	-	-	-	-	0
SUPERFUND ROD	Y	1	0	0	0	0	0	0
DOE FUSRAP	Y	1	0	0	0	0	0	0
State								
RESPONSE	Y	1	0	0	0	0	0	0
ENVIROSTOR	Y	1	0	0	0	**3**	**3**	**6**
DELISTED ENVS	Y	1	0	0	0	0	0	0
SWF/LF	Y	0.5	0	0	0	0	-	0
SWRCB SWF	Y	0.5	0	0	0	0	-	0
WMUD	Y	0.5	0	0	0	0	-	0
HWP	Y	1	0	0	0	0	0	0
SWAT	Y	0.5	0	0	0	0	-	0
C&D DEBRIS RECY	Y	0.5	0	0	0	0	-	0
RECYCLING	Y	0.5	0	0	0	0	-	0
PROCESSORS	Y	0.5	0	0	0	0	-	0
CONTAINER RECY	Y	0.5	0	0	0	0	-	0
LDS	Y	0.5	0	0	0	0	-	0
LUST	Y	0.5	0	0	0	0	-	0
DELISTED LST	Y	0.5	0	0	0	0	-	0
UST	Y	0.25	0	0	0	-	-	0
UST CLOSURE	Y	0.5	0	0	0	0	-	0
HHSS	Y	0.25	0	0	0	-	-	0
UST SWEEPS	Y	0.25	0	0	0	-	-	0
AST	Y	0.25	0	0	0	-	-	0
AST SWRCB	Y	0.25	0	0	0	-	-	0
TANK OIL GAS	Y	0.25	0	0	0	-	-	0
DELISTED TNK	Y	0.25	0	0	0	-	-	0
CERS TANK	Y	0.25	0	0	0	-	-	0
DELISTED CTNK	Y	0.25	0	0	0	-	-	0
HIST TANK	Y	0.25	0	0	0	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
LUR	Y	0.5	0	0	0	0	-	0
CALSITES	Y	0.5	0	0	0	0	-	0
HLUR	Y	0.5	0	0	0	0	-	0
DEED	Y	0.5	0	0	0	0	-	0
VCP	Y	0.5	0	0	0	0	-	0
CLEANUP SITES	Y	0.5	0	0	0	0	-	0
DELISTED CLEANUP	Y	0.5	0	0	0	0	-	0
DELISTED COUNTY	Y	0.25	0	0	0	-	-	0
Tribal								
INDIAN LUST	Y	0.5	0	0	0	0	-	0
INDIAN UST	Y	0.25	0	0	0	-	-	0
DELISTED INDIAN LST	Y	0.5	0	0	0	0	-	0
DELISTED INDIAN UST	Y	0.25	0	0	0	-	-	0
County								
SANBERN CUPA	Y	0.25	0	0	0	-	-	0
Additional Environmental Records								
Federal								
FINDS/FRS	Y	PO	0	-	-	-	-	0
TRIS	Y	PO	0	-	-	-	-	0
PFAS NPL	Y	0.5	0	0	0	0	-	0
PFAS FED SITES	Y	0.5	0	0	0	0	-	0
PFAS SSEHRI	Y	0.5	0	0	0	0	-	0
ERNS PFAS	Y	0.5	0	0	0	0	-	0
PFAS NPDES	Y	0.5	0	0	0	0	-	0
PFAS TRI	Y	0.5	0	0	0	0	-	0
PFAS WATER	Y	0.5	0	0	0	0	-	0
PFAS TSCA	Y	0.5	0	0	0	0	-	0
PFAS E-MANIFEST	Y	0.5	0	0	0	0	-	0
PFAS IND	Y	0.5	0	0	0	0	-	0
HMIRS	Y	0.125	0	0	-	-	-	0
NCDL	Y	0.125	0	0	-	-	-	0
TSCA	Y	0.125	0	0	-	-	-	0
HIST TSCA	Y	0.125	0	0	-	-	-	0
FTTS ADMIN	Y	PO	0	-	-	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
FTTS INSP	Y	PO	0	-	-	-	-	0
PRP	Y	PO	0	-	-	-	-	0
SCRD DRYCLEANER	Y	0.5	0	0	0	0	-	0
ICIS	Y	PO	0	-	-	-	-	0
FED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED FED DRY	Y	0.25	0	0	0	-	-	0
FUDS	Y	1	0	0	0	0	0	0
FUDS MRS	Y	1	0	0	0	0	0	0
FORMER NIKE	Y	1	0	0	0	0	0	0
PIPELINE INCIDENT	Y	PO	0	-	-	-	-	0
MLTS	Y	PO	0	-	-	-	-	0
HIST MLTS	Y	PO	0	-	-	-	-	0
MINES	Y	0.25	0	0	0	-	-	0
SMCRA	Y	1	0	0	0	0	0	0
MRDS	Y	1	0	0	0	0	0	0
LM SITES	Y	1	0	0	0	0	0	0
ALT FUELS	Y	0.25	0	0	0	-	-	0
CONSENT DECREES	Y	0.25	0	0	0	-	-	0
AFS	Y	PO	0	-	-	-	-	0
SSTS	Y	0.25	0	0	0	-	-	0
PCBT	Y	0.5	0	0	0	0	-	0
PCB	Y	0.5	0	0	0	0	-	0
State								
PFAS SAMPLING	Y	0.5	0	0	0	0	-	0
DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DRYC GRANT	Y	0.25	0	0	0	-	-	0
PFAS GT CLEANUPS	Y	0.5	0	0	0	0	-	0
PFAS GW	Y	0.5	0	0	0	0	-	0
PFAS INVEST	Y	0.5	0	0	0	0	-	0
HWSS CLEANUP	Y	0.5	0	0	0	0	-	0
TOXIC PITS	Y	1	0	0	0	0	0	0
DTSC HWF	Y	0.5	0	0	0	0	-	0
INSP COMP ENF	Y	1	0	0	0	0	0	0
SCH	Y	1	0	0	0	**3**	**2**	**5**

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
CHMIRS	Y	PO	0	-	-	-	-	0
HIST CHMIRS	Y	PO	0	-	-	-	-	0
HAZNET	Y	PO	0	-	-	-	-	0
HAZ GEN	Y	PO	0	-	-	-	-	0
HAZ TSD	Y	0.5	0	0	0	0	-	0
HIST MANIFEST	Y	PO	0	-	-	-	-	0
HW TRANSPORT	Y	0.125	0	0	-	-	-	0
WASTE TIRE	Y	PO	0	-	-	-	-	0
MEDICAL WASTE	Y	0.25	0	0	0	-	-	0
HIST CORTESE	Y	0.5	0	0	0	0	-	0
CDO/CAO	Y	0.5	0	0	0	0	-	0
CERS HAZ	Y	0.125	0	0	-	-	-	0
DELISTED HAZ	Y	0.5	0	0	0	0	-	0
GEOTRACKER	Y	0.125	0	0	-	-	-	0
MINE	Y	1	0	0	0	0	0	0
LIEN	Y	PO	0	-	-	-	-	0
WASTE DISCHG	Y	0.25	0	0	0	-	-	0
EMISSIONS	Y	0.25	0	0	0	-	-	0
CDL	Y	0.125	0	0	-	-	-	0
Tribal	***No Tribal additional environmental record sources available for this State.***							
County								
MED WST SANBERN	Y	0.25	0	0	0	-	-	0
	Total:		0	0	0	**6**	**5**	**11**

**** PO – Property Only***
**** 'Property and adjoining properties' database search radii are set at 0.25 miles.***

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
1	SCH	MIDDLE SCHOOL #10	CITRUS AVENUE/THREE MILE ROAD FONTANA CA 92336 ***Estor/EPA ID	Cleanup Status:*** 36650021 | NO ACTION REQUIRED AS OF 4/26/2005	E	0.34 / 1,774.57	28	19
1	ENVIROSTOR	MIDDLE SCHOOL #10	CITRUS AVENUE/THREE MILE ROAD FONTANA CA 92336 ***Estor/EPA ID	Cleanup Status:*** 36650021 | NO ACTION REQUIRED AS OF 4/26/2005	E	0.34 / 1,774.57	28	19
2	SCH	PROPOSED ELEMENTARY SCHOOL #35	LYTLE CREEK ROAD/THREE MILE ROAD FONTANA CA 92336 ***Estor/EPA ID	Cleanup Status:*** 60000432 | NO FURTHER ACTION AS OF 2/26/2007	W	0.40 / 2,101.70	-41	20
2	ENVIROSTOR	PROPOSED ELEMENTARY SCHOOL #35	LYTLE CREEK ROAD/THREE MILE ROAD FONTANA CA 92336 ***Estor/EPA ID	Cleanup Status:*** 60000432 | NO FURTHER ACTION AS OF 2/26/2007	W	0.40 / 2,101.70	-41	21
3	SCH	FALCON RIDGE ELEMENTARY SCHOOL	LYTLE CREEK ROAD/TOSCANA LANE FONTANA CA 92336 ***Estor/EPA ID	Cleanup Status:*** 60000338 | NO ACTION REQUIRED AS OF 8/1/2006	WSW	0.50 / 2,628.47	-73	23
3	ENVIROSTOR	FALCON RIDGE ELEMENTARY SCHOOL	LYTLE CREEK ROAD/TOSCANA LANE FONTANA CA 92336 ***Estor/EPA ID	Cleanup Status:*** 60000338 | NO ACTION REQUIRED AS OF 8/1/2006	WSW	0.50 / 2,628.47	-73	24
4	SCH	ELEMENTARY SCHOOL NO. 33	CURTIS AVENUE/CATAWBA AVENUE FONTANA CA 92336 ***Estor/EPA ID	Cleanup Status:*** 36650020 | NO ACTION REQUIRED AS OF 11/8/2004	S	0.92 / 4,837.71	-119	24
4	ENVIROSTOR	ELEMENTARY SCHOOL NO. 33	CURTIS AVENUE/CATAWBA AVENUE FONTANA CA 92336 ***Estor/EPA ID	Cleanup Status:*** 36650020 | NO ACTION REQUIRED AS OF 11/8/2004	S	0.92 / 4,837.71	-119	25
5	ENVIROSTOR	FONTANA UNIFIED SCHOOL DISTRICT - ELEMENTARY SCHOOL NO. 37	CYPRESS AVENUE/DUNCAN CANYON ROAD FONTANA CA 92335 ***Estor/EPA ID	Cleanup Status:*** 60002721 | NO FURTHER ACTION AS OF 10/24/2019	ENE	0.93 / 4,909.04	123	26
6	SCH	LYTLE CREEK HIGH SCHOOL NO. 4 ADDITION	LYTLE CREEK ROAD/SUMMIT AVENUE FONTANA CA 92336 ***Estor/EPA ID	Cleanup Status:*** 36010066 | NO ACTION REQUIRED AS OF 11/29/2001	SSW	0.94 / 4,979.94	-143	27
6	ENVIROSTOR	LYTLE CREEK HIGH SCHOOL NO. 4 ADDITION	LYTLE CREEK ROAD/SUMMIT AVENUE FONTANA CA 92336		SSW	0.94 / 4,979.94	-143	28

Estor/EPA ID | Cleanup Status: 36010066 | NO ACTION REQUIRED AS OF 11/29/2001

Executive Summary: Summary by Data Source

Standard

State

ENVIROSTOR - EnviroStor Database

A search of the ENVIROSTOR database, dated Feb 6, 2023 has found that there are 6 ENVIROSTOR site(s) within approximately 1.00 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
MIDDLE SCHOOL #10	CITRUS AVENUE/THREE MILE ROAD FONTANA CA 92336	E	0.34 / 1,774.57	1
	***Estor/EPA ID	Cleanup Status**: 36650021	NO ACTION REQUIRED AS OF 4/26/2005*		
FONTANA UNIFIED SCHOOL DISTRICT - ELEMENTARY SCHOOL NO. 37	CYPRESS AVENUE/DUNCAN CANYON ROAD FONTANA CA 92335	ENE	0.93 / 4,909.04	5
	***Estor/EPA ID	Cleanup Status**: 60002721	NO FURTHER ACTION AS OF 10/24/2019*		

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
PROPOSED ELEMENTARY SCHOOL #35	LYTLE CREEK ROAD/THREE MILE ROAD FONTANA CA 92336	W	0.40 / 2,101.70	2
	***Estor/EPA ID	Cleanup Status**: 60000432	NO FURTHER ACTION AS OF 2/26/2007*		
FALCON RIDGE ELEMENTARY SCHOOL	LYTLE CREEK ROAD/TOSCANA LANE FONTANA CA 92336	WSW	0.50 / 2,628.47	3
	***Estor/EPA ID	Cleanup Status**: 60000338	NO ACTION REQUIRED AS OF 8/1/2006*		
ELEMENTARY SCHOOL NO. 33	CURTIS AVENUE/CATAWBA AVENUE FONTANA CA 92336	S	0.92 / 4,837.71	4
	***Estor/EPA ID	Cleanup Status**: 36650020	NO ACTION REQUIRED AS OF 11/8/2004*		
LYTLE CREEK HIGH SCHOOL NO. 4 ADDITION	LYTLE CREEK ROAD/SUMMIT AVENUE FONTANA CA 92336	SSW	0.94 / 4,979.94	6
	***Estor/EPA ID	Cleanup Status**: 36010066	NO ACTION REQUIRED AS OF 11/29/2001*		

Non Standard

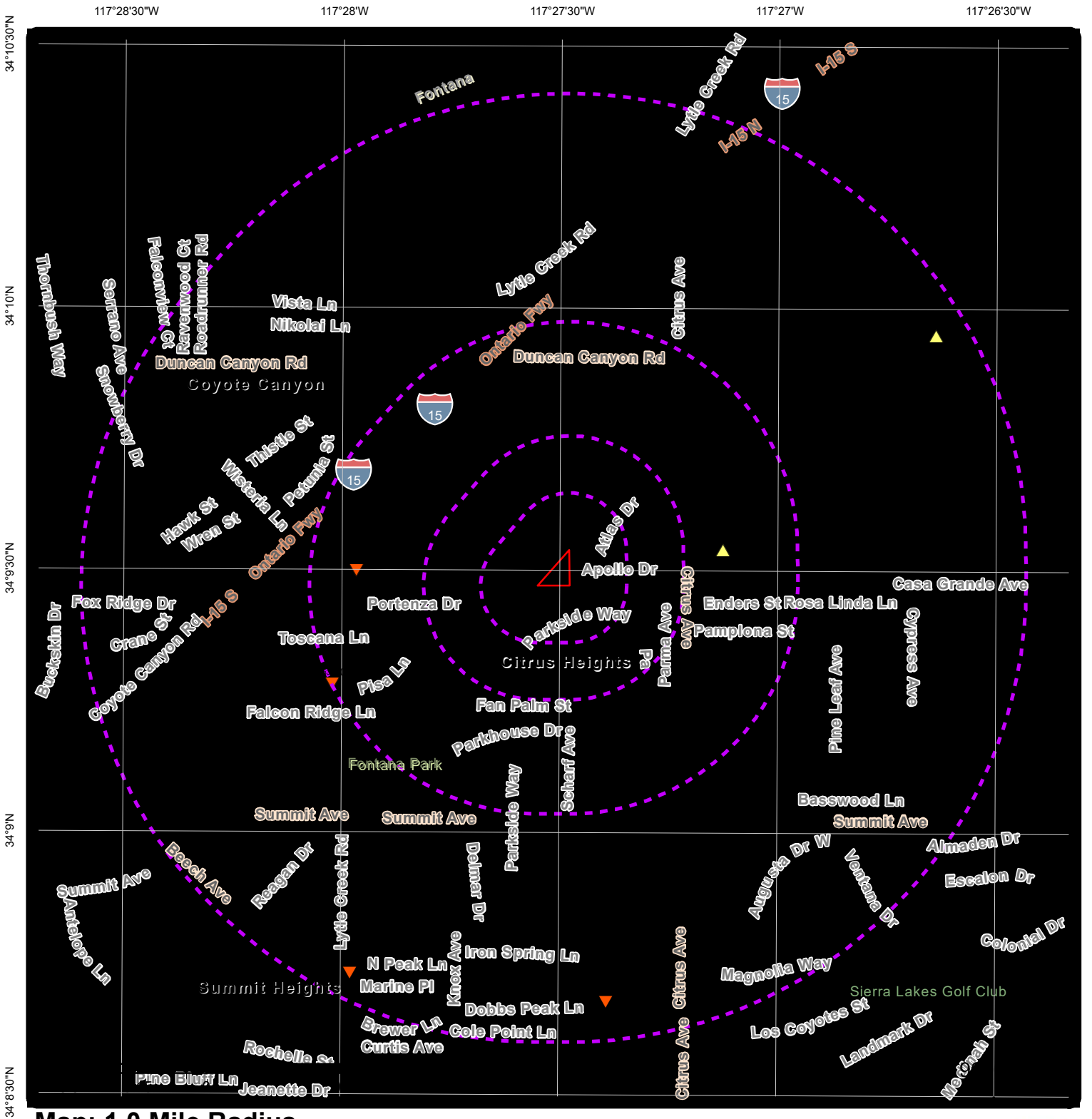
State

SCH - School Property Evaluation Program Sites

A search of the SCH database, dated Feb 6, 2023 has found that there are 5 SCH site(s) within approximately 1.00 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
MIDDLE SCHOOL #10	CITRUS AVENUE/THREE MILE ROAD FONTANA CA 92336	E	0.34 / 1,774.57	1
	***Estor/EPA ID	Cleanup Status**: 36650021	NO ACTION REQUIRED AS OF 4/26/2005*		

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
PROPOSED ELEMENTARY SCHOOL #35	LYTLE CREEK ROAD/THREE MILE ROAD FONTANA CA 92336	W	0.40 / 2,101.70	2
	***Estor/EPA ID	Cleanup Status**: 60000432	NO FURTHER ACTION AS OF 2/26/2007*		
FALCON RIDGE ELEMENTARY SCHOOL	LYTLE CREEK ROAD/TOSCANA LANE FONTANA CA 92336	WSW	0.50 / 2,628.47	3
	***Estor/EPA ID	Cleanup Status**: 60000338	NO ACTION REQUIRED AS OF 8/1/2006*		
ELEMENTARY SCHOOL NO. 33	CURTIS AVENUE/CATAWBA AVENUE FONTANA CA 92336	S	0.92 / 4,837.71	4
	***Estor/EPA ID	Cleanup Status**: 36650020	NO ACTION REQUIRED AS OF 11/8/2004*		
LYTLE CREEK HIGH SCHOOL NO. 4 ADDITION	LYTLE CREEK ROAD/SUMMIT AVENUE FONTANA CA 92336	SSW	0.94 / 4,979.94	6
	***Estor/EPA ID	Cleanup Status**: 36010066	NO ACTION REQUIRED AS OF 11/29/2001*		



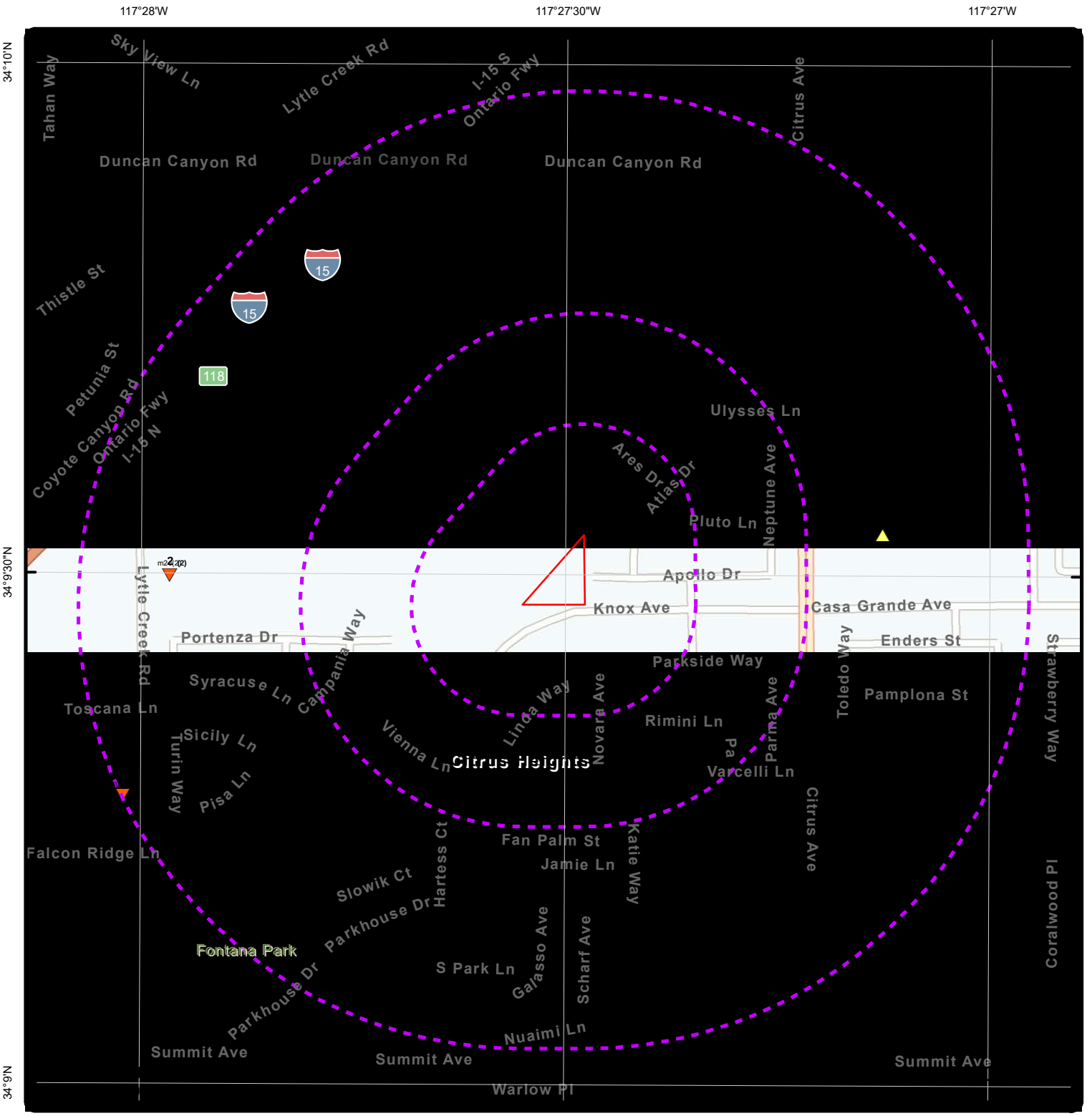
Map: 1.0 Mile Radius

Order Number: 23063000242

Address: NW Lot of Casa Grande Avenue, Rialto, CA

ERIS

- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Plume
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)



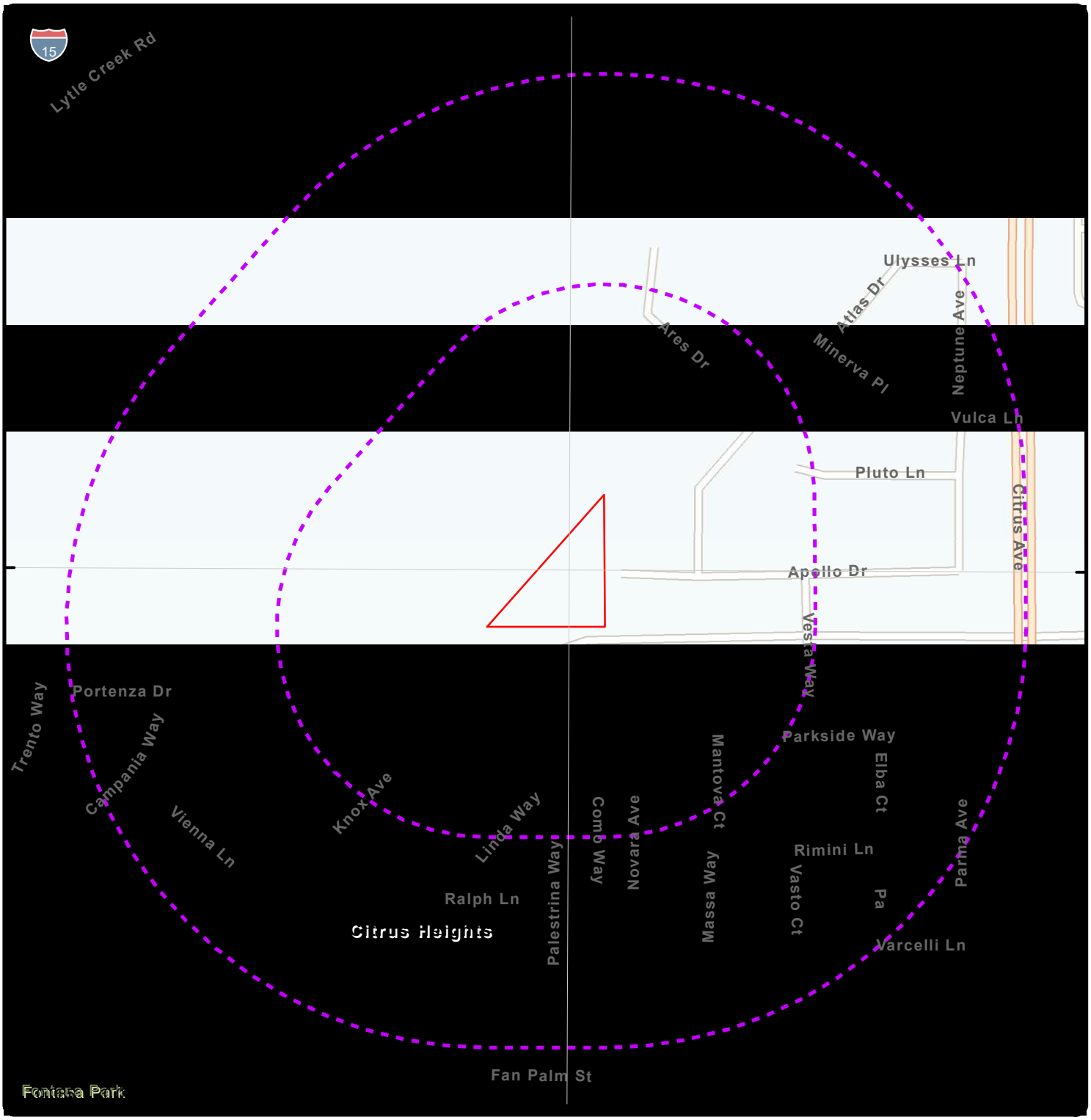
Map: 0.5 Mile Radius

Order Number: 23063000242

Address: NW Lot of Casa Grande Avenue, Rialto, CA

ERIS

- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Plume
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)



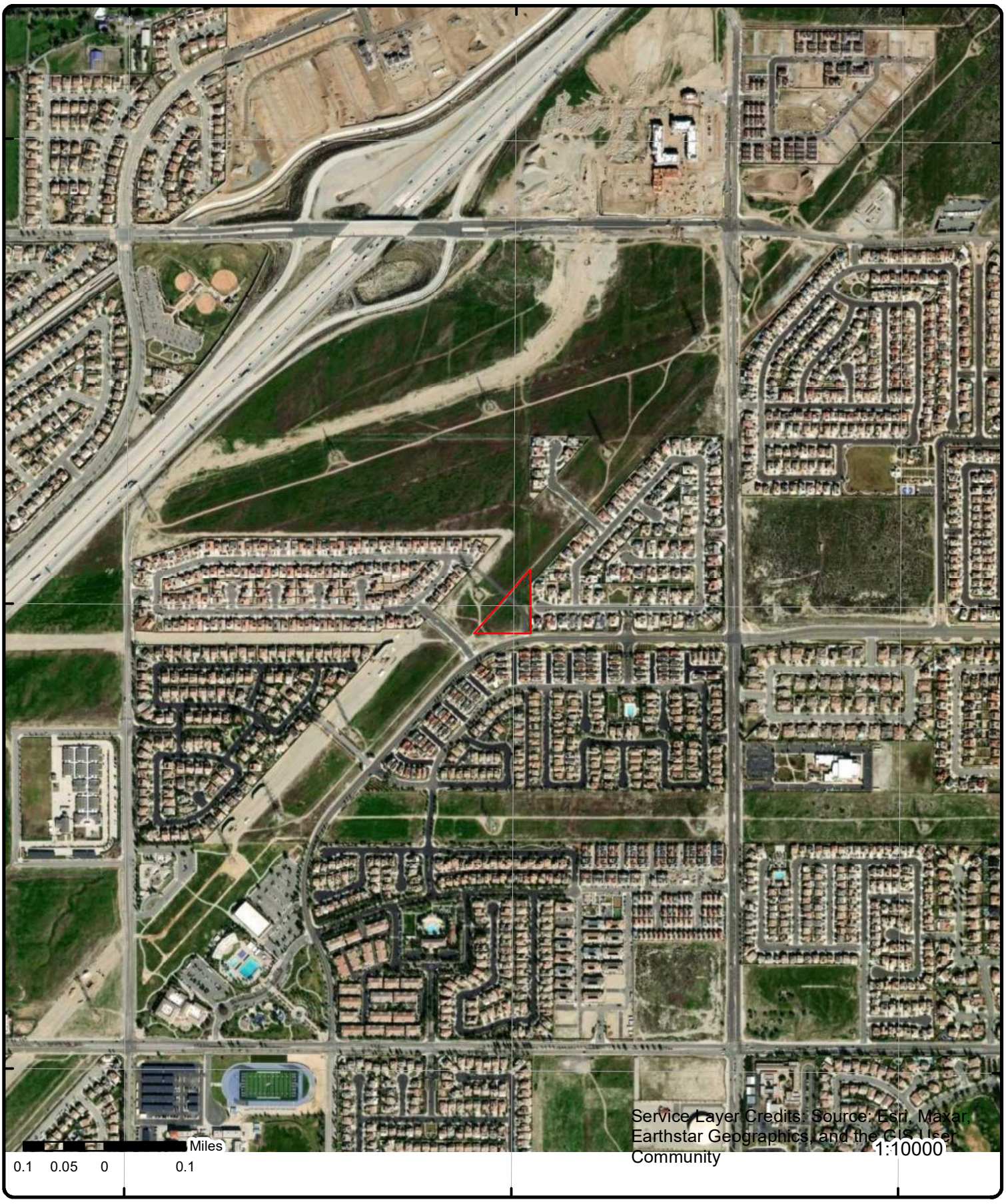
Map: 0.25 Mile Radius

Order Number: 23063000242

Address: NW Lot of Casa Grande Avenue, Rialto, CA

ERIS

- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Plume
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)

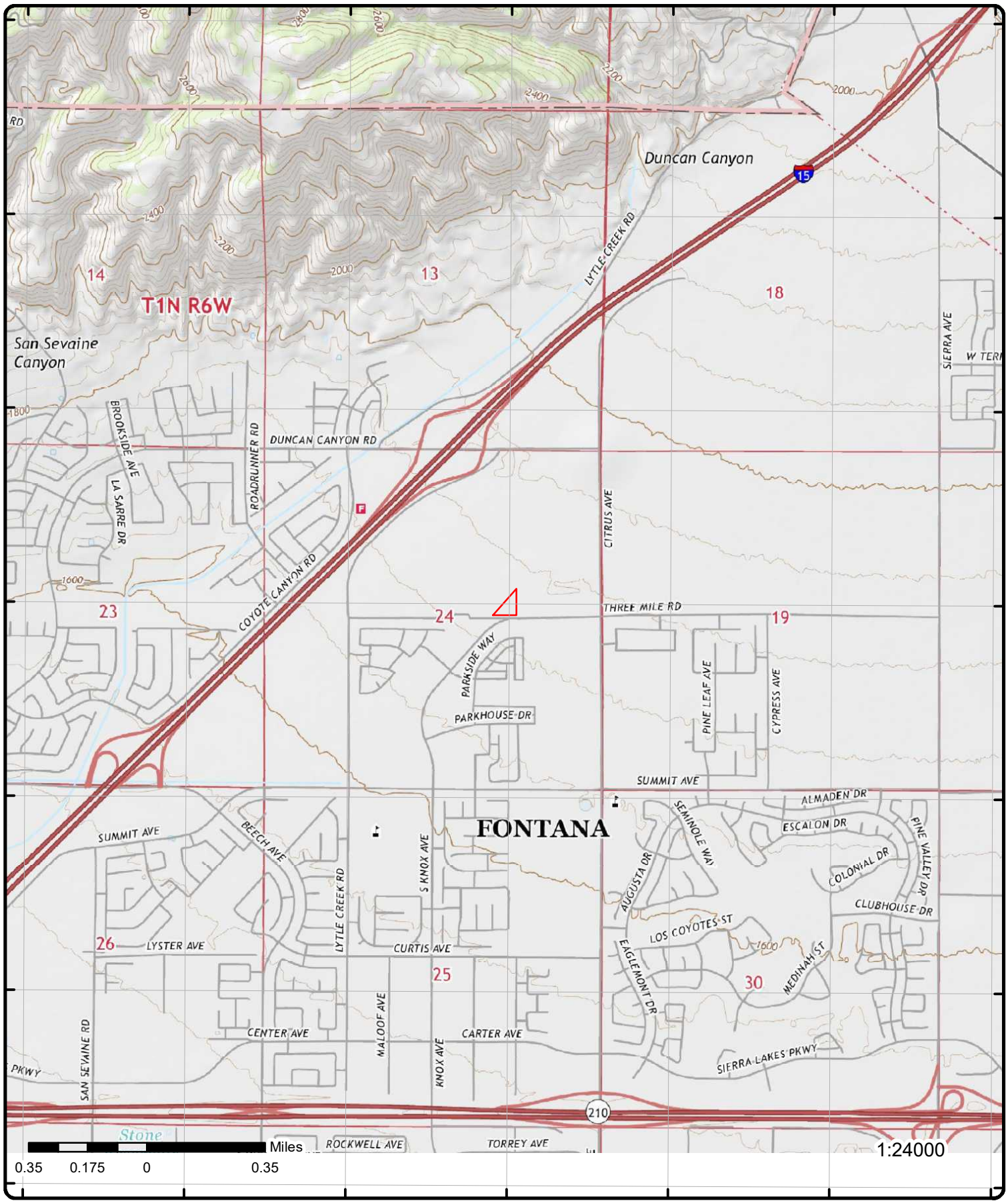


Aerial **Year: 2023**

Order Number: 23063000242

Address: NW Lot of Casa Grande Avenue, Rialto, CA

Source: ESRI World Imagery



Topographic Map

Year: 2018

Order Number: 23063000242

Address: NW Lot of Casa Grande Avenue, CA

Quadrangle(s): Devore, CA

Source: USGS Topographic Map

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	1 of 2	E	0.34 / 1,774.57	1,730.75 / 28	MIDDLE SCHOOL #10 CITRUS AVENUE/THREE MILE ROAD FONTANA CA 92336	SCH

Estor/EPA ID: 36650021
Site Code: 404602
Nat Priority List: NO
Acres: 24.5 ACRES
Special Program:
Funding: SCHOOL DISTRICT
Assembly District: 47
Senate District: 20
Permit Renewal Lead:
Project Manager:
Supervisor: JAVIER HINOJOSA
Public Partici Spclst:
Census Tract: 6071002704
County: SAN BERNARDINO
Latitude: 34.159
Longitude: -117.4521
School District: FONTANA UNIFIED SCHOOL DISTRICT
APN: NONE SPECIFIED
Cleanup Status: NO ACTION REQUIRED AS OF 4/26/2005
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
Site Type: SCHOOL
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Past Use that Caused Contam: NONE
Potential Media Affected: NO MEDIA AFFECTED
Potential Contamin of Concern:

NO CONTAMINANTS FOUND

SITE HISTORY:

The site is currently undeveloped. No operations, other than weed abatement using disking for fire suppression, have taken place onsite recently.

Status: NO ACTION REQUIRED
Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 75-80%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=36650021

Completed Activities

Title: Phase 1
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36650021&doc_id=6005075
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 3/30/2005
Comments: NA

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	2 of 2	E	0.34 / 1,774.57	1,730.75 / 28	MIDDLE SCHOOL #10 CITRUS AVENUE/THREE MILE ROAD FONTANA CA 92336	ENVIROSTOR

Estor/EPA ID: 36650021
Site Code: 404602
Nat Priority List: NO
APN: NONE SPECIFIED
Census Tract: 6071002704
Site Type: SCHOOL
Assembly District: 47
Senate District: 20
Permit Renewal Lead:
Public Partici Spclst:
Project Manager:
County: SAN BERNARDINO

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Address Description: CITRUS AVENUE/THREE MILE ROAD
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Special Program:
Funding: SCHOOL DISTRICT
Latitude: 34.159
Longitude: -117.4521
Acres: 24.5 ACRES
Supervisor: JAVIER HINOJOSA
Cleanup Status: NO ACTION REQUIRED AS OF 4/26/2005
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
School District: FONTANA UNIFIED SCHOOL DISTRICT
Past Use that Caused Contam: NONE
Potential Media Affected: NO MEDIA AFFECTED
Potential Contamin of Concern:

NO CONTAMINANTS FOUND

Site History:

The site is currently undeveloped. No operations, other than weed abatement using disking for fire suppression, have taken place onsite recently.

Status: NO ACTION REQUIRED
Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 75-80%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=36650021

Completed Activities

Title: Phase 1
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36650021&doc_id=6005075
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 3/30/2005
Comments: NA

2	1 of 2	W	0.40 / 2,101.70	1,661.99 / -41	PROPOSED ELEMENTARY SCHOOL #35 LYTLE CREEK ROAD/THREE MILE ROAD FONTANA CA 92336	SCH

Estor/EPA ID: 60000432
Site Code: 404719
Nat Priority List: NO
Acres: 12 ACRES
Special Program:
Funding: SCHOOL DISTRICT
Assembly District: 47
Senate District: 20
Permit Renewal Lead:
Project Manager:
Supervisor: SHAHIR HADDAD
Public Partici Spclst:
Census Tract: 6071002010
County: SAN BERNARDINO
Latitude: 34.1583
Longitude: -117.4661
School District: FONTANA UNIFIED SCHOOL DISTRICT
APN: NONE SPECIFIED
Cleanup Status: NO FURTHER ACTION AS OF 2/26/2007
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
Site Type: SCHOOL
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Past Use that Caused Contam: AGRICULTURAL - ROW CROPS
Potential Media Affected: SOIL
SITE HISTORY:

Site consists of 12.0 acres of vacant land. Historically used for vineyards from about 1938-1980. Site is currently undeveloped land that is being used as a staging point for residential construction activities associated with the adjacent property to the south. Pile of roofing material observed on eastern portion of site and stained/discolored soils observed on western portions although, recently, stained soils have been removed and placed on tarp for disposal purposes. In 2004 a site assessment was performed; soil samples were analyzed for OCPs at that time. Concentrations of DDE and DDT present in samples.

Site originally 13.93 acres, reduced to 12.0 acres. Pile of roofing material no longer within site boundaries after reduction. PEA investigation for OCPs and metals due to past ag. use. Sample results below levels of concern. PEA determined no further action and approved Feb. 23, 2007.

Potential Contamin of Concern:

DIOXIN (AS 2,3,7,8-TCDD TEQ)
METALS
METHOXYCHLOR
ORGANOCHLORINE PESTICIDES (8081 OCPS)

Status: NO FURTHER ACTION
Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 35-40%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60000432

Completed Activities

Title: PEA Tech Memo
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000432&doc_id=6013517
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 11/15/2006
Comments: PEA Tech Memo approved 11/15/06.

Title: Draft PEA Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000432&doc_id=6013858
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 2/26/2007
Comments: PEA Approved 02/23/07. No Further Action.

Title: EOA
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000432&enforcement_id=6009966
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Environmental Oversight Agreement
Date Completed: 9/28/2006
Comments:

Title: Other Report
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Other Report
Date Completed: 9/12/2006
Comments: Phase I was received as background information for PEA.

2	2 of 2	W	0.40 / 2,101.70	1,661.99 / -41	***PROPOSED ELEMENTARY SCHOOL #35 LYTLE CREEK ROAD/THREE MILE ROAD FONTANA CA 92336***	***ENVIROSTOR***

Estor/EPA ID: 60000432
Site Code: 404719
Nat Priority List: NO
APN: NONE SPECIFIED
Census Tract: 6071002010
Assembly District: 47
Senate District: 20
Permit Renewal Lead:
Public Partici Spclst:
Project Manager:

Site Type:	SCHOOL	***County:***	SAN BERNARDINO
Address Description:	LYTLE CREEK ROAD/THREE MILE ROAD	***Latitude:***	34.1583
Office:	SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH	***Longitude:***	-117.4661
Special Program:		***Acres:***	12 ACRES
Funding:	SCHOOL DISTRICT	***Supervisor:***	SHAHIR HADDAD

Cleanup Status: NO FURTHER ACTION AS OF 2/26/2007
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
School District: FONTANA UNIFIED SCHOOL DISTRICT
Past Use that Caused Contam: AGRICULTURAL - ROW CROPS
Potential Media Affected: SOIL
Potential Contamin of Concern:

DIOXIN (AS 2,3,7,8-TCDD TEQ)
METALS
METHOXYCHLOR
ORGANOCHLORINE PESTICIDES (8081 OCPS)

Site History:

Site consists of 12.0 acres of vacant land. Historically used for vineyards from about 1938-1980. Site is currently undeveloped land that is being used as a staging point for residential construction activities associated with the adjacent property to the south. Pile of roofing material observed on eastern portion of site and stained/discolored soils observed on western portions although, recently, stained soils have been removed and placed on tarp for disposal purposes. In 2004 a site assessment was performed; soil samples were analyzed for OCPs at that time. Concentrations of DDE and DDT present in samples.

Site originally 13.93 acres, reduced to 12.0 acres. Pile of roofing material no longer within site boundaries after reduction. PEA investigation for OCPs and metals due to past ag. use. Sample results below levels of concern. PEA determined no further action and approved Feb. 23, 2007.

Status: NO FURTHER ACTION
Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 35-40%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60000432

Completed Activities

Title: EOA
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000432&enforcement_id=6009966
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Environmental Oversight Agreement
Date Completed: 9/28/2006
Comments:

Title: Other Report
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Other Report
Date Completed: 9/12/2006
Comments: Phase I was received as background information for PEA.

Title: PEA Tech Memo
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000432&doc_id=6013517
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 11/15/2006
Comments: PEA Tech Memo approved 11/15/06.

Title: Draft PEA Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000432&doc_id=6013858

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 2/26/2007
Comments: PEA Approved 02/23/07. No Further Action.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	1 of 2	WSW	0.50 / 2,628.47	1,629.86 / -73	FALCON RIDGE ELEMENTARY SCHOOL LYTLE CREEK ROAD/TOSCANA LANE FONTANA CA 92336	SCH

Estor/EPA ID: 60000338
Site Code: 404715
Nat Priority List: NO
Acres: 14 ACRES
Special Program:
Funding: SCHOOL DISTRICT
Assembly District: 47
Senate District: 20
Permit Renewal Lead:
Project Manager:
Supervisor: YOLANDA GARZA
Public Partici Spclst:
Census Tract: 6071002010
County: SAN BERNARDINO
Latitude: 34.1547
Longitude: -117.467
School District: ETIWANDA ELEMENTARY SCHOOL DISTRICT
APN: 226-091-68
Cleanup Status: NO ACTION REQUIRED AS OF 8/1/2006
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
Site Type: SCHOOL
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Past Use that Caused Contam: NONE
Potential Media Affected: NO MEDIA AFFECTED
Potential Contamin of Concern:

NO CONTAMINANTS FOUND

SITE HISTORY:

The site consists of vacant and has had no historical uses with the possible exception of rangeland grazing.

Status: NO ACTION REQUIRED
Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 35-40%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60000338

Completed Activities

Title: Site Visit
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Inspections/Visit (Non LUR)
Date Completed: 8/1/2006
Comments:

Title: Phase 1 Environmental Site Assessment Falcon Ridge ES (RMA Group 6/20/06)
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000338&doc_id=6011677
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 8/1/2006
Comments: Phase I approval letter issued by DTSC.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	2 of 2	WSW	0.50 / 2,628.47	1,629.86 / -73	FALCON RIDGE ELEMENTARY SCHOOL LYTLE CREEK ROAD/TOSCANA LANE FONTANA CA 92336	ENVIROSTOR

Estor/EPA ID: 60000338
Site Code: 404715
Nat Priority List: NO
APN: 226-091-68
Census Tract: 6071002010
Site Type: SCHOOL
Address Description: LYTLE CREEK ROAD/TOSCANA LANE
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Special Program:
Funding: SCHOOL DISTRICT
Assembly District: 47
Senate District: 20
Permit Renewal Lead:
Public Partici Spclst:
Project Manager:
County: SAN BERNARDINO
Latitude: 34.1547
Longitude: -117.467
Acres: 14 ACRES
Supervisor: YOLANDA GARZA
Cleanup Status: NO ACTION REQUIRED AS OF 8/1/2006
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
School District: ETIWANDA ELEMENTARY SCHOOL DISTRICT
Past Use that Caused Contam: NONE
Potential Media Affected: NO MEDIA AFFECTED
Potential Contamin of Concern:

NO CONTAMINANTS FOUND

Site History:

The site consists of vacant and has had no historical uses with the possible exception of rangeland grazing.

Status: NO ACTION REQUIRED
Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 35-40%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60000338

Completed Activities

Title: Phase 1 Environmental Site Assessment Falcon Ridge ES (RMA Group 6/20/06)
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000338&doc_id=6011677
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 8/1/2006
Comments: Phase I approval letter issued by DTSC.

Title: Site Visit
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Inspections/Visit (Non LUR)
Date Completed: 8/1/2006
Comments:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
4	1 of 2	S	0.92 / 4,837.71	1,584.01 / -119	ELEMENTARY SCHOOL NO. 33 CURTIS AVENUE/CATAWBA AVENUE FONTANA CA 92336	SCH

Estor/EPA ID: 36650020
Site Code: 404576
Nat Priority List: NO
Acres: 12 ACRES
Special Program:
Permit Renewal Lead:
Project Manager: AMIT PATHAK
Supervisor: SHAHIR HADDAD
Public Partici Spclst:
Census Tract: 6071002304

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Funding: SCHOOL DISTRICT
Assembly District: 47
Senate District: 20
School District: FONTANA UNIFIED SCHOOL DISTRICT
APN: NONE SPECIFIED
Cleanup Status: NO ACTION REQUIRED AS OF 11/8/2004
Cleanup Oversight Agencies: DTSC - LEAD AGENCY
Site Type: SCHOOL
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Past Use that Caused Contam: NONE
Potential Media Affected: NO MEDIA AFFECTED
Potential Contamin of Concern:

County: SAN BERNARDINO
Latitude: 34.1446
Longitude: -117.4565

NO CONTAMINANTS FOUND

SITE HISTORY:

The site is vacant land, flat with a slight slope and is zoned for single family residences. Currently, the site is owned by Kou-Chiang Chou.

Status: NO ACTION REQUIRED
Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 45-50%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=36650020

Completed Activities

Title: Phase 1
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36650020&doc_id=6005074
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 11/8/2004
Comments:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
4	2 of 2	S	0.92 / 4,837.71	1,584.01 / -119	ELEMENTARY SCHOOL NO. 33 CURTIS AVENUE/CATAWBA AVENUE FONTANA CA 92336	ENVIROSTOR

Estor/EPA ID: 36650020
Site Code: 404576
Nat Priority List: NO
APN: NONE SPECIFIED
Census Tract: 6071002304
Site Type: SCHOOL
Address Description: CURTIS AVENUE/CATAWBA AVENUE
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Special Program:
Funding: SCHOOL DISTRICT
Cleanup Status: NO ACTION REQUIRED AS OF 11/8/2004
Cleanup Oversight Agencies: DTSC - LEAD AGENCY
School District: FONTANA UNIFIED SCHOOL DISTRICT
Past Use that Caused Contam: NONE
Potential Media Affected: NO MEDIA AFFECTED
Potential Contamin of Concern:

Assembly District: 47
Senate District: 20
Permit Renewal Lead:
Public Partici Spclst:
Project Manager: AMIT PATHAK
County: SAN BERNARDINO
Latitude: 34.1446
Longitude: -117.4565
Acres: 12 ACRES
Supervisor: SHAHIR HADDAD

NO CONTAMINANTS FOUND

Site History:

The site is vacant land, flat with a slight slope and is zoned for single family residences. Currently, the site is owned by Kou-Chiang Chou.

Status: NO ACTION REQUIRED

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 45-50%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=36650020

Completed Activities

Title: Phase 1
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=36650020&doc_id=6005074
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 11/8/2004
Comments:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
5	1 of 1	ENE	0.93 / 4,909.04	1,825.61 / 123	FONTANA UNIFIED SCHOOL DISTRICT - ELEMENTARY SCHOOL NO. 37 CYPRESS AVENUE/DUNCAN CANYON ROAD FONTANA CA 92335	ENVIROSTOR

Estor/EPA ID: 60002721
Site Code: 401846
Nat Priority List: NO
APN: 0237-081-15, 0239-081-19
Census Tract: 6071002704
Site Type: EVALUATION
Address Description: CYPRESS AVENUE/DUNCAN CANYON ROAD
Office: SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH
Special Program: EPA - TARGET SITE INVESTIGATION
Funding: EPA GRANT
Assembly District: , 47
Senate District: , 20
Permit Renewal Lead:
Public Partici Spclst:
Project Manager: ASLAM SHAREEF
County: SAN BERNARDINO
Latitude: 34.1658373332544
Longitude: -117.443985002655
Acres: 12.1 ACRES
Supervisor: SHAHIR HADDAD
Cleanup Status: NO FURTHER ACTION AS OF 10/24/2019
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
School District:
Past Use that Caused Contam: NONE
Potential Media Affected: NO MEDIA AFFECTED
Site History:

Fontana Unified School District submitted a Targeted Site Investigation (TSI) program application for the Elementary School No. 37 site. The TSI program is funded by a grant from the United States Environmental Protection Agency (EPA). The TSI Selection Committee, at the Department of Toxic Substances Control (DTSC), met on August 2, 2018 to evaluate the applications received. Then, DTSC recommended Elementary School No. 37 site for funding and received concurrence from EPA on August 21, 2018.

Fontana Unified School District is planning to purchase this 12.1-acre vacant property from Lewis, LLC (developer), to build an elementary school for an new residential development, consisting of 3,500 homes. A Preliminary Environmental Assessment is needed to evaluate potential impact from former agricultural use. State or local funds will be pursued if additional investigation or cleanup is needed. The school district is applying for State School Facility Program funding for new construction.

On October 24, 2019, DTSC approved the Site for No Further Action.

Potential Contamin of Concern:

NO CONTAMINANTS FOUND

Status: NO FURTHER ACTION
Program Type: EVALUATION
CalEnviroScreen Score: 75-80%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60002721

Completed Activities

Title: TSI Appplication

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002721&doc_id=60451474
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Application
Date Completed: 8/21/2018
Comments: TSI Approval Letter.

Title: PEA Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002721&doc_id=60452132
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 10/24/2019
Comments: DTSC approved the Site for No Further Action

Title: Cost Estimate for FY 2018/19
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 3/4/2019
Comments: Contract Finalized on 3/4/2019

Title: PEA Workplan
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Workplan
Date Completed: 5/24/2019
Comments: DTSC processed Email approval for the PEA Workplan

Title: Fieldwork Oversight
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Fieldwork
Date Completed: 5/30/2019
Comments: Completed Fieldwork Oversight

Title: FY 19/20 Annual Oversight Cost Estimate
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60002721&enforcement_id=60467611
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Annual Oversight Cost Estimate
Date Completed: 9/6/2019
Comments:

6	*1 of 2*	*SSW*	*0.94 / 4,979.94*	*1,559.37 / -143*	***LYTLE CREEK HIGH SCHOOL NO. 4 ADDITION LYTLE CREEK ROAD/SUMMIT AVENUE FONTANA CA 92336***	***SCH***

Estor/EPA ID: 36010066
Site Code: 404296
Nat Priority List: NO
Permit Renewal Lead:
Project Manager:
Supervisor: YOLANDA GARZA

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Acres:	9.18 ACRES	**Public Partici Spclst:**	
Special Program:		**Census Tract:**	6071002304
Funding:	SCHOOL DISTRICT	**County:**	SAN BERNARDINO
Assembly District:	47	**Latitude:**	34.1455
Senate District:	20	**Longitude:**	-117.4663
School District:	FONTANA UNIFIED SCHOOL DISTRICT		
APN:	NONE SPECIFIED		
Cleanup Status:	NO ACTION REQUIRED AS OF 11/29/2001		
Cleanup Oversight Agencies:	DTSC - LEAD AGENCY		
Site Type:	SCHOOL		
Office:	SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH		
Past Use that Caused Contam:	AGRICULTURAL - ROW CROPS		
Potential Media Affected:	SOIL		
Potential Contamin of Concern:			

CHLORDANE
DDD
DDE
DDT

SITE HISTORY:

The proposed site is located on the east side of Lytle Creek Road and south of Summit Avenue in Fontana, California. The site is currently unoccupied with the exception of natural vegetation. The site has been vacant since 1933. The site is located in a historically agricultural region.

Status:	NO ACTION REQUIRED
Program Type:	SCHOOL EVALUATION
CalEnviroScreen Score:	45-50%
Summary Link:	https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=36010066

Completed Activities

Title:	* Site Visit - Site Inspections/visit
Title Link:	
Area Name:	
Area Link:	
Sub Area:	
Sub Area Link:	
Document Type:	Site Inspections/Visit (Non LUR)
Date Completed:	11/28/2001
Comments:	

Title:	Phase 1
Title Link:	
Area Name:	
Area Link:	
Sub Area:	
Sub Area Link:	
Document Type:	Phase 1
Date Completed:	11/29/2001
Comments:	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
6	2 of 2	SSW	0.94 / 4,979.94	1,559.37 / -143	LYTLE CREEK HIGH SCHOOL NO. 4 ADDITION LYTLE CREEK ROAD/SUMMIT AVENUE FONTANA CA 92336	ENVIROSTOR

Estor/EPA ID:	36010066	**Assembly District:**	47
Site Code:	404296	**Senate District:**	20
Nat Priority List:	NO	**Permit Renewal Lead:**	
APN:	NONE SPECIFIED	**Public Partici Spclst:**	
Census Tract:	6071002304	**Project Manager:**	
Site Type:	SCHOOL	**County:**	SAN BERNARDINO
Address Description:	LYTLE CREEK ROAD/SUMMIT AVENUE	**Latitude:**	34.1455
Office:	SOUTHERN CALIFORNIA SCHOOLS & BROWNFIELDS OUTREACH	**Longitude:**	-117.4663

Special Program: ***Acres:*** 9.18 ACRES
Funding: SCHOOL DISTRICT ***Supervisor:*** YOLANDA GARZA
Cleanup Status: NO ACTION REQUIRED AS OF 11/29/2001
Cleanup Oversight Agencies: DTSC - LEAD AGENCY
School District: FONTANA UNIFIED SCHOOL DISTRICT
Past Use that Caused Contam: AGRICULTURAL - ROW CROPS
Potential Media Affected: SOIL
Potential Contamin of Concern:

CHLORDANE
DDD
DDE
DDT

Site History:

The proposed site is located on the east side of Lytle Creek Road and south of Summit Avenue in Fontana, California. The site is currently unoccupied with the exception of natural vegetation. The site has been vacant since 1933. The site is located in a historically agricultural region.

Status: NO ACTION REQUIRED
Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 45-50%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=36010066

Completed Activities

Title: * Site Visit - Site Inspections/visit
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Inspections/Visit (Non LUR)
Date Completed: 11/28/2001
Comments:

Title: Phase 1
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 11/29/2001
Comments:

Unplottable Summary

Total: 0 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID

No unplottable records were found that may be relevant for the search criteria.

Unplottable Report

No unplottable records were found that may be relevant for the search criteria.

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13 and E1527-21, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

National Priority List: NPL

Sites on the United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Mar 23, 2023

National Priority List - Proposed: PROPOSED NPL

Sites proposed by the United States Environmental Protection Agency (EPA), the state agency, or concerned citizens for addition to the National Priorities List (NPL) due to contamination by hazardous waste and identified by the EPA as a candidate for cleanup because it poses a risk to human health and/or the environment. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Mar 23, 2023

Deleted NPL: DELETED NPL

Sites deleted from the United States Environmental Protection Agency (EPA)'s National Priorities List. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Mar 23, 2023

SEMS List 8R Active Site Inventory: SEMS

The U.S. Environmental Protection Agency's (EPA) Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. This data includes SEMS sites from the List 8R Active file as well as applicable sites from the SEMS GIS/REST file layer obtained from EPA's Facility Registry Service.

Government Publication Date: Jan 25, 2023

Inventory of Open Dumps, June 1985: ODI

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

SEMS List 8R Archive Sites: SEMS ARCHIVE

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. This data includes sites from the List 8R Archived site file.

Government Publication Date: Jan 25, 2023

Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS: CERCLIS

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

EPA Report on the Status of Open Dumps on Indian Lands: IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

CERCLIS - No Further Remedial Action Planned: CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens: CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA). This database was provided by the United States Environmental Protection Agency (EPA). Refer to SEMS LIEN as the current data source for Superfund Liens.

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action: RCRA CORRACTS

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Apr 24, 2023

RCRA non-CORRACTS TSD Facilities: RCRA TSD

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste as defined by RCRA.

Government Publication Date: Apr 24, 2023

RCRA Generator List: RCRA LQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste.

Government Publication Date: Apr 24, 2023

RCRA Small Quantity Generators List: RCRA SQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Government Publication Date: Apr 24, 2023

RCRA Very Small Quantity Generators List: RCRA VSQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Very Small Quantity Generators (VSQG) generate 100 kilograms or less per month of hazardous waste, or one kilogram or less per month of acutely hazardous waste. Additionally, VSQG may not accumulate more than 1,000 kilograms of hazardous waste at any time.

Government Publication Date: Apr 24, 2023

RCRA Non-Generators: RCRA NON GEN

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Apr 24, 2023

RCRA Sites with Controls: RCRA CONTROLS

List of Resource Conservation and Recovery Act (RCRA) facilities with institutional controls in place. RCRA gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Government Publication Date: Apr 24, 2023

Federal Engineering Controls-ECs: FED ENG

This list of Engineering controls (ECs) is provided by the United States Environmental Protection Agency (EPA). ECs encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. The EC listing includes remedy component data from Superfund decision documents issued in fiscal years 1982-2021 for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

Government Publication Date: Apr 26, 2023

Federal Institutional Controls- ICs: FED INST

This list of Institutional controls (ICs) is provided by the United States Environmental Protection Agency (EPA). ICs are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site. The IC listing includes remedy component data from Superfund decision documents issued in fiscal years 1982-2021 for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

Government Publication Date: Apr 26, 2023

Land Use Control Information System: LUCIS

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

Government Publication Date: Sep 1, 2006

Institutional Control Boundaries at NPL sites: NPL IC

Boundaries of Institutional Control areas at sites on the United States Environmental Protection Agency (EPA)'s National Priorities List, or Proposed or Deleted, made available by the EPA's Shared Enterprise Geodata and Services (SEGS). United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. Institutional controls are non-engineered instruments such as administrative and legal controls that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy.

Government Publication Date: Mar 23, 2023

Emergency Response Notification System: ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System: ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System: ERNS

Database of oil and hazardous substances spill reports made available by the United States Coast Guard National Response Center (NRC). The NRC fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. These data contain initial incident data that has not been validated or investigated by a federal/state response agency.

Government Publication Date: Jan 16, 2023

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database: FED BROWNFIELDS

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This data is provided by the United States Environmental Protection Agency (EPA) and includes Brownfield sites from the Cleanups in My Community (CIMC) web application.

Government Publication Date: Sep 13, 2022

FEMA Underground Storage Tank Listing: FEMA UST

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

Government Publication Date: Dec 31, 2017

Facility Response Plan: FRP

This listing contains facilities that have submitted Facility Response Plans (FRPs) to the U.S. Environmental Protection Agency (EPA). Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit FRPs. Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments. This listing includes FRP facilities from an applicable EPA FOIA file and Homeland Infrastructure Foundation-Level Data (HIFLD) data file.

Government Publication Date: Aug 8, 2022

Delisted Facility Response Plans: DELISTED FRP

Facilities that once appeared in - and have since been removed from - the list of facilities that have submitted Facility Response Plans (FRP) to EPA. Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit Facility Response Plans (FRPs). Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments.

Government Publication Date: Aug 8, 2022

Historical Gas Stations: HIST GAS STATIONS

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

Government Publication Date: Jul 1, 1930

Petroleum Refineries: REFN

List of petroleum refineries from the U.S. Energy Information Administration (EIA) Refinery Capacity Report. Includes operating and idle petroleum refineries (including new refineries under construction) and refineries shut down during the previous year located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions. Survey locations adjusted using public data.

Government Publication Date: Aug 30, 2022

Petroleum Product and Crude Oil Rail Terminals: BULK TERMINAL

List of petroleum product and crude oil rail terminals made available by the U.S. Energy Information Administration (EIA). Includes operable bulk petroleum product terminals located in the 50 States and the District of Columbia with a total bulk shell storage capacity of 50,000 barrels or more, and/or the ability to receive volumes from tanker, barge, or pipeline; also rail terminals handling the loading and unloading of crude oil that were active between 2017 and 2018. Petroleum product terminals comes from the EIA-815 Bulk Terminal and Blender Report, which includes working, shell in operation, and shell idle for several major product groupings. Survey locations adjusted using public data.

Government Publication Date: Jun 29, 2022

LIEN on Property: SEMS LIEN

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) provides Lien details on applicable properties, such as the Superfund lien on property activity, the lien property information, and the parties associated with the lien.

Government Publication Date: Jan 25, 2023

Superfund Decision Documents: SUPERFUND ROD

This database contains a list of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include completed Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD) for active and archived sites stored in the Superfund Enterprise Management System (SEMS), along with other associated memos and files. This information is maintained and made available by the U.S. Environmental Protection Agency.

Government Publication Date: Mar 23, 2023

Formerly Utilized Sites Remedial Action Program: DOE FUSRAP

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

Government Publication Date: Mar 4, 2017

State

State Response Sites: RESPONSE

A list of identified confirmed release sites where the Department of Toxic Substances Control (DTSC) is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. This database is state equivalent NPL.

Government Publication Date: Feb 6, 2023

EnviroStor Database: ENVIROSTOR

The EnviroStor Data Management System is made available by the Department of Toxic Substances Control (DTSC). Includes Corrective Action sites, Tiered Permit sites, Historical Sites and Evaluation/Investigation sites. This database is state equivalent CERCLIS.

Government Publication Date: Feb 6, 2023

Delisted State Response Sites: DELISTED ENVS

Sites removed from the list of State Response Sites made available by the EnviroStor Data Management System, Department of Toxic Substances Control (DTSC).

Government Publication Date: Feb 6, 2023

Solid Waste Information System (SWIS): SWF/LF

The Solid Waste Information System (SWIS) database made available by the Department of Resources Recycling and Recovery (CalRecycle) contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites.

Government Publication Date: May 9, 2023

Solid Waste Disposal Sites with Waste Constituents Above Hazardous Waste Levels: SWRCB SWF

This is a list of solid waste disposal sites identified by California State Water Resources Control Board with waste constituents above hazardous waste levels outside the waste management unit.

Government Publication Date: Sep 20, 2006

Waste Management Unit Database: WMUD

The Waste Management Unit Database System tracks and inventories waste management units. CCR Title 27 contains criteria stating that Waste Management Units are classified according to their ability to contain wastes. Containment shall be determined by geology, hydrology, topography, climatology, and other factors relating to the ability of the Unit to protect water quality. Water Code Section 13273.1 requires that operators submit a water quality solid waste assessment test (SWAT) report to address leak status. The WMUDS was last updated by the State Water Resources control board in 2000.

Government Publication Date: Jan 1, 2000

EnviroStor Hazardous Waste Facilities: HWP

A list of hazardous waste facilities including permitted, post-closure and historical facilities found in the Department of Toxic Substances Control (DTSC) EnviroStor database.

Government Publication Date: Feb 6, 2023

Sites Listed in the Solid Waste Assessment Test (SWAT) Program Report: SWAT

In a 1993 Memorandum of Understanding, the State Water Resources Control Board (SWRCB) agreed to submit a comprehensive report on the Solid Waste Assessment Test (SWAT) Program to the California Integrated Waste Management Board (CIWMB). This report summarizes the work completed to date on the SWAT Program, and addresses both the impacts that leakage from solid waste disposal sites (SWDS) may have upon waters of the State and the actions taken to address such leakage.

Government Publication Date: Dec 31, 1995

Construction and Demolition Debris Recyclers: C&D DEBRIS RECY

This listing of Construction and Demolition Debris Recyclers is maintained by the California Intergrated Waste Management Board-common C&D materials include lumber, drywall, metals, masonry (brick, concrete, etc.), carpet, plastic, pipe, rocks, dirt, paper, cardboard, or green waste related to land development.

Government Publication Date: Jun 20, 2018

Recycling Centers: RECYCLING

This list of Certified Recycling Centers that are operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Apr 13, 2023

Listing of Certified Processors: PROCESSORS

This list of Certified Processors that are operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Apr 13, 2023

Listing of Certified Dropoff, Collection, and Community Service Programs: CONTAINER RECY

This list of Certified Dropoff, Collection, and Community Service Programs (non-buyback) operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Apr 19, 2023

Land Disposal Sites: LDS

Land Disposal Sites in GeoTracker, the State Water Resources Control Board (SWRCB)'s data management system. The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units. Waste management units include waste piles, surface impoundments, and landfills.

Government Publication Date: Feb 27, 2023

Leaking Underground Fuel Tank Reports: LUST

List of Leaking Underground Storage Tanks within the Cleanup Sites data in GeoTracker database. GeoTracker is the State Water Resources Control Board's (SWRCB) data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense and Site Cleanup Program) as well as permitted facilities such as operating Underground Storage Tanks. The Leak Prevention Program that overlooks LUST sites is the SWRCB in California's Environmental Protection Agency.

Government Publication Date: Feb 27, 2023

Delisted Leaking Storage Tanks: DELISTED LST

List of Leaking Underground Storage Tanks (LUST) cleanup sites removed from GeoTracker, the State Water Resources Control Board (SWRCB)'s database system, as well as sites removed from the SWRCB's list of UST Case closures.

Government Publication Date: Mar 10, 2023

Permitted Underground Storage Tank (UST) in GeoTracker: UST

List of Permitted Underground Storage Tank (UST) sites made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA).

Government Publication Date: Jan 17, 2023

Proposed Closure of Underground Storage Tank Cases: UST CLOSURE

This listing includes Proposed Closure of Underground Storage Tank (UST) Cases which are being considered for closure by either the State Water Resources Control Board at a Future Board Meeting or the Executive Director that have been posted for a 60-day public comment period, and Closure of UST Cases with Closure Denials and Approved Orders. The lists are provided by the California Water Boards.

Government Publication Date: Mar 10, 2023

Historical Hazardous Substance Storage Information Database: HHSS

The Historical Hazardous Substance Storage database contains information collected in the 1980s from facilities that stored hazardous substances. The information was originally collected on paper forms, was later transferred to microfiche, and recently indexed as a searchable database. When using this database, please be aware that it is based upon self-reported information submitted by facilities which has not been independently verified. It is unlikely that every facility responded to the survey and the database should not be expected to be a complete inventory of all facilities that were operating at that time. This database is maintained by the California State Water Resources Control Board's (SWRCB) Geotracker.

Government Publication Date: Aug 27, 2015

Statewide Environmental Evaluation and Planning System: UST SWEEPS

The Statewide Environmental Evaluation and Planning System (SWEEPS) is a historical listing of active and inactive underground storage tanks made available by the California State Water Resources Control Board (SWRCB).

Government Publication Date: Oct 1, 1994

Aboveground Storage Tanks: AST

A statewide list from 2009 of aboveground storage tanks (ASTs) made available by the Cal FIRE Office of the State Fire Marshal (OSFM). This list is no longer maintained or updated by the Cal FIRE OSFM.

Government Publication Date: Aug 31, 2009

SWRCB Historical Aboveground Storage Tanks: AST SWRCB

A list of aboveground storage tanks made available by the California State Water Resources Control Board (SWRCB). Effective January 1, 2008, the Certified Unified Program Agencies (CUPAs) are vested with the responsibility and authority to implement the Aboveground Petroleum Storage Act (APSA).

Government Publication Date: Dec 1, 2007

Oil and Gas Facility Tanks: TANK OIL GAS

Locations of oil and gas tanks that fall under the jurisdiction of the Geologic Energy Management Division of the California Department of Conservation (CalGEM) (CCR 1760). CalGEM was formerly the Division of Oil, Gas, and Geothermal Resources (DOGGR).

Government Publication Date: Apr 12, 2023

Delisted Storage Tanks: DELISTED TNK

This database contains a list of storage tank sites that were removed by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA) and the Cal FIRE Office of State Fire Marshal (OSFM).

Government Publication Date: May 15, 2023

California Environmental Reporting System (CERS) Tanks: CERS TANK

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Apr 12, 2023

Delisted California Environmental Reporting System (CERS) Tanks: DELISTED CTNK

This database contains a list of Aboveground Petroleum Storage and Underground Storage Tank sites that were removed from in the California Environmental Protection Agency (CalEPA) Regulated Site Portal.

Government Publication Date: Apr 12, 2023

Historical Hazardous Substance Storage Container Information - Facility Summary: HIST TANK

The State Water Resources Control Board maintained the Hazardous Substance Storage Containers listing and inventory in th 1980s. This facility summary lists historic tank sites where the following container types were present: farm motor vehicle fuel tanks; waste tanks; sumps; pits, ponds, lagoons, and others; and all other product tanks. This set, published in May 1988, lists facility and owner information, as well as the number of containers. This data is historic and will not be updated.

Government Publication Date: May 27, 1988

Site Mitigation and Brownfields Reuse Program Facility Sites with Land Use Restrictions: LUR

The Department of Toxic Substances Control (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents land use restrictions that are active. Some sites have multiple land use restrictions.

Government Publication Date: Feb 6, 2023

CALSITES Database: CALSITES

This historical database was maintained by the Department of Toxic Substance Control (DTSC) for more than a decade. CALSITES contains information on Brownfield properties with confirmed or potential hazardous contamination. In 2006, DTSC introduced EnviroStor as the latest Brownfields site database.

Government Publication Date: May 1, 2004

Hazardous Waste Management Program Facility Sites with Deed / Land Use Restrictions: HLUR

The Department of Toxic Substances Control (DTSC) Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Government Publication Date: Feb 18, 2021

Deed Restrictions and Land Use Restrictions: DEED

List of Deed Restrictions, Land Use Restrictions and Covenants in GeoTracker made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency. A deed restriction (land use covenant) may be required to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to residual hazardous materials.

Government Publication Date: Feb 27, 2023

Voluntary Cleanup Program: VCP

List of sites in the Voluntary Cleanup Program made available by the Department of Toxic Substances and Control (DTSC). The Voluntary Cleanup Program was designed to respond to lower priority sites. Under the Voluntary Cleanup Program, DTSC enters site-specific agreements with project proponents for DTSC oversight of site assessment, investigation, and/or removal or remediation activities, and the project proponents agree to pay DTSC's reasonable costs for those services.

Government Publication Date: Feb 6, 2023

GeoTracker Cleanup Program Sites: CLEANUP SITES

A list of Cleanup Program sites in the state of California made available by The State Water Resources Control Board (SWRCB) of the California Environmental Protection Agency (EPA). SWRCB tracks leaking underground storage tank cleanups as well as other water board cleanups.

Government Publication Date: Feb 27, 2023

Delisted Cleanup Program Sites: DELISTED CLEANUP

A list of Cleanup Program sites which were once included - and have since been removed from - the list of Cleanup Program Sites in GeoTracker. GeoTracker is the State Water Resource Control Boards' data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.
Government Publication Date: Feb 27, 2023

Delisted County Records: DELISTED COUNTY
Records removed from county or CUPA databases. Records may be removed from the county lists made available by the respective county departments because they are inactive, or because they have been deemed to be below reportable thresholds.
Government Publication Date: Jun 21, 2023

Tribal

Leaking Underground Storage Tanks on Tribal/Indian Lands: INDIAN LUST
This list of leaking underground storage tanks (LUSTs) on Tribal/Indian Lands in Region 9, which includes California, is made available by the United States Environmental Protection Agency (EPA).
Government Publication Date: Apr 19, 2023

Underground Storage Tanks on Tribal/Indian Lands: INDIAN UST
This list of underground storage tanks (USTs) on Tribal/Indian Lands in Region 9, which includes California, is made available by the United States Environmental Protection Agency (EPA).
Government Publication Date: Apr 19, 2023

Delisted Tribal Leaking Storage Tanks: DELISTED INDIAN LST
Leaking Underground Storage Tank (LUST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian LUST lists made available by the United States Environmental Protection Agency (EPA).
Government Publication Date: Apr 26, 2023

Delisted Tribal Underground Storage Tanks: DELISTED INDIAN UST
Underground Storage Tank (UST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian UST lists made available by the United States Environmental Protection Agency (EPA).
Government Publication Date: Apr 26, 2023

County

San Bernardino County - CUPA List: SANBERN CUPA
A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in San Bernardino County. This list is made available by San Bernardino County Fire Department which is the CUPA for all areas of the County except the city of Victorville.
Government Publication Date: May 16, 2023

Additional Environmental Record Sources

Federal

Facility Registry Service/Facility Index: FINDS/FRS
The Facility Registry Service (FRS) is a centrally managed database that identifies facilities, sites, or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, and data collected from EPA's Central Data Exchange registrations and data management personnel. This list is made available by the Environmental Protection Agency (US EPA).
Government Publication Date: Aug 18, 2022

Toxics Release Inventory (TRI) Program: TRIS

The U.S. Environmental Protection Agency's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of toxic chemicals from U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. There are currently 770 individually listed chemicals and 33 chemical categories covered by the TRI Program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual reporting forms for each chemical. Note that the TRI chemical list does not include all toxic chemicals used in the U.S. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment.

Government Publication Date: Oct 19, 2022

PFOA/PFOS Contaminated Sites: PFAS NPL

List of National Priorities List (NPL) and related Superfund Alternative Agreement (SAA) sites where PFOA or PFOS contaminants have been found in water and/or soil. The site listing is provided by the Federal Environmental Protection Agency (EPA).

Government Publication Date: Mar 28, 2023

Federal Agency Locations with Known or Suspected PFAS Detections: PFAS FED SITES

List of Federal agency locations with known or suspected detections of Per- and Polyfluoroalkyl Substances (PFAS), made available by the U.S. Environmental Protection Agency (EPA) in their PFAS Analytic Tools data. EPA outlines that these data are gathered from several federal entities, such as the Federal Superfund program, Department of Defense (DOD), National Aeronautics and Space Administration, Department of Transportation, and Department of Energy. The dates this data was extracted for the PFAS Analytic Tools range from March 2022 to April 2023. Sites on this list do not necessarily reflect the source/s of PFAS contamination and detections do not indicate level of risk or human exposure at the site. Agricultural notifications in this data are limited to DOD sites only. At this time, the EPA is aware that this list is not comprehensive of all Federal agencies.

Government Publication Date: Apr 24, 2023

SSEHRI PFAS Contamination Sites: PFAS SSEHRI

This PFAS Contamination Site Tracker database is compiled by the Social Science Environmental Health Research Institute (SSEHRI) at Northeastern University. According to the SSEHRI, the database records qualitative and quantitative data from each known site of PFAS contamination, including timeline of discovery, sources, levels, health impacts, community response, and government response. The goal of this database is to compile information and support public understanding of the rapidly unfolding issue of PFAS contamination. All data presented was extracted from government websites, news articles, or publicly available documents, and this is cited in the tracker. Locations for the Known PFAS Contamination Sites are sourced from the PFAS Sites and Community Resources Map, credited to the Northeastern University's PFAS Project Lab, Silent Spring Institute, and the PFAS-REACH team. Disclaimer: The source conveys the data undergoes regular updates as new information becomes available, some sites may be missing and/or contain information that is incorrect or outdated, as well as their information represents all contamination sites SSEHRI is aware of, not all possible contamination sites. This data is not intended to be used for legal purposes. Access the following source link for the most current information: https://pfasproject.com/pfas-sites-and-community-resources/

Government Publication Date: Oct 9, 2022

National Response Center PFAS Spills: ERNS PFAS

This Per- and Poly-Fluoroalkyl Substances (PFAS) Spills dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. The National Response Center (NRC), operated by the U.S. Coast Guard, serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the "Material Involved" or "Incident Description" fields. Limitations: The data from the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Keyword searches may misidentify some incident reports that do not contain PFAS. This dataset should also not be considered to be exhaustive of all PFAS spills/release incidents.

Government Publication Date: Apr 15, 2023

PFAS NPDES Discharge Monitoring: PFAS NPDES

This list of National Pollutant Discharge Elimination System (NPDES) permitted facilities with required monitoring for Per- and Polyfluoroalkyl (PFAS) Substances is made available via the U.S. Environmental Protection Agency (EPA)'s PFAS Analytic Tools. Any point-source wastewater discharger to waters of the United States must have a NPDES permit, which defines a set of parameters for pollutants and monitoring to ensure that the discharge does not degrade water quality or impair human health. This list includes NPDES permitted facilities associated with permits that monitor for Per- and Polyfluoroalkyl Substances (PFAS), limited to the years 2007 - present. EPA further advises the following regarding these data: currently, fewer than half of states have required PFAS monitoring for at least one of their permittees, and fewer states have established PFAS effluent limits for permittees. For states that may have required monitoring, some reporting and data transfer issues may exist on a state-by-state basis.

Government Publication Date: Feb 19, 2023

Perfluorinated Alkyl Substances (PFAS) from Toxic Release Inventory: PFAS TRI

List of Toxics Release Inventory (TRI) facilities at which the reported chemical is a per- or polyfluoroalkyl (PFAS) substance included in the U.S. Environmental Protection Agency's (EPA) consolidated PFAS Master List of PFAS Substances. Encompasses Toxics Release Inventory records included in the EPA PFAS Analytic Tools. The EPA's TRI database currently tracks information on disposal or releases of 770 individually listed toxic chemicals and 33 chemical categories from thousands of U.S. facilities and details about how facilities manage those chemicals through recycling, energy recovery, and treatment.

Government Publication Date: Oct 19, 2022

Perfluorinated Alkyl Substances (PFAS) Water Quality: PFAS WATER

The Water Quality Portal (WQP) is a cooperative service sponsored by the United States Geological Survey (USGS), the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC). This listing includes records from the Water Quality Portal where the characteristic (environmental measurement) is in the Environmental Protection Agency (EPA)'s consolidated Master List of PFAS Substances.

Government Publication Date: Jul 20, 2020

PFAS TSCA Manufacture and Import Facilities: PFAS TSCA

The U.S. Environmental Protection Agency (EPA) issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. This list is specific only to TSCA Manufacture and Import Facilities with reported per- and poly-fluoroalkyl (PFAS) substances. Data file is sourced from EPA's PFAS Analytic Tools TSCA dataset which includes CDR/Inventory Update Reporting data from 1998 up to 2020. Disclaimer: This data file includes production and importation data for chemicals identified in EPA's CompTox Chemicals Dashboard list of PFAS without explicit structures and list of PFAS structures in DSSTox. Note that some regulations have specific chemical structure requirements that define PFAS differently than the lists in EPA's CompTox Chemicals Dashboard. Reporting information on manufactured or imported chemical substance amounts should not be compared between facilities, as some companies claim Chemical Data Reporting Rule data fields for PFAS information as Confidential Business Information.

Government Publication Date: Jan 5, 2023

PFAS Waste Transfers from RCRA e-Manifest : PFAS E-MANIFEST

This Per- and Poly-Fluoroalkyl Substances (PFAS) Waste Transfers dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. Every shipment of hazardous waste in the U.S. must be accompanied by a shipment manifest, which is a critical component of the cradle-to-grave tracking of wastes mandated by the Resource Conservation and Recovery Act (RCRA). According to the EPA, currently no Federal Waste Code exists for any PFAS compounds. To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: • PFAS • PFOA • PFOS • PERFL • AFFF • GENX • GEN-X (plus the Vermont state-specific waste codes). Limitations: Amount or concentration of PFAS being transferred cannot be determined from the manifest information. Keyword searches may misidentify some manifest records that do not contain PFAS. This dataset should also not be considered to be exhaustive of all PFAS waste transfers.

Government Publication Date: Apr 9, 2023

PFAS Industry Sectors: PFAS IND

This Per- and Poly-Fluoroalkyl Substances (PFAS) Industry Sectors dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. The EPA developed the dataset from various sources that show which industries may be handling PFAS including: EPA's Enforcement and Compliance History Online (ECHO) records restricted to potential PFAS-handling industry sectors; ECHO records for Fire Training Sites identified where fire-fighting foam may have been used in training exercises; and 14 CFR Part 139 Airports compiled from historic and current records from the FAA Airport Data and Information Portal. Since July 2006, all certificated Part 139 Airports are required to have fire-fighting foam onsite that meet certain military specifications, which to date have been fluorinated (Aqueous Film Forming Foam). Limitations: Inclusion in this dataset does not indicate that PFAS are being manufactured, processed, used, or released by the facility. Listed facilities potentially handle PFAS based on their industrial profile, but are unconfirmed by the EPA. Keyword searches in ECHO for Fire Training sites may misidentify some facilities and should not be considered to be an exhaustive list of fire training facilities in the U.S.

Government Publication Date: Apr 16, 2023

Hazardous Materials Information Reporting System: HMIRS

US DOT - Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Incidents Reports Database taken from Hazmat Intelligence Portal, U.S. Department of Transportation.

Government Publication Date: Sep 1, 2020

National Clandestine Drug Labs: NCDL

The U.S. Department of Justice ("the Department"), Drug Enforcement Administration (DEA), provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.

Government Publication Date: Feb 8, 2023

Toxic Substances Control Act: TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.
The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI).

Government Publication Date: Apr 11, 2019

Hist TSCA: HIST TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.
The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.

Government Publication Date: Dec 31, 2006

FTTS Administrative Case Listing: FTTS ADMIN

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

FTTS Inspection Case Listing: FTTS INSP

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

Potentially Responsible Parties List: PRP

Early in the site cleanup process, the U.S. Environmental Protection Agency (EPA) conducts a search to find the Potentially Responsible Parties (PRPs). The EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site. This listing contains PRPs, Noticed Parties, at sites in the EPA's Superfund Enterprise Management System (SEMS).

Government Publication Date: Jan 25, 2023

State Coalition for Remediation of Drycleaners Listing: SCRD DRYCLEANER

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin. Since 2017, the SCRD no longer maintains this data, refer to applicable state source data where available.

Government Publication Date: Nov 08, 2017

Integrated Compliance Information System (ICIS): ICIS

The U.S. Environmental Protection Agency's Enforcement and Compliance History Online system incorporates data from the Integrated Compliance Information System - National Pollutant Discharge Elimination System (ICIS-NPDES). ICIS-NPDES is an information management system maintained by the Office of Compliance to track permit compliance and enforcement status of facilities regulated by the NPDES under the Clean Water Act. This data includes permit, inspection, violation and enforcement action information for applicable ICIS records.

Government Publication Date: Oct 15, 2022

Drycleaner Facilities: FED DRYCLEANERS

A list of drycleaner facilities from Enforcement and Compliance History Online (ECHO) data as made available by the U.S. Environmental Protection Agency (EPA), sourced from the ECHO Exporter file. The EPA tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

Government Publication Date: Dec 11, 2022

Delisted Drycleaner Facilities: DELISTED FED DRY

List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).

Government Publication Date: Dec 11, 2022

Formerly Used Defense Sites: FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DOD) is responsible for an environmental restoration. The FUDS Annual Report to Congress (ARC) is published by the U.S. Army Corps of Engineers (USACE). This data is compiled from the USACE's Geospatial FUDS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) FUDS dataset.

Government Publication Date: Jul 12, 2022

FUDS Munitions Response Sites: FUDS MRS

Boundaries of Munitions Response Sites (MRS), published with the Formerly Used Defense Sites (FUDS) Annual Report to Congress (ARC) by the U.S. Army Corps of Engineers (USACE). An MRS is a discrete location within a Munitions response area (MRA) that is known to require a munitions response. An MRA means any area on a defense site that is known or suspected to contain unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC). This data is compiled from the USACE's Geospatial MRS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) MRS dataset.

Government Publication Date: Jul 12, 2022

Former Military Nike Missile Sites: FORMER NIKE

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

Government Publication Date: Dec 2, 1984

PHMSA Pipeline Safety Flagged Incidents: PIPELINE INCIDENT

A list of flagged pipeline incidents made available by the U.S. Department of Transportation (US DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA regulations require incident and accident reports for five different pipeline system types.

Government Publication Date: Mar 31, 2021

Material Licensing Tracking System (MLTS): MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

Government Publication Date: May 11, 2021

Historic Material Licensing Tracking System (MLTS) sites: HIST MLTS

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

Government Publication Date: Jan 31, 2010

Mines Master Index File: MINES

The Master Index File (MIF) is provided by the United State Department of Labor, Mine Safety and Health Administration (MSHA). This file, which was originally created in the 1970's, contained many Mine-IDs that were invalid. MSHA removes invalid IDs from the MIF upon discovery. MSHA applicable data includes the following: all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970; mine addresses for all mines in the database except for Abandoned mines prior to 1998 from MSHA's legacy system (addresses may or may not correspond with the physical location of the mine itself); violations that have been assessed penalties as a result of MSHA inspections beginning on 1/1/2000; and violations issued as a result of MSHA inspections conducted beginning on 1/1/2000.

Government Publication Date: Nov 7, 2022

Surface Mining Control and Reclamation Act Sites: SMCRA

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by the Office of Surface Mining Reclamation and Enforcement (OSMRE) to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of Abandoned Mine Land (AML) impacts, as well as information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Government Publication Date: Aug 18, 2022

Mineral Resource Data System: MRDS

The Mineral Resource Data System (MRDS) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS. The USGS has ceased systematic updates of the MRDS database with their focus more recently on deposits of critical minerals while providing a well-documented baseline of historical mine locations from USGS topographic maps.

Government Publication Date: Mar 15, 2016

DOE Legacy Management Sites: LM SITES

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) currently manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The LM manages sites with diverse regulatory drivers (statutes or programs that direct cleanup and management requirements at DOE sites) or as part of internal DOE or congressionally-recognized programs, such as but not limited to: Formerly Utilized Sites Remedial Action Program (FUSRAP), Uranium Mill Tailings Radiation Control Act (UMTRCA Title I, Tile II), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Decontamination and Decommissioning (D&D), Nuclear Waste Policy Act (NWPA). This site listing includes data exported from the DOE Office of LM's Geospatial Environmental Mapping System (GEMS). GEMS Data disclaimer: The DOE Office of LM makes no representation or warranty, expressed or implied, regarding the use, accuracy, availability, or completeness of the data presented herein.

Government Publication Date: Dec 1, 2022

Alternative Fueling Stations: ALT FUELS

This list of alternative fueling stations is sourced from the Alternative Fuels Data Center (AFDC). The U.S. Department of Energy's Office of Energy Efficiency & Renewable Energy launched the AFDC in 1991 as a repository for alternative fuel vehicle performance data, which provides a wealth of information and data on alternative and renewable fuels, advanced vehicles, fuel-saving strategies, and emerging transportation technologies. The data includes Biodiesel (B20 and above), Compressed Natural Gas (CNG), Electric, Ethanol (E85), Hydrogen, Liquefied Natural Gas (LNG), Propane (LPG), and Renewable Diesel (R20 and above) fuel type locations.

Government Publication Date: Mar 23, 2023

Superfunds Consent Decrees: CONSENT DECREES

This list of Superfund consent decrees is provided by the Department of Justice, Environment & Natural Resources Division (ENRD) through a Freedom of Information Act (FOIA) applicable file. This listing includes Consent Decrees for CERCLA or Superfund Sites filed and/or as proposed within the ENRD's Case Management System (CMS) since 2010. CMS may not reflect the latest developments in a case nor can the agency guarantee the accuracy of the data. ENRD Disclaimer: Congress excluded three discrete categories of law enforcement and national security records from the requirements of the FOIA; response is limited to those records that are subject to the requirements of the FOIA; however, this should not be taken as an indication that excluded records do, or do not, exist.

Government Publication Date: Apr 19, 2023

Air Facility System: AFS

This EPA retired Air Facility System (AFS) dataset contains emissions, compliance, and enforcement data on stationary sources of air pollution. Regulated sources cover a wide spectrum; from large industrial facilities to relatively small operations such as dry cleaners. AFS does not contain data on facilities that are solely asbestos demolition and/or renovation contractors, or landfills. ECHO Clean Air Act data from AFS are frozen and reflect data as of October 17, 2014; the EPA retired this system for Clean Air Act stationary sources and transitioned to ICIS-Air.

Government Publication Date: Oct 17, 2014

Registered Pesticide Establishments: SSTS

List of active EPA-registered foreign and domestic pesticide-producing and device-producing establishments based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that facilities producing pesticides, active ingredients, or devices be registered. The list of establishments is made available by the EPA.

Government Publication Date: Mar 30, 2022

Polychlorinated Biphenyl (PCB) Transformers: PCBT

Locations of Transformers Containing Polychlorinated Biphenyls (PCBs) registered with the United States Environmental Protection Agency. PCB transformer owners must register their transformer(s) with EPA. Although not required, PCB transformer owners who have removed and properly disposed of a registered PCB transformer may notify EPA to have their PCB transformer de-registered. Data made available by EPA.

Government Publication Date: Oct 15, 2019

Polychlorinated Biphenyl (PCB) Notifiers: PCB

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: Nov 3, 2022

State

PFAS Sampling Locations: PFAS SAMPLING

This data is sourced from the State Water Board's GeoTracker Per- and Polyfluoroalkyl Substances (PFAS) Map tool which contains individual sampling points (i.e., soil boring, groundwater monitoring well, drinking water well for municipal drinking water systems, etc.) or a site location with PFAS analytical data. Includes analytical results that are finalized and submitted electronically by the Responsible Parties via GeoTracker's Electronic Submittal of Information Portal, and after it's accepted by a Regional Water Quality Control Board.

Government Publication Date: Mar 14, 2023

Dry Cleaning Facilities: DRYCLEANERS

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial, linen supply, commercial laundry, dry cleaning and pressing machines - Coin Operated Laundry and Dry Cleaning. This is provided by the Department of Toxic Substance Control.

Government Publication Date: Dec 20, 2021

Delisted Drycleaners: DELISTED DRYCLEANERS

Sites removed from the list of drycleaner related facilities that have EPA ID numbers, made available by the California Department of Toxic Substance Control.

Government Publication Date: Jan 31, 2022

Non-Toxic Dry Cleaning Incentive Program: DRYC GRANT

A list of grant recipients of the Non-Toxic Dry Cleaning Incentive Program made available by the California Air Resources Board (CARB). The program provides grants to eligible dry cleaning businesses to assist them in transitioning away from PERC machines to alternative non-toxic and non-smog forming technologies.

Government Publication Date: Jan 31, 2022

PFAS GeoTracker Cleanup Sites: PFAS GT CLEANUPS

A list of applicable cleanup sites from the State Water Resources Control Board's (SWRCB) GeoTracker data management system where one or more of the potential contaminants of concern are identified in the PFAS Master List of PFAS Substances made available by the Environmental Protection Agency (US EPA).

Government Publication Date: Feb 27, 2023

PFOA/PFOS Groundwater: PFAS GW

A list of water wells from the Groundwater Ambient Monitoring and Assessment Program (GAMA) Groundwater Information System with the groundwater chemical perfluorooctanoic acid (PFOA) (NL = 0.014 UG/L) or perfluorooctanoic sulfonate (PFOS) (NL = 0.013 UG/L). The GAMA Groundwater Information System search is made available by California Water Boards.

Government Publication Date: Apr 30, 2023

PFAS Investigations: PFAS INVEST

This list of potential Per- and Polyfluoroalkyl Substance (PFAS) sites is compiled from the California State Water Resources Control Board's (SWRCB) PFAS Investigations Map tool. The SWRCB issued investigative orders, per California Water Code (CWC) Section 13267 and/or 13383, to these sites. This does not mean that PFAS has been produced, used, or discharged at these sites. Orders were also issued to the public water systems to sample wells in the vicinity of these locations. The data includes locations for airports, landfills, suspected chrome plating facilities, publicly owned treatment works (aka wastewater treatment plants), bulk fuel terminals, refineries, and military facilities that have potential sources of PFAS.

Government Publication Date: Nov 28, 2022

Hazardous Waste and Substances Site List - Site Cleanup: HWSS CLEANUP

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. This list is published by California Department of Toxic Substance Control.

Government Publication Date: Mar 15, 2023

Toxic Pit Cleanup Act Sites: TOXIC PITS

The Toxic Pits Cleanup Act (TPCA) list identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. This list was maintained by the State Water Resources Control Board (SWRCB), is not longer maintained, and updates are not planned.

Government Publication Date: Jul 1, 1995

List of Hazardous Waste Facilities Subject to Corrective Action: DTSC HWF

This is a list of hazardous waste facilities identified in Health and Safety Code (HSC) § 25187.5. These facilities are those where Department of Toxic Substances Control (DTSC) has taken or contracted for corrective action because a facility owner/operator has failed to comply with a date for taking corrective action in an order issued under HSC § 25187, or because DTSC determined that immediate corrective action was necessary to abate an imminent or substantial endangerment.

Government Publication Date: Jul 18, 2016

EnviroStor Inspection, Compliance, and Enforcement: INSP COMP ENF

A list of permitted facilities with inspections and enforcements tracked by the California Department of Toxic Substance Control's (DTSC) EnviroStor data management system.

Government Publication Date: Mar 16, 2023

School Property Evaluation Program Sites: SCH

A list of sites registered with The Department of Toxic Substances Control (DTSC) School Property Evaluation and Cleanup (SPEC) Division. SPEC is responsible for assessing, investigating and cleaning up proposed school sites. The Division ensures that selected properties are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy the new school.

Government Publication Date: Feb 6, 2023

California Hazardous Material Incident Report System (CHMIRS): CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS). This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Nov 18, 2022

Historical California Hazardous Material Incident Report System (CHMIRS): HIST CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS) prior to 1993. This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Jan 1, 1993

Handlers from Hazardous Waste Manifest Data: HAZNET

A list of handlers not otherwise classified as Treatment, Storage, Disposal facilities (TSDF) or generators from the facilities and manifests data made available by the California Department of Toxic Substances Control (DTSC) in their Hazardous Waste Tracking System (HWTS).

Government Publication Date: Oct 24, 2016

Generators from Hazardous Waste Manifest Data: HAZ GEN

List of handlers listed as having generated waste from the facilities and manifests data made available by the California Department of Toxic Substances Control (DTSC) in their Hazardous Waste Tracking System (HWTS).

Government Publication Date: Dec 31, 2017

TSDF from Hazardous Waste Manifest Data: HAZ TSD

List of Treatment, Storage, and Disposal Facilities (TSDFs) from the facilities and manifests data made available by the California Department of Toxic Substances Control (DTSC) in their Hazardous Waste Tracking System (HWTS).

Government Publication Date: Dec 31, 2017

Historical Hazardous Waste Manifest Data: HIST MANIFEST

A list of historic hazardous waste manifests received by the Department of Toxic Substances Control (DTSC) from year the 1980 to 1992. The volume of manifests is typically 900,000 - 1,000,000 annually, representing approximately 450,000 - 500,000 shipments.

Government Publication Date: Dec 31, 1992

DTSC Registered Hazardous Waste Transporters: HW TRANSPORT

The California Department of Toxic Substances Control (DTSC) maintains this list of Registered Hazardous Waste Transporters.

Government Publication Date: Jun 27, 2023

Registered Waste Tire Haulers: WASTE TIRE

This list of registered waste tire haulers is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Jun 2, 2023

California Medical Waste Management Program Facility List: MEDICAL WASTE

This list of Medical Waste Management Program Facilities is maintained by the California Department of Public Health. The Medical Waste Management Program (MWMP) regulates the generation, handling, storage, treatment, and disposal of medical waste by providing oversight for the implementation of the Medical Waste Management Act (MWMA). The MWMP permits and inspects all medical waste off-site treatment facilities, medical waste transporters, and medical waste transfer stations. This list contains transporters, treatment, and transfer facilities.

Government Publication Date: Apr 19, 2023

Historical Cortese List: HIST CORTESE

List of sites which were once included on the Cortese list. The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements for providing information about the location of hazardous sites.

Government Publication Date: Nov 13, 2008

Cease and Desist Orders and Cleanup and Abatement Orders: CDO/CAO

The California Environment Protection Agency "Cortese List" of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO). This list contains many CDOs and CAOs that do NOT concern the discharge of wastes that are hazardous materials. Many of the listed orders concern, as examples, discharges of domestic sewage, food processing wastes, or sediment that do not contain hazardous materials, but the Water Boards' database does not distinguish between these types of orders.

Government Publication Date: Dec 6, 2021

California Environmental Reporting System (CERS) Hazardous Waste Sites: CERS HAZ

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Apr 12, 2023

Delisted Environmental Reporting System (CERS) Hazardous Waste Sites: DELISTED HAZ

This database contains a list of sites that were removed from the California Environmental Protection Agency (CalEPA) in the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator.

Government Publication Date: Nov 29, 2018

Sites in GeoTracker: GEOTRACKER

GeoTracker is the State Water Resource Control Boards' data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. This is a list of sites in GeoTracker that aren't otherwise categorized as LUST, Land Disposal Sites (LDS), Cleanup Sites, or sites having Waste Discharge Requirements (WDR). This listing includes program types such as Underground Injection Control (UIC), Confined Animal Facilities (CAF), Irrigated Lands Regulatory Program, plans, and non-case information.

Government Publication Date: Feb 27, 2023

Mines Listing: MINE

This list includes mine site locations extracted from the Mines Online database, maintained by the California Department of Conservation. Mines Online (MOL) is an interactive web map designed with GIS features that provide information such as the mine name, mine status, commodity sold, location, and other mine specific data. Please note: Mine location information is provided to assist experts in determining the location of mine operators in accordance with California Civil Code section 1103.4 and reflects information reported by mine operators in annual reports provided under Public Resources Code section 2207. While the Division of Mine Reclamation (DMR) attempts to populate MOL with accurate location information, the DMR cannot guarantee the accuracy of operator reported location information.

Government Publication Date: Dec 19, 2022

Recorded Environmental Cleanup Liens: LIEN

The California Department of Toxic Substance Control (DTSC) maintains this list of liens placed upon real properties. A lien is utilized by the DTSC to obtain reimbursement from responsible parties for costs associated with the remediation of contaminated properties.

Government Publication Date: Aug 3, 2022

Waste Discharge Requirements: WASTE DISCHG

List of sites in California State Water Resources Control Board (SWRCB) Waste Discharge Requirements (WDRs) Program in California, made available by the SWRCB via GeoTracker. The WDR program regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Government Publication Date: Feb 27, 2023

Toxic Pollutant Emissions Facilities: EMISSIONS

A list of criteria and toxic pollutant emissions data for facilities in California made available by the California Environmental Protection Agency - Air Resources Board (ARB). Risk data may be based on previous inventory submittals. The toxics data are submitted to the ARB by the local air districts as requirement of the Air Toxics "Hot Spots" Program. This program requires emission inventory updates every four years.

Government Publication Date: Dec 31, 2020

Clandestine Drug Lab Sites: CDL

The Department of Toxic Substances Control (DTSC) maintains a listing of drug lab sites. DTSC is responsible for removal and disposal of hazardous substances discovered by law enforcement officials while investigating illegal/clandestine drug laboratories.

Government Publication Date: Jan 19, 2021

Tribal

No Tribal additional environmental record sources available for this State.

County

San Bernardino County - Medical Waste Facility List: MED WST SANBERN

This list of San Bernardino County medical waste facilities is maintained by the County of San Bernardino Department of Public Health Medical Waste Program. The Medical Waste Program regulates generators of medical waste based on the Medical Waste Management Act. The program inspects medical waste facilities, facilities with on-site medical waste treatment units, and common storage areas annually. This program also investigates complaints regarding mishandling of medical waste and facilities that may be operating without a valid health permit. Some facilities that may generate medical waste include hospitals, skilled nursing facilities, blood banks, and doctors, dental and veterinarian offices.

Government Publication Date: Mar 24, 2023

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

APPENDIX D

EXHIBIT D-1

Historical City Directories

ERIS City Directory Search

as of 07/05/2023

Project Property: Vacant Land - NW Lot of Casa Grande Avenue, Rialto, CA US

Product Description: CD - 2 Street Search

Notes to Client:

ERIS Order No: 23063000242

ADDRESS	YEAR	LISTING	COMMENTS	SOURCE	CITY	COUNTY	STATE
0 KNOX AVE	1996	RANGE NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1990	RANGE NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1987	RANGE NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1982	RANGE NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1977	RANGE NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1974	RANGE NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1971	RANGE NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1965	RANGE NOT LISTED		LUSKEYS	RIALTO	SAN BERNARDINO	CA
	1963	STREET NOT LISTED		GENERAL TELEPHONE O.	RIALTO	SAN BERNARDINO	CA
	1949	STREET NOT LISTED		SAN BERNARDINO DIR C	RIALTO	SAN BERNARDINO	CA
	1942	STREET NOT LISTED		SAN BERNARDINO DIR C	RIALTO	SAN BERNARDINO	CA
6105 KNOX AVE	2001	BOWIE HENRY		HAINES	RIALTO	SAN BERNARDINO	CA
6106 KNOX AVE	2001	CHAPARRO JOSE		HAINES	RIALTO	SAN BERNARDINO	CA
-5600 KNOX AVE	2022	NO LISTING FOUND		DIGITAL BUSINESS DIREC	FONTANA		CA
	2020	NO LISTING FOUND		DIGITAL BUSINESS DIREC	FONTANA		CA
	2016	NO LISTING FOUND		DIGITAL BUSINESS DIREC	FONTANA		CA
	2012	NO LISTING FOUND		DIGITAL BUSINESS DIREC	FONTANA		CA
	2008	NO LISTING FOUND		DIGITAL BUSINESS DIREC	FONTANA		CA
	2003	NO LISTING FOUND		DIGITAL BUSINESS DIREC	FONTANA		CA
0 WALSH LN	2022	NO LISTING FOUND		DIGITAL BUSINESS DIREC	RIALTO		CA
	2020	NO LISTING FOUND		DIGITAL BUSINESS DIREC	RIALTO		CA
	2016	NO LISTING FOUND		DIGITAL BUSINESS DIREC	RIALTO		CA
	2012	NO LISTING FOUND		DIGITAL BUSINESS DIREC	RIALTO		CA
	2008	NO LISTING FOUND		DIGITAL BUSINESS DIREC	RIALTO		CA
	2003	NO LISTING FOUND		DIGITAL BUSINESS DIREC	RIALTO		CA
	2001	STREET NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1996	STREET NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1990	STREET NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1987	STREET NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1982	STREET NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1977	STREET NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1974	STREET NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1971	STREET NOT LISTED		HAINES	RIALTO	SAN BERNARDINO	CA
	1965	STREET NOT LISTED		LUSKEYS	RIALTO	SAN BERNARDINO	CA
	1963	STREET NOT LISTED		GENERAL TELEPHONE O.	RIALTO	SAN BERNARDINO	CA
	1949	STREET NOT LISTED		SAN BERNARDINO DIR C	RIALTO	SAN BERNARDINO	CA
	1942	STREET NOT LISTED		SAN BERNARDINO DIR C	RIALTO	SAN BERNARDINO	CA

APPENDIX D

EXHIBIT D-2

Historical Topographic Maps Compilation

(888) 930-6604
www.geoforward.com

TOPOGRAPHIC MAPS

Project Property:	Vacant Land NW Lot of Casa Grande Avenue Rialto CA None
Project No:	2063-2023[1]
Requested By:	GEO FORWARD
Order No:	23063000242
Date Completed:	July 01, 2023

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

We have searched USGS collections of current topographic maps and historical topographic maps for the project property. Below is a list of maps found for the project property and adjacent area. Maps are from 7.5 and 15 minute topographic map series, if available.

Year	Map Series
2021	7.5
2018	7.5
2015	7.5
1996	7.5
1988	7.5
1980	7.5
1966	7.5
1954	7.5
1941	7.5
1936	7.5
1954	15
1942	15
1901	15
1898	15
1896	15

Topographic Map Symbology for the maps may be available in the following documents:

Pre-1947

Page 223 of 1918 Topographic Instructions

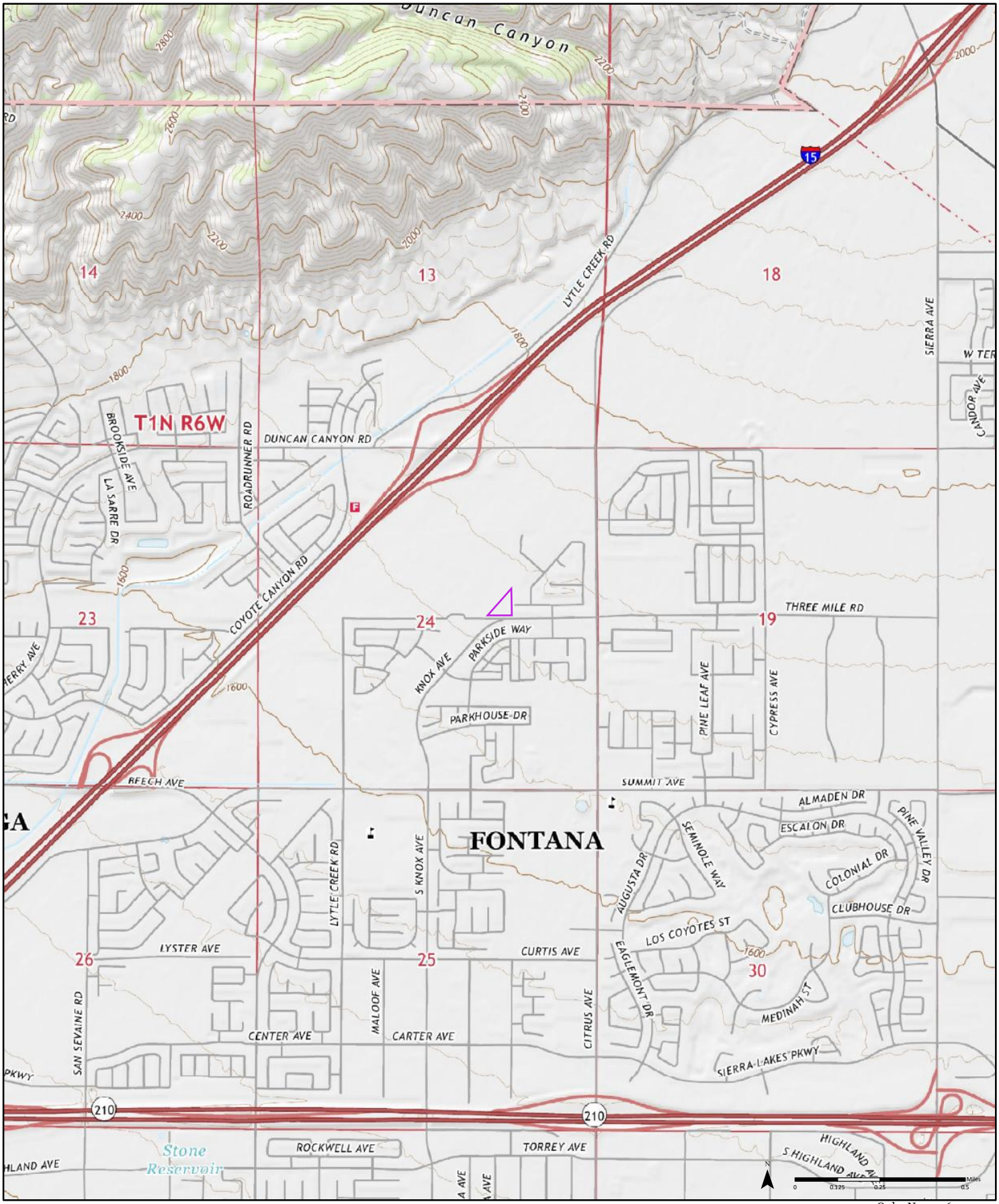
Page 130 of 1928 Topographic Instructions

1947-2009

Topographic Map Symbols

2009-present

US Topo Map Symbols

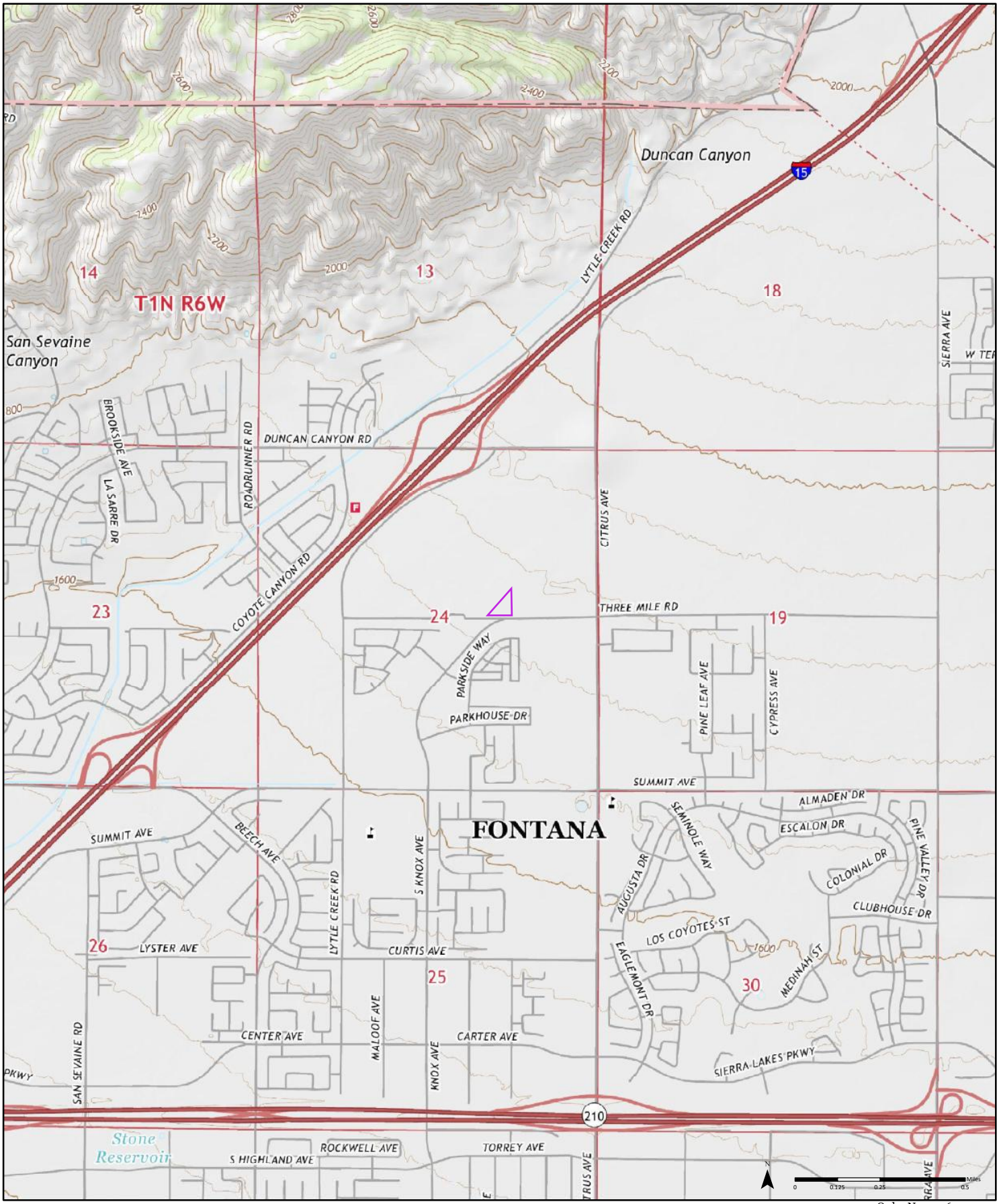


Order No. 23063000242

2021

Available Quadrangle(s): Devore, CA

Source: USGS 7.5 Minute Topographic Map

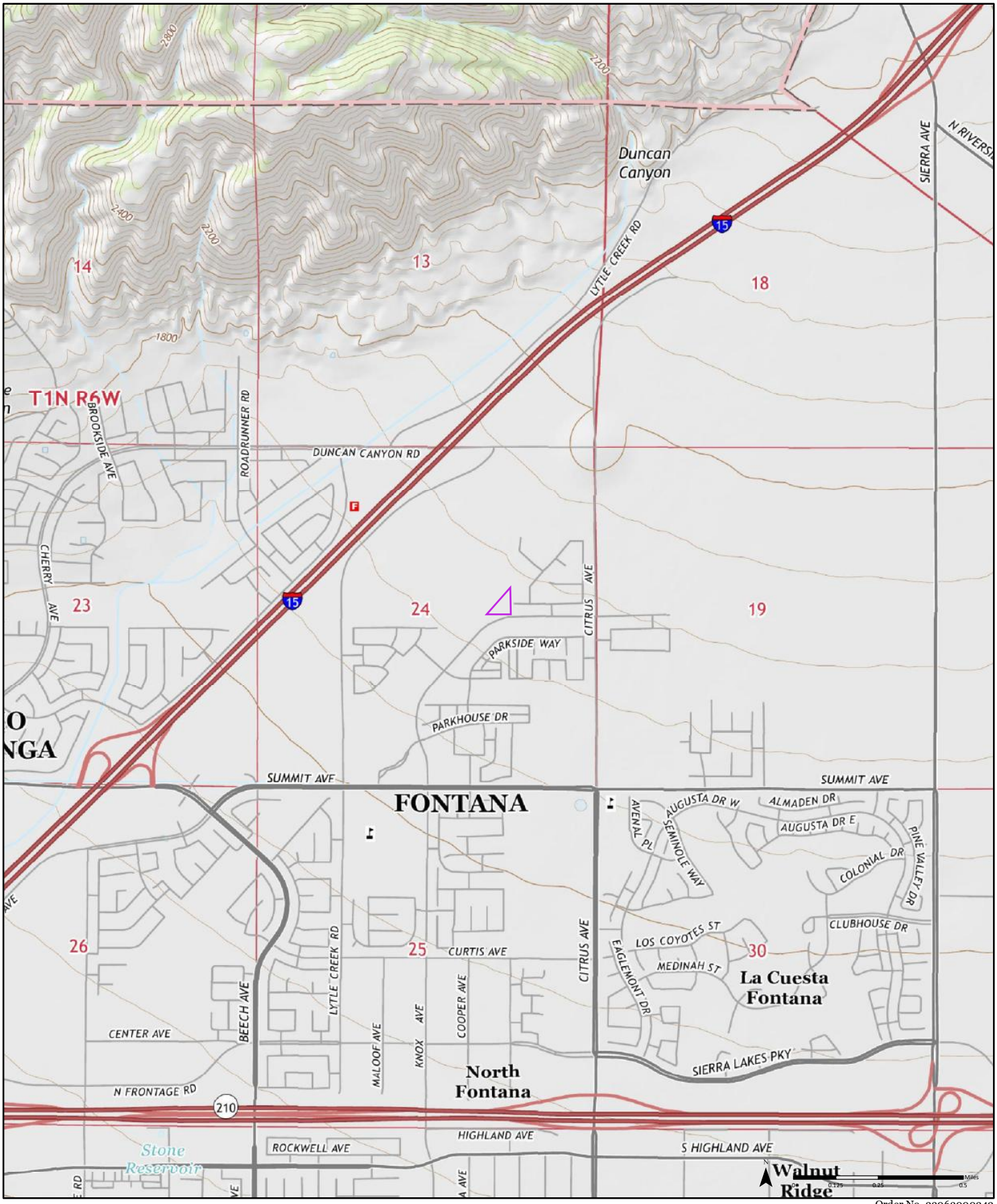


Order No. 23063000242

2018

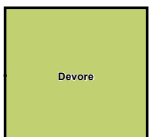
Available Quadrangle(s): Devore, CA

Source: USGS 7.5 Minute Topographic Map



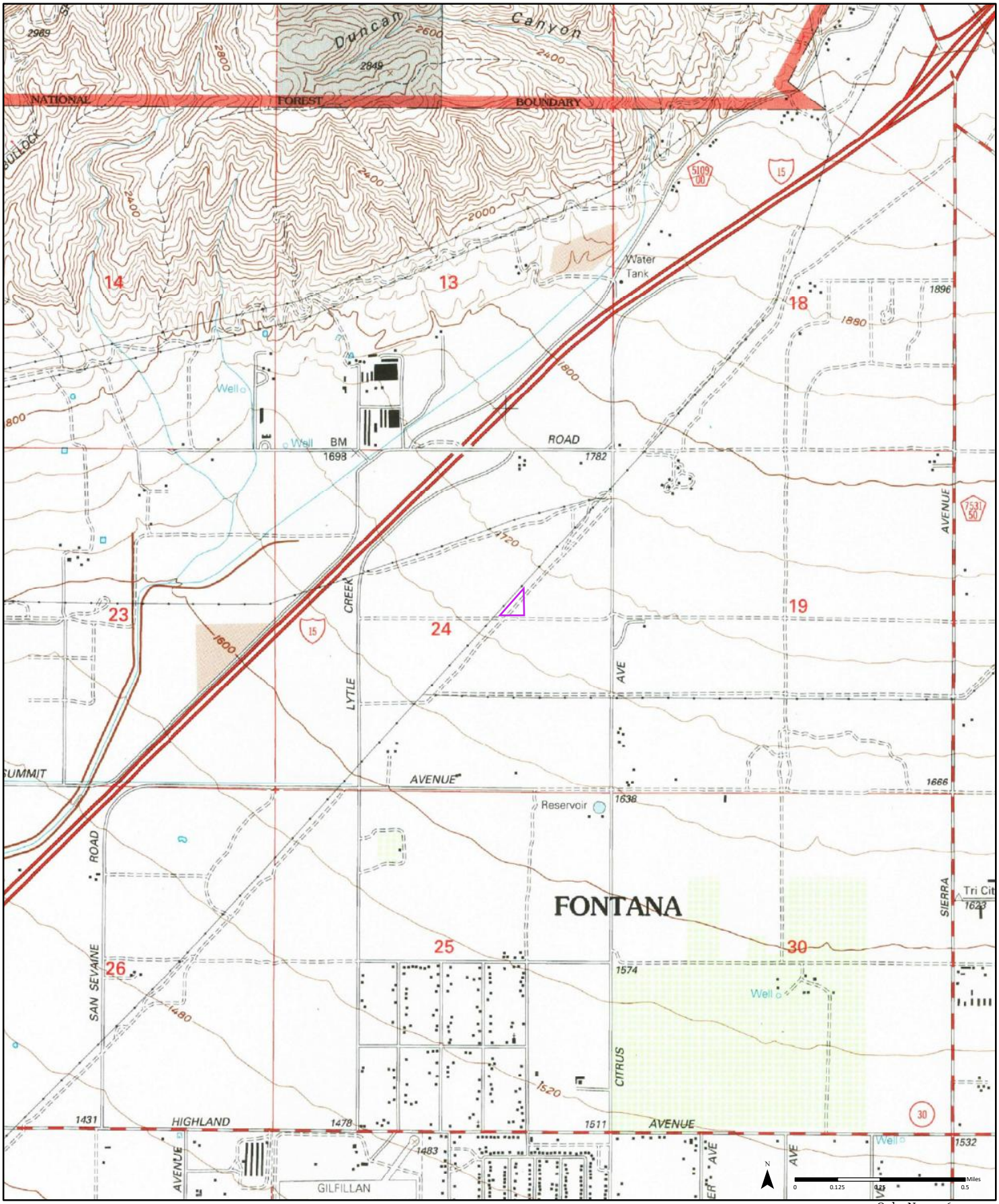
Order No. 23063000242

2015



Available Quadrangle(s): Devore, CA

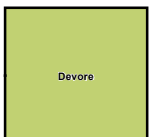
Source: USGS 7.5 Minute Topographic Map



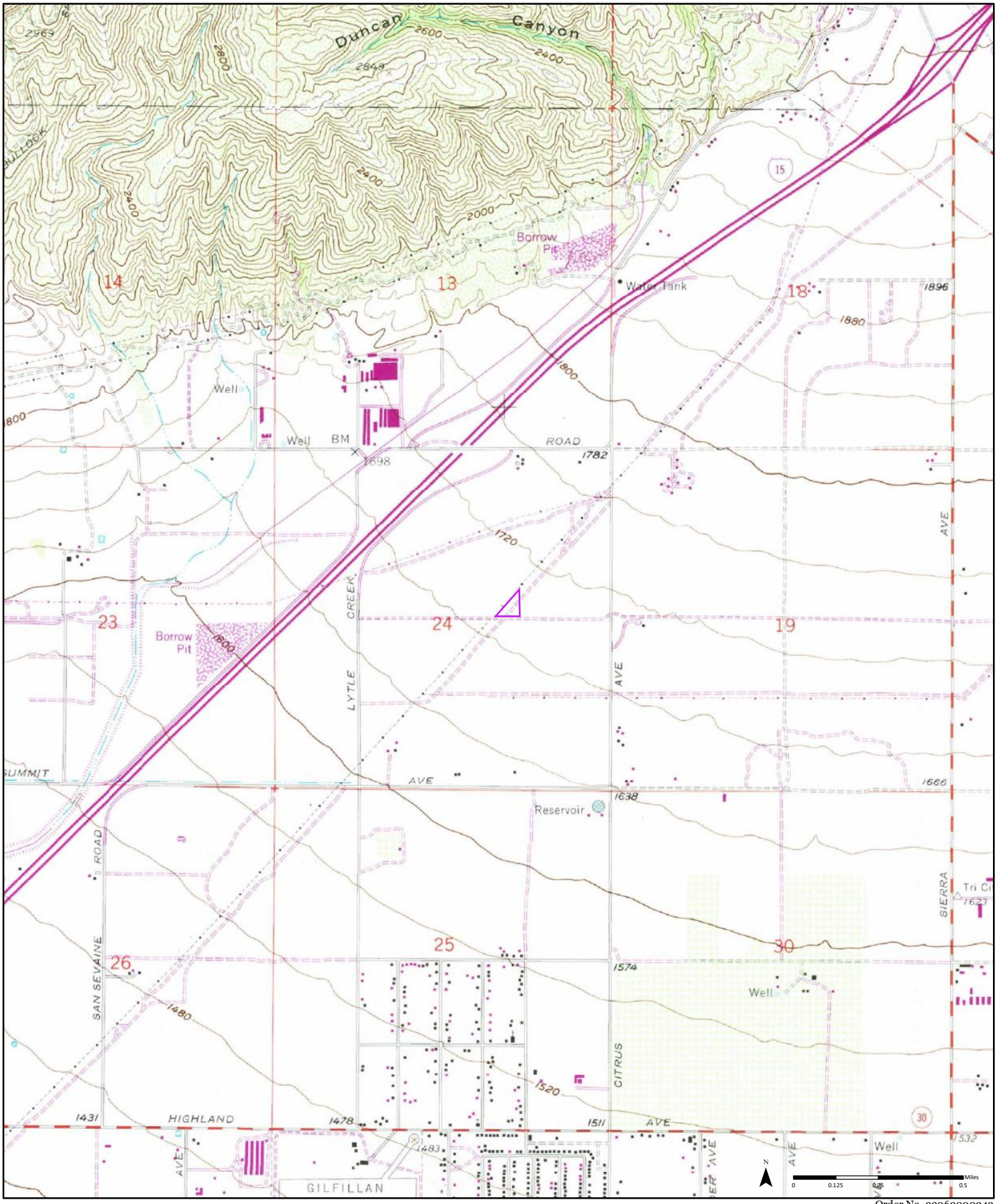
1996 (1-1996)
Aerial Photo Year: 1994

Order No. 23063000242

Available Quadrangle(s): Devore, CA(1-1996)



Source: USGS 7.5 Minute Topographic Map



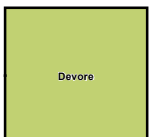
Order No. 23063000242

1988 (1-1988)

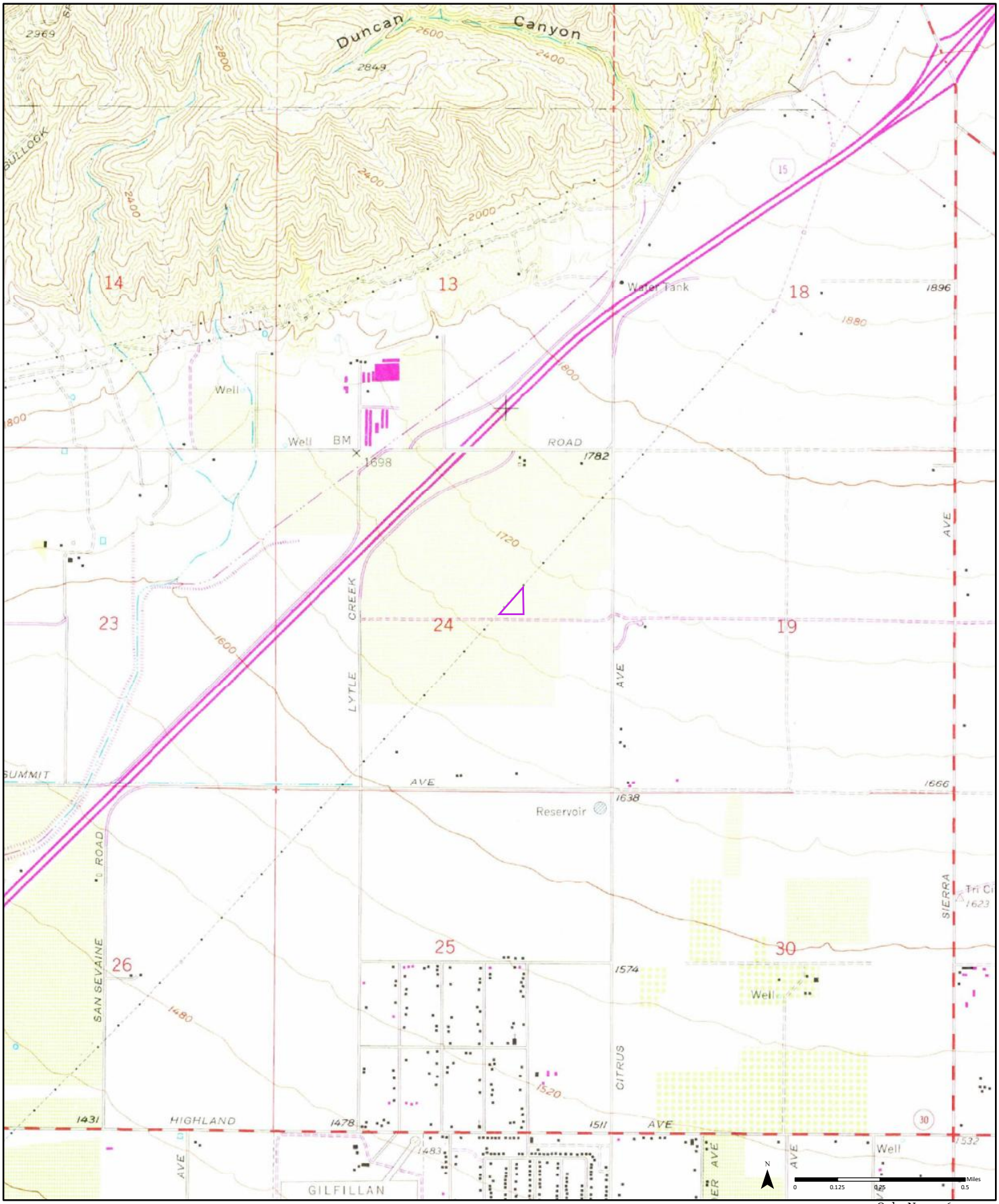
Aerial Photo Year: 1985

Photo Revision Year: 1988

Available Quadrangle(s): Devore, CA(1-1988)



Source: USGS 7.5 Minute Topographic Map

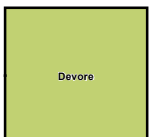


Order No. 23063000242

1980 (1-1980)

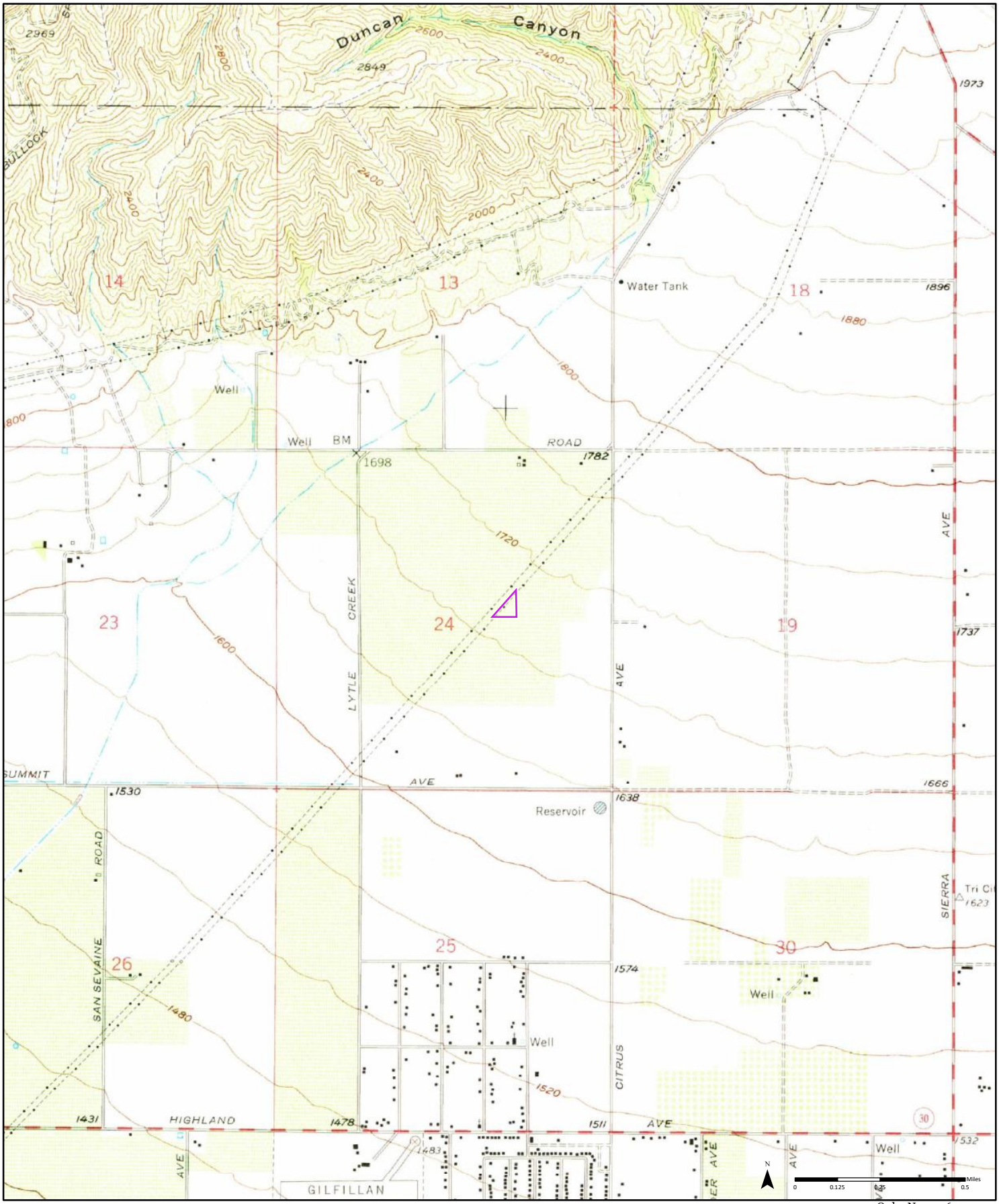
Aerial Photo Year: 1978

Photo Revision Year: 1980



Available Quadrangle(s): Devore, CA(1-1980)

Source: USGS 7.5 Minute Topographic Map



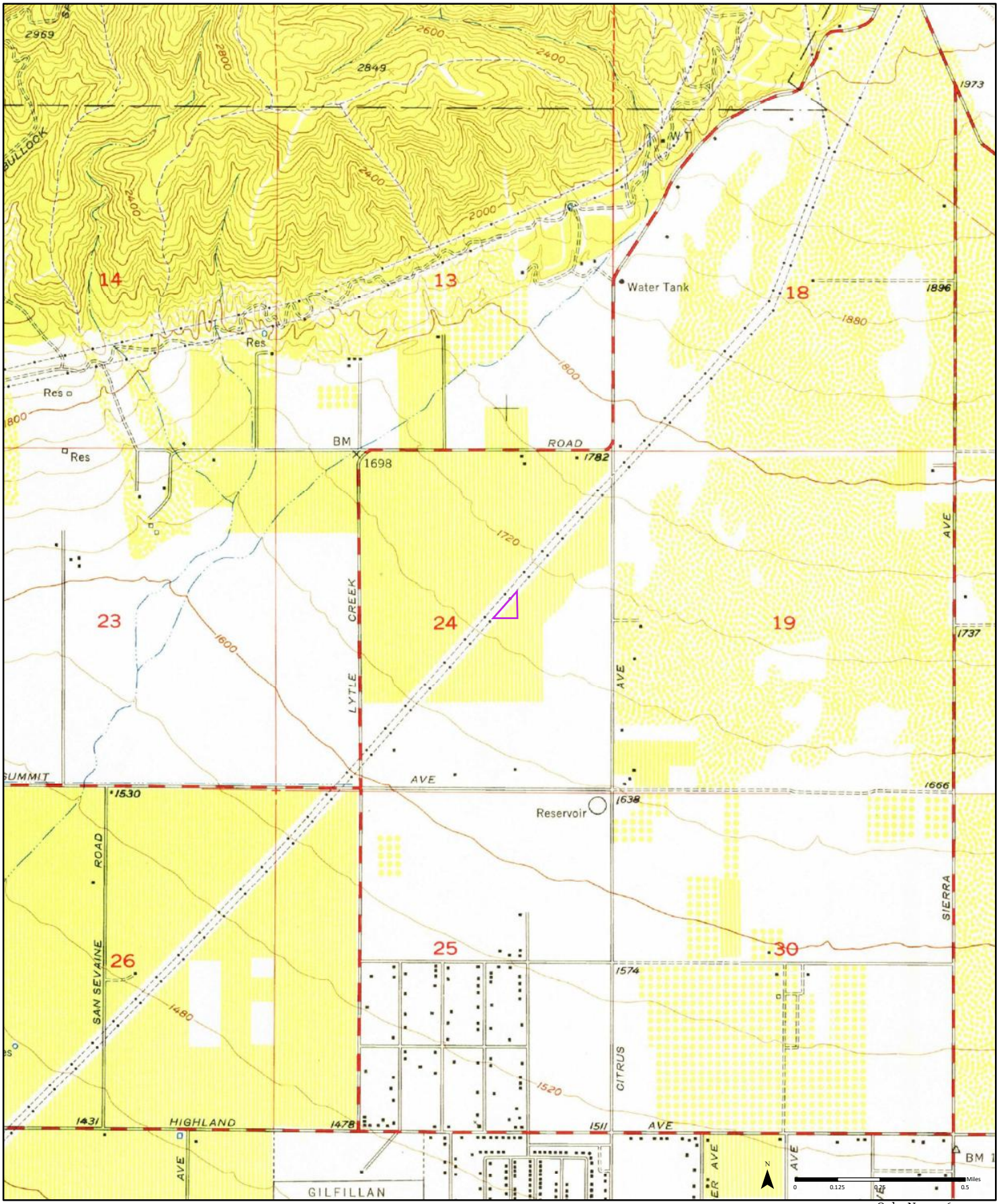
1966 (1-1966)

Aerial Photo Year: 1966

Order No. 23063000242

Available Quadrangle(s): Devore, CA(1-1966)

Source: USGS 7.5 Minute Topographic Map



Order No. 23063000242

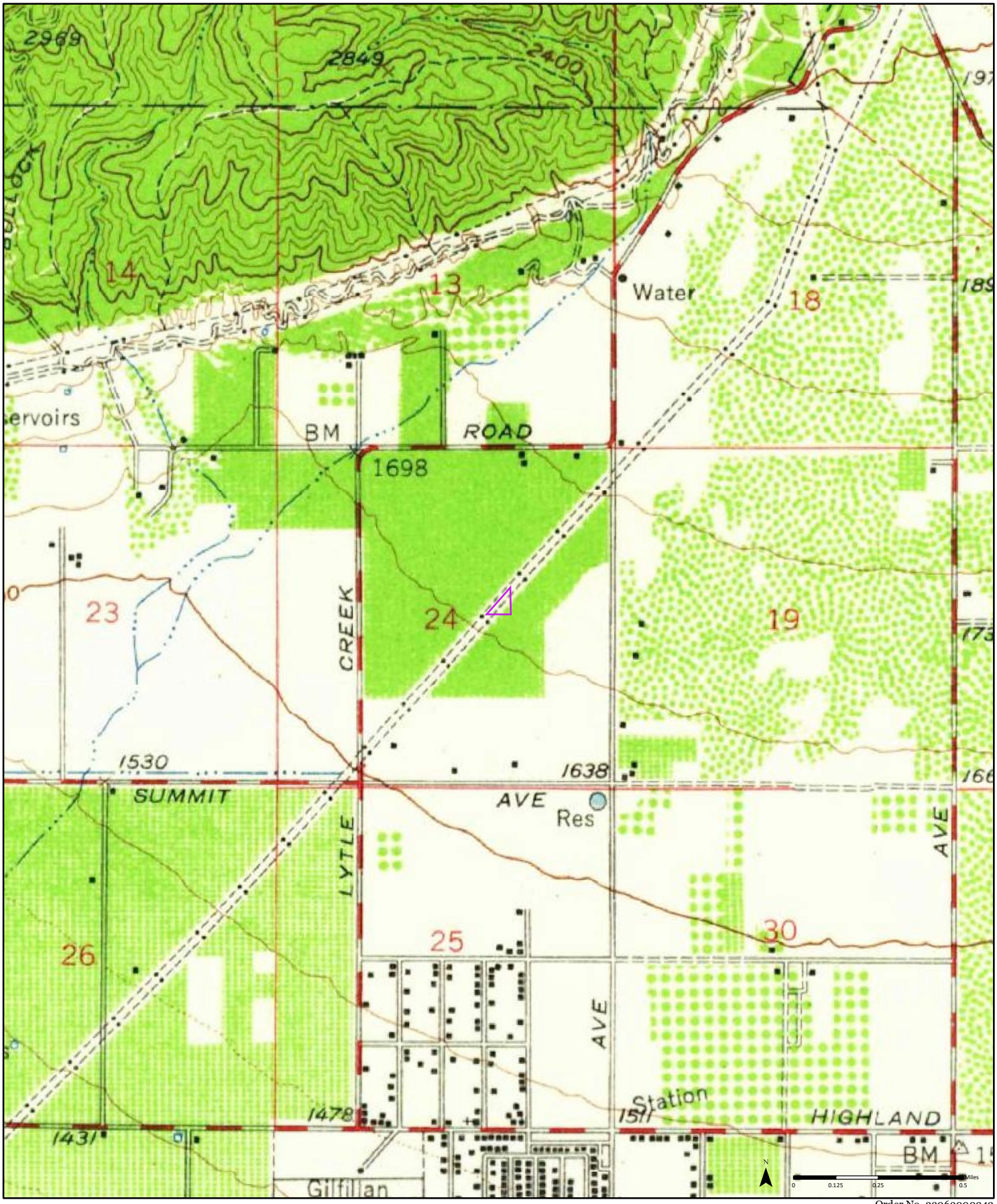
1954

(1-1954)

Aerial Photo Year: 1952

Available Quadrangle(s): Devore, CA(1-1954)

Source: USGS 7.5 Minute Topographic Map

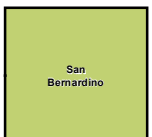


Order No. 23063000242

1954

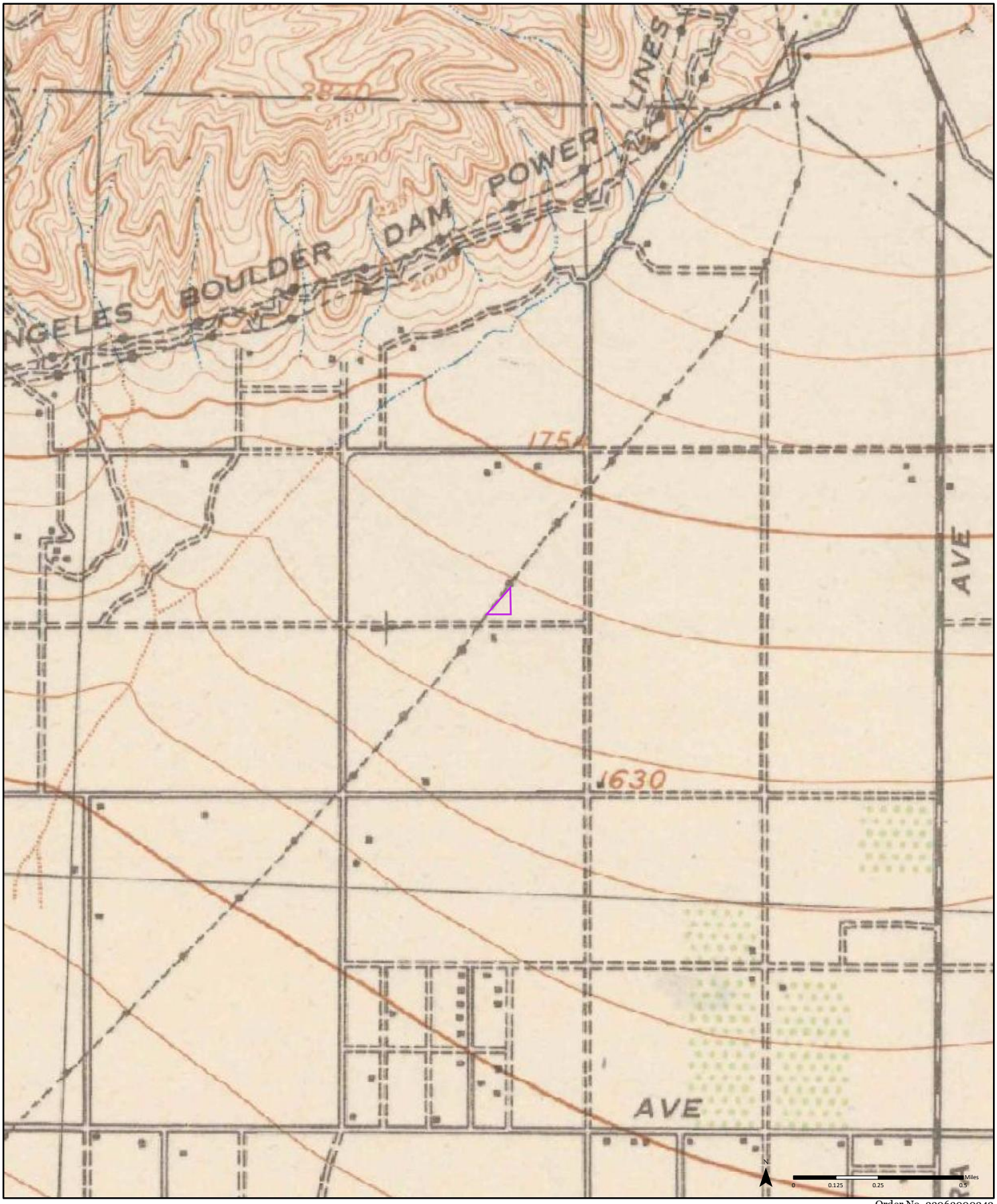
(1-1954)

Aerial Photo Year: 1952



Available Quadrangle(s): San Bernardino, CA(1-1954)

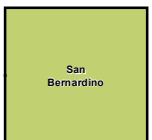
Source: USGS 15 Minute Topographic Map



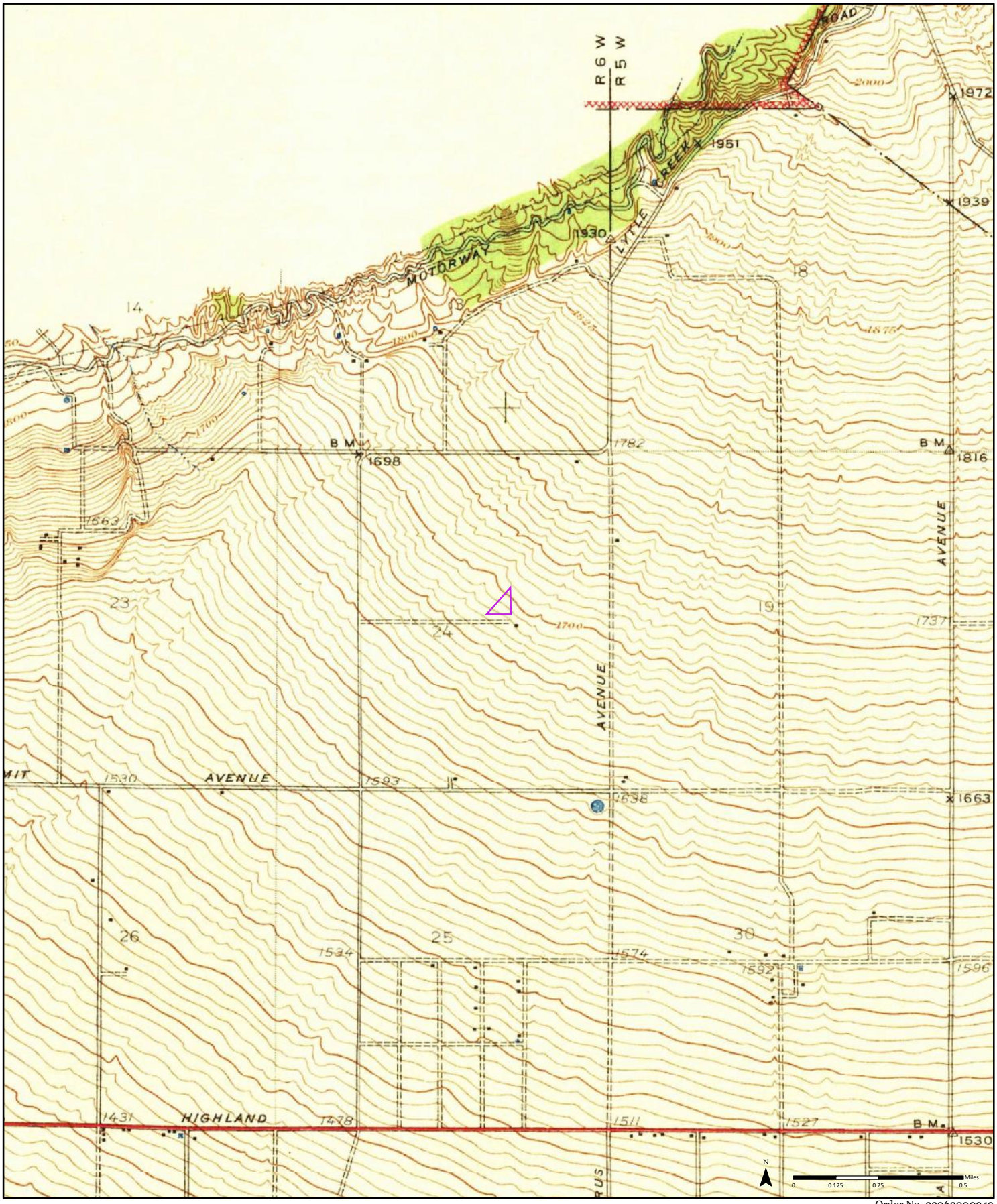
Order No. 23063000242

1942

Available Quadrangle(s): San Bernardino, CA



Source: USGS 15 Minute Topographic Map

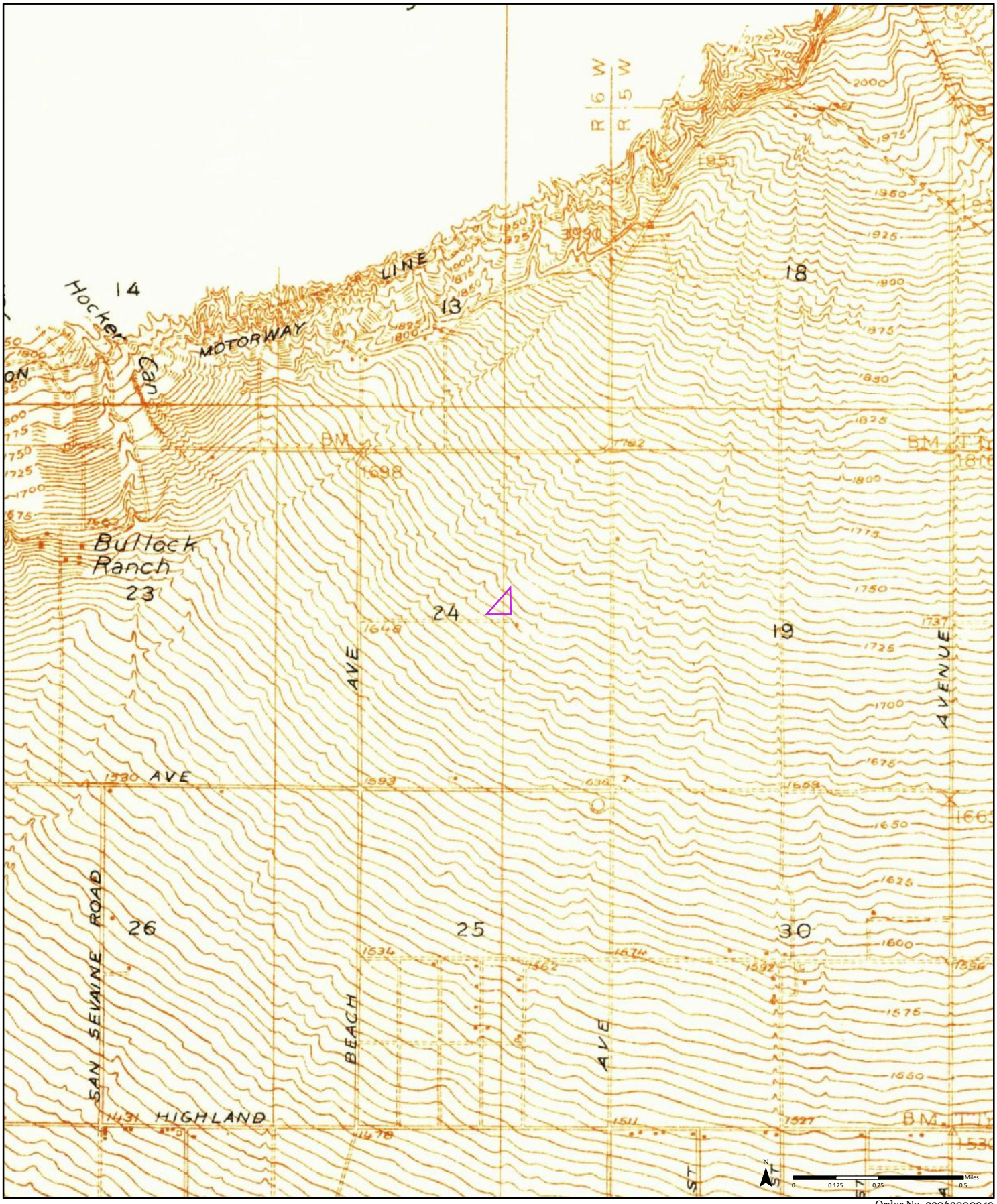


Order No. 23063000242

1941

Available Quadrangle(s): Devore, CA

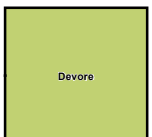
Source: USGS 7.5 Minute Topographic Map



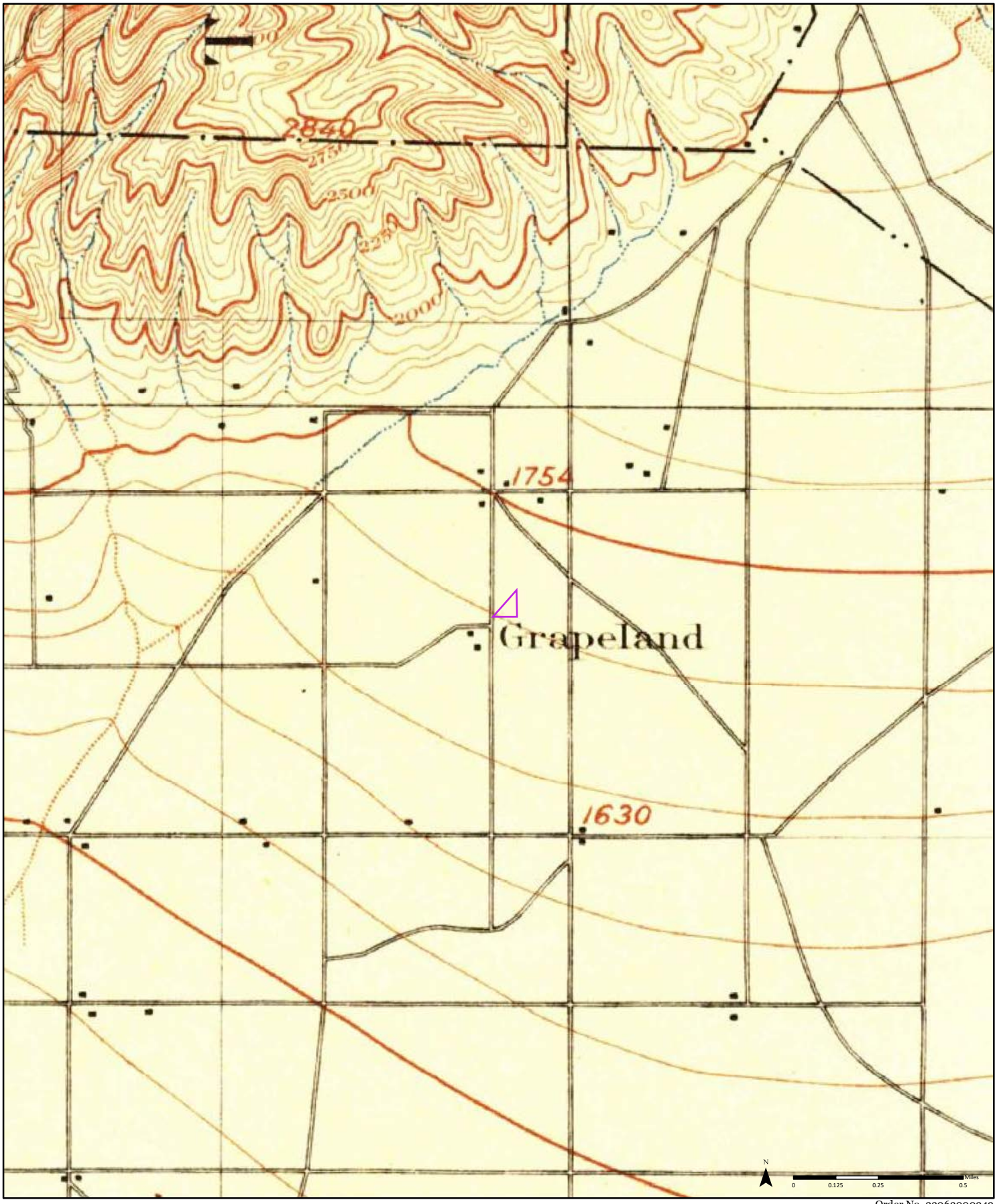
Order No. 23063000242

1936

Available Quadrangle(s): Devore, CA



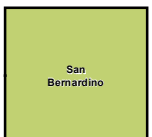
Source: USGS 7.5 Minute Topographic Map



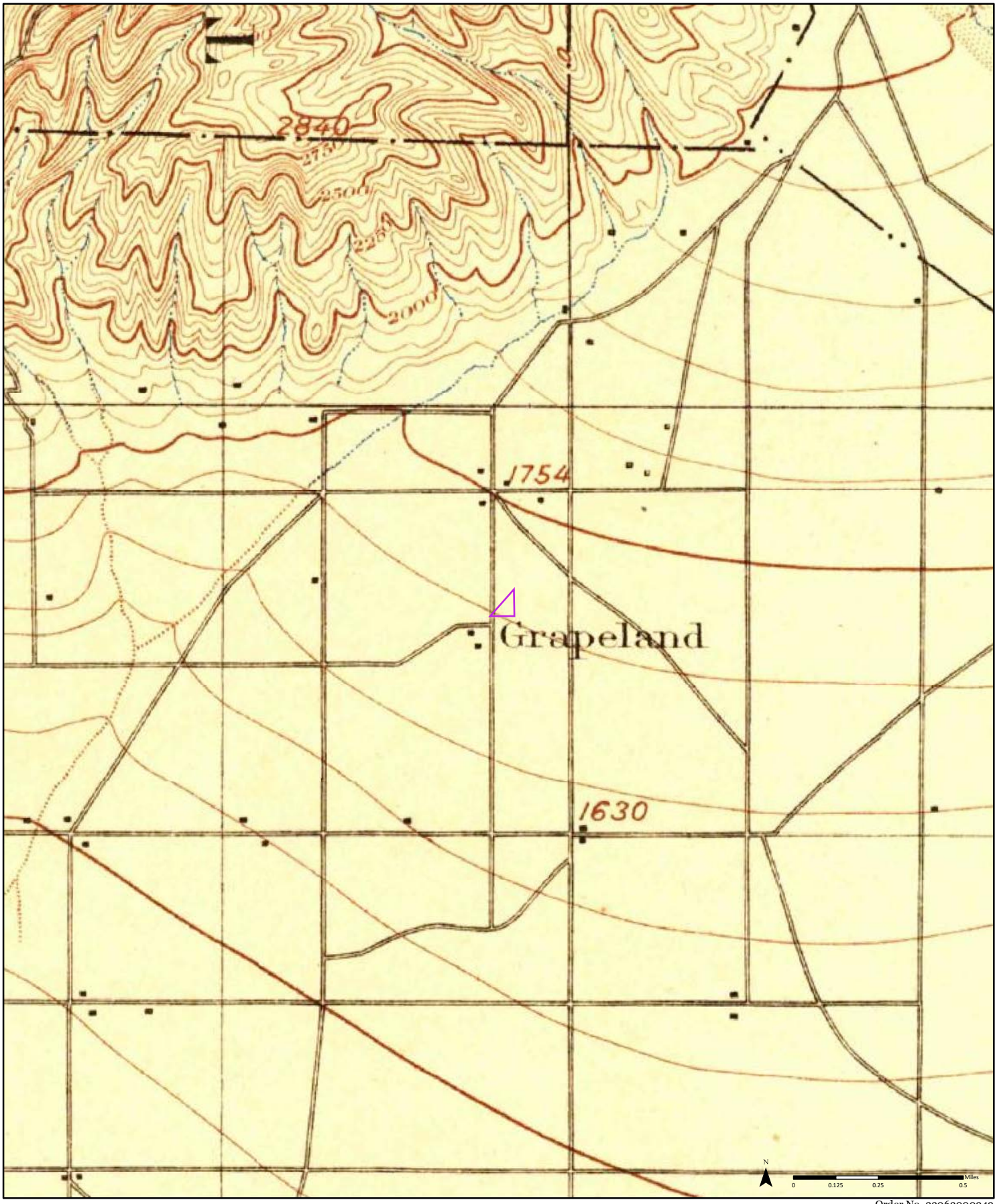
Order No. 23063000242

1901

Available Quadrangle(s): San Bernardino, CA



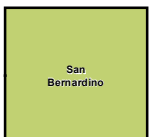
Source: USGS 15 Minute Topographic Map



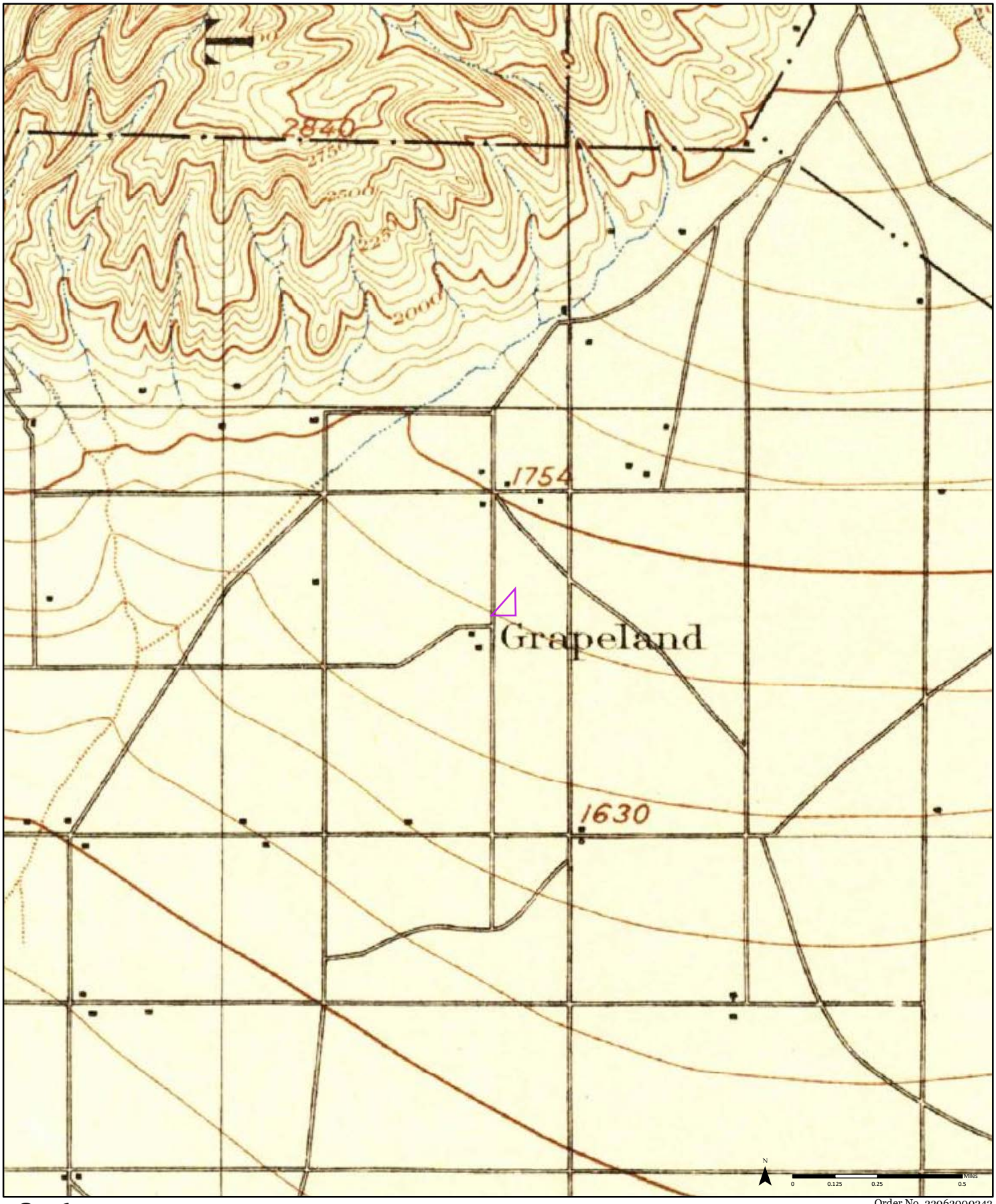
Order No. 23063000242

1898

Available Quadrangle(s): San Bernardino, CA



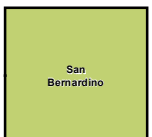
Source: USGS 15 Minute Topographic Map



Order No. 23063000242

1896

Available Quadrangle(s): San Bernardino, CA



Source: USGS 15 Minute Topographic Map

APPENDIX D

EXHIBIT D-3

Historical Aerial Photographs Compilation

(888) 930-6604
www.geoforward.com

HISTORICAL AERIALS

Project Property: Vacant Land
NW Lot of Casa Grande Avenue
Rialto CA

Project No: 2063-2023[1]

Requested By: GEO FORWARD

Order No: 23063000242

Date Completed: July 05,2023

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

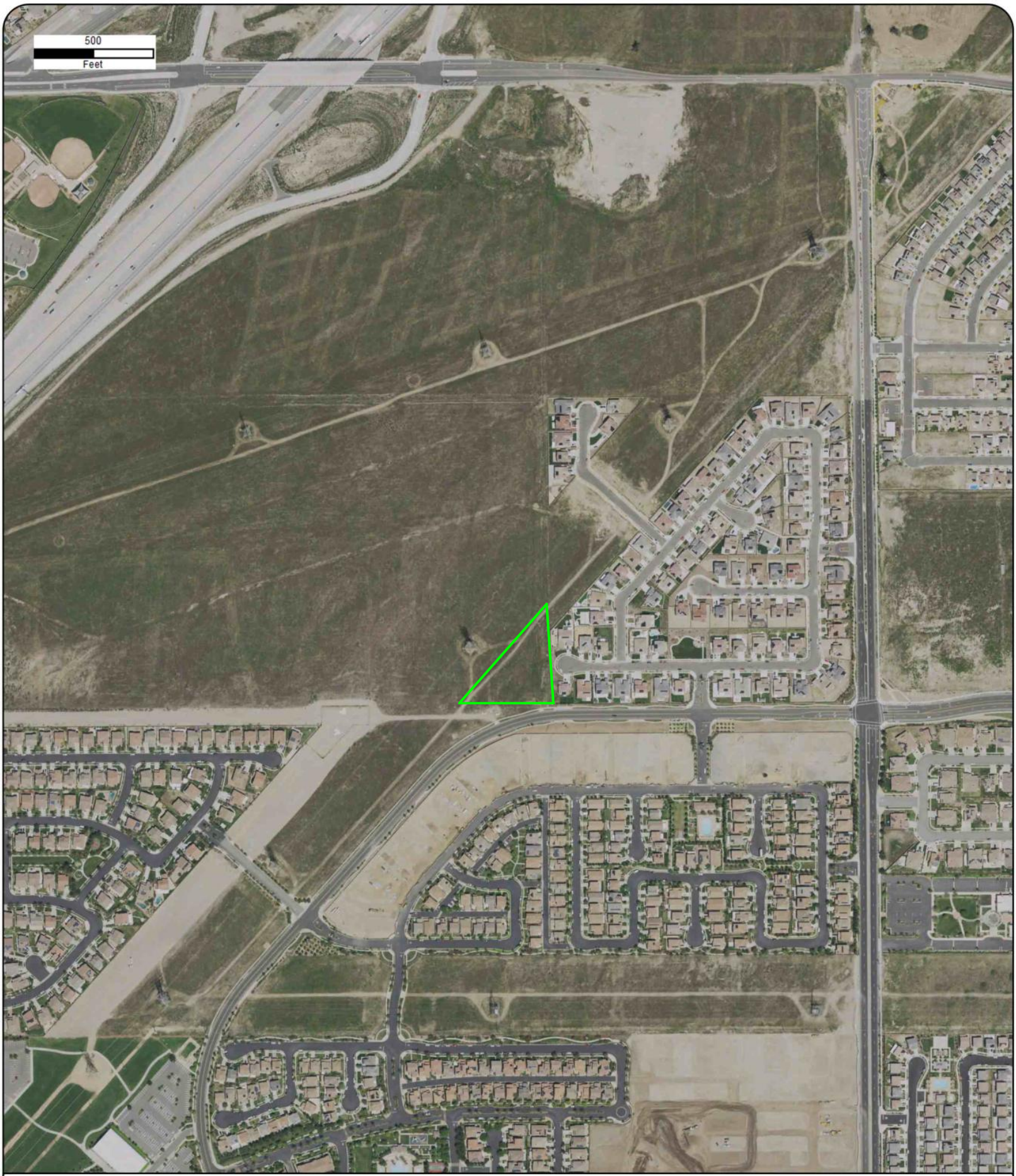
Date	Source	Scale	Comments
2023	MAXAR TECHNOLOGIES	1" = 500'	
2020	United States Department of Agriculture	1" = 500'	
2018	United States Department of Agriculture	1" = 500'	
2016	United States Department of Agriculture	1" = 500'	
2014	United States Department of Agriculture	1" = 500'	
2012	United States Department of Agriculture	1" = 500'	
2010	United States Department of Agriculture	1" = 500'	
2009	United States Department of Agriculture	1" = 500'	
2005	United States Department of Agriculture	1" = 500'	
2002	United States Geological Survey	1" = 500'	
1994	United States Geological Survey	1" = 500'	
1989	United States Geological Survey	1" = 500'	
1980	United States Geological Survey	1" = 500'	
1975	United States Geological Survey	1" = 500'	
1966	United States Geological Survey	1" = 500'	
1959	Agricultural Stabilization & Conserv. Service	1" = 500'	
1952	United States Geological Survey	1" = 500'	
1948	United States Air Force	1" = 500'	
1938	Agricultural Stabilization & Conserv. Service	1" = 500'	

Year: 2023
Source: MAXAR
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

geo forward

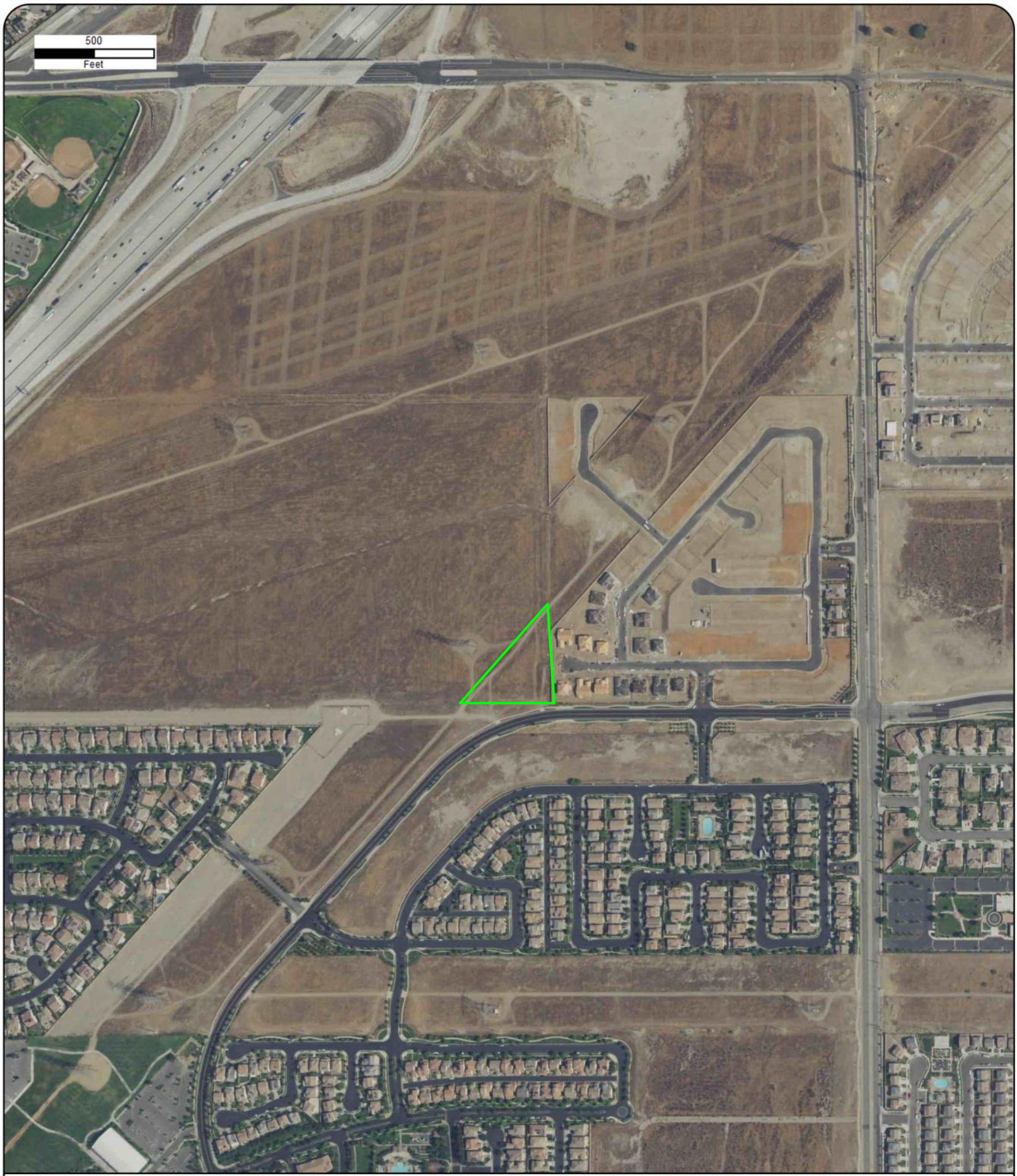


Year: 2020
Source: USDA
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

geo forward

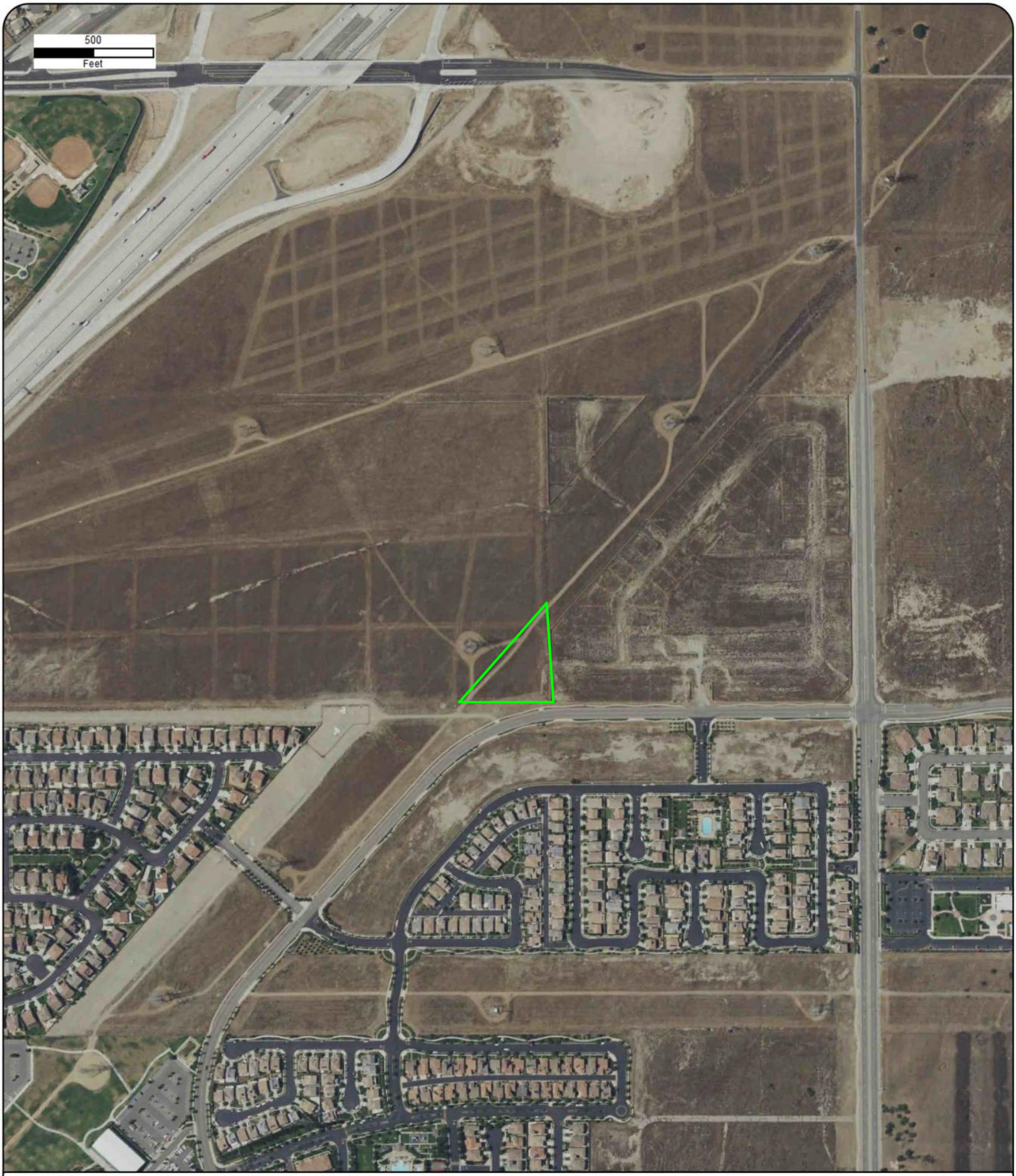


Year: 2018
Source: USDA
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

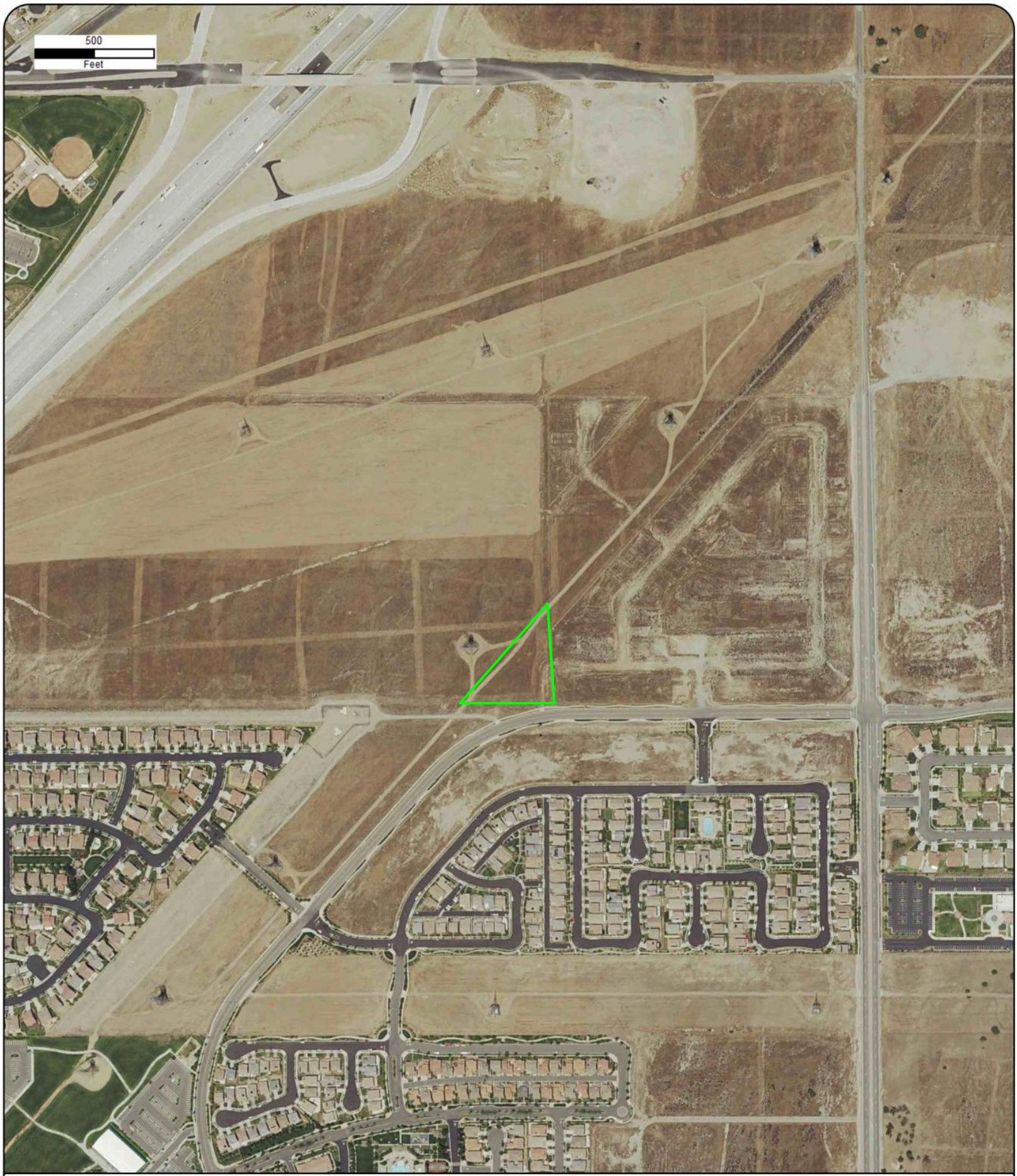
geo forward



Year: 2016
Source: USDA
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

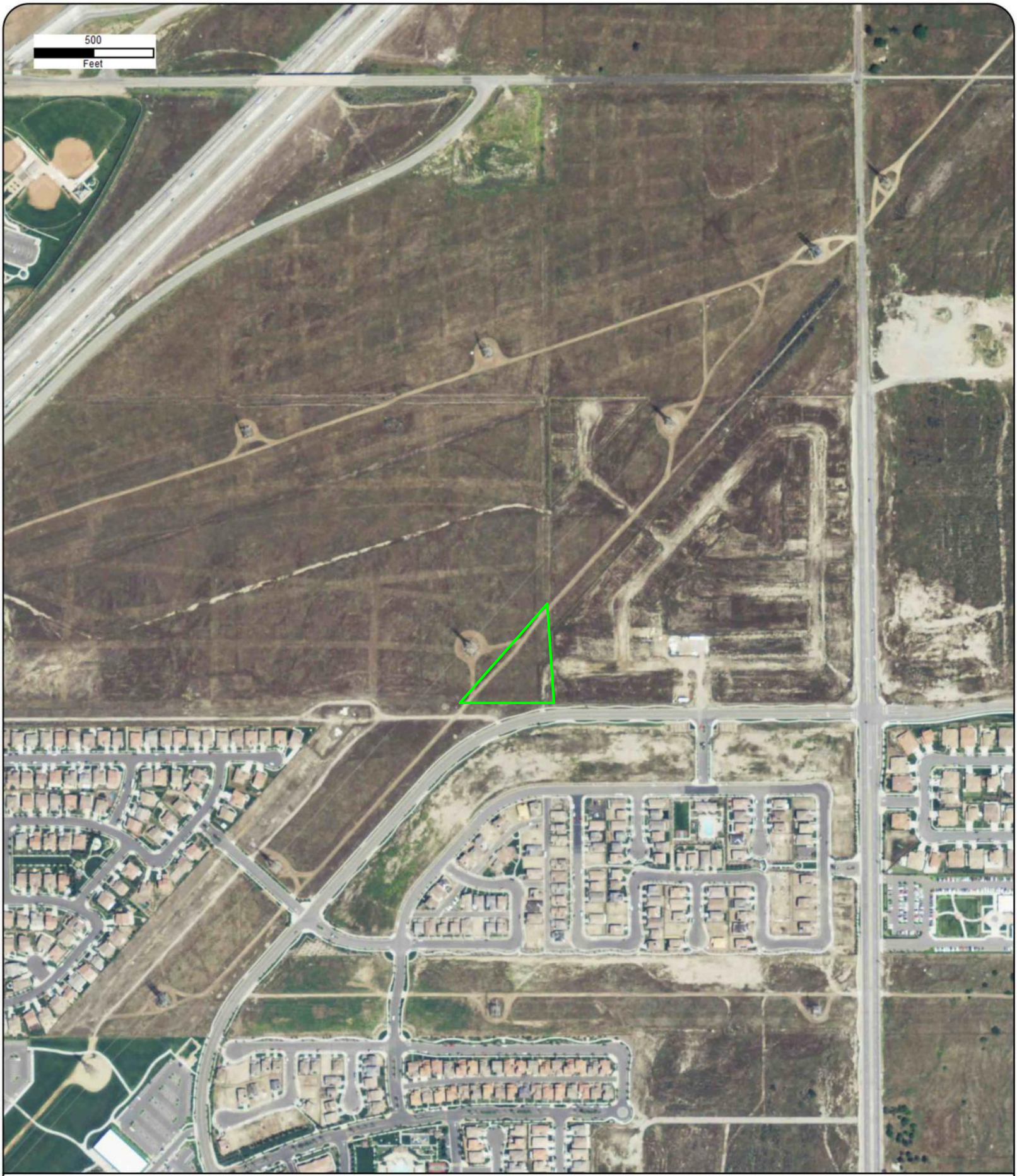


Year: 2014
Source: USDA
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

geo forward



Year: 2012
Source: USDA
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

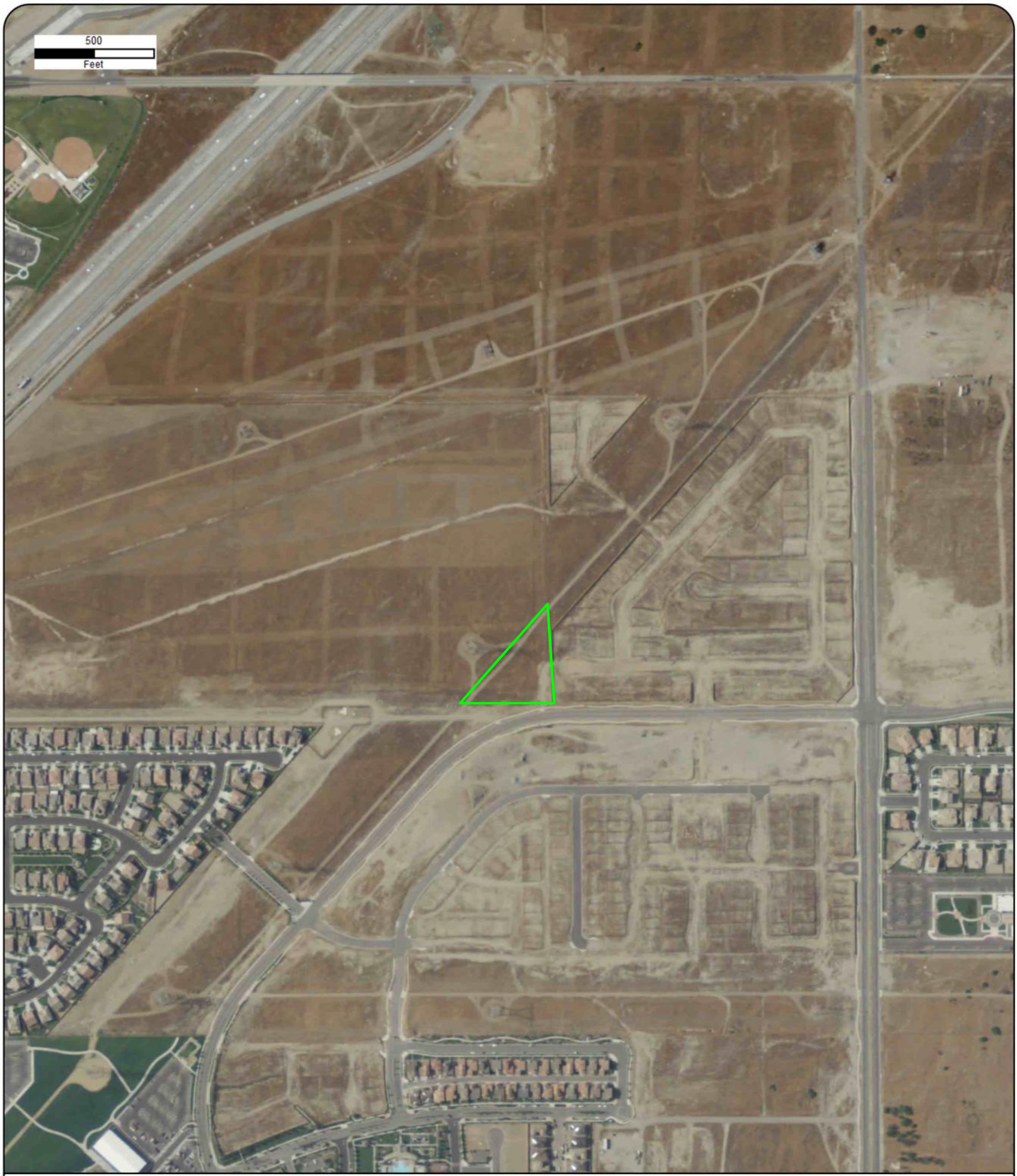
geo forward

Year: 2010
Source: USDA
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

geo forward

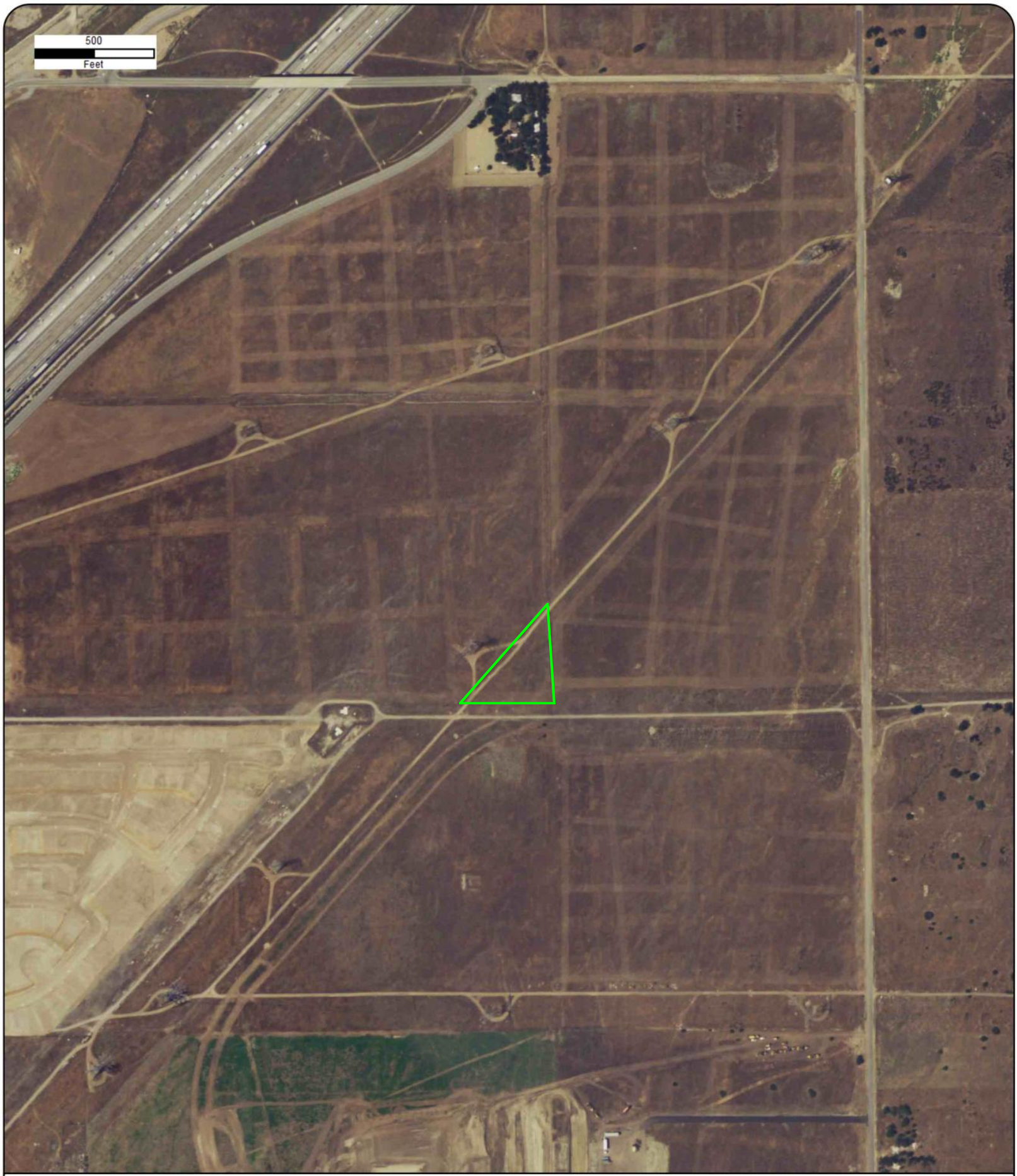


Year: 2009
Source: USDA
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

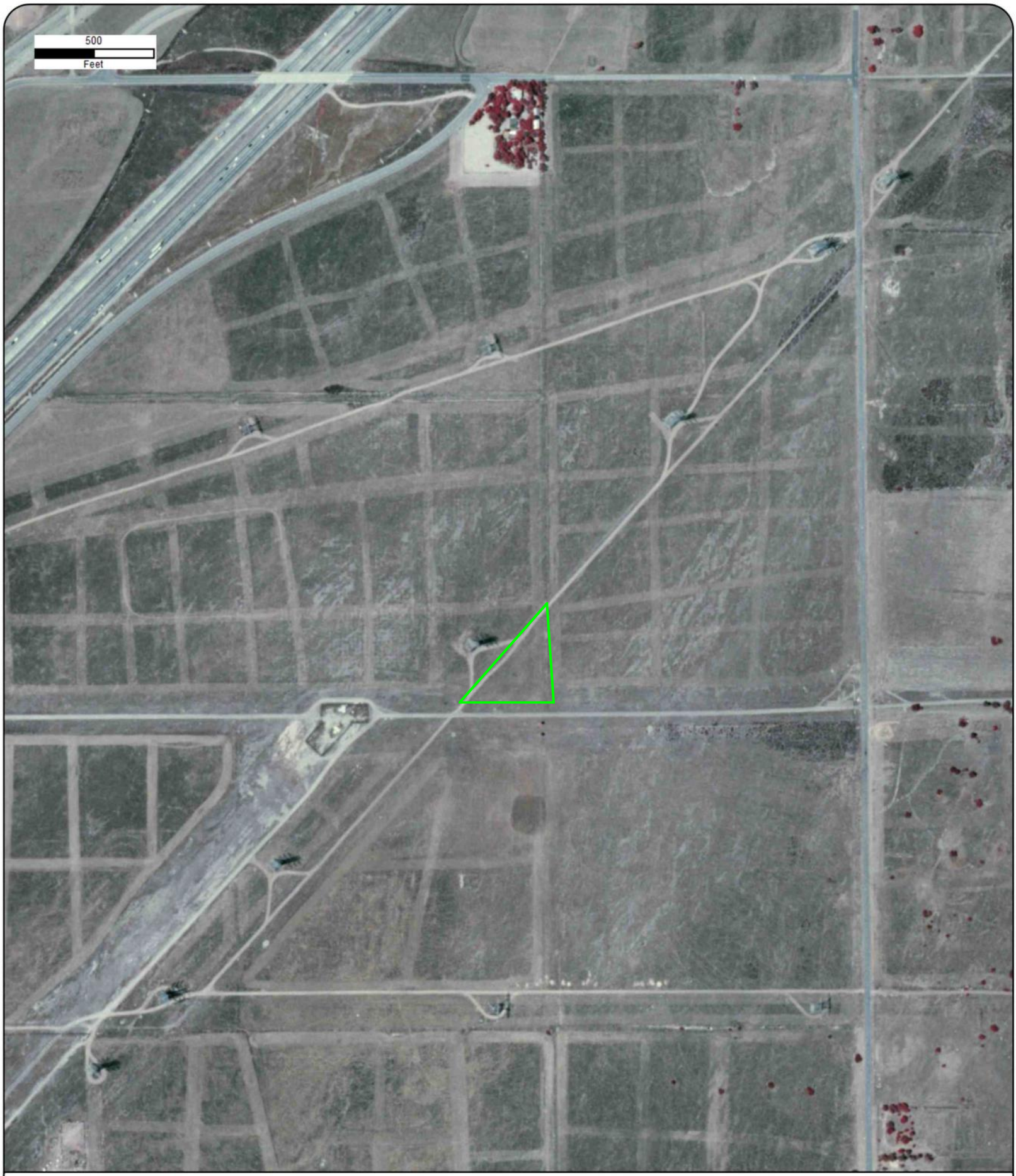
geo forward



Year: 2005
Source: USDA
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242



Year: 2002
Source: USGS
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

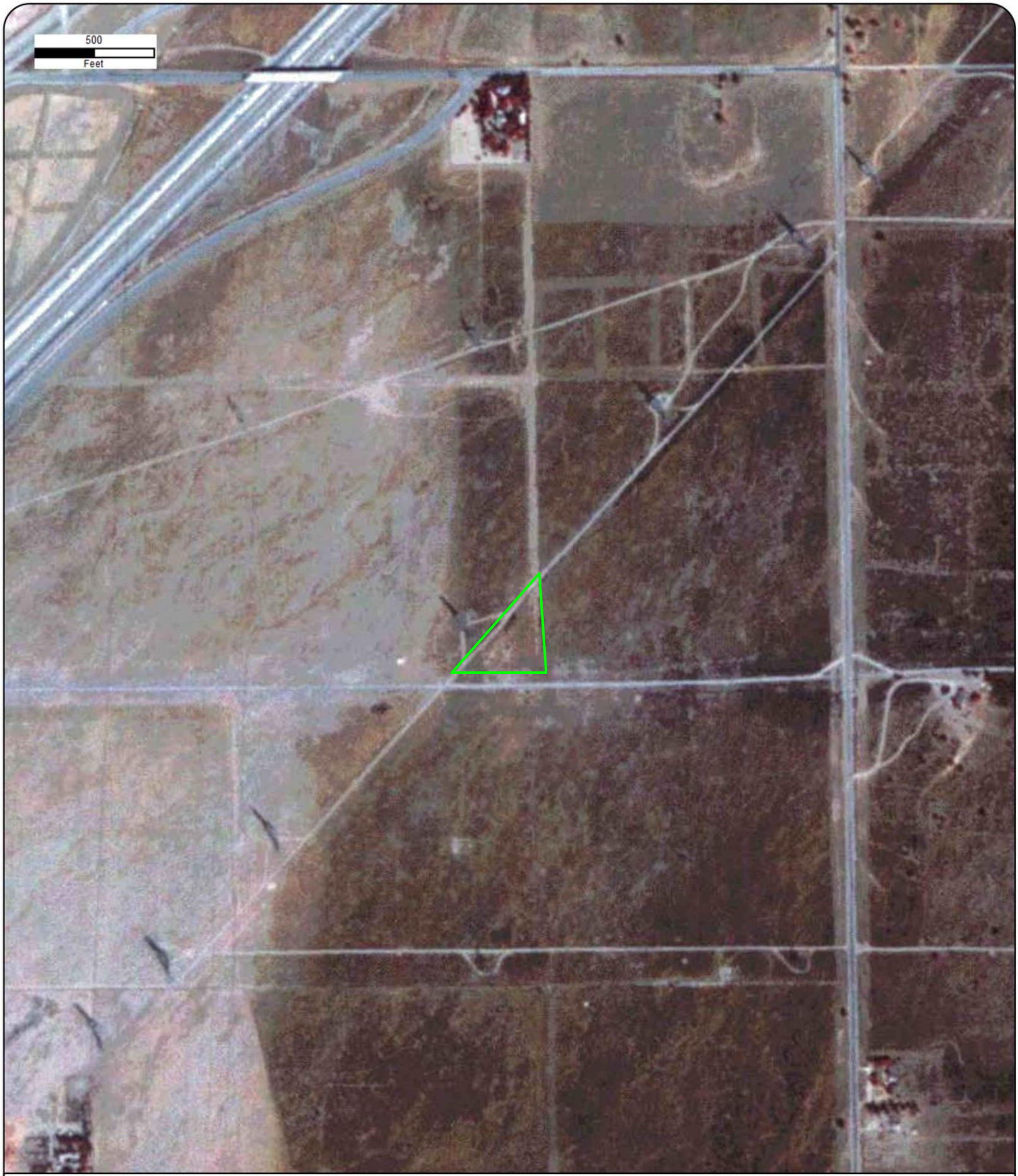
geo forward

Year: 1994
Source: USGS
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

geo forward



Year: 1989
Source: USGS
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

geo forward

Year: 1980
Source: USGS
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

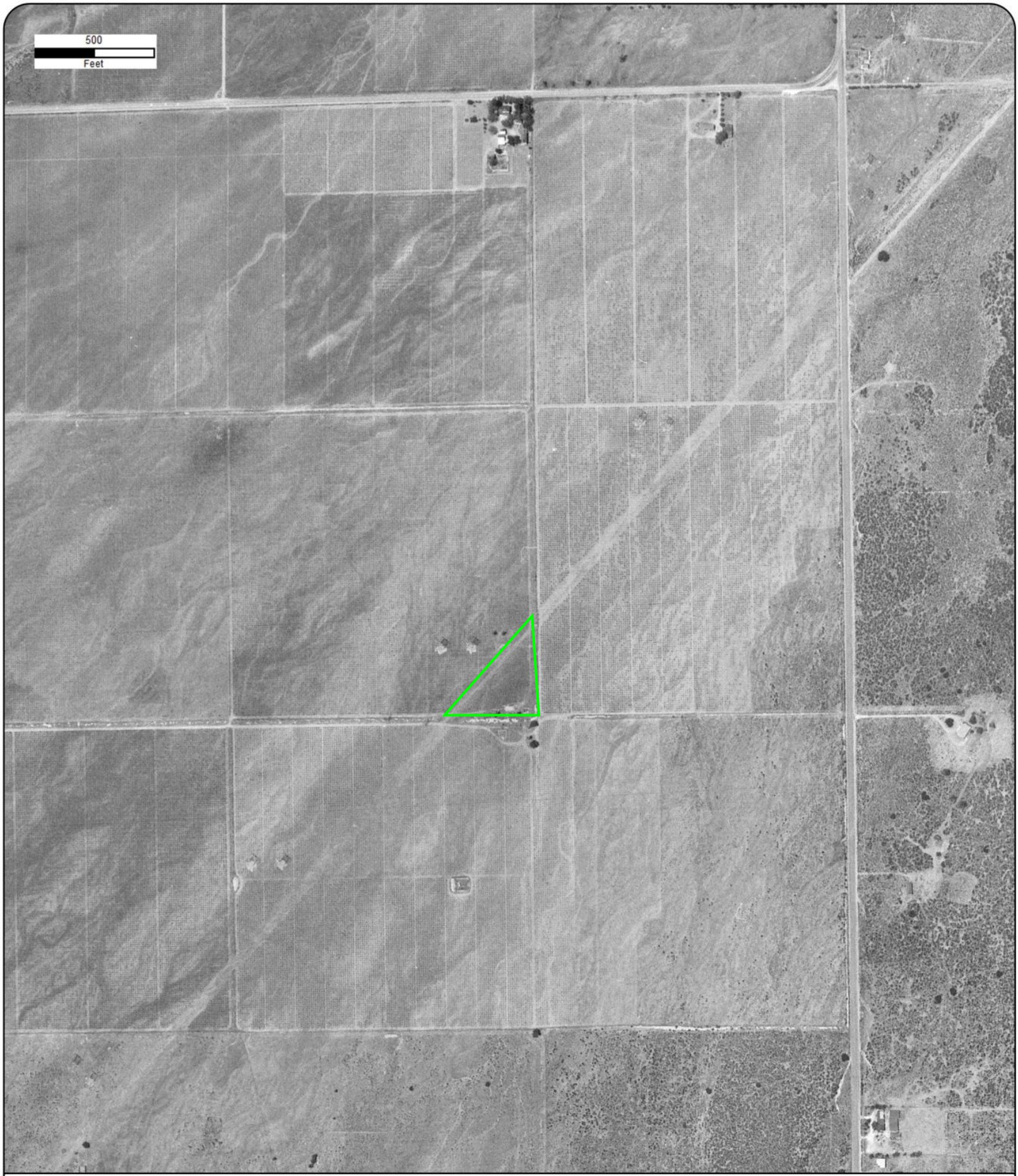
Order No: 23063000242

Year: 1975
Source: USGS
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

geo forward

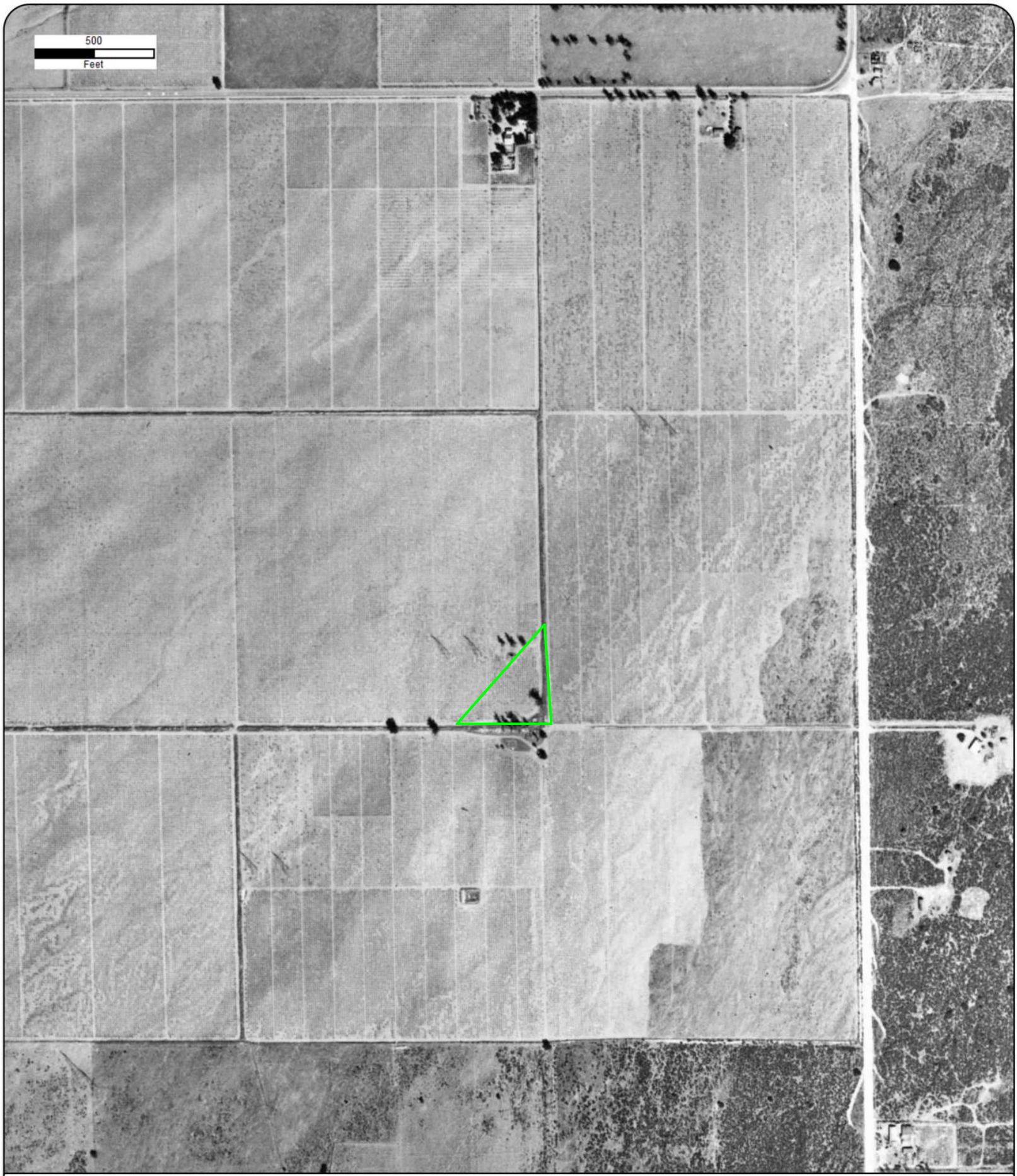


Year: 1966
Source: USGS
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

geo forward



Year: 1959
Source: ASCS
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

Year: 1952
Source: USGS
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

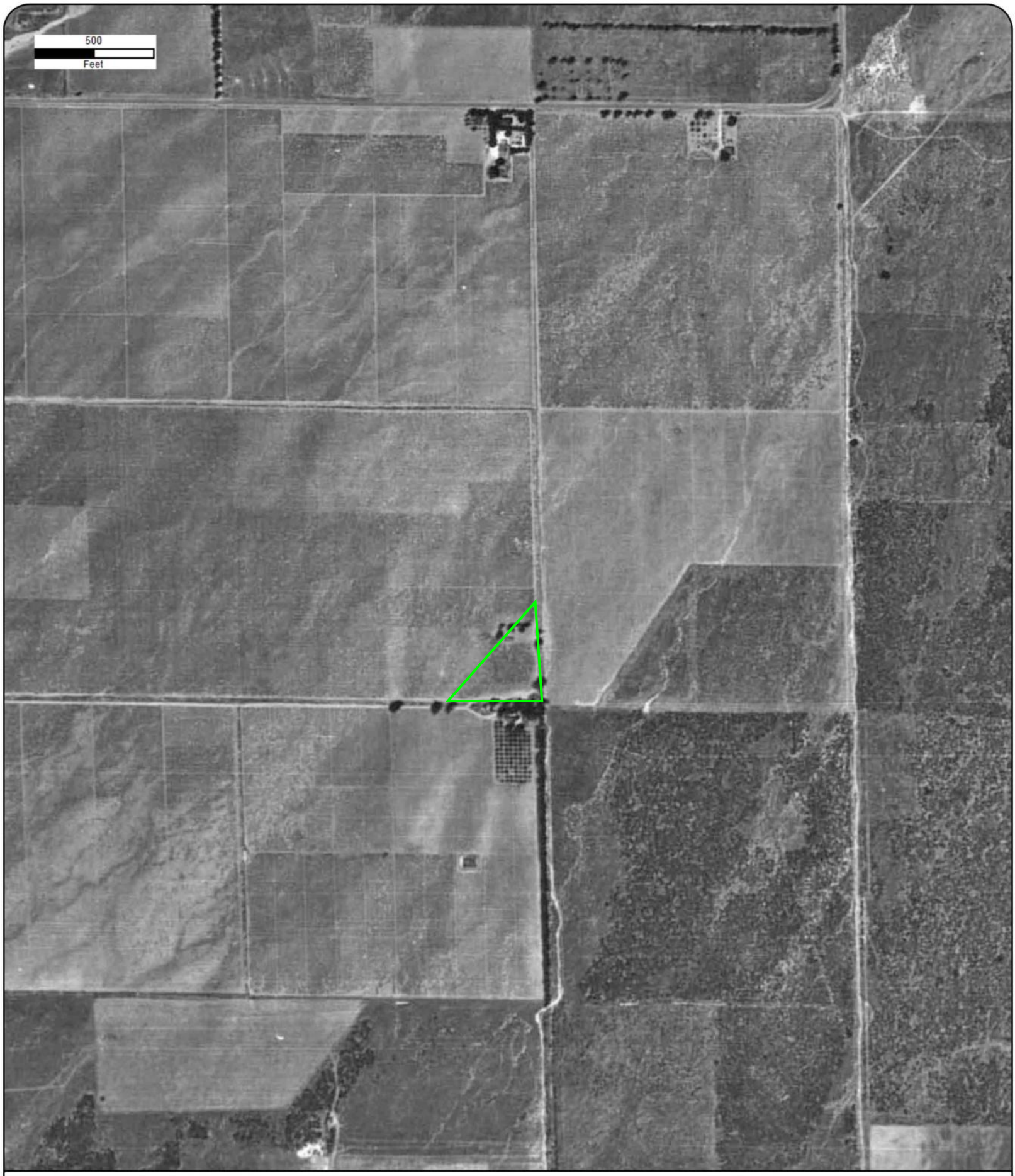
geo forward

Year: 1948
Source: USAF
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

geo forward



Year: 1938
Source: ASCS
Scale: 1" = 500'
Comment:

Address: NW Lot of Casa Grande Avenue, Rialto, CA
Approx Center: -117.45836337,34.1582222

Order No: 23063000242

geo forward

APPENDIX D

EXHIBIT D-4

Fire Insurance Maps Compilation

(888) 930-6604
www.geoforward.com

APPENDIX E

EXHIBIT E-1

ERIS Physical Settings Report

(888) 930-6604
www.geoforward.com

PSR
PHYSICAL SETTING REPORT

Property Information

Order Number:		23063000242p
Date Completed:		July 1, 2023
Project Number:		2063-2023[1]
Project Property:		Vacant Land NW Lot of Casa Grande Avenue Rialto CA
Coordinates:		
	Latitude:	34.1582222
	Longitude:	-117.45836337
	UTM Northing:	3779794.45923 Meters
	UTM Easting:	457749.610709 Meters
	UTM Zone:	UTM Zone 11S
	Elevation:	1,702.74 ft
	Slope Direction:	SSW

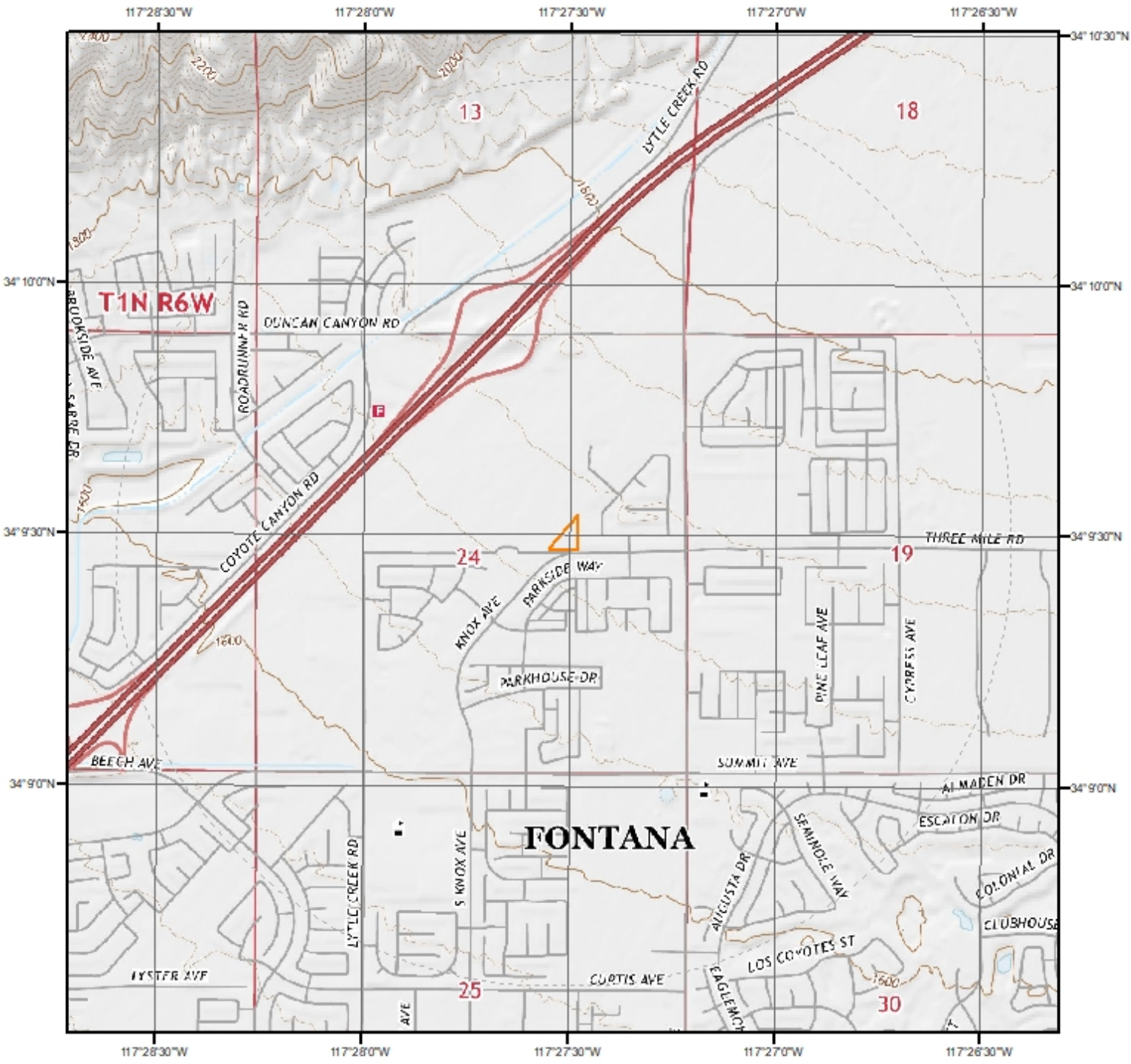
The ERIS ***Physical Setting Report - PSR*** provides comprehensive information about the physical setting around a site and includes a complete overview of topography and surface topology, in addition to hydrologic, geologic and soil characteristics. The location and detailed attributes of oil and gas wells, water wells, public water systems and radon are also included for review.

The compilation of both physical characteristics of a site and additional attribute data is useful in assessing the impact of migration of contaminants and subsequent impact on soils and groundwater.

Disclaimer

This Report does not provide a full environmental evaluation for the site or adjacent properties. Please see the terms and disclaimer at the end of the Report for greater detail.

Topographic Information



Current USGS Topo (2021)

0 0.2 0.4 0.8 Miles

N

Quadrangle(s): Devore,CA

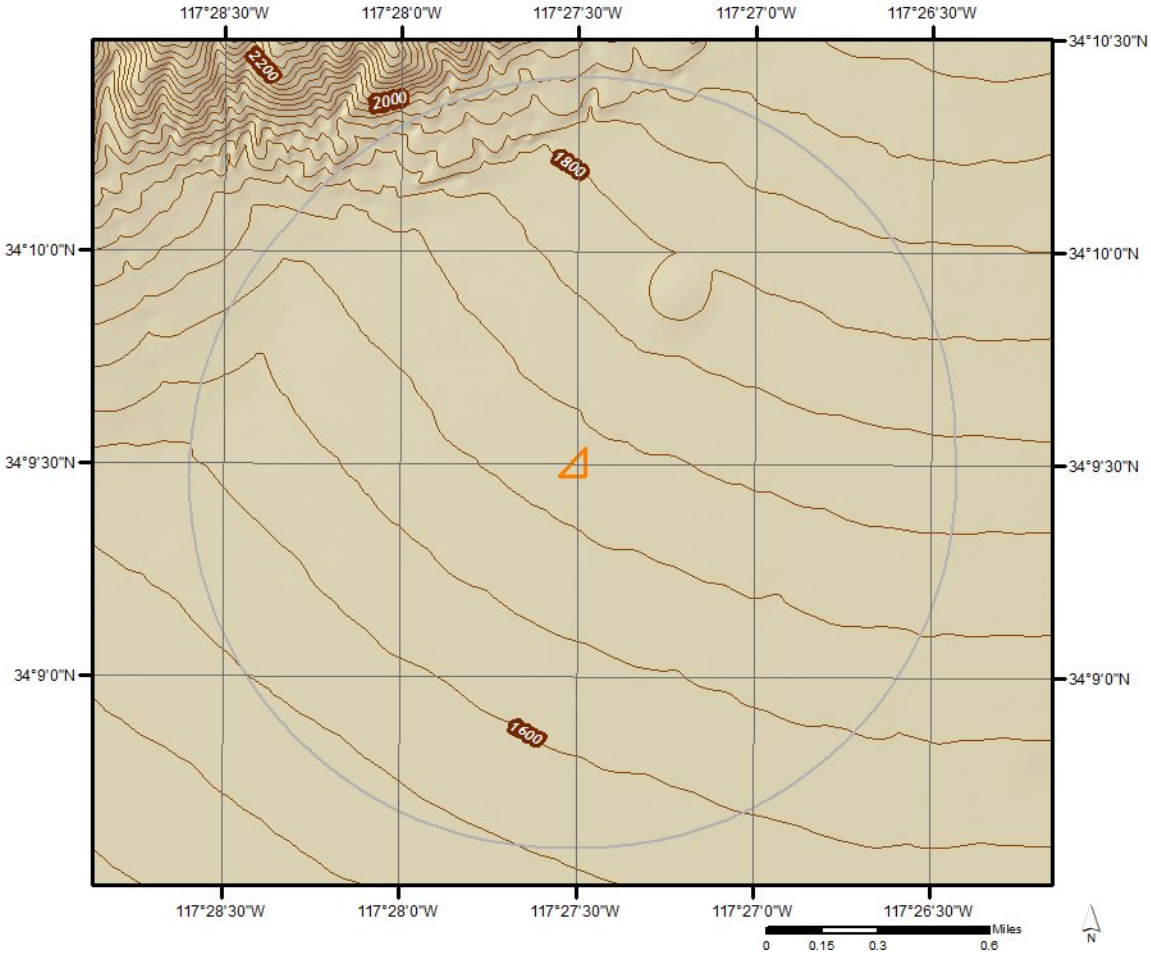
Source: USGS 7.5 Minute Topographic Map

Topographic Information

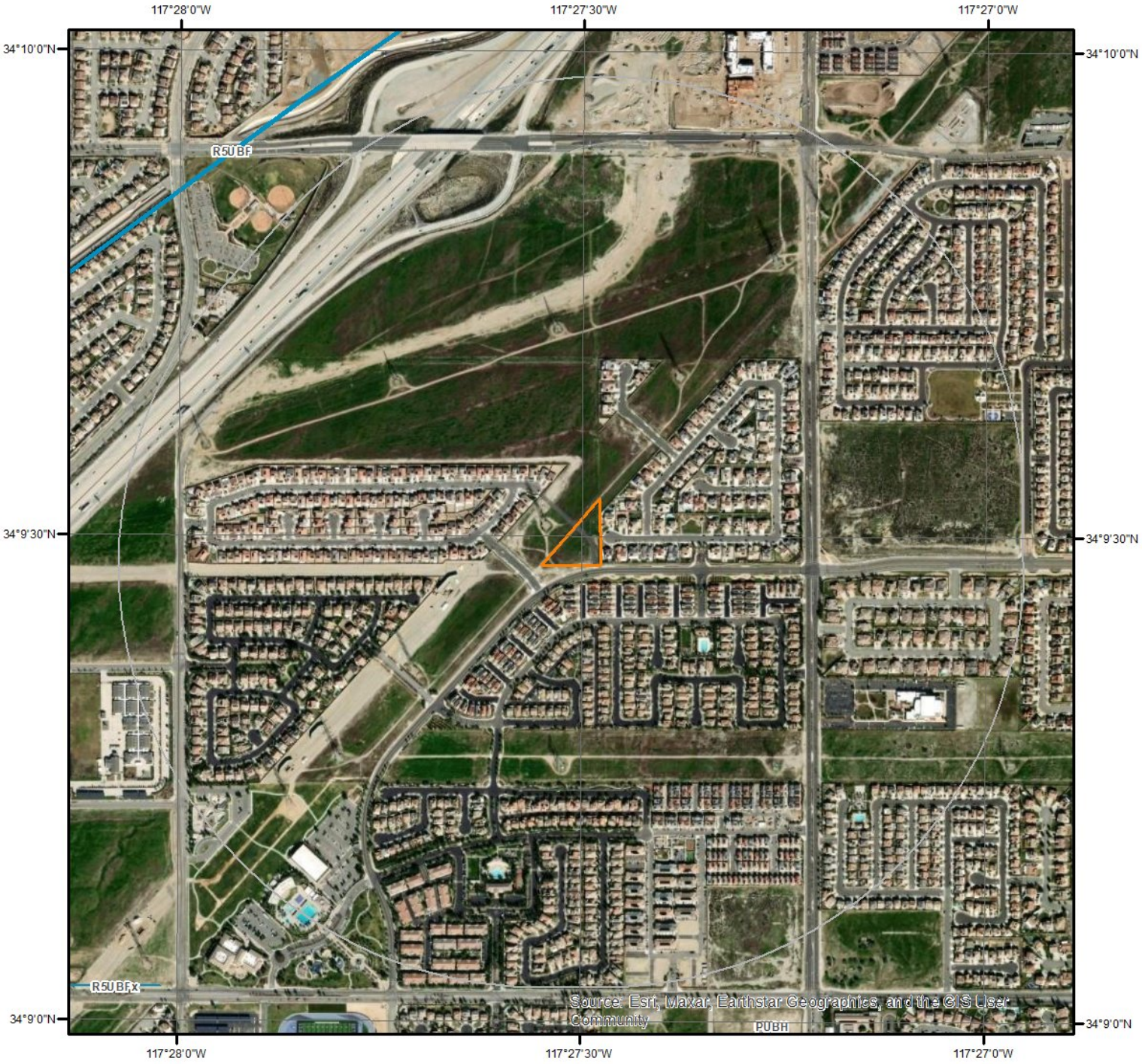
The previous topographic map(s) are created by seamlessly merging and cutting current USGS topographic data. Below are shaded relief map(s), derived from USGS elevation data to show surrounding topography in further detail.

Topographic information at project property:

Elevation:	1,702.74 ft
Slope Direction:	SSW



Hydrologic Information



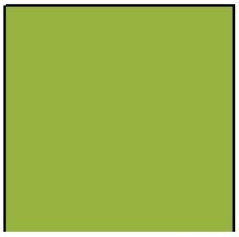
Wetland

0 0.075 0.15 0.3 Miles

N

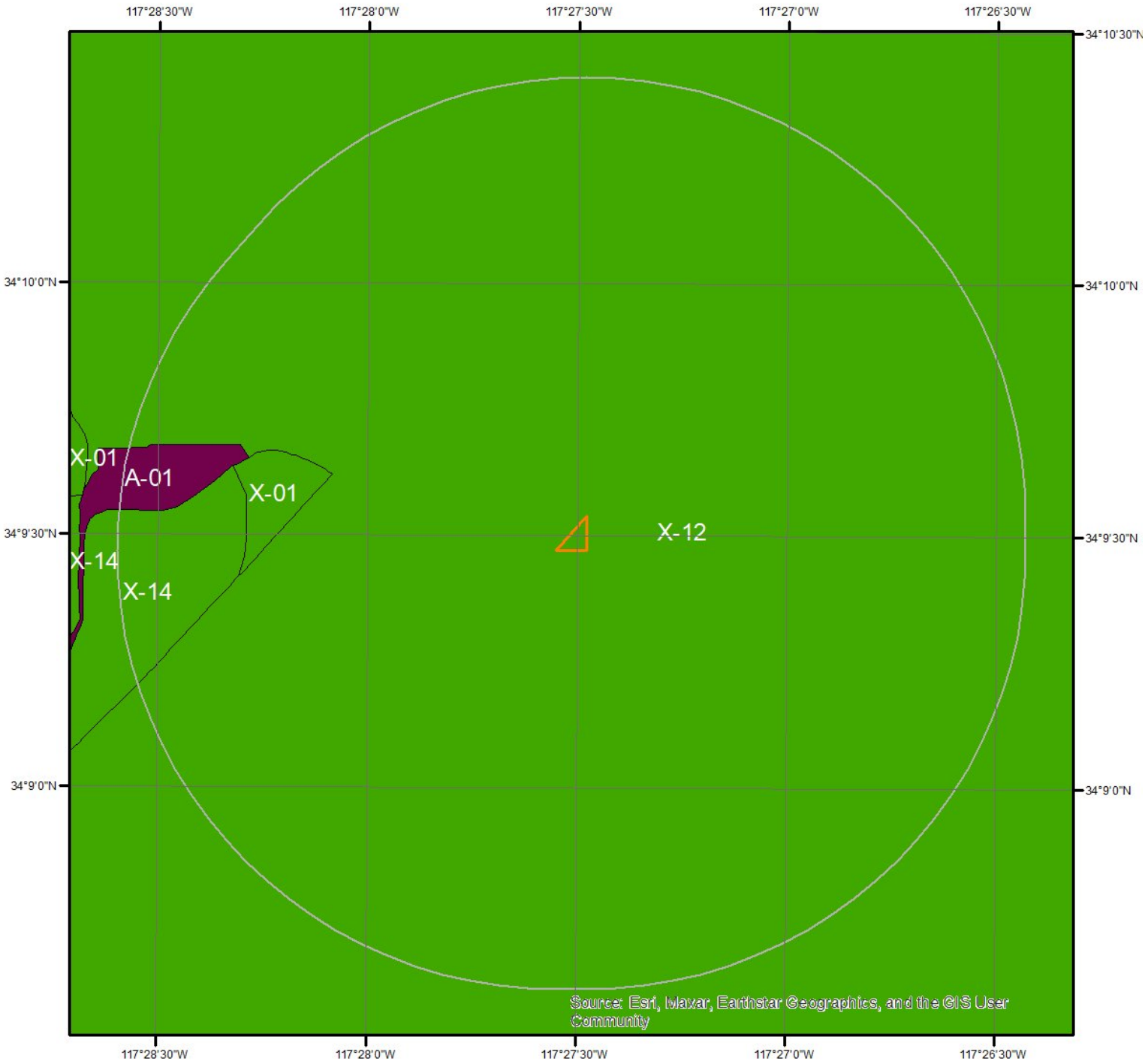
This map shows wetland existence using data from US Fish & Wildlife.
Data coverage is shown to the right. Gray indicates no data available in the area.

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine



ERIS

Hydrologic Information



Flood Hazard Zones

Miles
0 0.2 0.4

This map shows FEMA flood hazard zones. FIRM panels are shown to the right, and blank indicates no data is available.

A	AO	X
A99	V	OPEN WATER
AE	VE	NOT POPULATED
AH	D	AREA NOT INCLUDED

N

06071C7915H

Quadrangle(s): Devore,CA

ERIS

Hydrologic Information

The Wetland Type map shows wetland existence overlaid on an aerial imagery. The Flood Hazard Zones map shows FEMA flood hazard zones overlaid on an aerial imagery. Relevant FIRM panels and detailed zone information is provided below.
For detailed Zone descriptions please click the link: https://floodadvocate.com/fema-zone-definitions

Available FIRM Panels in area:	06071C7915H(effective:2008-08-28)

Flood Zone A-01

Zone:	A
Zone subtype:	

Flood Zone X-01

Zone:	X
Zone subtype:	0.2 PCT ANNUAL CHANCE FLOOD HAZARD

Flood Zone X-12

Zone:	X
Zone subtype:	AREA OF MINIMAL FLOOD HAZARD

Flood Zone X-14

Zone:	X
Zone subtype:	AREA WITH REDUCED FLOOD RISK DUE TO LEVEE

Geologic Information

0 0.225 0.45 Miles

N

Geologic Units

This maps shows geologic units in the area. Please refer to the report for detailed descriptions.

ERIS

0 0.3 0.6 Miles

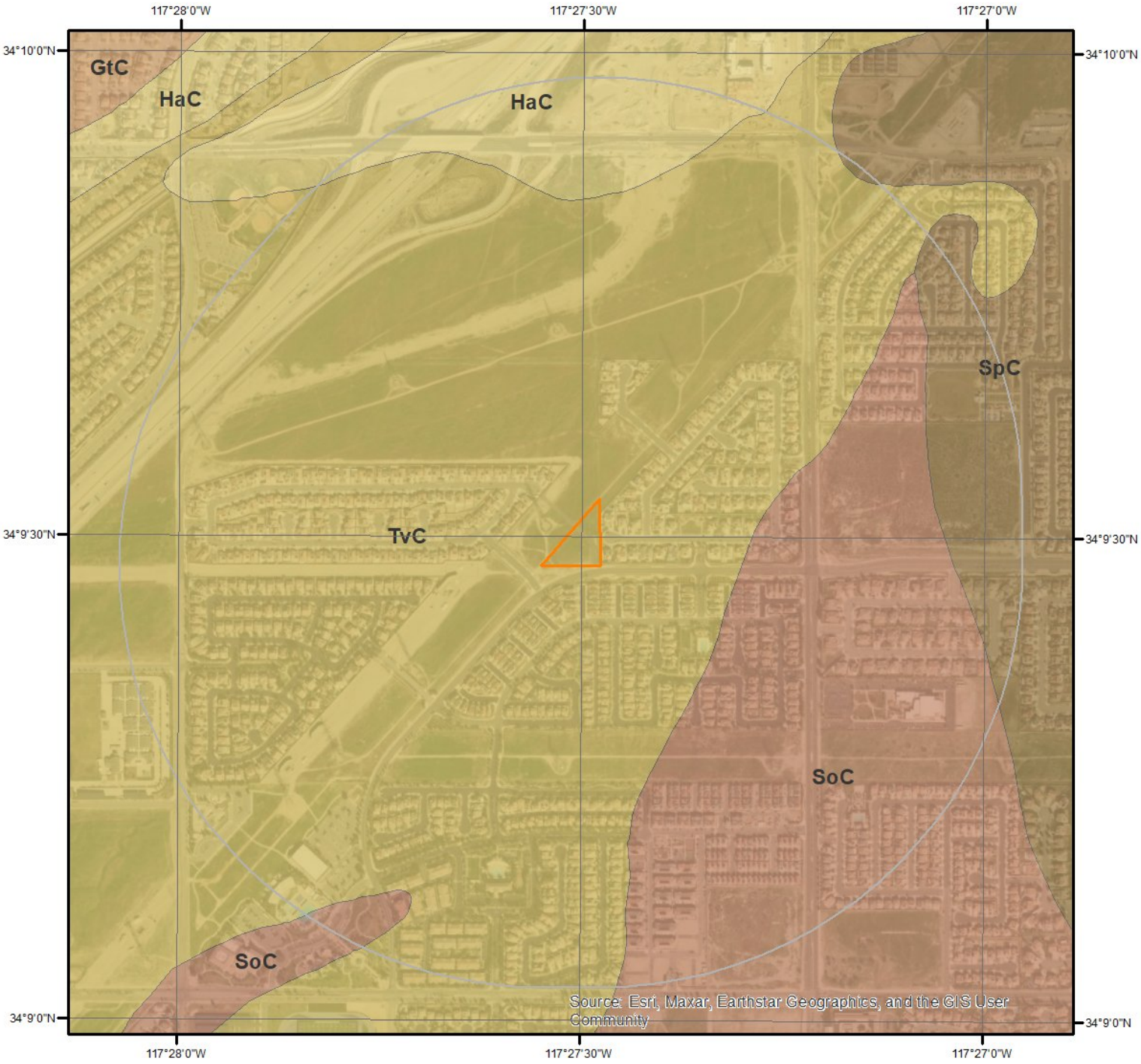
Geologic Information

The previous page shows USGS geology information. Detailed information about each unit is provided below.

Geologic Unit Q

Unit Name:	Quaternary alluvium and marine deposits
Unit Age:	Pliocene to Holocene
Primary Rock Type:	alluvium
Secondary Rock Type:	terrace
Unit Description:	Alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated. Mostly nonmarine, but includes marine deposits near the coast.

Soil Information



SSURGO Soils

N

0 0.2 0.4 Miles

This maps shows SSURGO soil units around the target property. Please refer to the report for detailed soil descriptions.

ERIS

Soil Information

The previous page shows a soil map using SSURGO data from USDA Natural Resources Conservation Service. Detailed information about each unit is provided below.

Map Unit HaC (0.45%)

Map Unit Name:	Hanford coarse sandy loam, 2 to 9 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	A - Soils in this group have low runoff potential when thoroughly wet. Water is transmitted freely through the soil.

Major components are printed below

Hanford(85%)

horizon H1(0cm to 30cm)	Sandy loam
horizon H2(30cm to 152cm)	Fine sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: HaC - Hanford coarse sandy loam, 2 to 9 percent slopes

Component: Hanford (85%)
The Hanford component makes up 85 percent of the map unit. Slopes are 2 to 9 percent. This component is on alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Greenfield (10%)
Generated brief soil descriptions are created for major soil components. The Greenfield soil is a minor component.

Component: Tujunga (5%)
Generated brief soil descriptions are created for major soil components. The Tujunga soil is a minor component.

Map Unit SoC (7.92%)

Map Unit Name:	Soboba gravelly loamy sand, 0 to 9 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Excessively drained
Hydrologic Group - Dominant:	A - Soils in this group have low runoff potential when thoroughly wet. Water is transmitted freely through the soil.

Major components are printed below

Soboba(85%)

horizon H1(0cm to 30cm)	Gravelly loamy sand
horizon H2(30cm to 91cm)	Very gravelly loamy sand
horizon H3(91cm to 152cm)	Very stony sand

Component Description:

Minor map unit components are excluded from this report.

Map Unit: SoC - Soboba gravelly loamy sand, 0 to 9 percent slopes

Soil Information

Component: Soboba (85%)
The Soboba component makes up 85 percent of the map unit. Slopes are 0 to 9 percent. This component is on alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Unnamed (5%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Component: Delhi (5%)
Generated brief soil descriptions are created for major soil components. The Delhi soil is a minor component.

Component: Tujunga (3%)
Generated brief soil descriptions are created for major soil components. The Tujunga soil is a minor component.

Component: Unnamed (2%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Map Unit SpC (10.34%)

Map Unit Name:	Soboba stony loamy sand, 2 to 9 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Excessively drained
Hydrologic Group - Dominant:	A - Soils in this group have low runoff potential when thoroughly wet. Water is transmitted freely through the soil.

Major components are printed below

Soboba(85%)

horizon Ap(0cm to 25cm)	Stony loamy sand
horizon C1(25cm to 61cm)	Very stony loamy sand
horizon C2(61cm to 152cm)	Very stony sand

Component Description:

Minor map unit components are excluded from this report.

Map Unit: SpC - Soboba stony loamy sand, 2 to 9 percent slopes

Component: Soboba (85%)
The Soboba component makes up 85 percent of the map unit. Slopes are 2 to 9 percent. This component is on alluvial fans, alluvial plains. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Hanford (5%)
Generated brief soil descriptions are created for major soil components. The Hanford soil is a minor component.

Component: Ramona (5%)
Generated brief soil descriptions are created for major soil components. The Ramona soil is a minor component.

Component: Tujunga (5%)
Generated brief soil descriptions are created for major soil components. The Tujunga soil is a minor component.

Map Unit TvC (81.3%)

Soil Information

Map Unit Name:	Tujunga gravelly loamy sand, 0 to 9 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Somewhat excessively drained
Hydrologic Group - Dominant:	A - Soils in this group have low runoff potential when thoroughly wet. Water is transmitted freely through the soil.

Major components are printed below

Tujunga(85%)

horizon H1(0cm to 91cm)	Gravelly loamy sand
horizon H2(91cm to 152cm)	Gravelly sand

Component Description:

Minor map unit components are excluded from this report.

Map Unit: TvC - Tujunga gravelly loamy sand, 0 to 9 percent slopes

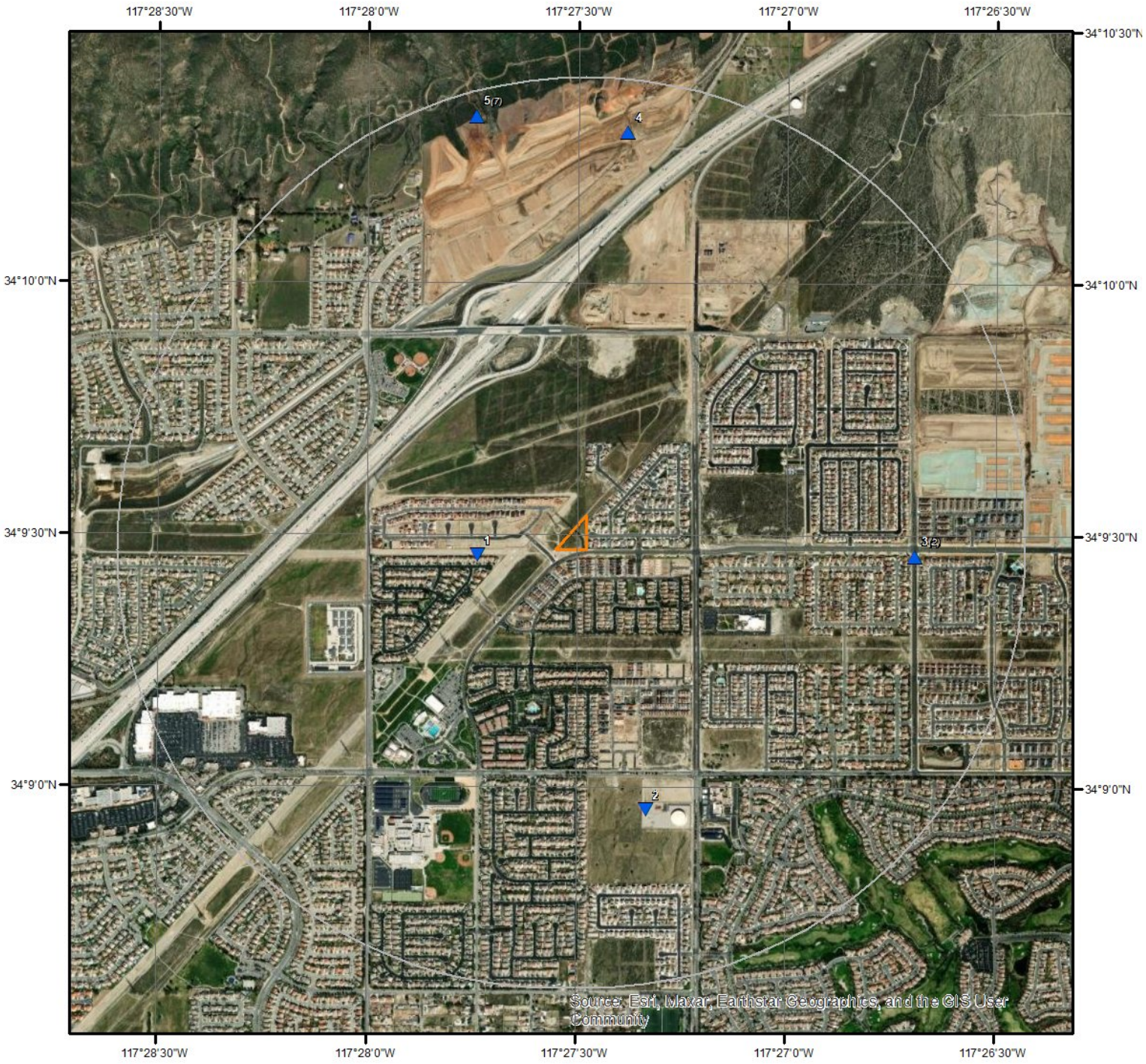
Component: Tujunga (85%)
The Tujunga component makes up 85 percent of the map unit. Slopes are 0 to 9 percent. This component is on alluvial fans. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 4s. This soil does not meet hydric criteria.

Component: Unnamed (5%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Component: Soboba (5%)
Generated brief soil descriptions are created for major soil components. The Soboba soil is a minor component.

Component: Delhi (5%)
Generated brief soil descriptions are created for major soil components. The Delhi soil is a minor component.

Wells and Additional Sources



Wells & Additional Sources

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources Summary

Federal Sources

Public Water Systems Violations and Enforcement Data

Map Key	ID	Distance (ft)	Direction
	No records found		

Safe Drinking Water Information System (SDWIS)

Map Key	ID	Distance (ft)	Direction
	No records found		

USGS National Water Information System

Map Key	Site Number	Distance (ft)	Direction
2	USGS-340857117272001	3218.78	SSE

Wells from NWIS

Map Key	ID	Distance (ft)	Direction
	No records found		

State Sources

Oil and Gas Wells

Map Key	ID	Distance (ft)	Direction
	No records found		

Periodic Groundwater Level Measurement Locations

Map Key	ID	Distance (ft)	Direction
	No records found		

Well Completion Reports

Map Key	WCR No	Distance (ft)	Direction
1	WCR2006-011460	948.91	W
3	WCR2014-008020	3950.10	E
3	WCR1776-006016	3950.10	E
4	WCR2022-009721	4633.81	N
5	WCR1987-013403	4986.34	NNW
5	WCR1958-001367	4986.34	NNW
5	WCR1985-010590	4986.34	NNW
5	WCR1776-006139	4986.34	NNW
5	WCR1985-010591	4986.34	NNW
5	WCR1974-003495	4986.34	NNW

Wells and Additional Sources Summary

5	WCR0250894	4986.34	NNW

Wells and Additional Sources Detail Report

USGS National Water Information System

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
2	SSE	0.61	3,218.78	1,628.74	FED USGS

Reporting Agency:	USGS California Water Science Center
Site Number:	USGS-340857117272001
Station Name:	001N006W25A001S
Site Type:	Well
Latitude:	34.14922220000000
Longitude:	-117.4555556000000
Date Drilled:	19991122
Well Depth:	1240
Well Depth Unit:	ft
Well Hole Depth:	1305
W Hole Depth Unit:	ft
Formation Type:	

Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	W	0.18	948.91	1,678.43	WATER WELLS

WCR No:	WCR2006-011460	Decimal Lat(OSWCR):	34.15763
Decimal Latitude:	34.15763	Decim Long(OSWCR):	-117.4623
Decimal Longitude:	-117.4623		
Location:	Lyttle Creek & Duncan Canyon		
City:	Fontana		
County:	San Bernardino		
Location(OSWCR):	Lyttle Creek & Duncan Canyon		
City(OSWCR):	Fontana		
County(OSWCR):	San Bernardino		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	E	0.75	3,950.10	1,736.01	WATER WELLS

WCR No:	WCR2014-008020	Decimal Lat(OSWCR):	34.15765
Decimal Latitude:	34.15765	Decim Long(OSWCR):	-117.44489
Decimal Longitude:	-117.44489		
Location:	Sierra Avenue & Riverside Avenue		
City:	Fontana		
County:	San Bernardino		
Location(OSWCR):	Sierra Avenue & Riverside Avenue		

City(OSWCR): Fontana
County(OSWCR): San Bernardino
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	E	0.75	3,950.10	1,736.01	WATER WELLS

WCR No: WCR1776-006016
Decimal Lat(OSWCR): 34.15765
Decimal Latitude: 34.15765
Decim Long(OSWCR): -117.44489
Decimal Longitude: -117.44489
Location: 4936 Sierra AVE
City: Fontana
County: San Bernardino
Location(OSWCR): 4936 Sierra AVE
City(OSWCR): Fontana
County(OSWCR): San Bernardino
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
4	N	0.88	4,633.81	1,838.93	WATER WELLS

WCR No: WCR2022-009721
Decimal Lat(OSWCR):
Decimal Latitude: 34.1716498
Decim Long(OSWCR):
Decimal Longitude: -117.4563541
Location: 22607551 Citrus Ave & Coyote Cnyn
City: Fontana
County: San Bernardino
Location(OSWCR):
City(OSWCR):
County(OSWCR):
Original Source: California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	NNW	0.94	4,986.34	1,893.83	WATER WELLS

WCR No: WCR1987-013403
Decimal Lat(OSWCR): 34.17219
Decimal Latitude: 34.17219
Decim Long(OSWCR): -117.46238
Decimal Longitude: -117.46238
Location: Lytle Creek Road
City:
County: San Bernardino
Location(OSWCR): Lytle Creek Road
City(OSWCR):
County(OSWCR): San Bernardino

Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	NNW	0.94	4,986.34	1,893.83	WATER WELLS

WCR No: WCR1958-001367
Decimal Lat(OSWCR): 34.17219
Decimal Latitude: 34.17219
Decim Long(OSWCR): -117.46238
Decimal Longitude: -117.46238
Location: LYTLE CREEK RD, COYOTE RD
City:
County: San Bernardino
Location(OSWCR): LYTLE CREEK RD, COYOTE RD
City(OSWCR):
County(OSWCR): San Bernardino
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	NNW	0.94	4,986.34	1,893.83	WATER WELLS

WCR No: WCR1985-010590
Decimal Lat(OSWCR): 34.17219
Decimal Latitude: 34.17219
Decim Long(OSWCR): -117.46238
Decimal Longitude: -117.46238
Location: Lytle Creek Road
City:
County: San Bernardino
Location(OSWCR): Lytle Creek Road
City(OSWCR):
County(OSWCR): San Bernardino
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	NNW	0.94	4,986.34	1,893.83	WATER WELLS

WCR No: WCR1776-006139
Decimal Lat(OSWCR): 34.17219
Decimal Latitude: 34.17219
Decim Long(OSWCR): -117.46238
Decimal Longitude: -117.46238
Location: LYTLE CREEK RD, COYOTE RD
City:
County: San Bernardino
Location(OSWCR): LYTLE CREEK RD, COYOTE RD
City(OSWCR):
County(OSWCR): San Bernardino
Original Source: California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports

Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	NNW	0.94	4,986.34	1,893.83	WATER WELLS

WCR No:	WCR1985-010591	Decimal Lat(OSWCR):	34.17219
Decimal Latitude:	34.17219	Decim Long(OSWCR):	-117.46238
Decimal Longitude:	-117.46238		
Location:	LYTLE CREEK RD, COYOTE RD		
City:			
County:	San Bernardino		
Location(OSWCR):	LYTLE CREEK RD, COYOTE RD		
City(OSWCR):			
County(OSWCR):	San Bernardino		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	NNW	0.94	4,986.34	1,893.83	WATER WELLS

WCR No:	WCR1974-003495	Decimal Lat(OSWCR):	34.17219
Decimal Latitude:	34.17219	Decim Long(OSWCR):	-117.46238
Decimal Longitude:	-117.46238		
Location:	Lytle Creek Road		
City:			
County:	San Bernardino		
Location(OSWCR):	Lytle Creek Road		
City(OSWCR):			
County(OSWCR):	San Bernardino		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	NNW	0.94	4,986.34	1,893.83	WATER WELLS

WCR No:	WCR0250894	Decimal Lat(OSWCR):	34.17219
Decimal Latitude:	34.17219	Decim Long(OSWCR):	-117.46238
Decimal Longitude:	-117.46238		
Location:			
City:			
County:	San Bernardino		
Location(OSWCR):			
City(OSWCR):			
County(OSWCR):	San Bernardino		
Original Source:	California Department of Water Resources - OSWCR(Well Numbers); California Department of Water Resources - Well Completion Reports		

Radon Information

This section lists any relevant radon information found for the target property.

Federal EPA Radon Zone for *SAN BERNARDINO* County: **2**

Zone 1: Counties with predicted average indoor radon screening levels greater than 4 pCi/L
Zone 2: Counties with predicted average indoor radon screening levels from 2 to 4 pCi/L
Zone 3: Counties with predicted average indoor radon screening levels less than 2 pCi/L

Federal Area Radon Information for *SAN BERNARDINO* County

No Measures/Homes:	17
Geometric Mean:	0.5
Arithmetic Mean:	0.7
Median:	0.7
Standard Deviation:	1
Maximum:	2.9
% >4 pCi/L:	0
% >20 pCi/L:	0
Notes on Data Table:	TABLE 1. Screening indoor radon data from the EPA/State Residential Radon Survey of California conducted during 1989-90. Data represent 2-7 day charcoal canister measurements from the lowest level of each home tested.

Appendix

Federal Sources

FEMA National Flood Hazard Layer — **FEMA FLOOD**

The National Flood Hazard Layer (NFHL) data incorporates Flood Insurance Rate Map (FIRM) databases published by the Federal Emergency Management Agency (FEMA), and any Letters Of Map Revision (LOMRs) that have been issued against those databases since their publication date. The FIRM Database is the digital, geospatial version of the flood hazard information shown on the published paper FIRMs. The FIRM Database depicts flood risk information and supporting data used to develop the risk data. The FIRM Database is derived from Flood Insurance Studies (FISs), previously published FIRMs, flood hazard analyses performed in support of the FISs and FIRMs, and new mapping data, where available.

Indoor Radon Data — **INDOOR RADON**

Indoor radon measurements tracked by the Environmental Protection Agency(EPA) and the State Residential Radon Survey.

Public Water Systems Violations and Enforcement Data — **PWSV**

List of drinking water violations and enforcement actions from the Safe Drinking Water Information System (SDWIS) made available by the Drinking Water Protection Division of the US EPA's Office of Groundwater and Drinking Water. Enforcement sensitive actions are not included in the data released by the EPA. Address information provided in SWDIS may correspond either with the physical location of the water system, or with a contact address.

Radon Zone Level — **RADON ZONE**

Areas showing the level of Radon Zones (level 1, 2 or 3) by county. This data is maintained by the Environmental Protection Agency (EPA).

Safe Drinking Water Information System (SDWIS) — **SDWIS**

The Safe Drinking Water Information System (SDWIS) contains information about public water systems as reported to US Environmental Protection Agency (EPA) by the states. Addresses may correspond with the location of the water system, or with a contact address.

Soil Survey Geographic database — **SSURGO**

The Soil Survey Geographic database (SSURGO) contains information about soil as collected by the National Cooperative Soil Survey at the Natural Resources Conservation Service (NRCS). Soil maps outline areas called map units. The map units are linked to soil properties in a database. Each map unit may contain one to three major components and some minor components.

USGS Current Topo — **US TOPO**

US Topo topographic maps are produced by the National Geospatial Program of the U.S. Geological Survey (USGS). The project was launched in late 2009, and the term "US Topo" refers specifically to quadrangle topographic maps published in 2009 and later.

USGS Geology — **US GEOLOGY**

Seamless maps depicting geological information provided by the United States Geological Survey (USGS).

USGS National Water Information System — **FED USGS**

The U.S. Geological Survey (USGS)'s National Water Information System (NWIS) is the nation's principal repository of water resources data. This database includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data.

Wells from NWIS — **FED USGS**

The U.S. Geological Survey's National Water Information System (NWIS) is the nation's principal repository of water resources data. The NWIS includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data. This NWIW dataset contains select Site Types from the overall NWIS Sites data, limited to the following Group Site Types only: Groundwater Group Site Types: Well, Collector or Ranney type well, Hyporheic-zone well, Interconnected Wells, Multiple wells; Spring Group Site Type: Spring; and Other Group Site Types: Aggregate groundwater use, Cistern.

Appendix

State Sources

Oil and Gas Wells **OGW**

A list of Oil and Gas well locations. This is provided by California's Department of Conservation Division of Oil, Gas and Geothermal Resources.

Periodic Groundwater Level Measurement Locations **MONITOR WELLS**

Locations of groundwater level monitoring wells in the Department of Water Resources (DWR)'s Periodic Groundwater Levels dataset. The DWR Periodic Groundwater Levels dataset contains seasonal and long-term groundwater level measurements collected by the Department of Water Resources and cooperating agencies.

Well Completion Reports **WATER WELLS**

List of wells from the Well Completion Reports data made available by the California Department of Water Resources' (DWR) Online System for Well Completion Reports (OSWCR). Please note that the majority of well completion reports have been spatially registered to the center of the 1x1 mile Public Land Survey System section that the well is located in.

Liability Notice

Reliance on information in Report: The Physical Setting Report (PSR) DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a review of environmental databases and physical characteristics for the site or adjacent properties.

License for use of information in Report: No page of this report can be used without this cover page, this notice and the project property identifier. The information in Report(s) may not be modified or re-sold.

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APPENDIX E

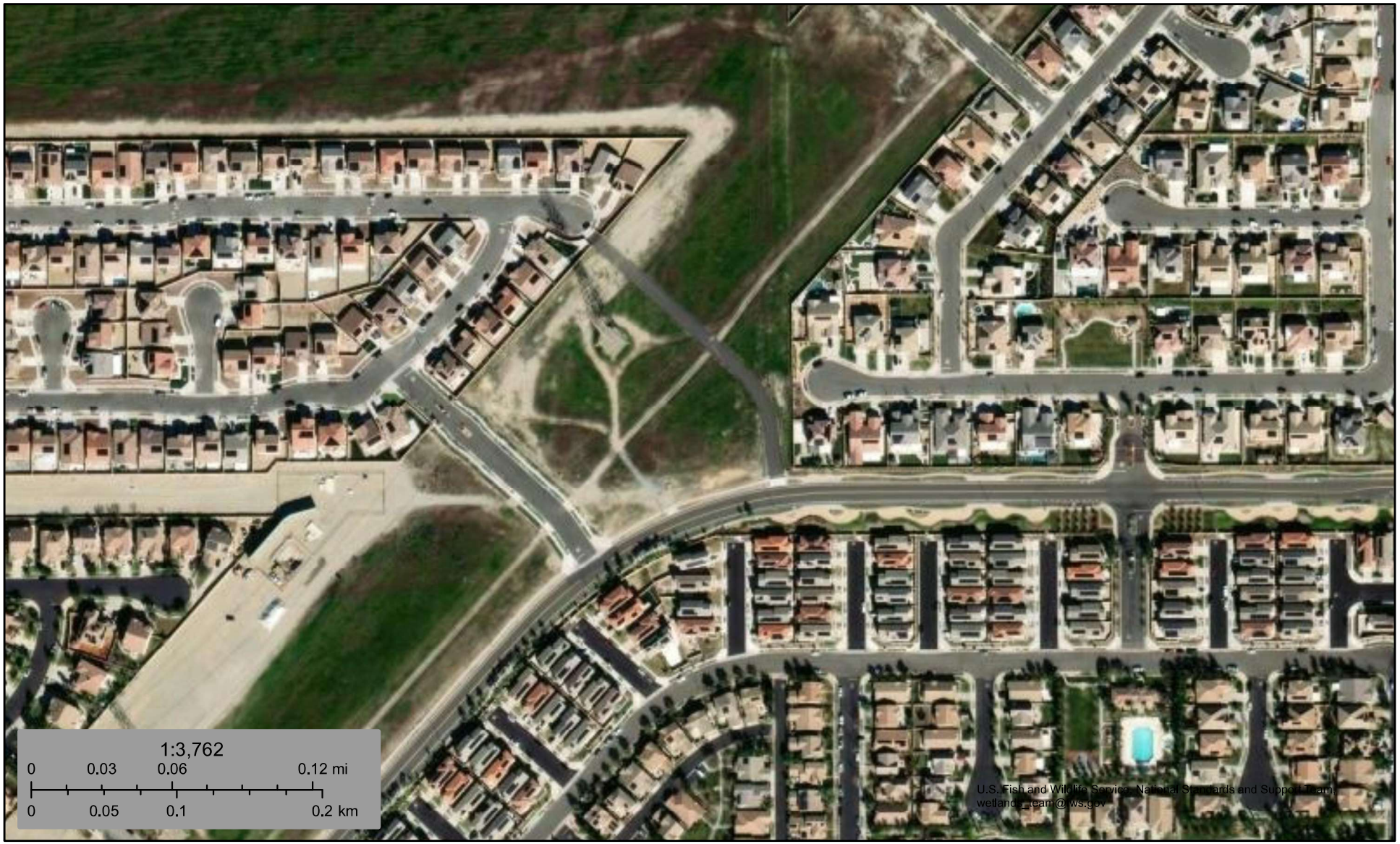
EXHIBIT E-2

USFWSWetlands Map

(888) 930-6604
www.geoforward.com

U.S. Fish and Wildlife Service

National Wetlands Inventory



July 25, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

APPENDIX E

EXHIBIT E-3

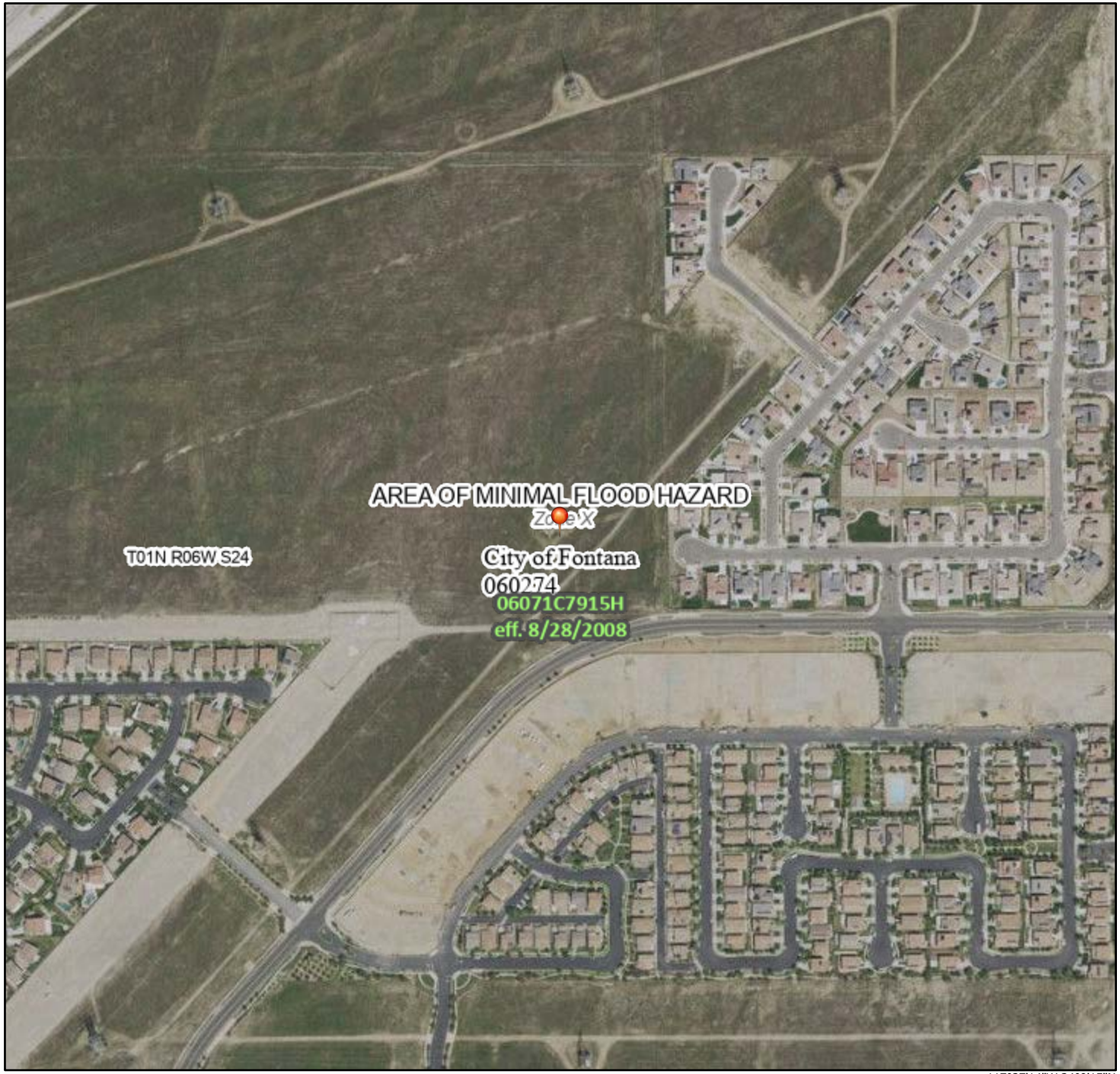
FEMA Flood Hazard Map

(888) 930-6604
www.geoforward.com

National Flood Hazard Layer FIRMette

FEMA

117°27'51"W 34°9'45"N



117°27'14"W 34°9'15"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/18/2023 at 7:22 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX E

EXHIBIT E-4

Assessor's Parcel Map

THIS MAP IS FOR THE PURPOSE OF AD VALOREM TAXATION ONLY.

Ptn. Tract No. 20018, M.B. 357/85-90

City of Fontana
Tax Rate Area
10071

1107 - 52

1" = 100'

26

51

47

26

PARRY PEAK — M.B. 357/85-90 — 521 — DRIVE

ANTERO COURT

HAYES COURT

KINGS PEAK — DRIVE

JARVIS — LANE

WALSH — LANE

Lot I
75
2.22 AC.

Lot C
71

Lot E
72
2.83 AC.

Lot H
74

Lot F
73

76

EASEMENT

SOUTHERN CALIFORNIA EDISON

SOUTHERN CALIFORNIA GAS

March 2021 GW

Ptn. N.E.1/4, Sec. 24
T.1N., R.6W.

Assessor's Map
Book 1107 Page 52
San Bernardino County

REVISED

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- END OF REPORT -

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APPENDIX 6

March 29, 2024

Ms. Rosa Gutierrez
West Valley Water District
855 W. Baseline Road
Rialto, CA 92376

SUBJECT: WEST VALLEY WATER DISTRICT WELL NO. 57 NOISE ASSESSMENT

Dear Ms. Rosa Gutierrez:

Urban Crossroads, Inc. is pleased to provide the following Noise Assessment for the West Valley Water District Well No. 57 Project (referred to as the "Project") located northwest of the intersection of Vesta Way and Knox Ave, just northeast of the intersection of Knox Avenue and Walsh Lane in the City of Fontana, as shown in Exhibit A. The Project site is on approximately 1.6-acres across portions of three parcels within the City of Fontana (Assessor's Parcel Numbers [APNs] 110-752-174, 110-752-176, and 110-752-171). The purpose of this Noise Assessment is to describe the potential Project-related construction noise impacts.

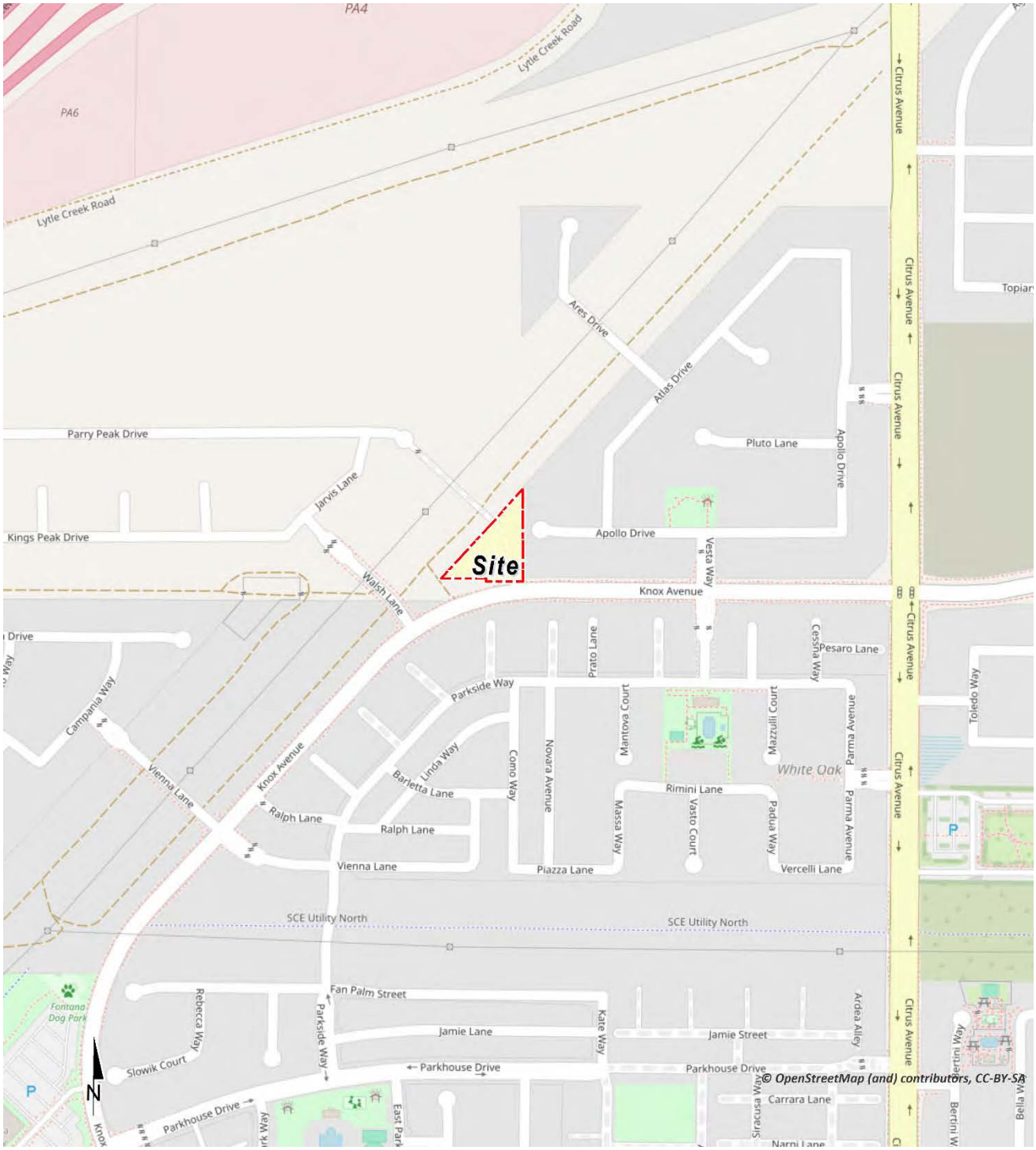
The site would include the following features: a 12-inch in diameter pipeline connecting to the West Valley Water District (District) distribution system in Knox Avenue; a 6-inch drain line the purpose for which is to connect to a pump for waste; a 6-foot by 9-foot chlorination building adjacent to the proposed well for sodium hypochlorite storage; and, a 5-inch conduit, switch gear, and transformer to connect to the existing powerline pole.

The District anticipates that the well will be drilled utilizing reverse rotary well drilling method to about 1,000 feet below ground surface, based on the depth of the District's nearby well. The objective for the well is to generate a minimum of 1,000 gallons per minute. The District anticipates that the water quality of the water extracted by the new Well No. 57 would be similar to Well No. 54, which only experiences issues with entrained air and sand. If sand is an issue at the new well, a small sand separator and deaeration tank may be required. The well will require installation of a submersible pump, and no booster pump will be necessary, as existing District booster pumps are sufficient to carry water from the proposed new well to customers.

Access to the proposed project site is provided from Knox Avenue and a paved fire access road. Stormwater is removed from the project site by infiltration into and sheet flow across the unpaved surfaces towards stormwater drains located on the adjacent public right of way.

It is anticipated that about five persons will be at Well No. 57 site at any one time to support drilling of the well: three drillers, the hydrologist inspector, and a supervisor. It is estimated that it will require about 6-10 weeks to drill each well, with 24-hour drilling activities for 7 days a week. The new well would connect to the District's distribution system via a connection within the adjacent paved utility easement at the southern boundary of the site maintained by MWD. The new well will be outfitted with a vertical turbine pump that will be located above ground and placed in a structure designed to attenuate noise. It is anticipated that installation of connecting pipeline will require the use of an excavator, backhoe, crane, compactor, pavement cutter, grinder, trucks, paving equipment. Installation of pipelines in undeveloped locations would require similar equipment the paving equipment. The contractor may occasionally use a portable generator and welder for equipment repairs or incidental uses.

EXHIBIT A: LOCATION MAP



RECEIVER LOCATIONS

To assess the potential for construction noise impacts, four receiver locations were identified as representative locations for analysis. Sensitive uses or receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land.

To describe the potential off-site Project noise levels, receiver locations in the vicinity of the Project site were identified, as shown on Exhibit B. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Since the exact location of the drilling activity is not known, distances are measured in a straight line from the Project boundary to each receiver location.

NOISE PREDICTION MODEL

To fully describe the construction noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels.

Using the ISO 9613 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613 protocol, the CadnaA noise prediction model relies on the reference sound power level (L_w) to describe individual noise sources. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

The drilling rig noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. The local topography of each site out to each receiver location based on lidar data. The model does not account for any existing structures or other manmade obstacles. A default ground attenuation factor of 0.75 was used in the CadnaA noise analysis to account for predominately hard site conditions.

EXHIBIT B: CONSTRUCTION NOISE SOURCE AND RECEIVER LOCATIONS

CITY OF FONTANA PROPERTY LINE NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property, stationary-source (operational) noise such as the expected drill rig, mud pumps, compressors, and generators are typically evaluated against standards established under a jurisdiction's Municipal Code. The City of Fontana noise control guidelines for determining and mitigating non-transportation or stationary noise source impacts from operations in neighboring residential areas are found in the Zoning and Development Code (Section 30-649), provided in Appendix 1. For residential zoning districts, Section 30-649 indicates that no person shall create or cause to be created any sound which exceeds the noise levels in this section as measured at the property line of any residentially zoned property. The performance standards found in Section 30-649 limit the exterior noise level to 65 dBA L_{eq} during the daytime and nighttime hours at sensitive receiver locations as shown on Table 1. (1)

TABLE 1: OPERATIONAL NOISE STANDARDS

Jurisdiction	Land use	Noise Level Standards (dBA Leq)[1]	
		Daytime	Nighttime
City of Fontana[1]	Residential	65	65

[1] Source: Section 30-469 of the City of Fontana Development Code (Appendix 3.1).
[2] L_{eq} represents a steady state sound level containing the same total energy as a time varying signal over a given sample period.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

CONSTRUCTION NOISE SOURCES

Using reference construction equipment noise levels level measurements and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearest sensitive receiver locations were completed. To assess the worst-case construction noise levels, the Project construction noise analysis relies on the equipment with the highest reference noise level operating continuously over a 24-hour period.

Drill rigs have several substantial noise sources, each with their own characteristics. The main sources of noise are the generator sets; the compressors; the mud pumps; and the top drive. Pumps/compressors and generator noise sources were placed five feet above ground level and the drill rig top drive was placed fifteen feet above ground level. Drill rig and associated equipment noise levels were developed from a noise survey conducted by Behrens and Associates, Inc. of three different drill rig systems in 2006. Each of the drill rigs were rated at 1,000 horsepower and were capable of drilling depths ranging from 12,000 to 15,000 feet (2). The surveyed drill rigs are similar in capability to the drill rig proposed for the Project. Based on peak noise levels provided by the survey, reference noise levels with a uniform distance of 50 feet were calculated and are provided in Table 2

TABLE 2: CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA L_{eq})	Highest Reference Noise Level (dBA L_{eq})
Borehole Drilling	Drill Rig Top Drive	82.0	87.6
	Compressors/Pumps	80.0	
	Generators	85.0	

[1] Behrens and Associates, Inc., 2006

CONSTRUCTION NOISE LEVEL ANALYSIS

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise levels with all equipment operating simultaneously were completed. As shown in Table 3, the unabated construction noise levels for activities at Location 1 are expected to range from 59.6 to 77.0 dBA L_{eq} at the nearest residential uses. Appendix B includes the unabated typical construction CadnaA noise model calculations.

TABLE 3: UNABATED DRILLING EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location[1]	Project Construction Noise Levels (dBA Leq)[2]		Noise Level Standards (dBA Leq)[3]		Threshold Exceeded?	
	Daytime	Nighttime	Daytime	Nighttime		
R1	77.0	77.0	65	65	Yes	Yes
R2	75.7	75.7	65	65	Yes	Yes
R3	59.6	59.6	65	65	No	No
R4	66.5	66.5	65	65	Yes	Yes

[1] Noise receiver locations are shown on Exhibit B.
[2] Highest construction noise level operating at the Project site boundary to nearby receiver locations.
[3] City of Fontana Municipal Code, Section 30-469.

As shown on Table 5, the unabated construction noise levels for activities at Location 2 are expected to Construction Noise Level Compliance Location 1

To demonstrate compliance with local noise regulations, the Project-only construction noise levels are evaluated against exterior noise level thresholds established by Section 30-649 City of Fontana. As shown on Table 4, the estimated construction noise levels at R3 will satisfy the 65 dBA L_{eq}. However, the construction noise levels at R1, R2, and R4 will exceed the City of Fontana construction noise level standard of 65 dBA L_{eq}.

Therefore, additional modeling was completed for various barrier heights surrounding the Project site. Based on the modeling, the minimum barrier height that would allow the Project to comply with the City of Fontana daytime and nighttime noise level standards would be a 20-foot-high barrier along the eastern property line and a 16-foot barrier along the southern property line, as shown in Exhibit C. As shown on Table 4, the mitigated construction noise levels are expected to range from 59.6 to 64.0 dBA L_{eq} at the nearest residential land uses. Appendix B includes the abated construction CadnaA noise model calculations. Appendix C includes photos of a typical temporary noise barrier used for water well construction activity.

TABLE 4: ABATED DRILLING EQUIPMENT NOISE LEVEL SUMMARY

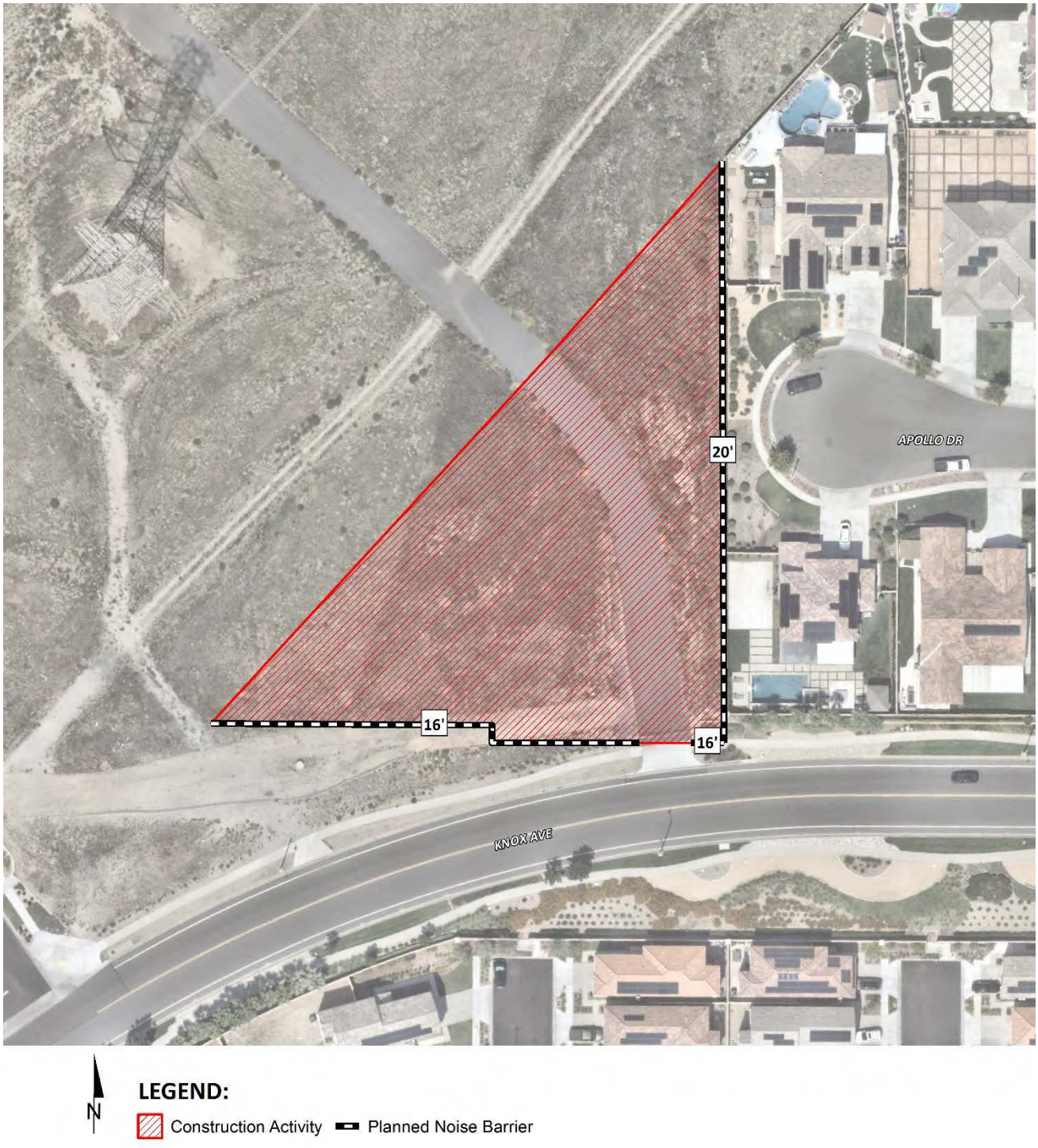
Receiver Location[1]	Project Construction Noise Levels (dBA Leq)[2]		Noise Level Standards (dBA Leq)[3]		Threshold Exceeded?	
	Daytime	Nighttime	Daytime	Nighttime		
R1	64.0	64.0	65	65	No	No
R2	63.0	63.0	65	65	No	No
R3	59.6	59.6	65	65	No	No
R4	63.6	63.6	65	65	No	No

[1] Noise receiver locations are shown on Exhibit B.
[2] Highest construction noise level operating at the Project site boundary to nearby receiver locations.
[3] City of Fontana Municipal Code, Section 30-469.

ABATEMENT REQUIREMENTS

To comply with the City of Fontana the City of Fontana Municipal Code Section 30-469 during daytime and nighttime hours, noise barriers with a minimum height of 20 feet should be erected along the eastern Project site boundary and a minimum height of 16 feet should be erected along the southern Project site boundary such that the drill rig, mud pumps, compressors, and generators are completely shielded from nearby residential areas. An effective barrier requires a weight of at least 2 pounds per square foot of face area with no decorative cutouts, perforations, or line-of-sight openings between shielded areas and the source. Examples of temporary barrier material includes 5/8-inch plywood, 5/8-inch oriented-strand board, or sound blankets capable of providing a minimum sound transmission loss (STC) of 27 or a Noise Reduction Coefficient (NRC) of 0.85.

EXHIBIT-C: DRILL RIG NOISE ABATEMENT



CONCLUSIONS

This Noise Assessment demonstrates that the drill rig noise levels associated with West Valley Water District Well No. 57 Project can satisfy the City of Fontana exterior noise level standards at all nearby receiver locations with the use of barriers shielding the receivers to the east and south of the Project site. Unabated noise levels at R3 would not exceed the City of Fontana noise level standards and would not require a barrier along the northwest side of the Project site. Therefore, with implementation of the identified noise abatement measures shown in Exhibit C, the construction noise levels would comply with the City of Fontana noise level limits during daytime and nighttime hours. If you have any questions, please contact me directly at (619) 778-1971.

Respectfully submitted,

URBAN CROSSROADS, INC.

William Maddux
Senior Associate

REFERENCES

1. **City of Fontana.** *Zoning and Development Code, Section 30, Article V - Residential Zoning Districts, Division 6 - Performance Standards.*
2. **Behrens and Associates, Inc.** *Gas Well Drilling Noise Impact and Mitigation Study.* April 2006.
3. **City of Rancho Cucamonga.** *Development Code, 17.66 Performance Standards.*

APPENDIX A

CITY OF FONTANA MUNICIPAL CODE

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Sec. 30-468. - Purpose.

This section establishes standards for conducting activities in residential zoning districts. The standards are designed to protect residents from annoying or potentially harmful environmental conditions.

Sec. 30-469. - Noise.

No use shall create or cause to be created any sound that exceeds the ambient noise standards outlined in Table 30-469.

No use shall create or cause creation of noise from a portable electronic device such as a car stereo, portable radio and/or cassette/compact disc player or similar device which exceeds the ambient noise standards outlined in Table 30-469.

Table 30-469
Noise Standards

Location of Measurement	**Maximum Allowable**	
All zoning districts	7:00 a.m. until 10:00 p.m.	10:00 p.m. until 7:00 a.m.
Interior	45 db	45 db
Exterior	65 db	65 db

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APPENDIX B

NOISE LEVEL CALCULATIONS

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15783 - West Valley Water District Well No. 57

CadnaA Noise Prediction Model: 15783-02_Construction.cna
Date: 29.03.24
Analyst: B. Maddux

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
R1		R1	77.0	77.0	83.7	0.0	0.0	0.0		x	Total	5.00	a	6196232.08	2367140.48	5.00
R2		R2	75.7	75.7	82.4	0.0	0.0	0.0		x	Total	5.00	a	6196232.08	2367330.58	5.00
R3		R3	59.6	59.6	66.2	0.0	0.0	0.0		x	Total	5.00	a	6195704.52	2367376.80	5.00
R4		R4	66.5	66.5	73.2	0.0	0.0	0.0		x	Total	5.00	a	6196139.64	2366941.69	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)

Line Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Operating Time			Moving Pt. Src				Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	Number			Speed	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	Day	Evening	Night	(mph)	(ft)

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
SITEBOUNDARY		SITEBOUNDARY00001	119.3	119.3	119.3	83.3	83.3	83.3	Lw	119.3					15	a

Name	ID	Height			Coordinates			
		Begin		End	x	y	z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	SITEBOUNDARY00001	15.00	a		6196202.61	2367375.71	15.00	0.00
					6196202.95	2367069.38	15.00	0.00
					6195924.88	2367069.54	15.00	0.00
					6196091.13	2367252.07	15.00	0.00
					6196108.72	2367271.22	15.00	0.00

Barrier(s)

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height			Coordinates			
				left	right		horz.	vert.	Begin		End	x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
Southeast_Barrier			PB1						0.00	a		6196185.45	2367068.38	0.00	0.00
												6196204.20	2367068.37	0.00	0.00
Eastern_Barrier			PB2						0.00	a		6196204.20	2367068.37	0.00	0.00
												6196203.04	2367377.28	0.00	0.00
Northwest_Barrier			PB3						0.00	a		6196203.04	2367377.28	0.00	0.00
												6195922.60	2367068.53	0.00	0.00
Southwest_Barrier			PB4						0.00	a		6195922.60	2367068.53	0.00	0.00
												6196155.07	2367068.40	0.00	0.00
BARRIEREXISTING			EB1						6.00	a		6196204.33	2367378.39	6.00	0.00
												6196206.09	2367073.68	6.00	0.00
												6196298.84	2367072.86	6.00	0.00
BARRIEREXISTING			EB2						6.00	a		6195846.41	2366847.16	6.00	0.00
												6195926.27	2366897.16	6.00	0.00
												6195997.80	2366929.80	6.00	0.00
												6196057.17	2366950.63	6.00	0.00
												6196206.48	2366948.55	6.00	0.00
												6196291.55	2366948.20	6.00	0.00
												6196432.69	2366948.03	6.00	0.00
BARRIEREXISTING			EB3						6.00	a		6195832.87	2367493.17	6.00	0.00
												6195573.32	2367211.92	6.00	0.00

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates			
							Begin	x	y	z	Ground
							(ft)	(ft)	(ft)	(ft)	(ft)

Ground Absorption(s)

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(ft)	(ft)

Contour(s)

Name	Sel.	M.	ID	OnlyPts	Height		Coordinates		
					Begin	End	x	y	z
					(ft)	(ft)	(ft)	(ft)	(ft)

Vertical Area Source(s)

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Rail

Name	Sel.	M.	ID	Lw'		Train Class	Correct.	Vmax
				Day	Night		Track	
				(dBA)	(dBA)		(dB)	(km(mph)

Sound Level Spectra

Name	ID	Type	Oktave Spectrum (dB)											Source
			Weight.	31.5	63	125	250	500	1000	2000	4000	8000	A	lin	

Roads

Name	Sel.	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	Surface		Gradient	Mult. Reflection		
				Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Dstro	Type		Drefl	Hbuild	Dist.
				(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(mph)	(mph)		(dB)		(%)	(dB)	(ft)	(ft)

RoadsGeo

Name	Height		Coordinates				Dist	LSlope
	Begin	End	x	y	z	Ground	(ft)	(%)
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		

15783 - West Valley Water District Well No. 57

CadnaA Noise Prediction Model: 15783-02_ConstructionMit.cna
Date: 29.03.24
Analyst: B. Maddux

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
R1		R1	64.0	64.0	70.6	0.0	0.0	0.0		x	Total	5.00	a	6196232.08	2367140.48	5.00
R2		R2	63.0	63.0	69.6	0.0	0.0	0.0		x	Total	5.00	a	6196232.08	2367330.58	5.00
R3		R3	59.6	59.6	66.2	0.0	0.0	0.0		x	Total	5.00	a	6195704.52	2367376.80	5.00
R4		R4	63.6	63.6	70.2	0.0	0.0	0.0		x	Total	5.00	a	6196139.64	2366941.69	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)

Line Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Operating Time			Moving Pt. Src				Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	Number			Speed	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	Day	Evening	Night	(mph)	(ft)

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
SITEBOUNDARY		SITEBOUNDARY00001	119.3	119.3	119.3	83.3	83.3	83.3	Lw	119.3					15	a

Name	ID	Height			Coordinates			
		Begin		End	x	y	z	Ground
		(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	SITEBOUNDARY00001	15.00	a		6196202.61	2367375.71	15.00	0.00
					6196202.95	2367069.38	15.00	0.00
					6195924.88	2367069.54	15.00	0.00
					6196091.13	2367252.07	15.00	0.00
					6196108.72	2367271.22	15.00	0.00

Barrier(s)

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height			Coordinates			
				left	right		horz.	vert.	Begin		End	x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
BARRIERPLANNED			0						16.00	a		6196185.45	2367068.38	16.00	0.00
												6196204.20	2367068.37	16.00	0.00
BARRIERPLANNED			0						20.00	a		6196204.20	2367068.37	20.00	0.00
												6196203.04	2367377.28	20.00	0.00
BARRIERPLANNED			0						0.00	a		6196203.04	2367377.28	0.00	0.00
												6195922.60	2367068.53	0.00	0.00
BARRIERPLANNED			0						16.00	a		6195922.60	2367068.53	16.00	0.00
												6196155.07	2367068.40	16.00	0.00
BARRIEREXISTING			0						6.00	a		6196204.33	2367378.39	6.00	0.00
												6196206.09	2367073.68	6.00	0.00
												6196298.84	2367072.86	6.00	0.00
BARRIEREXISTING			0						6.00	a		6195846.41	2366847.16	6.00	0.00
												6195926.27	2366897.16	6.00	0.00
												6195997.80	2366929.80	6.00	0.00
												6196057.17	2366950.63	6.00	0.00
												6196206.48	2366948.55	6.00	0.00
												6196291.55	2366948.20	6.00	0.00
												6196432.69	2366948.03	6.00	0.00
BARRIEREXISTING			0						6.00	a		6195832.87	2367493.17	6.00	0.00
												6195573.32	2367211.92	6.00	0.00

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates				
							Begin	x	y	z	Ground	
							(ft)	(ft)	(ft)	(ft)	(ft)	

Ground Absorption(s)

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(ft)	(ft)

Contour(s)

Name	Sel.	M.	ID	OnlyPts	Height		Coordinates		
					Begin	End	x	y	z
					(ft)	(ft)	(ft)	(ft)	(ft)

Vertical Area Source(s)

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Rail

Name	Sel.	M.	ID	Lw'		Train Class	Correct.	Vmax
				Day	Night		Track	
				(dBA)	(dBA)		(dB)	(km(mph)

Sound Level Spectra

Name	ID	Type	Oktave Spectrum (dB)											Source
			Weight.	31.5	63	125	250	500	1000	2000	4000	8000	A	lin	

Roads

Name	Sel.	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	Surface		Gradient	Mult. Reflection		
				Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Dstro	Type		Drefl	Hbuild	Dist.
				(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(mph)	(mph)		(dB)		(%)	(dB)	(ft)	(ft)

RoadsGeo

Name	Height		Coordinates				Dist	LSlope
	Begin	End	x	y	z	Ground	(ft)	(%)
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		

APPENDIX C

WATER WELL NOISE ABATEMENT PHOTOS

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