# FINAL INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR EXPANSION OF A WELL FIELD AT HELENDALE ROAD AND SHADOW MOUNTAIN ROAD, HELENDALE, CA

Lead Agency/Applicant:
Helendale Community Services District
26540 Vista Road
P.O. Box 359
Helendale, CA 92342
c/o Dr. Kimberly Cox, General Manager
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Prepared by:
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Draft: October 2020
Final: February 2021

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# Contents

# Section 1.0 Introduction

## 1.1 Purpose of this Initial Study

This Initial Study analyzes the environmental impacts associated with the expansion of an existing well field to include the construction of multiple new wells (replacement and new) and appurtenant facilities for the community within the boundary of the Helendale Community Services District (HCSD – Exhibit 6.1.3), located on approximately 43.08+/- acres. The project is located both south and east of the intersection of Helendale Road and Shadow Mountain Road.

The HCSD is an independent entity created under California state law to provide services within unincorporated county areas. The HCSD provides water, parks and recreation, solid waste and recycling, wastewater, street lighting, and graffiti abatement services. The HCSD provides this water service pursuant to the regulatory jurisdiction of the State Water Resources Control Board, Division of Drinking Water (DDW), and is required to obtain well drilling permits and encroachment permits from the County of San Bernardino. HCSD operates its potable water system under the terms and conditions of a Water Supply Permit issued by the DDW.

The proposed new water supply wells will be pumped to supplement HCSD's existing sources. Before the new wells can be connected to the HCSD water supply system, it must obtain an amended permit from the DDW to add new facilities to its system. As the lead agency, HCSD must comply with CEQA and make a determination on the potential effects of permitting a replacement and new water supply and modified distribution facilities on the existing environment.

The HCSD is the designated *Lead Agency* and as such, the HCSD will be responsible for the project's environmental review. Section 21067 of California Environmental Quality Act (CEQA) defines a Lead Agency as the public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect on the environment[1]. As part of the proposed project's environmental review, the HCSD has authorized the preparation of this Initial Study[2]. The primary purpose of CEQA is to ensure that decision-makers and the public understand the environmental implications of a specific action or project. An additional purpose of this Initial Study is to ascertain whether the proposed project will have the potential for significant adverse impacts on the environment once it is implemented. Pursuant to the CEQA Guidelines, additional purposes of this Initial Study include the following:

- To provide the HCSD with information to use as the basis for deciding whether to prepare an environmental impact report (EIR), mitigated negative declaration, or negative declaration for a project;
- To facilitate the project's environmental assessment early in the design and development of the proposed project;
- To eliminate unnecessary EIRs; and,
- To determine the nature and extent of any impacts associated the proposed project.

Although this Initial Study was prepared with consultant support, the analysis, conclusions, and findings made as part of its preparation fully represent the independent judgment and position of the HCSD, in its capacity as the Lead Agency. The HCSD determined, as part of this Initial Study's preparation, that this Mitigated Negative Declaration is the appropriate environmental document for the proposed project's CEQA review. Certain projects or actions may also require oversight approvals or permits from other public agencies. These other agencies are referred to as *Responsible Agencies* and *Trustee Agencies*, pursuant to Sections 15381 and 15386 of the State CEQA Guidelines[3]. This Initial Study and the *Notice of Intent to Adopt a Mitigated Negative Declaration* will be forwarded to responsible agencies, trustee agencies, and the public for review and comment. A 30-day public review period will be provided to allow these entities and other interested parties to comment on the proposed project and the findings of this Initial Study[4].

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1 California, State of. California Public Resources Code. Division 13, Chapter 2.5. Definitions. as Amended 2001. §21067.
2 Ibid. (CEQA Guidelines) §15050.
3 California, State of. Public Resources Code Division 13. The California Environmental Quality Act. Chapter 2.5, Section 21067 and Section 21069. 2000.
4 California, State of. Public Resources Code Division 13. *The California Environmental Quality Act. Chapter 2.6, Section 2109 (b),* 2000.

Questions and/or comments should be submitted to the following contact person:

Ginger E. Coleman, Contract Planner
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## 1.2 Initial Study's Organization

The following annotated outline summarizes the contents of this Initial Study:

- *Section A – Response to Comments:* provides the comments received during the public review period and Helendale CSD responses.
- *Section 1 - Introduction:* provides the procedural context surrounding this Initial Study's preparation and insight into its composition.
- *Section 2 - Project Description:* provides an overview of the existing environment as it relates to the project area and describes the proposed project's physical and operational characteristics.
- *Section 3 - Environmental Analysis:* includes an analysis of potential impacts associated with the construction and the subsequent operation of the proposed project.
- *Section 4 - Conclusions:* summarizes the findings of the analysis. This section also includes the Mitigation Monitoring and Reporting Program (MMRP).
- *Section 5 - References:* identifies the sources used in the preparation of this Initial Study.

## 1.3 Comments on the Draft Initial Study

The following annotated outline summarizes the contents of this Initial Study:

| Letter No. | Comment Letter Received From | Date |
|---|---|---|
| 1 | San Manuel Band of Mission Indians | October 20, 2020 |

Letter 1 San Manuel Band of Mission Indians, October 20, 2020

Response The San Manuel Band of Mission Indians (SMBMI) requested a site-specific Cultural Resources Assessment which was prepared by BCR Consulting LLC on February 16, 2021. In response to said Cultural Resources Assessment, the SMBMI requested the following changes to the Draft Initial Study:

1. Section 2.6 Tribal Consultation was updated to referencing said Comment and request to consult.

   The Draft Initial Study was provided to the Tribes and/or their representatives provided by the California Native American Heritage Commission. The San Manuel Band of Mission Indians requested the preparation of a Cultural Resources Assessment and provided comments and revisions after review of said Assessment. These have been incorporated into the Final Initial Study and Mitigated Negative Declaration for adoption by the Helendale CSD Board of Directors. At this time consultation has been completed. ~~Tribal consultation has been started. Appropriate mitigation measures will be included, as necessary.~~

2. Section 3.5 Cultural Resources was updated to remove references to cultural studies prepared for sites in proximity to the subject project, and include language and mitigation measures suggested by SMBMI.

   **CULTURAL RESOURCES**

   The proposed project is to allow for the expansion of an existing well field. The site has significant disturbance from historical agricultural use, and vehicular, ATV, and pedestrian traffic. Historical Agricultural use has disturbed the ground to an estimated depth of 18± inches and disturbing any potential cultural resources near the surface is not anticipated. Further, the project does not include development over the entire site, but only in specified areas where water production wells are to be constructed and appurtenant water and electrical lines.

   ~~A review of projects submitted to the County of San Bernardino in the surrounding area, identifies two previous projects where Cultural Resources studies were prepared. The first is the Route 66 Market and Gas located approximately 4,000 feet northeast of the site at 26526 National Trails Highway (APN 0467-101-12), see Exhibit 6.2.2 and 6.2.3. The second is a cellular service tower located approximately 8,000 feet northwest of the site, see Exhibit 6.2.5.~~

   ~~It is not anticipated that cultural resources would be located on the project site. However, mitigation is proposed in the event that evidence of cultural resources is discovered during well construction.~~

   The Draft Initial Study was provided to the Tribes and/or their representatives provided by the California Native American Heritage Commission. The San Manuel Band of Mission Indians requested the preparation of a Cultural Resources Assessment and provided comments and revisions after review of said Assessment. These have been incorporated into this Final Initial Study and Mitigated Negative Declaration for adoption by the Helendale CSD Board of Directors. At this time consultation has been completed.

   A Cultural Resources Assessment has been prepared for the site by BCR Consulting LLC (see Section 6.2.2), which included a cultural resources records search, intensive-level pedestrian cultural resources survey, shovel test pit excavation, a Sacred Lands File search with the Native American Heritage Commission, and a Paleontological Overview. During the field survey, two prehistoric isolates and two historic-age sites were located. The two isolates are not considered

historical resources under CEQA, and the two historic-age sites are not recommended for listing as historical sites; therefore, no further consideration is recommended.

Explanations:

a.-d. **Less Than Significant Impact with Mitigation Incorporated** – It is reasonable that no cultural resources will be identified ~~are located~~ on the site during construction, for the reasons noted above. Mitigation measures are recommended in the event evidence of cultural resources are discovered.

~~A Tribal consultation list and sacred lands file search have been requested of the Native American Heritage Commission. Once a list is received the intered area Tribes will be notified of the project per the AB52 process, which may result request(s) for tribal consultation, or amendment of the mitigation measures. Any such amendments will be made prior to the Board taking action on this item.~~ At the request of Ryan Nordness, Cultural Resources Analyst for the San Manuel Band of Mission Indians the following discussion, and modifications to the Mitigation Measures is being incorporated.

Treatment of Cultural Resources.

If a pre-contact cultural resource is discovered during project implementation, ground-disturbing activities shall be suspended 60 feet around the resource(s), and an Environmentally Sensitive Area (ESA) physical demarcation/barrier constructed.

The lead agency shall develop a research design that shall include a plan to evaluate the resource for significance under CEQA criteria. Representatives from the San Manuel Band of Mission Indians Cultural Resources Department (SMBMI), the applicant, and the Lead Agency shall confer regarding the research design, as well as any testing efforts needed to delineate the resource boundary. Following the completion of evaluation efforts, all parties shall confer regarding the resource's archaeological significance, its potential as a Tribal Cultural Resource (TCR), and avoidance (or other appropriate treatment) of the discovered resource.

Should any significant resource and/or TCR not be a candidate for avoidance or preservation in place, and the removal of the resource(s) is necessary to mitigate impacts, the research design shall include a comprehensive discussion of sampling strategies, resource processing, analysis, and reporting protocols/obligations. Removal of any cultural resource(s) shall be conducted with the presence of a Tribal monitor representing the Tribe unless otherwise decided by SMBMI. All plans for analysis shall be reviewed and approved by the applicant and SMBMI prior to implementation, and all removed material shall be temporarily curated on-site. It is the preference of SMBMI that removed cultural material be reburied as close to the original find location as possible. However, should reburial within/near the original find location during project implementation not be feasible, then a reburial location for future reburial shall be decided upon by SMBMI, the landowner, and the Lead Agency, and all finds shall be reburied within this location. Additionally, in this case, reburial shall not occur until all ground-disturbing activities associated with the project have been completed, all monitoring has ceased, all cataloging and basic recordation of cultural resources have been completed, and a final monitoring report has been issued to the Lead Agency, CHRIS, and SMBMI. All reburials are subject to a reburial agreement that shall be developed between the landowner and SMBMI outlining the determined reburial process/location and shall include measures and provisions to protect the reburial area from any future impacts (vis a vis project plans, conservation/preservation easements, etc.).

Should it occur that avoidance, preservation in place, and on-site reburial are not an option for treatment, the landowner shall relinquish all ownership and rights to this material and confer with SMBMI to identify an American Association of Museums (AAM)-accredited facility within the County that can accession the materials into their permanent collections and provide for the proper care of these objects in accordance with the 1993 CA Curation Guidelines. A curation agreement with an appropriately qualified repository shall be developed between the landowner and museum that legally and physically transfers the collections and associated records to the facility. This agreement shall stipulate the payment of fees necessary for permanent curation of the collections and associated records and the Project developer/applicant's obligation to pay for those fees.

All draft records/reports containing the significance and treatment findings and data recovery results shall be prepared by the archaeologist and submitted to the Lead Agency and SMBMI for their review and comment. After approval from all parties, the final reports and site/isolate records are to be submitted to the local CHRIS Information Center, the Lead Agency, and SMBMI.

Mitigation Measures:

**CUL 1.** **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 San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed within TCR-1, regarding any pre-contact and/or post-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.** ~~**In the event that Tribal cultural resources are discovered during the project earth moving or construction activities, all work in the immediate vicinity of the find shall cease and a qualified archaeologist and appropriate local Tribe or Band shall assess the significance of such resources and shall meet and confer regarding the mitigation for such resources. The Helendale CSD cedes to the San Manuel Band of Mission Indians (SMBMI) for ultimate determination and all tribal resources to SMBMI. SMBMI is a no-collection tribe and all resources shall be reburied on site at a location that does not impact future well locations and additionally complies with the provision of CEQA with respect to archaeological resources and shall take into account the religious beliefs, customs and practices of the Tribe or Band.**~~

**CUL 2.** **If significant pre-contact and/or post-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 SMBMI for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the plan accordingly.** ~~**If significant Tribal cultural resources are discovered, for which a Treatment Plan must be prepared, HCSD or qualified archaeologist shall contact the appropriate Tribe or Band for collaboration on Treatment Plan development.**~~

~~**CUL 3.If requested by a Tribe or Band, the developer or the qualified archaeologist shall, in good faith, consult with Tribal representatives on the discovery and its disposition (e.g. avoidance, preservation, return of artifacts to tribe, etc.).**~~

Inadvertent Discoveries of Human Remains/Funerary Objects

In the event that any human remains are discovered within the project area, ground-disturbing activities shall be suspended 100 feet around the resource(s) and an Environmentally Sensitive Area (ESA) physical demarcation/barrier constructed. The on-site lead/foreman shall then immediately who shall notify SMBMI, the applicant/developer, and the Lead Agency. The Lead Agency and the applicant/developer shall then immediately contact the County Coroner regarding the discovery. 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, the Coroner shall ensure that notification is provided to the NAHC within twenty-four (24) hours of the determination, as required by California Health and Safety Code § 7050.5 (c). The NAHC-identified Most Likely Descendant (MLD) shall be allowed, under California Public Resources Code § 5097.98 (a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and funerary objects shall be treated and disposed of with appropriate dignity. The MLD, Lead Agency, and landowner agree to discuss in good faith what constitutes "appropriate dignity" as that term is used in the applicable statutes. The MLD shall complete its inspection and make recommendations within forty-eight (48) hours of the site visit, as required by California Public Resources Code § 5097.98.

Reburial of human remains and/or funerary objects (those artifacts associated with any human remains or funerary rites) shall be accomplished in compliance with the California Public Resources Code § 5097.98 (a) and (b). The MLD, in consultation with the landowner, shall make the final discretionary determination regarding the appropriate disposition and treatment of human remains and funerary objects. All parties are aware that the MLD may wish to rebury the human remains and associated funerary objects on or near the site of their discovery in an area that shall not be subject to future subsurface disturbances. The applicant/developer/landowner should accommodate on-site reburial in a location mutually agreed upon by the Parties.

It is understood by all Parties that unless otherwise required by law, the site of any reburial of Native American human remains or cultural artifacts shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, parties, and Lead Agencies will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code § 6254 (r). ~~California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains (Section 7050.5b). If the coroner determines or has reason to believe that the remains are those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC) within 24 hours (Section 7050.5c). The NAHC will notify the Most Likely Descendant (MLD), and with the permission of the landowner, the Most Likely Descendant may inspect the site of discovery. The inspection must be completed within 24 hours of notification of the Most Likely Descendant by the NAHC. The Most Likely Descdendant may recommend means~~

~~of treatment or disposing of, with appropriate dignity, the human remains, and items associated with Native Americans. The following mitigation is recommended:~~

Mitigation Measure:

**CUL 3.** **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.** ~~**In the event that any human remains, burials, or funerary objects are discovered within the project area, all earthmoving work and/or construction in the immediate vicinity shall be suspended and an environmentally sensitive area physical demarcation/barrier constructed. The County Corner and Helendale Community Services District shall immediately be contacted pursuant to State Health and Safety Code §7050.5. If the Coroner determines the remains to be Native American, or has reason to believe they are Native American, the State Native American Heritage Commission (NAHC) shall be contacted within twenty-four (24) hours as required by California Health and Safety Code Section 7050.5(c).**~~

~~**The NAHC-identified Most Likely Descendant (MLD) shall be allowed under California Public Resources Code Section 5097.98(a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and funerary objects shall be treated and disposed of with appropriate dignity. The MLD, Lead Agency/Landowner agree to discuss in good faith what constitutes "appropriate dignity" as that term is used in the applicable statutes. The MLD shall complete its inspection and make recommendations within forty-eight (48) hours of the site visit, as required by California Public Resources Code Section 5097.98.**~~

~~**Reburial of human remains and/or funerary objects (those artifacts associated with any human remains or funerary rites) shall be accomplished in compliance with the California Public Resources Code Section 5097.98 (a) and (b). The MLD in consultation with the landowner, shall make the final discretionary determination regarding the appropriate disposition and treatment of human remains and funerary objects. All parties are aware that the MLD may wish to rebury the human remains and associated funerary objects on or near the site of their discovery, in an area that shall not be subject to future subsurface disturbances. The Lead Agency/Landowner should accommodate on-site reburial in a location mutually agreed upon by the Parties.**~~

~~**It is understood by all Parties that unless otherwise required by law, the site of any reburial of Native American human remains or cultural artifacts shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner and all other parties will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code Section 6254(r).**~~

~~**Work shall not resume until such time as the site has been cleared by the County Coroner or qualified archaeologist or Tribal representative.**~~

3. Section 3.18 Tribal Cultural Resources was updated to remove references to cultural studies prepared for sites in proximity to the subject project, and include language and mitigation measures suggested by SMBMI.

## TRIBAL CULTURAL RESOURCES

As noted in the Cultural Resources Section ~~explanation~~, a Cultural Resource Assessment has been prepared which recommends no additional cultural resources work or monitoring. However, Ryan Nordness, Cultural Resources Analyst for the San Manuel Band of Mission Indians recommended revised mitigation measures to address the potential discovery of cultural resources during well construction. ~~the project area has significant disturbance from historical agricultural use, which disturbed the ground to an estimated depth of 18+/- inches and disturbing any resources near the surface. A review of projects submitted to the County of San Bernardino in the surrounding area, identified two projects located near the project, and are discussed under the Cultural Resources Section.~~

Explanations:

A request for Tribal Consultation List and Sacred Lands File Search has been submitted to the Native American Heritage Commission. Once that information is received, consultation with the applicable tribes will be undertaken, as applicable.

a. & ii. **Less Than Significant Impact w/Mitigation Incorporated** – Based on the above information and analysis contained in the Cultural Resources section, the following mitigation measures are included.

Mitigation Measures:

**TRI 1.** **The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed in CR-1, of any pre-contact and/or post-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 discovery 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 SMBMI, and, all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to represent SMBMI for the remainder of the project, should SMBMI elect to place a monitor on-site.** ~~**In the event that Tribal cultural resources are discovered during the project earth moving activities, all work in the immediate vicinity of the find shall cease and a qualified archaeologist and appropriate local Tribe or Band shall assess the significance of such resources and shall meet and confer regarding the mitigation for such resources. The Helendale CSD cedes to the San Manuel Band of Mission Indians (SMBMI) for ultimate determination and all tribal resources to SMBMI. SMBMI is a non-collection tribe and all resources shall be reburied on site at a location that does not impact future well locations and additionally complies with the provisions of CEQA with respect to archaeological resources and shall**~~

~~**take into account the religious beliefs, customs and practices of the Tribe or Band.**~~

**TRI 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 applicant and Lead Agency for dissemination to SMBMI. The Lead Agency and/or applicant shall, in good faith, consult with SMBMI throughout the life of the project.** ~~**If significant Tribal cultural resources are discovered, for which a Treatment Plan must be prepared, HCSD's qualified archaeologist shall contact the appropriate Tribe or Band for collaboration on Plan development.**~~

~~**TRI 3. If requested by a Tribe or Band, HCSD's qualified archaeologist shall, in good faith, consult with Tribal representatives on the discovery and its disposition (e.g. avoidance, preservation, return of artifacts to tribe, etc.).**~~

~~**TRI 4. All earthmoving work in the immediate vicinity shall cease and County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 if human remains are encountered. If the remains are determined to be Native American, the State Native American Heritage Commission (NAHC) shall be contacted to determine the Most Likely Descendant (MLD). The MLD shall be contacted to make a determination regarding disposition of the remains. Work shall not resume until such time as the site has been cleared by the County Coroner or qualified archaeologist or Tribal representative. Tribal representative(s) o the lead Tribal Representative, currently designed as SMBMI and a more detailed criteria and specifically a buffer zone**~~

4. Mitigation Monitoring and Reporting Program – mitigation measures have been updated to match those changes identified in the Cultural Resources and Tribal Cultural Resources sections..

5. Exhibit 6.2.2 has been replaced with a site-specific Cultural Resources Assessment, Exhibits 6.2.3 and 6.2.4, have been removed as they related to sites in proximity to the subject project, and Exhibit 6.2.5 has been renumbered.

**INITIAL STUDY**
**ENVIRONMENTAL CHECKLIST FORM**

# Section 2.0 Project Description

## 2.1 Project Overview

| | |
|---|---|
| Project title: | Proposed Expansion of an Existing Well Field |
| Lead agency name and address: | Helendale Community Services District<br>26540 Vista Road (P.O. Box 359)<br>Helendale, CA 92342 |
| Contact person and phone number: | Dr. Kimberly Cox, General Manager, (760) 951-0006. |
| Project sponsor's name & address: | Helendale Community Services District<br>26540 Vista Road (P.O. Box 359)<br>Helendale, CA 92342 |
| General plan designation: | Single Residential |
| Zoning: | RS (Single Residential |
| Overlays: | Biological Resources Overlay<br>Hazard Overlays – Dam Inundation |

## 2.2 Project Location

The project is generally located south and east of the intersection of Helendale Road and Shadow Mountain Road, in the community of Helendale, CA 92342 (APNs 467-121-22 & 28)

## 2.3 Environmental Setting

The Site is generally in the Mojave Scrub community and the eastern edge being on the western edge of the Mojave River corridor. It is explicitly noted, on 09/22/2020 California Fish and Game Commission preliminarily designated the western species of the Joshua Tree (Yucca brevifolia) as an Endangered Species (starting a one-year review and analysis by Fish and Game) and this Site has no Joshua Trees and no Joshua Trees existing on immediate adjacent parcels, therefore little potential for future seedling Joshua trees inhabiting the Site in the near future. Portions of the Site are fallow agricultural areas and other remaining area are disturbed desert with off-highway vehicle (OHV) trails and still contain the ubiquitous Creosote (*Larrea tridentata*) and other Mojave Scrub and invasive grass and plant species of Schismus sp., Brome sp., Saharan mustard, Salsola sp.

The Project Site currently contains three (3) water wells, 2 located on the norther parcel, and 1 located on the southern parcel. In addition, 2 water wells are located off-site abutting the site on Helendale Road. See Exhibit 6.1.11 for approximately distances.

Surrounding land uses include the following:

- North: North of the Site is Helendale Road, fallow agricultural land, and the Silver Lakes community.
- East: East of the Site is the Mojave River corridor.
- South: South of the Site is vacant native desert, fallow agricultural land, and the Mojave River.

- West: West of the Site is Helendale Road, fallow agricultural land, and the Silver Lakes community.

## 2.4 Project Description

To allow for the expansion of an existing well field to replace existing non-producing wells in a designated disadvantaged and severely disadvantaged community to include in the construction of multiple water wells and appurtenant facilities for the community of Helendale on 43.08+/- acres (2 parcels). Primary Access to the site will be provided by the adjacent Helendale Road.

The proposed wells will be equipped with an above ground pump motor on top of an approximate 10-foot by 10-foot concrete pad. No landscaping will be installed at the well sites. The closest connection to the HCSD system is located in the adjacent roadway (Helendale Road).

Each new water well will be drilled using a reverse rotary drill unit to an appropriate depth to achieve a sufficient amount of water for HCSD water supply and planning purposes to serve existing residents and businesses and continued growth. Existing water lines are proposed to be used with the first water well and potential new distribution water lines for additional water wells, as needed in the future.

The new wells will serve to provide the community with a supplemental, reliable source of drinking water, which will be a vital source of water to the community. The wells will each be equipped with an above ground pump motor on top of an approximate 10-foot x 10-foot concrete pad. No new landscaping is proposed to be installed at any of the well sites, which is consistent with the current conditions of the existing wells on the Site and adjacent off-site well sites.

Once the wells are completed to the desired depth, they will be pumped to test the production rate and water quality. The pump-test groundwater extracted from the new well(s) will be distributed into the Mojave River adjacent on the east since no existing “On-Site Water Well Testing” indicates any issues of concern, therefore the existing ground water quality meets Regional Board discharge requirement standards. Assuming the wells produce a sufficient quantity of groundwater of adequate quality, the well(s) will be equipped for production and converted to a production well on a long-term basis for HCSD distribution and capacity purposes.

Below outlines a typical detailed sequence of events implemented in support of the proposed project.

- The bucket auger drill rig will come onsite and drill and install conductor casing and sanitary seal.
- The reverse rotary drill rig will mobilize to the site and set up (no sound wall are proposed).
- Drill the pilot borehole and collect associated data, such as lithology, geophysical logs, and isolated aquifer zone testing to establish potential screening depths.
- Deliver the well construction materials. Drill enlarged borehole to target depth. Construct the well.
- Conduct initial well development by airlift/swab. Demobilize the drill rig and mobilize the test pump. Conduct final development by pumping.
- Conduct pumping tests.
- Temporarily cap the well and demobilize remaining equipment. Return the site to original condition.
- Construct concrete pad and fencing at Well Site and use existing dirt road access.
- Connect water well to new and existing electrical and water lines on the existing site.
- Connect well to HCSD's potable Distribution and Storage Systems, as needed.

Construction Scenario

It is anticipated that a maximum of five full-time persons will be on a well site at any one time to support drilling and completing each well: (i.e. three drillers, the hydrologist inspector, and a foreman or fencing crew). Daily trips to complete the well will average about 10 roundtrips per day, including: two roundtrips for drill rigs; between 6 and 12 roundtrips for cement trucks; a few trips to deliver pipe; and about 10 trips per day for employees. It is estimated that it will require about 5 weeks to drill and complete each well, with 24-hour drilling activities for 7 days a week (there are no adjacent or surrounding housing or businesses to be notified in advance or for sound attenuation). The objective for each well is to generate a maximum amount of high

quality and dependable water source for HCSD. Assuming the groundwater amount and quality is potable (see the discussion under Hydrology and Water Quality), the new wells will each be connected to HCSD's distribution system. At each of the well locations, the closest connection to HCSD's system is within the adjacent Helendale Road . At each well location, a connection pipeline that will be installed will be no greater in length than 500 lineal feet (LF). Each new well pump will be located aboveground. It is noted that HCSD staff and other designated individuals (Certified Wildlife Biologist, Certified Arborist, Project Planner, Project Surveyor, Project Engineer) will visit the Project Site prior to Well Site construction, during construction activities and subsequent to well completion and is anticipated to be no more than on a weekly basis.

Operational Scenario

Operation of each new well would be on an as needed basis in the future and would not require any shifts or employees as it will be monitored and controlled remotely. Each of the new production wells is anticipated to use less than 1.0 million KWH to operate per year (if full time) and it is noted pump efficiency and pump-time management is always improving. A back-up generator may be installed on a concrete pad in support of each production well to ensure that each well has continuous electricity if determined by HCSD. Chemicals used in the water production process will be chlorine (sodium hypochlorite) or other approved disinfection processes.

## 2.5 Discretionary Actions

Other public agency whose approval and/or review may be required: Issuance of grading and building permits and completion of structures to current building code may be required by the County prior to establishment of any significant development on-site. In addition, confirmation by the California Department of Fish and Wildlife, Caltrans, Lahontan Regional Water Quality Control Board, Mojave Desert Air Quality Management District, Mojave Water Agency, Victor Valley Union High School District, Helendale School District, as well as Southern California Edison, Southwest Gas, Frontier Communications and other utilities may be required.

## 2.6 Tribal Consultation

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The Draft Initial Study was provided to the Tribes and/or their representatives provided by the California Native American Heritage Commission. The San Manuel Band of Mission Indians requested the preparation of a Cultural Resources Assessment and provided comments and revisions after review of said Assessment. These have been incorporated into the Final Initial Study and Mitigated Negative Declaration for adoption by the Helendale CSD Board of Directors. At this time consultation has been completed..

> 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 2108321080.3.2.) 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.

## 2.7 Potential Joshua Tree Petition and Evaluation process

On October 15, 2019, the Center for Biological Diversity (CBD) petitioned the California Fish and Game Commission (CFGC) to protect the western Joshua trees (*Yucca brevifolia*) under the California Endangered Species Act (CESA) because the trees are potentially threatened by climate change, fires, and habitat destruction from urban sprawl and other development in the western Mojave Desert. On April 13, 2020, the CFGC reviewed the completed Petition Evaluation and the Department has determined the Petition provides sufficient scientific information to indicate that the petitioned action may be warranted for the western Joshua Tree. Therefore, the

Department recommends the CFGC accept the Petition for further consideration under CESA. At that time other local agencies were giving their input to this CESA review process. On 09/22/2020 the CFDC approved the Petition and currently the process is being reviewed by CDFW staff for implementation. No definitive information from CDFW is currently available based upon email correspondence in the last 30 days.

# Section 3.0 Environmental Analysis

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 and/or Consultant)**

On the basis of this initial evaluation:

| | |
|---|---|
| ☐ | I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION shall be prepared. |
| ☒ | I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because of the incorporated mitigation measures and revisions of the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION shall be prepared. |
| ☐ | I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. |
| ☐ | I find that the proposed project MAY have a significant effect(s) 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, if the effect is “potentially significant impact” or “potentially significant unless mitigated”. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. |
| ☐ | I find that the proposed project WILL NOT have a significant effect on the environment, because no new potentially significant effects have been identified beyond those previously analyzed adequately in an earlier EIR, pursuant to applicable standards, and no additional mitigation measures beyond those imposed as part of that previous EIR are necessary to be imposed upon the proposed project to reduce mitigable impacts to an insignificant level. Therefore, no additional environmental documentation is necessary. |

Ginger E Coleman

Signature: prepared by Ginger E. Coleman, MPA — February 18, 2021 Date

Signature: prepared by RJ Coleman, AICP, CA, CWB, PE, QSD/P — February 18, 2021 Date

Signature: Dr. Kimberly Cox, General Manager — Date

**EVALUATION OF ENVIRONMENTAL IMPACTS:**

1) A brief explanation is provided for all answers except "No Impact" answers that are adequately supported by the information sources the 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 is 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 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) "Potentially Significant Impact" is noted if there is substantial evidence that an effect is 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 describes the mitigation measures, and briefly explains how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses", may be cross-referenced.)

5) Earlier analyses may be referenced 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 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) The lead agency incorporates 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, includes 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) 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.

## 3.1 Aesthetics

| | Issues | Potentially Significant Impact | Less than Significant w/Mitigation Incorporated | Less than Significant | No Impact |
|---|---|---|---|---|---|
| | **AESTHETICS** - Except as provided in Public Resources Code Section 21099, would the project | | | | |
| a) | Have a substantial adverse effect on a scenic vista? (3; 27) | ☐ | ☐ | ☐ | ☒ |
| b) | In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? (3) | ☐ | ☐ | ☐ | ☒ |
| c) | Substantially degrade the existing visual character or quality of the site and its surroundings? (1; 27) | ☐ | ☐ | ☒ | ☐ |
| d) | Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area? (27) | ☐ | ☐ | ☒ | ☐ |

**AESTHETICS**

The proposed project is not located within a Scenic Corridor, as designated by the Scenic Corridor Overlay District of the County of San Bernardino General Plan, or the California Scenic Highway Mapping System. The Site is within the Helendale CSD. The proposed project is the expansion of an existing well field which was historically used for agricultural cultivation. It is consistent with the visual character of the surrounding area (See Table of Surrounding Uses below).

Surrounding Uses

| AREA | EXISTING LAND USE |
|---|---|
| Site | Helendale CSD (proposed owner) and remaining vacant area highly disturbed by AG use. |
| North | Helendale Road, Fallow Agricultural Land, Silver Lakes Community |
| South | Native Vacant Desert, fallow agricultural land, and Mojave River |
| East | Mojave River |
| West | Helendale Road, Fallow Agricultural Land, Silver Lakes Community |

Generally, Joshua trees are another notable aesthetic feature of the greater Victor Valley area. Joshua trees, which can grow up to 12 meters (40 feet) tall, are distributed on gentle slopes and on valley floors of upper bajadas and sandy areas. The Joshua tree (state & locally protected) is an archetypal plant of the Mojave Desert that can live several hundred years; it provides valuable habitat for a variety of native wildlife species.

**NOTE: (1)** On 10/15/2019, the Center for Biological Diversity (CBD) petitioned the California Fish and Game Commission (CFGC) to protect the western Joshua trees (Yucca brevifolia) under the California Endangered Species Act (CESA) because the trees are potentially threatened by climate change, fires, and habitat destruction from urban sprawl and other development in the Mojave Desert.
**NOTE: (2)** On 04/13/2020 the CFGC reviewed the completed Petition Evaluation and the Department has determined the Petition provides sufficient scientific information to indicate that the petitioned action may be warranted for the western Joshua tree. Therefore, the Department recommends the CFGC accept the Petition for further consideration under CESA. At this time other local agencies are giving their input to this CESA review process and future CFGC meetings are being schedule [See Exhibit 6.1.13].

**NOTE: (3)** On 9/22/2020 the California Fish and Game Commission (CFGC) voted to protect the western Joshua trees (Yucca brevifolia) under the California Endangered Species Act (CESA) because the trees are potentially threatened by climate change, fires, and habitat destruction from urban sprawl and other development in the Mojave Desert. [See information and mapping under Exhibit 6.1.13]

Explanations:

a. **No Impact** - The proposed project will have no impact on scenic vistas. Existing use of the site include existing wells and utility lines, and fallow agricultural land dominated with invasive grass and weed species. The proposed project is the expansion of the existing well field to serve the area, which existing improvements is predominantly residential (Silver Lakes), with neighborhood commercial uses, two recreational lakes, a 27-hole golf course, and various other amenities and the remaining boundary of HCSD is mostly vacant native desert lands, scattered homes on acreage, scattered fallow and minor agriculture uses, and the Mojave River riparian corridor and floodplain areas.

b. **No Impact** - The proposed project will not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. No protected trees, rock outcroppings, or historic buildings are located on or in close proximity to the project site, which has been disturbed since at least the early 1950s by agricultural use. The project is not located or within proximity to a scenic highway. No Joshua Trees or Cactus on the vacant portions of Site.

c. **Less Than Significant Impact** - The proposed project will not substantially degrade the existing visual character of the site and its surroundings. The site includes an existing well field. This project seeks to expand the well field to include additional wells and appurtenant structures. Since this area has been used for agricultural uses since at least the early 1950s til 1970s and fallow since, and the proposed project will not substantially degrade the existing visual character of the site and its surroundings.

d. **Less Than Significant Impact** - The proposed project includes no new lighting in the area.

## 3.2 Agricultural and Forestry Resources

| | ***Issues*** | ***Potentially Significant Impact*** | ***Less than Significant w/Mitigation Incorporated*** | ***Less than Significant*** | ***No Impact*** |
|---|---|---|---|---|---|
| | **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? (19) | ☐ | ☐ | ☐ | ☒ |
| b) | Conflict with existing zoning for agricultural use, or a Williamson Act contract? (1) | ☐ | ☐ | ☐ | ☒ |
| c) | Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526) or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? (1) | ☐ | ☐ | ☐ | ☒ |

| | | | | | |
|---|---|---|---|---|---|
| d) | Result in the loss of forest land or conversion of forest land to non-forest use? (1; 4) | ☐ | ☐ | ☐ | ☒ |
| 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? (1; 4; 19) | ☐ | ☐ | ☐ | ☒ |

**AGRICULTURE**
The FMMP is a non-regulatory program that produces Important Farmland maps and statistical data. The FMMP groups land into one of five categories (Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land), with agricultural land being rated according to soil quality and irrigation status. The site is not listed as Prime Farmland, Unique Farmland or Farmland or Statewide Importance as 2018.

**FORESTY RESOURCES**
Plant communities within the Helendale area include creosote bush scrub, Mojave Desert saltbush scrub, rabbitbrush scrub, ruderal (disturbed) communities, Joshua tree woodland, and riparian communities within the Mojave River and its floodplain, which includes transmontane alkali and freshwater marsh, Mojave riparian forest, and southern willow scrub. There is no significant forestland or timberland in the project area.

Explanations:

a.-e. **No Impact** - The site is not listed as Prime Farmland, Unique Farmland or Farmland of Statewide Importance. Additionally, the site and all surrounding properties are within an urbanized area, and no forest land or farmland is located in the vicinity that may be affected by the development of this project.

## 3.3 Air Quality

| | ***Issues*** | ***Potentially Significant Impact*** | ***Less than Significant w/Mitigation Incorporated*** | ***Less than Significant*** | ***No Impact*** |
|---|---|---|---|---|---|
| | **AIR QUALITY -** Where available, the significance criteria established by the applicable air quality management district 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? (1; 2; 3; 21; 27) | ☐ | ☐ | ☒ | ☐ |
| 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? (3; 10; 21; 27) | ☐ | ☐ | ☒ | ☐ |
| c) | Expose sensitive receptors to substantial pollutant concentrations? (4; 11) | ☐ | ☐ | ☒ | ☐ |
| d) | Result in other emissions (such as those leading to odors or dust) adversely affecting a substantial number of people? (4) | ☐ | ☐ | ☒ | ☐ |

**AIR QUALITY**
The project area is located in southwestern San Bernardino County, in the geographic subregion of the southwestern Mojave Desert known as the Victor Valley and commonly referred to as the "High Desert" due to its approximate elevation of 2,900 feet above sea level. Hot summers, mild winters, infrequent rainfall, moderate afternoon breezes, and generally fair weather characterize the climate of the Victor Valley, an interior sub-climate of Southern California's Mediterranean climate. The clouds and fog that form along the Southern California coastline rarely extend across the mountains to Helendale. The most important local weather pattern is associated with the funneling of the daily onshore sea breeze through Cajon Pass into the upper desert to the northeast of the heavily developed portions of the Los Angeles Basin. This daily airflow brings polluted air into the area late in the afternoon from late spring to early fall. This polluted air transport pattern both creates unhealthful air quality and inhibits the scenic vistas of the mountains surrounding the Victor Valley.

In California, air quality is regulated by the California Air Resources Board (CARB). CARB divides the state into Districts (Mojave Desert (MDAQMD)) and Air Basins (Mojave Desert Air Basin (MDAB). that share similar meteorological and topographical features for management purposes.

Air Quality Standards

Monitored air quality is evaluated and 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 3.3A. 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 3.3A. Sources and health effects of various pollutants are shown in Table 3.3B.

Of the standards shown in Table 3.3A, those for ozone (03), and particulate matter (PM-10) are exceeded at times in the Mojave Desert Air Basin (MDAB). They are called "non-attainment pollutants." Because of the variations in both the regional meteorology and in area-wide differences in levels of air pollution emissions, patterns of non-attainment have strong spatial and temporal differences.

**Table 3.3A**
**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 (0 3)[8]** | 1 Hour | 0.09 ppm (180 µq/m$^3$) | Ultraviolet Photometry | - | Same as Primary Standard | Ultraviolet Photometry |
| | 8 Hour | 0.070 ppm (137 µq/m$^3$) | | 0.070 ppm (137 µq/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* mq/m$^3$) | Non-Dispersive Infrared Photometry (NDIR) | 35 ppm ( *4 0* mq/m$^3$) | - | Non-Dispersive Infrared Photometry (NDIR) |
| | 8 Hour | 9 ppm (10 mq/m$^3$) | | 9 ppm (10 mq/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* ua/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 uo/m$^3$) | - | Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) |
| | 3 Hour | - | | - | 0.5 ppm ( 1300 µq/m$^3$) | |
| | 24 Hour | 0.04 ppm (105 µg/m$^3$) | | 0.14 ppm (for certain areas)[' ' | - | |
| | 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 µq/m$^3$) | Ultraviolet Fluorescence | | | |
| **Vinyl Chloride [12]** | 24 Hour | 0.01 ppm (26 µq/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 µg/m3 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 25C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25C 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 µg/m3 to 12.0 µg/m 3. The existing national 24-hour PM2.5 standards (primarily and secondary) were retained at 35 µg/m3 as was the annual secondary standard of 15 µg/m3. The existing 24-hour PM10 standards (primarily and secondary) of 150 µg/m3 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/m3 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 3-3B**
**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.<br>• Natural events, such as decomposition of organic matter. | • Reduced tolerance for exercise.<br>• Impairment of mental function.<br>• Impairment of fetal development.<br>• Death at high levels of exposure.<br>• Aggravation of some heart diseases (angina). |
| Nitrogen Dioxide (NO2) | • Motor vehicle exhaust.<br>• High temperature stationary combustion.<br>• Atmospheric reactions. | • Aggravation of respiratory illness.<br>• Reduced visibility.<br>• Reduced plant growth.<br>• Formation of acid rain. |
| Ozone (03) | • Atmospheric reaction of organic gases with nitrogen oxides in sunlight. | • Aggravation of respiratory and cardiovascular diseases.<br>• Irritation of eyes.<br>• Impairment of cardiopulmonary function.<br>• Plant leaf injury. |
| Lead (Pb) | • Contaminated soil. | • Impairment of blood function and nerve construction.<br>• Behavioral and hearing problems in children. |
| Fine Particulate Matter (PM-10) | • Stationary combustion of solid fuels.<br>• Construction activities.<br>• Industrial processes.<br>• Atmospheric chemical reactions. | • Reduced lung function.<br>• Aggravation of the effects of gaseous pollutants.<br>• Aggravation of respiratory and cardiorespiratory diseases.<br>• Increased cough and chest discomfort.<br>• Soiling.<br>• Reduced visibility. |

| | | |
|---|---|---|
| Fine Particulate Matter (PM-2.5) | • Fuel combustion in motor vehicles, equipment, and industrial sources.<br>• Residential and agricultural burning.<br>• Industrial processes.<br>• Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics. | • Increases respiratory disease.<br>• Lung damage.<br>• Cancer and premature death.<br>• Reduces visibility and results in surface soiling. |
| Sulfur Dioxide (SO2) | • Combustion of sulfur-containing fossil fuels.<br>• Smelting of sulfur-bearing metal ores.<br>• Industrial processes. | • Aggravation of respiratory diseases (asthma, emphysema).<br>• Reduced lung function.<br>• Irritation of eyes.<br>• Reduced visibility.<br>• Plant injury.<br>• Deterioration of metals, textiles, leather, finishes, coatings, etc. |

Baseline Air Quality

Monitoring of air quality in the MDAB is the responsibility of the Mojave Desert Air Quality Management District (MDAQMD) headquartered in Victorville, California. Because of the low population density of the air district, limited monitoring resources are distributed over a relatively large geographic area. The heaviest concentration of measurements is in the area of greatest development in the Victor Valley. Trona is at northwest corner of and in the City of Needles at the eastern boundary of MDAQMD. Existing levels of criteria air pollutants in the project area can generally be inferred from measurements conducted at the Hesperia monitoring station. Although the Hesperia Station does not monitor the complete spectrum of pollutants, data for NO2 and PM-2.5 are available from the Victorville Monitoring Station. CO is no longer monitored in the Mojave Desert. Table 3.3C summarizes the available monitoring history from the Hesperia and Victorville monitoring stations for the last 3 years. From these data one can infer that baseline air quality levels near the project site are occasionally unhealthful but that such violations of clean air standards usually affect only those people most sensitive to air pollution exposure. It is noted the HCSD is downwind from these higher concentration and actual pollutant levels would be less.

a. Photochemical smog (ozone) levels occasionally exceed standards. The 8-hour state ozone standard has been exceeded approximately 19 percent of all days in the last three years while the 1-hour state standard has been exceeded almost five percent of all days. The 8-hour federal standard has been exceeded approximately 12 percent of all days in the past three years. 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 with a variety of anthropogenic improvements.
b. Respirable dust (PM-10) levels often exceed the state standard of 50 µg/m3 but the less stringent federal PM-10 standard of 50 µg/m3 has only been violated three times within the last three years. Year 2018 had the lowest maximum 24-hourconcentration in recent history.
c. A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). There has only been one measured violation in the last three years.

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future.

**Table 3-3C**
**PROJECT AREA AIR QUALITY MONITORING SUMMARY - 2016-2018**
**(DAYS STANDARDS WERE EXCEEDED AND MAXIMUM OBSERVED LEVELS)**

| Pollutant/Standard | 2016 | 2017 | 2018 |
|---|---|---|---|
| **Ozone** | | | |
| 1-Hour > 0.09 ppm (S) | 25 | 18 | 9 |
| 8-Hour > 0.07 ppm (S) | 65 | 75 | 71 |
| 8- Hour> 0.075 ppm (F) | 47 | 45 | 45 |
| Max. 1-Hour Cone. (ppm) | 0.119 | 0.114 | 0.113 |
| Max. 8-Hour Cone. (ppm) | 0.098 | 0.094 | 0.100 |
| **Nitrogen Dioxide** | | | |
| 1-Hour > 0.18 ppm (S) | 0 | 0 | 0 |
| Max. 1-Hour Cone. (ppm) | 0.097 | 0.057 | 0.057 |
| **Respirable Particulates (PM-10)** | | | |
| 24-Hour > 50 µg/$m^3$ (S) | 9 | na | na |
| 24-Hour > 150 µg/$m^3$ (F) | 1 | 2 | 0 |
| Max. 24-Hr. Cone. (µg/$m^3$) | 203.5 | 163.9 | 138.9 |
| **Fine Particulates (PM-2.5)** | | | |
| 24-Hour > 35 µg/$m^3$ (F) | 1 | 0 | 0 |
| Max. 24-Hr. Cone. (µg/$m^3$) | 41.5 | 27.2 | 32.7 |

na = not available; S=State Standard; F=Federal Standard
Source: Hesperia Station: Ozone, PM-10, Victorville Station: CO, NO2, PM-2.5 data: www.arb.ca.gov/adam/

Air Quality Standards

The Mojave Desert AQMD has adopted numerical emissions thresholds as indicators of potential impact even if the actual air quality increment cannot be directly quantified. The MDAQMD thresholds are as follows:

| | | |
|---|---|---|
| Carbon Monoxide (CO) | 548 pounds/day | 100 tons/year |
| Nitrogen Oxides (NOx) | 137 pounds/day | 25 tons/year |
| Sulfur Oxides (SOx) | 137 pounds/day | 25 tons/year |
| Reactive Organic Gases (ROG) | 137 pounds/day | 25 tons/year |
| Particulate Matter (PM-10) | 82 pounds/day | 15 tons/year |
| Particulate Matter (PM-2.5) | 65 pounds/day | 12 tons/year |
| GHG | 548,000 pounds/day | 100,000 tons/year |

Explanations:

a. **Less Than Significant Impact** - Projects such as the proposed HCSD Project do not directly-relate to the AQMP in that there are no specific air quality programs or regulations governing general development. 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. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis. The Project will be fully consistent with both the General Plan designation and Zone classification for the project site, mainly because the project involves water treatment , and such projects are considered land use independent. Thus, the proposed project is consistent with regional

planning forecasts maintained by the Southern California Association of Governments (SCAG) regional plans. The MDAQMD, 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 Impact w/Mitigation Incorporated** - The project is not projected to violate any air quality standard or result in a considerable net increase to an existing or projected air quality violation. This project will not increase residential acreage or exceed residential build out projections outlined in the General Plan land use designation, which was most recently revised in 2007, prior to the most recent version of the AQMD Attainment Plan. Further, since the project is located in an area designated as non-attainment by the United States Environmental Protection Agency, an increase in vehicle trips could cumulatively contribute to the level of non-attainment. However, since this project does not increase the density or intensity outlined in the General Plan, it is assumed their cumulative impacts were included in the City's General Plan and AQMD Attainment Plan and will not exceed those growth forecasts. Therefore, since the project meets the requirements of the existing General Plan and industrial zoning designation, approval of this proposal is not anticipated to violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation.

Although not anticipated to violate any air quality standard or contribute substantially to an existing or projected air quality violation, the following mitigation has been added in order to ensure fugitive dust best management practices are followed during grading and construction activities. It is noted future use of electrical vehicles will reduce these impacts.

Mitigation Measures:

**AIR 1. Prepare and submit to the Mojave Desert Air Quality Management District (MDAQMD) a dust control plan that describes all applicable dust control measures that will be implemented at the project, prior to commencing earth-moving activity.**

**AIR 2. The following signage shall be erected not later than the commencement of construction: A minimum 48 inch high by 96 inch wide sign containing the following shall be located within 50-feet of each project site entrance, meeting the specified minimum text height, black text on white background, on one inch A/C laminated plywood board, with the lower edge between six and seven feet above grade, with the contact name of a responsible official for the site and a local or toll-free number that is accessible 24 hours per day:**

**"[Site Name] {four-inch text}**
**[Project Name/Project Number] {four-inch text}**
**IF YOU SEE DUST COMING FROM {four-inch text} THIS PROJECT CALL: {four-inch text}**
**[Contact Name], PHONE NUMBER XXX-XXXX {six-inch text} If you do not receive a response, Please Call {three-inch text} The MDAQMD at 1-800-635-4617 {three-inch text}**

**AIR 3. Use a water truck to maintain moist disturbed surfaces and actively spread water during visible dusting episodes to minimize visible fugitive dust emissions. For projects with exposed sand or fines deposits (and for projects that expose such soils through earthmoving}, chemical stabilization or covering with a stabilizing layer of gravel will be required to eliminate visible dust/sand from sand/fines deposits.**

**AIR 4. If applicable, all perimeter fencing shall be wind fencing or the equivalent, a minimum of four feet and a maximum of eight feet in height. The owner/operator shall maintain the wind fencing as needed to keep it intact and remove windblown dropout. This wind fencing requirement may be superseded by local ordinance, rule or project specific biological mitigation prohibiting wind fencing.**

**AIR 5. All maintenance and access vehicular roads and parking areas shall be stabilized with gravel or asphaltic pavement sufficient to eliminate visible fugitive dust from vehicular travel and wind erosion. Take actions to prevent project-related track-out onto paved surfaces and clean any project-related track-out within 24 hours. All other earthen surfaces within the project area shall be stabilized by natural or irrigated vegetation, compaction, chemical or other means sufficient to prohibit visible fugitive dust from wind erosion.**

c. **Less Than Significant Impact** - The MDAQMD identifies the following land uses as sensitive receptors: residences, schools, daycare centers, playgrounds, and medical facilities. Since the proposed project is an expansion of an existing well field rather than other allowed uses by the Zoning, the project will not need to incorporate mitigation measures in order to prevent residences in the area from being exposed to any substantial pollutant concentrations or objectionable odors.

**LIST CLOSEST RECEPTORS:**

Silver Lakes Community is a master planned residential community located adjacent to the north and west and the nearest residence from the proposed location of the first well is 0.2± miles northerly.
Helendale Elementary School is located northeast 1.5± miles.
Riverview Middle School is located northwest 1.0± miles.
Proposed New Helendale Community Park is located northeast 1.2± miles.
The Existing Helendale Community Park is located northerly 3± miles.
There is no Hospital, Assisted Living or Skilled Nursing facilities with 5± miles.

d. **Less Than Significant Impact** - See discussion 'c' above.

## 3.4 Biological Resources

| | ***Issues*** | ***Potentially Significant Impact*** | ***Less than Significant w/Mitigation Incorporated*** | ***Less than Significant*** | ***No Impact*** |
|---|---|---|---|---|---|
| | **BIOLOGICAL RESOURCES -** Would the project: | | | | |
| a) | Have substantial adverse effects, 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 (CDFW) or U.S. Fish and Wildlife Service (USFWS)? (3) | ☐ | ☒ | ☐ | ☐ |
| b) | Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS? (1; 3; 4) | ☐ | ☒ | ☐ | ☐ |
| c) | Has 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? (1; 4) | ☐ | ☐ | ☐ | ☒ |
| 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? (3; 12) | ☐ | ☐ | ☒ | ☐ |

| | | | | | |
|---|---|---|---|---|---|
| e) | Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (13) | ☐ | ☐ | ☐ | ☒ |
| 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? (3) | ☐ | ☐ | ☐ | ☒ |

**BIOLOGICAL RESOURCES**

The proposed project is the replacement of a retired well, new proposed wells and expansion of an existing Well Field. The Site was adjacent to historical alfalfa fields in the early 1950s to 1970s. In the 1970, the community of Silver Lakes was being developed and has been growing steadily since that timeframe. This Site has been historically reviewed several times, specifically conducted in September 2014 with the preparation of a Phase 1 Environmental Assessment completed for Western Rivers Conservancy (c/o Cam Tredennick, Esquire, Senior Project Manager) for the acquisition of 1,640± Acres being the Safari Ranch (owner- Carl Ross) and also referred to as the Older/Palisades Ranch (longtime previous owner- Mr. and Mrs. Bob Older) and then in September 10, 2020 during the preparation of a Phase 1 Environmental Assessment, prior to potential purchase by HCSD and again on October 9, 2020 during the field review of the CEQA Initial Study for HCSD. On-Site Only and observation from perimeter fencing surveys during the preparation HCSD in 2011 [See Exhibit 6.2.1]. No specific professional land surveyor quality boundary survey has been completed. Specifically observation for Desert tortoise, Burrowing owl, Mohave ground squirrel, various riparian and nesting Raptors, and other birds and during 2020 no American badger or Desert kit fox have been observed at this Project Site. It is noted previous observation of the Site did not include presence of American badger of Desert kit fox since these are rare species to observe. See Biological Review Letter.

**NOTE:** Prior to any site activities, the Project Wildlife Biologist and Project Arborist shall complete a Site Survey for various species of concern and if finding absence of these species of concern shall provide a Clearance Letter to HCSD. If any of these species are encountered on the Site during project activities, those activities will cease and the Project Arborist and Project Wildlife Biologist (Randolph J. Coleman, CWB #43090, CA #8024A [760-242-9917]) contacted for guidance.

**Desert Tortoise (*Gopherus agassizii*)**

Federal Status – threatened; State Status – threatened.
Distribution – Widely distributed in the Mojave Desert from below sea level to 7,220 feet above sea level.
Habitat – Most common in desert scrub, desert wash and Joshua tree habitats, but also found in other desert habitats. Tortoises are herbivores, preferring forbs over grasses and green vegetation over dry. Desert tortoises excavate burrows and nests in friable, sandy, well-drained soil under bushes, rock formations, or open areas to protect from cold in the northern ranges and from the heat in the southern ranges.

No Tortoises or active/potentially active burrows were encountered during the field survey and no other signs (e.g. shells, bones, scutes, limbs, burrows, pallets, scats, egg shell fragments, tracks, courtship rings, drinking sites.) were found, which would indicate habitat or utilization of the Site. Mitigation has been included to ensure that should desert tortoise be encountered on the site during project activities, those activities will cease, and the Project Wildlife Biologist contacted for guidance.

**Burrowing Owl (*Athene cunicularia*)**

Federal Status – none; State Status – Species of Special Concern
Distribution – yearlong resident in open, dry grassland and desert habitats, and in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats.
Habitat – feed on small insects, small mammals, reptiles, birds, and carrion. Use rodent or other burrows for roosting and nesting. When burrows are scarce, may nest in pipes, culverts, nest boxes, and other protected “burrows”.

No Burrowing Owls, other Raptors or active/potentially active burrows or nests were encountered during the field survey, and no other signs (e.g. shells, bones, or burrows, tracks,) were found, which would indicate no

habitat or utilization of the site. In addition, no pipes, culverts, nest boxes or other protected "burrows" were located on site, and no rodent or small animal burrows were located. A thorough pedestrian review was completed on the Site and within a 500-foot Buffer area, in addition to transects of the site, and no evidence of present or past use of Burrowing Owls were found. Mitigation has been included to require additional site surveys for burrowing owls and other birds prior to earth-moving activities within specified timeframes.

**Mohave Ground Squirrel (*Xerospermophilus mohavensis*)**
Federal Status – None; State Status – Threatened.
Distribution – restricted to the Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo counties.
Habitat – open desert scrub, alkali desert scrub, and Joshua tree. Uses burrows at the base of shrubs for cover. Feeds in annual grasslands. Prefers sandy to gravelly soils.

No Mohave ground squirrels were encountered during the field survey and no burrows were located and no native shrubs remain on the site.

**American Badger (*Taxidea taxus*)**
Federal Status – None; State Status – Species of Special Concern
Distribution – Uncommon, permanent resident found throughout most of the State, except in the northern North Coast area.
Habitat – Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.

No American badgers, dens, or other evidence of Badgers were found on site or within the zone of influence. In order to ensure there are no impacts to Badgers, mitigation has been included.

**Desert Kit Fox (*Vulpes macrotis*)**
Federal Status – None; State Status – Protected
Distribution – open desert, creosote bush flats and sand dunes. Majority of sightings in areas with less than twenty percent (<20%) vegetation cover.
Habitat – feed on rodents, rabbits, birds, reptiles, and insects. Use several dens throughout their home range, each with several entrances. Select birthing den in September and October, pups born in February or March, pups grown and leave to establish their own dens by October.

Title 14 of the California Code of Regulations, Section 460, identifies desert kit fox as a protected fur-bearing mammal. No desert kit fox or their dens were located on or within 100 meters of the project site. In order to ensure there are no impacts to desert kit fox, mitigation has been included.

**Nesting Birds**
The Migratory Bird Treaty Act of 1918, as amended, protects migratory non-game native bird species. The California Fish and Game Code sections 3503, 3503.5 and 3513 protect all nesting birds, birds-of-prey, migratory non-game birds, their nests, and eggs. Mitigation has been required to ensure that no nesting birds are inhabiting the site.

Explanations:

a. **Less Than Significant Impact w/Mitigation Incorporated** – Site Only surveys were specifically conducted by Altec Land Planning (Project Arborist and Project Wildlife Biologist). In September 2014 and on September 10 and October 9, 2020, which found no evidence of species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulation, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. Additionally, the biological assessment found the project site disturbed from historical agricultural use as early as 1952 and development of the Silver Lakes community in the early 1970s. The site presently contains very-little native plant species on the northerly parcel due to this previous agricultural disturbance of the site and disturbed desert of south parcel. **NOTED**: The Mojave River riparian corridor (significant trees and surface water) is about 1 mile southerly of this Well Site and would a variety of species of concern.

No sensitive habitats (e.g. wetlands, critical habitats for sensitive species, etc.) have been documented on the project site and none were observed during the subject field investigations. However, the site is located adjacent to the Mojave River, which is a riparian area. The adjacent Mojave River corridor has sparce riparian habitat abutting the project site. Further, the project is limited to the expansion of an existing well field, which will have substantially less impact that the underlying Residential zoning allows. Further, the proposed well(s) will be located no closer than 50 feet to any riparian trees; a mitigation measure is proposed to ensure this distance is maintained.

Some species are known to potentially be located within the general area (Desert Kit Fox and American Badger), but the project site does support suitable habitat for riparian nesting birds. Therefore, the new proposed Well Site(s) and anything within 500-feet shall be surveyed immediately prior to any construction activities on-site to determine the presence or absence of any sensitive species as well as implement specific measures for any species of concern if identified on-site. Therefore, the following mitigation measures have been included in order to ensure any impacts are less than significant.

Mitigation Measures:

**BIO 1. The well(s) shall be located no closer than fifty feet (50') from any riparian tree along the edge of the Mojave River. Further, no appurtenant facilities, construction activities, construction vehicles or equipment, or passenger vehicles or trucks shall be located or parked closer than fifty feet (50') from any riparian trees.**

**BIO 2. A preconstruction survey shall be conducted by the Project Wildlife Biologist (Certified Wildlife Biologist is considered to be a qualified biologist) for the presence of American badger and Desert kit fox dens within 14 days prior to commencement of construction activities. The survey shall be conducted in areas of suitable habitat for American badger and Desert kit fox, which includes desert scrub and Joshua tree habitats. If potential dens are observed and avoidance is feasible, the following buffer distances shall be established prior to construction activities:**

- **Desert kit fox or American badger potential den: 50 feet**
- **Desert kit fox or American badger active den: 100 feet**
- **Desert kit fox or American badger natal den: 500 feet**

**If avoidance of the potential dens is not feasible, the following measures are recommended to avoid adverse effects to the American badger and desert kit fox:**

- **If a qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel and collapse them to prevent American badgers or desert kit foxes from re-using them during construction.**
- **If the qualified biologist determines that potential dens may be active, an onsite passive relocation program shall be implemented. This program shall consist of excluding American badgers or desert kit foxes from occupied burrows by installation of one-way doors at burrow entrances and monitoring of the burrow for seven days to confirm usage has been discontinued, and excavation and collapse of the burrow to prevent reoccupation. After the qualified biologist determines that American badgers and desert kit foxes have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel and collapsed to prevent re-use during construction.**
- **During fencing and grading activities daily monitoring reports shall be prepared by the monitoring biologists. The biologist shall prepare a summary monitoring report documenting the effectiveness and practicality of the protection measures that are in place and making recommendations for modifying the measures to enhance species protection, as needed. The report shall also provide information**

**on the overall activities conducted related to biological resources, including the Environmental Awareness**

**Training and Education Program, clearance/pre-activity surveys, monitoring activities, and any observed special -status species, including injuries and fatalities. These monitoring reports shall be submitted to HCSD and relevant resource agencies as applicable on a monthly basis along with copies of all survey reports.**

**BIO 3. A Certified Wildlife Biologist shall conduct a preconstruction survey of the impact areas to confirm presence/absence of burrowing owl individuals no more than 30 days prior to construction. The survey methodology will be consistent with the methods outlined in the CDFW Staff Report on Burrowing Owl Mitigation (2012). If no active breeding or wintering owls are identified, no further mitigation is required.**

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

- **A Certified Wildlife Biologist shall be onsite during initial ground -disturbing activities in potential burrowing owl habitat.**
- **No ground-disturbing activities shall be permitted within a buffer no less than 200 meters (656 feet) from an active burrow, depending on the level of disturbance, unless otherwise authorized by CDFW. Occupied burrows will not be disturbed during the nesting season (February 1 to August 31), unless a qualified biologist verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival.**
- **During the nonbreeding (winter) season (September 1 to January 31), ground-disturbing work can proceed near active burrows as long as the work occurs no closer than 50 meters (165 feet) from the burrow, depending on the level of disturbance, and the site is not directly affected by the project activity. A smaller buffer may be established in consultation with CDFW. If active winter burrows are found that would be directly affected by ground-disturbing activities, owls can be excluded from winter burrows according to recommendations made in the Staff Report on Burrowing Owl Mitigation (2012).**
- **Burrowing owls shall not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed based on the recommendations made in the Staff Report on Burrowing Owl Mitigation (2012). The plan shall include, at a minimum:**
- **Confirmation by site surveillance that the burrow(s) is empty of burrowing owls and other species**
- **Type of scope to be used and appropriate timing of scoping**
- **Occupancy factors to look for and what shall guide determination of vacancy and excavation timing**
- **Methods for burrow excavation**
- **Removal of other potential owl burrow surrogates or refugia onsite**
- **Methods for photographic documentation of the excavation and closure of the burrow,**
- **Monitoring of the site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use to avoid take**
- **Methods for assuring the impacted site shall continually be made inhospitable to burrowing owls and fossorial mammals**
- **Compensatory mitigation for lost breeding and/or wintering habitat shall be implemented onsite or off-site through implementation of a Mitigation Land**

**Management Plan based on the Staff Report on Burrowing Owl Mitigation (CDFW 2012) guidance. The plan shall include the following components, at a minimum:**

- **Temporarily disturbed habitat on the project site shall be restored, if feasible, to pre-project conditions, including de-compacting soil and revegetation;**
- **Permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat shall be mitigated such that the habitat acreage, number of burrows and burrowing owl impacted are replaced based on a site-specific analysis which includes conservation of similar vegetation communities comparable to or better than that of the impact area, and with sufficiently large acreage, and presence of fossorial mammals;**
- **Mitigation land acreage shall not exceed the size of the project site;**
- **Permanently protect mitigation land through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission. If the project is located within the service area of a CDFW approved burrowing owl conservation bank, the project operator may purchase available burrowing owl conservation bank credits.**
- **Fund the maintenance and management of mitigation land through the establishment of a long-term funding mechanism such as an endowment.**
- **Mitigation lands shall be on, adjacent or proximate to the impact site where possible and where habitat is sufficient to support burrowing owls present.**

**BIO 4. If project activities must occur during the avian nesting season (February to September), a survey for active nests must be conducted by a qualified biologist, one to two weeks prior to the activities. If active nests are identified and present onsite, clearing and construction within 50-250 feet of the nest, depending on the species involved (50 feet for common urban-adapted native birds and up to 250 feet for raptors), shall be postponed until the nest is vacated and juveniles have fledged, and there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest site shall be established in the field by a qualified biologist with flagging and stakes or construct ion fencing. Construction personnel shall be instructed regarding the ecological sensitivity of the fenced area. If construction must occur within this buffer, it shall be conducted at the discretion of a qualified biological monitor to assure that indirect impacts to nesting birds are avoided.**

**BIO 5. If sensitive wildlife species such as the Desert Tortoise or the Mohave Ground Squirrel, Desert Kit Fox, or nesting birds are detected on the project site during future surveys or assessments or construction, all work on-site shall stop immediately and mitigation measures shall be required to reduce impact to a level of less than significant. Any proposed mitigation measures shall be determined by a Certified Wildlife Biologist and be approved by HCSD and the California Department of Fish and Wildlife as applicable in accordance with typical best practices.**

Additionally, because the biological survey is typically valid for 1-year for the above-mentioned species, except for the Burrowing Owls and Nesting Birds, the following mitigation measure has been included.

Mitigation Measure:

**BIO 6. Should grading or construction commence after February 1st, 2021, a new biological survey shall be filed with the HCSD as a Biological Clearance Letter to determine the presence or absence of endangered species on the site. Said survey shall be filed with HCSD or designee prior to issuance of a required permit(s). The survey shall be valid for a period of one year or as specifically delineated above for various bird species.**

b. **Less Than Significant Impact w/Mitigation Incorporated** - The project site is not located within any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. However, the site is located adjacent to the Mojave River, which is a riparian area. This portion of the Mojave River has sparce riparian habitat abutting the project site. Further, the project is limited to the expansion of an existing well field, which will have substantially less impact that the underlying Residential zoning allows. Further, the proposed well(s) will be located no closer than 50 feet to the riparian trees; a mitigation measure is proposed to ensure this distance is maintained (see section a. above, BIO 1).

c. **No Impact** - The project site does not include any state or federally protected wetlands as protected under CEQA, Section 1600 of the California Fish and Game Code, or as defined by Section 404 of the Clean Water Act.

d. **Less Than Significant Impact** - The project will not 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 since the site does not include disturbances to any sensitive areas. Additionally, the only identified wildlife corridors of special concern are located within the area of the Mojave River riparian corridor, which is adjacent to this well field. However, the project is the expansion of an existing well field, which will not include development of the entire site. Therefore any wildlife traversing the site will still be able to do so after the well(s) are constructed.

e. **No Impact** – There are no native or protected plants located on the site due to the previous site disturbance by historical agricultural use. Therefore there is no conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

f. **No Impact** -The plan will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan since there is no adopted Habitat Conservation Plan or Natural Community Conservation Plan in the project area or local region.

## 3.5 Cultural Resources

| | ***Issues*** | ***Potentially Significant Impact*** | ***Less than Significant w/Mitigation Incorporated*** | ***Less than Significant*** | ***No Impact*** |
|---|---|---|---|---|---|
| | **CULTURAL RESOURCES** - Would the project | | | | |
| a) | Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? (3; 28) | ☐ | ☒ | ☐ | ☐ |
| b) | Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (3) | ☐ | ☒ | ☐ | ☐ |
| c) | Disturb any human remains, including those interred outside of dedicated cemeteries? (3; 4; 28) | ☐ | ☒ | ☐ | ☐ |

### CULTURAL RESOURCES

The proposed project is to allow for the expansion of an existing well field. The site has significant disturbance from historical agricultural use, and vehicular, ATV, and pedestrian traffic. Historical Agricultural use has disturbed the ground to an estimated depth of 18± inches and disturbing any potential cultural resources near the surface is not anticipated. Further, the project does not include development over the entire site, but only in specified areas where water production wells are to be constructed and appurtenant water and electrical lines.

The Draft Initial Study was provided to the Tribes and/or their representatives provided by the California Native American Heritage Commission. The San Manuel Band of Mission Indians requested the preparation of a Cultural Resources Assessment and provided comments and revisions after review of said Assessment. These have been incorporated into this Final Initial Study and Mitigated Negative Declaration for adoption by the Helendale CSD Board of Directors. At this time consultation has been completed.

A Cultural Resources Assessment has been prepared for the site by BCR Consulting LLC (see Section 6.2.2), which included a cultural resources records search, intensive-level pedestrian cultural resources survey, shovel test pit excavation, a Sacred Lands File search with the Native American Heritage Commission, and a Paleontological Overview. During the field survey, two prehistoric isolates and two historic-age sites were located. The two isolates are not considered historical resources under CEQA, and the two historic-age sites are not recommended for listing as historical sites; therefore, no further consideration is recommended.

Explanations:

a.-d. **Less Than Significant Impact with Mitigation Incorporated** – It is reasonable that no cultural resources will be identified on the site during construction, for the reasons noted above. Mitigation measures are recommended in the event evidence of cultural resources are discovered.

At the request of Ryan Nordness, Cultural Resources Analyst for the San Manuel Band of Mission Indians the following discussion, and modifications to the Mitigation Measures is being incorporated.

Treatment of Cultural Resources.

If a pre-contact cultural resource is discovered during project implementation, ground-disturbing activities shall be suspended 60 feet around the resource(s), and an Environmentally Sensitive Area (ESA) physical demarcation/barrier constructed.

The lead agency shall develop a research design that shall include a plan to evaluate the resource for significance under CEQA criteria. Representatives from the San Manuel Band of Mission Indians Cultural Resources Department (SMBMI), the applicant, and the Lead Agency shall confer regarding the research design, as well as any testing efforts needed to delineate the resource boundary. Following the completion of evaluation efforts, all parties shall confer regarding the resource's archaeological significance, its potential as a Tribal Cultural Resource (TCR), and avoidance (or other appropriate treatment) of the discovered resource.

Should any significant resource and/or TCR not be a candidate for avoidance or preservation in place, and the removal of the resource(s) is necessary to mitigate impacts, the research design shall include a comprehensive discussion of sampling strategies, resource processing, analysis, and reporting protocols/obligations. Removal of any cultural resource(s) shall be conducted with the presence of a Tribal monitor representing the Tribe unless otherwise decided by SMBMI. All plans for analysis shall be reviewed and approved by the applicant and SMBMI prior to implementation, and all removed material shall be temporarily curated on-site. It is the preference of SMBMI that removed cultural material be reburied as close to the original find location as possible. However, should reburial within/near the original find location during project implementation not be feasible, then a reburial location for future reburial shall be decided upon by SMBMI, the landowner, and the Lead Agency, and all finds shall be reburied within this location. Additionally, in this case, reburial shall not occur until all ground-disturbing activities associated with the project have been completed, all monitoring has ceased, all cataloging and basic recordation of cultural resources have been completed, and a final monitoring report has been issued to the Lead Agency, CHRIS, and SMBMI. All reburials are subject to a reburial agreement that shall be developed between the landowner and SMBMI outlining the determined reburial process/location and shall include measures and provisions to protect the reburial area from any future impacts (vis a vis project plans, conservation/preservation easements, etc.).

Should it occur that avoidance, preservation in place, and on-site reburial are not an option for treatment, the landowner shall relinquish all ownership and rights to this material and confer with SMBMI to identify an American Association of Museums (AAM)-accredited facility within the County that can accession the materials into their permanent collections and provide for the proper care of these objects in accordance with the 1993 CA Curation Guidelines. A curation agreement with an appropriately qualified repository shall be developed between the landowner and museum that legally and physically transfers the collections and associated records to the facility. This agreement shall stipulate the payment of fees necessary for permanent curation of the collections and associated records and the Project developer/applicant's obligation to pay for those fees.

All draft records/reports containing the significance and treatment findings and data recovery results shall be prepared by the archaeologist and submitted to the Lead Agency and SMBMI for their review and comment. After approval from all parties, the final reports and site/isolate records are to be submitted to the local CHRIS Information Center, the Lead Agency, and SMBMI.

Mitigation Measures:

**CUL 1. 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 San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed within TCR-1, regarding any pre-contact and/or post-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 2. If significant pre-contact and/or post-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 SMBMI for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the plan accordingly.**

Inadvertent Discoveries of Human Remains/Funerary Objects

In the event that any human remains are discovered within the project area, ground-disturbing activities shall be suspended 100 feet around the resource(s) and an Environmentally Sensitive Area (ESA) physical demarcation/barrier constructed. The on-site lead/foreman shall then immediately who shall notify SMBMI, the applicant/developer, and the Lead Agency. The Lead Agency and the applicant/developer shall then immediately contact the County Coroner regarding the discovery. 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, the Coroner shall ensure that notification is provided to the NAHC within twenty-four (24) hours of the determination, as required by California Health and Safety Code § 7050.5 (c). The NAHC-identified Most Likely Descendant (MLD) shall be allowed, under California Public Resources Code § 5097.98 (a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and funerary objects shall be treated and disposed of with appropriate dignity. The MLD, Lead Agency, and landowner agree to discuss in good faith what constitutes "appropriate dignity" as that term is used in the applicable statutes. The MLD shall complete its inspection and make recommendations within forty-eight (48) hours of the site visit, as required by California Public Resources Code § 5097.98.

Reburial of human remains and/or funerary objects (those artifacts associated with any human remains or funerary rites) shall be accomplished in compliance with the California Public Resources Code § 5097.98 (a) and (b). The MLD, in consultation with the landowner, shall make the final discretionary determination regarding the appropriate disposition and treatment of human remains and funerary objects. All parties are aware that the MLD may wish to rebury the human remains and associated funerary objects on or near the site of their discovery in an area that shall not be subject to future subsurface disturbances. The applicant/developer/landowner should accommodate on-site reburial in a location mutually agreed upon by the Parties.

It is understood by all Parties that unless otherwise required by law, the site of any reburial of Native American human remains or cultural artifacts shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code § 6254 (r).

Mitigation Measure:

**CUL 3. 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.**

## 3.6 Energy

| | *Issues* | *Potentially Significant Impact* | *Less than Significant w/Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| | **ENERGY** - Would the project: | | | | |
| a) | Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? (3; 8; 27) | ☐ | ☐ | ☒ | ☐ |
| b) | Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? (3; 8; 27) | ☐ | ☐ | ☒ | ☐ |

**ENERGY**
The project which is comprised of the expansion of an existing well field on a site which presently contains three (3) water production wells on-site, and two (2) off-site.

Explanations:

a.-b. **Less than Significant Impact**. Each well would be constructed with a pump that would consume about 1.0 million kilowatt hours per year. 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 resources); 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 employees will be limited due to the small size of the Project and site. Demolition, beyond the removal of a small section of concrete and asphalt to install the connecting pipeline, is not anticipated to be required for this project. To minimize energy costs of construction debris management, laws are in place that require diversion of all material subject to recycling. Energy consumption by equipment will be reduced by requiring shutdowns when equipment is not in use after five minutes and ensuring equipment is being operated within proper operating parameters (tune-ups) to minimize emissions and fuel

consumption. These requirements are consistent with State and regional rules and regulations. Under the construction scenario outlined in the project description, the proposed project will not result in wasteful, inefficient, or unnecessary energy consumption during construction.

The proposed project initially will construct a replacement well and ultimately develop several wells that will contribute to HCSD's existing potable water distribution. No new employees are anticipated to be required in support of the Project once the well(s) is in operation. The initial well replaces an abandoned well and use the existing nearby electrical supplies and additional well project will be supplied additional power from Southern California Edison (SCE). Additionally, HCSD may install emergency backup generators at each of the sites, depending upon proper water management. As such, the Project is not anticipated to require a significant amount of electricity. 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 (CBSC) 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, Southern California Edison (SCE) is presently in compliance with State renewable energy supply requirements and SCE will supply electricity to the Project. 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.

## 3.7 Geology and Soils

| | ***Issues*** | ***Potentially Significant Impact*** | ***Less than Significant w/Mitigation Incorporated*** | ***Less than Significant*** | ***No Impact*** |
|---|---|---|---|---|---|
| | **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 (7) | ☐ | ☐ | ☒ | ☐ |
| | ii. Strong seismic ground shaking? (7) | ☐ | ☐ | ☒ | ☐ |
| | iii. Seismic-related ground failure, including liquefaction? (7) | ☐ | ☐ | ☒ | ☐ |
| | iv. Landslides? (5) | ☐ | ☐ | ☐ | ☒ |
| b) | Result in substantial soil erosion or the loss of topsoil? (5; 7; 22) | ☐ | ☐ | ☒ | ☐ |
| c) | Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? (5; 7) | ☐ | ☐ | ☒ | ☐ |

| | | | | | |
|---|---|---|---|---|---|
| d) | Be located on expansive soil, as defined in Table 181-B of the California Building Code (2013) creating substantial direct or indirect risks to life or property? (5; 8) | ☐ | ☐ | ☐ | ☒ |
| 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? (15) | ☐ | ☐ | ☐ | ☒ |
| f) | Directly or Indirectly destroy a unique paleontological resources or site unique geological features (3) | ☐ | ☐ | ☒ | ☐ |

## GEOLOGY AND SOILS

The project area is located in seismically active Southern California, a region that has experienced numerous earthquakes in the past. The Alquist-Priolo Special Studies Zones Act specifies that an area termed an Earthquake Fault Zone is to be delineated if surrounding faults that are deemed sufficiently active or well defined after a review of seismic records and geological studies. Neither the community nor the project area is located within any Alquist-Priolo Special Studies Zones.

The topography of Helendale varies from gently sloping to rolling hills and occasionally dissected by intermittent natural drainage courses (improved channels in Silver Lakes) to the Mojave River. The major environmental factors controlling stability of the steeper hillsides include precipitation, topography, geology, soils, vegetation, and man-made modifications to the natural topography. The subject site is gently sloping, decreasing in elevation from 2,490 feet above mean sea level at the southern point of the site to 2,455 feet above mean sea level at the northern point of the site. The site has been historically heavily disturbed by agricultural use for approximately 70 years.

Explanations:

a. **No Impact** - The proposal will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death as the project does not propose development anywhere where it is not already permitted.

i. **Less than Significant Impact** - There are no known or suspected fault traces located within the Helendale area. Additionally, it is not subject to the provisions of Alquist- Priolo Fault Zoning Act.

The project site is not within an Earthquake Fault Zone according to the California Alquist-Priolo Earthquake Fault Zone and Seismic Hazard Maps from the California Department of Conservation (See Exhibit 6.1.7). However, USGS Fault Maps identify the nearest faults as shown below.

| Fault | Location |
|---|---|
| Helendale-South Lockhart fault zone | 2 miles northeast |
| Blake Ranch Fault | 10 miles west |
| Mirage Valley fault zone | 11 miles southwest |
| Kramer Hills fault zone | 13 miles northwest |

| | |
|---|---|
| Lenwood-Lockhart fault zone | 22 miles east |
| North Frontal Thrust System | 22 miles southeast |
| Cleghorn Fault Zone | 30 miles south |
| San Andreas Fault Zone | 30 miles southwest |

The project is the expansion of an existing well field. New water production wells will be constructed to meet all seismic requirements of the County of San Bernardino. Therefore, the impact due to rupture will be less than significant.

ii. **Less Than Significant Impact** - The project is located in an area with a high potential for severe ground-shaking. Regardless, construction of building(s) must comply with the requirements of the County of San Bernardino which will ensure they would adequately resist the forces of an earthquake.

iii. **Less than Significant Impact** - Liquefaction is the loss of soil strength as a result of an increase in pore water pressure due to dynamic earthquake loading. Conditions for liquefaction to occur generally include relatively high water table (within 40 feet of the ground surface), low relative densities of the saturated soils, and a susceptibility of the soil to liquefy based on grain size. Reviewing existing data sources indicate that the groundwater varies from more than 80’ and less than a depth of 40' on the Site.

117 – Cajon Loamy Sand (majority of Site);
103 – Badlands (Dike along Mojave River southward from drainage channel);
113 – Cajon Sand (Dike along Mojave River northward drainage channel); 171 – Villa Loamy Sand (Drainage Channel); and
163 – Torriorthents-Torripsamments-Urban Land Complex (Along Silver Lakes development).

The soil sequence is predominantly in a relatively dense state, hence the potential for on-site liquefaction is considered less than significant.

iv. **No Impact** - The proposed project would not have any risks associated with landslides. Landslides are the downslope movement of geologic materials. The stability of slopes is related to a variety of factors, including the slope's steepness, the strength of geologic materials, and the characteristics of bedding planes, joints, faults, vegetation, surface water, and groundwater conditions. The project area is relatively flat terrain where landslides do not occur; therefore, impacts are considered less than significant with respect to seismic-related (or other) landslide hazards.

b. **Less Than Significant Impact** - The project will not result in substantial soil erosion or the loss of topsoil, because the site has minimal slopes and lower stormwater velocities. The project will utilize disturbed land which is currently used for a water production well field, ground disturbance will be minimized by the minimal amount of ground disturbance to the site which would reduce soil erosion by soils being fixed in place by vegetation.

During construction, the project sites have a potential for soil erosion. Though not extensive, the disturbance associated with trenching the pipeline alignment within the project sites to connect to HCSD's distribution system, as well as site clearing and grading where the well will be developed, there is a potential for soil erosion. The project may result in exposing some soil to erosion during site grading activities before the well is drilled. The proposed project will be required to meet NPDES requirements. These will be met by requiring the construction contractor to use BMPs to control potential erosion and drainage off-site. Additionally, the mitigation measures identified below will be implemented and therefore, the potential for substantial soil erosion or loss can be controlled to a less than significant impact level. Based on the mitigation listed below, best management practices (BMPs) will be employed during construction to minimize the potential for soil erosion impacts.

Mitigation Measures:

**GE0 1. Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of the material. If covering is not feasible, then measures such as the use of straw bales or gravel bags shall be used to capture and hold eroded material on the project site for future cleanup.**

**GE0 2. Excavated areas shall be properly backfilled and compacted. Paved areas disturbed by this project will be repaved in such a manner that pipeline connections within adjacent roadways and other disturbed areas are returned to as near the pre-project condition as is feasible.**

**GE0 3. 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 either of the well sites within which the water facilities are being installed.**

**GE0 4. The length of trench which can be left open at any given time will be limited to that needed to reasonably perform construction activities. This will serve to reduce the amount of backfill stored onsite at any given time.**

The following mitigation measure will be implemented to ensure the discharge of surface runoff from the sites does not result in significant soil erosion or loss of topsoil.

**GE0 5. The HCSD 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.**

Implementation of the above measures in conjunction with mitigation measures identified in the Hydrology/Water Quality Section will adequately mitigate potential impacts associated with the water- related erosion of soil.

c. **Less Than Significant Impact** - As previously noted, due to the plan areas insignificant slopes, soil characteristics, and low liquefaction susceptibility, the area is not considered unstable and should not become unstable as a result of this project.

d. **No Impact** - Typically, soils in Helendale have a low or very-low probability of expansive soils as defined in Table 18-1-B of the Uniform Building Code (1994).

e. **No Impact** – The project does not propose any septic tanks or alternative wastewater disposal systems. Therefore, determining if the Project site soils are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater does not apply. No impacts are anticipated. No mitigation is required.

f. **Less Than Significant Impact w/Mitigation Incorporated** - Helendale is in a potential resource rich area as far as paleontological resources are concerned. However, previous historical agricultural use of the site disturbed the ground to an estimated depth of 18+/- inches, disturbing any archaeological and paleontological resources near the surface. Further, Cultural Resources studies near the project site found no resources, and no resources are anticipated on the site. However, Mitigation is recommended in the event evidence of paleontological resources is found during earth-moving or drilling operations.

Mitigation Measure:

**GEO 6. In the event that fossils are discovered during the project development/construction, all work in the immediate vicinity of the find shall cease and a qualified paleontologist shall be hired to assess the find. Work on the overall project may continue during this assessment period.**

## 3.8 Greenhouse Gas Emissions

| | *Issues* | *Potentially Significant Impact* | *Less than Significant w/Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| | **GREENHOUSE GAS EMISSIONS -** Would the project: | | | | |
| a) | Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (3; 31) | ☐ | ☐ | ☒ | ☐ |
| b) | Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (3; 31) | ☐ | ☐ | ☒ | ☐ |

### GREENHOUSE GAS EMISSIONS

Explanations:

a. **Less Than Significant Impact** – The San Bernardino County 2007 Development Code, Chapter 84.30 "GREENHOUSE GAS REDUCTION PLAN; AND GHG REDUCTION PLAN". With the passage of California Assembly Bill AB32, the Global Warming Solutions Act of 2006, jurisdictions are required to reduce their greenhouse gas (GHG) emissions to 1990 levels by 2020. To comply with this legislation San Bernardino County Transportation Authority (SBCTA was formerly SANBAG - San Bernardino Association of Governments) to conduct a Countywide GHG inventory and GHG Reduction Plan. With that process complete, the County of San Bernardino has adopted a Climate Action Plan (CAP) to demonstrate how the County will reduce its GHG emissions in compliance with AB32. The CAP is not additional regulation created, in as much as the regulation to reduce GHG's already exists under CEQA, including Section 15064.4 Determining the Significance of Impacts from GHG Emissions. The CAP assists in streamlining the CEQA review by allowing developers to demonstrate that their projects are consistent with the CAP by demonstrating compliance through a screening table process that the County has developed along with SBCTA, thus not requiring the developer to conduct a complete. With the initial replacement of an existing well, it is determined the does not rise to a level of requiring a GHG analysis on its own for CEQA processing. If additional significant development is proposed on the Site beyond the additional

construction of 2 replacement water wells, then that proposed significant development will require its own GHG analysis at that time and the developer will be subject to the "then current" screening table process which allows the developer to choose any of a number of reduction measures through the Performance Standard PS-1 of reduction measures. Currently, for a project to meet the reduction goal through the screening tables, 45-points must be achieved. In the event of future significant development on the Project Site, the applicant shall submit an appropriate GHG Emission screening table review form indicating the then current amount of points (currently 45 points) to be achieved. Since the proposed project is consistent with the adopted CAP, all GHG impacts, including cumulative, will be less than significant.

b. **Less Than Significant Impact** - No conflict would occur with any established plan, policy or regulation adopted for the purposes of reducing the emissions of greenhouse gases. Refer to conformance measures specified in the above Section "a."

## 3.9 Hazards and Hazardous Materials

| | ***Issues*** | ***Potentially Significant Impact*** | ***Less than Significant w/Mitigation Incorporated*** | ***Less than Significant*** | ***No Impact*** |
|---|---|---|---|---|---|
| | **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? (1) | ☐ | ☐ | ☒ | ☐ |
| 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? (1) | ☐ | ☒ | ☐ | ☐ |
| c) | Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (1) | ☐ | ☐ | ☒ | ☐ |
| 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? (7) | ☐ | ☐ | ☐ | ☒ |
| 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? (1; 4) | ☐ | ☐ | ☐ | ☒ |
| f) | Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (7) | ☐ | ☒ | ☐ | ☐ |
| g) | Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? (1; 4; 7) | ☐ | ☐ | ☐ | ☒ |

### HAZARDS AND HAZARDOUS MATERIALS

Explanations:

a. **Less Than Significant Impact** - 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 and testing of the proposed wells would require the storage of chemicals necessary for treating the 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, it is likely that sodium hypochlorite or other approved methods may be required for disinfection to treat the water extracted from the proposed well. All substances typically utilized to treat well water shall be by approved methods and shall not be potentially hazardous

substances. However, HCSD will comply with all Federal, State and Regional standards. Furthermore, HCSD 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. HCSD 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 Impact w/Mitigation Incorporated** - During construction or maintenance activities in support of the proposed project, all fuels, oils, solvents, and other petroleum materials classified as "hazardous" will be used according to Federal, State, Regional, and Local requirements and regulations. 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:

Mitigation Measure:

**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 wells can be reduced to a less than significant level.

c. **Less Than Significant Impact** - All of the well sites are located 1± miles from schools, however, it is not anticipated to emit hazardous emissions or handle hazardous materials or substances that would cause a significant impact to local schools. The nearest school is Rivers Edge Middle Schools which is located 1± miles to the northwest and the Helendale Elementary School 1.5± miles to the northeast. Given the safety measures in place for the proposed wells, it is not anticipated that the project would 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, e, g **No Impact** - The project site is not identified on a list of hazardous materials sites and is not located in an airport land use plan or within the vicinity of any public or private airstrip that would be affected. It is also located in an area where the risk of wildland fires is not high due to the low density of vegetation.

f. **Less Than Significant Impact w/Mitigation Incorporated** - The proposed well development will be confined to the project site and is not anticipated to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The pipeline that will connect each new well to HCSD's potable water system may involve a small amount of work within Helendale Road and/or Shadow Mountain Road, but this will occur during a limited period of time. A limited potential to interfere with an emergency response or evacuation plan will occur during construction. The project site is not located within an identified emergency access route. Therefore, no such plans will be affected by the Project. Refer to the Transportation/Traffic Section of this document. Mitigation to

address traffic disruption and emergency access issues are included in this section. Impacts are reduced to a less than significant level with mitigation incorporated . No additional mitigation is required.

## 3.10 Hydrology and Water Quality

| | Issues | Potentially Significant Impact | Less than Significant w/Mitigation Incorporated | Less than Significant | No Impact |
|---|---|---|---|---|---|
| | **HYDROLOGY AND WATER QUALITY -** Would the project: | | | | |
| a) | Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? (3; 16) | ☐ | ☒ | ☐ | ☐ |
| b) | Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede substantial groundwater management of the basin? (1; 3; 17; 22) | ☐ | ☒ | ☐ | ☐ |
| 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: (16) | ☐ | ☒ | ☐ | ☐ |
| | i) result in substantial erosion or siltation on- or off-site; | ☐ | ☒ | ☐ | ☐ |
| | ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; | ☐ | ☒ | ☐ | ☐ |
| | 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? (7, Panel 06071C5150J) | ☐ | ☐ | ☒ | ☐ |
| d) | In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? (7) | ☐ | ☐ | ☒ | ☐ |
| e) | Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ☒ | ☐ |

### HYDROLOGY AND WATER QUALITY

The Helendale CSD provides domestic water to the Helendale area, and the primary source of fresh water is groundwater extracted by numerous wells. This project proposes to expand an existing well field which has three (3) production wells currently on-site and two (2) off-site.

The project site and surrounding areas are subject to San Bernardino County requirements relating to flood control, and the National Pollution Discharge Elimination System (NPDES) to protect surface water from pollution. There is no off-site stormwater affecting the Site and the proposed expansion of an existing well field does proposes productions wells on only a portion of the site.

Overall, project related impacts are anticipated to be less than significant.

Explanations:

a. **Less Than Significant Impact w/Mitigation Incorporated** - Installation of the proposed well and connecting pipeline 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, HCSD 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 South Lahontan Watershed. The RWQCB would have jurisdiction over the groundwater quality

and surface water discharges for all new wells. 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 each well test program can proceed, sampling must be completed to ensure that maximum contaminant levels (MCLs) are not exceeded in the groundwater brought to the surface and discharged. If water quality at one of the proposed wells 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:

Mitigation Measure:

**HYD 1.HCSD 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.HCSD shall prepare a Drilling Plan that describes the drilling method and construction contingencies to be employed. That plan shall describe waste management control and disposal methods for cuttings, mud, and development water discharges. The Drilling Plan should identify, and illustrate on appropriate scale maps, the Best Management Practices (BMPs) that will be employed to ensure there are no adverse effects on ground or surface water quality. HCSD shall indicate how they will implement and monitoring the effectiveness of installed BMPs, and make necessary adjustments in the field, if necessary, to modify those BMPs and protect water quality. The Drilling Plan shall be made available to the Lahontan Regional Water Quality Control Board for their records according to rules and regulations.**

The proposed project may result in minor soil erosion during any construction activities. Due to the varied nature of the proposed project sites-varying from disturbed compacted dirt to containing native and non-native vegetation and the flat topography at each well site (excluding the Mojave River bluffs), the potential for this project to cause soil erosion, and subsequent water quality impacts, is moderate. The proposed project will be required to meet NPDES requirement. HCSD must file a Notice of Intent (NOI) with the State Water Resources Control Board and obtain a general construction National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit prior to the start of construction due to the area of impact for the proposed project, if the disturbed area cumulatively to be more than 1 acre. It is anticipated cumulatively to be less than 1 acre. Obtaining coverage under the General Construction NPDES permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that must be implemented during construction. If applicable, compliance with the terms and conditions of the NPDES and the SWPPP is mandatory and is judged adequate mitigation by the regulatory agencies for potential impacts to stormwater during construction activities.

Mitigation Measure:

**HYD 3.The County shall require of HCSD that the construction contractor prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies 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. The SWPPP shall include a Spill Prevention and Cleanup 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 in the SWPPP may include but not be limited to:**

- **The use of silt fences;**
- **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 measure, as well as mitigation measures HAZ-1, and HYD-4 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 Impact w/Mitigation Incorporated** - Presently the area is under the jurisdiction of the Mojave Water Agency (MWA) by the existing four-(4) contracts is entitled to 85,800 acre-feet cumulative per year of supplemental water from the California Water Project (CWP or California Aqueduct), increasing another 4,000 acre-feet in January 2020 for future growth. The original 50,800 acre-feet entitlement of the CWP has been available for 50+ years and the MWA has purchased additional water transfers (first of several from Dudley Ranch) on March 26, 1996, which increased the entitlement by 25,000 acre-feet yearly. Only 7,257 acre-feet per year has been committed to the Morongo Basin, leaving 82,543 acre-feet available to provide “Supplement/Make Up Water” under MWA’s jurisdiction in 2020. The water demand for the project is significantly less than a residential development as allowed by the underlying zoning. However, the continued growth and potable water demand for the HCSD and as such may have to purchase “Make Up Water” if the district exceeds its cumulative “Water Rights” and associated “Free Production Allowance” as stipulated in the Final Judgment to the Mojave Basin Area Adjudication entered January 10, 1996.

Further, any new construction shall employ all water conservation measures outlined in the State Appliance Efficiency Standards as enforced by the County Public Health as part of obtaining permits for the development in addition to the water conservation measures required, which includes drought tolerant landscaping, further reducing the water demand of new residential and commercial development that occurs as a result of this proposal. The proposed new wells are each forecast to increase groundwater extraction, as required by the needs of HCSD. These wells are 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 HCSD to ensure that other wells within this local aquifer do not incur a significant adverse impact from pumping the proposed well.

Mitigation Measure:

**HYD 4.HCSD 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, HCSD shall offset this impact through provision of water service; or adjusting the flow rates or hours of operation to mitigate adverse impacts.**

c. **Less Than Significant Impact w/Mitigation Incorporated** - The project will not substantially alter the existing drainage pattern of the site or area as there will be minimal earth-moving for the project, and there are no existing streams or rivers that traverse the area. No public storm drain system currently exists in the vicinity of the project.

Counties require implementation 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 pollution from construction activities in the vicinity of the project site. These measures, such as berms, coil rolls, 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 Mitigation Measures HAZ-1, and HYD-3 in conjunction with measure HYD-5 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.

Mitigation Measure:

**HYD 5.HCSD 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, if needed will be developed by this 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.

i.-iv. **Less Than Significant Impact w/Mitigation Incorporated** - See "c" above. The project is located within a special flood hazard area inundated by a 100-year flood; and is located within Zone A. Given that the two wells located on the site that may experience flooding would encompass a modest portion of the site above ground (a 10’ x 10’ concrete pad is anticipated to be required for each new well), the inclusion of these wells at the site is not anticipated to redirect or impede flood flows.

Furthermore, the location is outside of roadways, and drainage will be managed within the site. Therefore, the proposed project would have a less than significant potential to 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 impede or redirect flows. No mitigation is required.

d. **Less Than Significant Impact** - The project will not expose people or structures to a significant risk of loss, injury or death involving flooding as no flood hazards traverse the proposed well locations nor is the site subject to inundation by seiche, tsunami, or mudflow as there is no evidence suggesting potential for these hazards based upon types of localized soils and depth to the water table.

e. **Less Than Significant Impact** - The project will not conflict or obstruct implementation of a water quality control plan or sustainable groundwater plan. Presently the area is under the jurisdiction of the Mojave Water Agency (MWA) which has numerous approved water resource management plans; Ground Water Management Plan (GWMP), Salt and Nutrient Management Plan (SNMP), Mojave Integrated Regional Water Management Plan (IRWMP), and Mojave Urban Water Management Plan (UWMP).

## 3.11 Land Use and Planning

| | *Issues* | *Potentially Significant Impact* | *Less than Significant w/Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| | **LAND USE AND PLANNING** - Would the project: | | | | |
| a) | Physically divide an established community? (4) | ☐ | ☐ | ☐ | ☒ |
| 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? (1; 2; 27) | ☐ | ☐ | ☐ | ☒ |

**LAND USE AND PLANNING**

Explanations:

a. **No Impact** - The project will not disrupt or divide an established community since the project does not involve construction of new structures that would cause any physical division of communities. Further, 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** - The project will not conflict with the General Plan's Land Use Plan or the Zoning Ordinance since water production facilities are zone independent because they are needed to support all types of land uses.

## 3.12 Mineral Resources

| | Issues | Potentially Significant Impact | Less than Significant w/Mitigation Incorporated | Less than Significant | No Impact |
|---|---|---|---|---|---|
| | **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? (3) | ☐ | ☐ | ☐ | ☒ |
| 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? (3) | ☐ | ☐ | ☐ | ☒ |

**MINERAL RESOURCES**

Naturally occurring mineral resources within the County include sand, gravel, or stone deposits that are suitable as sources of concrete aggregate, located primarily along the Mojave River.

Explanations:

a. & b. **No Impact** - The project will not 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, because there are no identified locally important mineral resources on the project site. The underlying soils in the area could be recovered, but the project site is disturbed historical agricultural property which has five (5) water production wells on or abutting the site. Finally, the area has not been identified as a locally important mineral resource, and the project will have no impact.

## 3.13 Noise

| | Issues | Potentially Significant Impact | Less than Significant w/Mitigation Incorporated | Less than Significant | No Impact |
|---|---|---|---|---|---|
| | **NOISE** - Would the project: | | | | |
| a) | Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (1; 14; 23) | ☐ | ☒ | ☐ | ☐ |
| b) | Generation of excessive ground borne vibration or ground borne 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? (1; 4) | ☐ | ☐ | ☒ | ☐ |

**NOISE**

Noise is generally described as unwanted sound. Once the wells are developed and tested as a production wells, the proposed wells will be above surface pumps. Mitigation is provided below to ensure that, if the pump exceeds the County's standards for noise levels at the nearest sensitive receptor, it will be housed in a noise minimizing structure. Sensitive receptors in the area include churches, residents, medical facilities, and schools, all of which are greater than 0.2± miles from the proposed well locations. It is noted that OHV use the project Site and adjacent properties for recreational purpose.

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."

Equivalent Sound Level (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 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.

Explanations

a. **Less Than Significant Impact w/Mitigation Incorporated** - The proposed project site is located in a low background noise environments (except it is noted that OHV use the project Site and adjacent properties for recreational purpose). Local sources of noise include minimal traffic along Helendale Road and Shadow Mountain Road. Traffic is relatively minimal because the majority of traffic is to and from only the Silver Lakes community. Based on the limited traffic, background noise is estimated at below 45 dBA over a 24-hour period using the Community Noise Equivalent Level (CNEL). Implementation of the proposed project will generate some noise. Generally, well drilling equipment can generate noise levels of about 70 to 90 dBA at a distance of 50 feet from the equipment. Drilling will be accomplished by using a reverse rotary drill unit and may occur over a 24-hour period until the well is completed to the design depth for about 3± weeks. Stationary source noise diminishes at a rate of about 6 dB for each doubling of the distance from the source. This means that periodic construction noise levels at the nearest receptor can be about 43 to 63 dBA. Therefore, it has no potential that well drilling will exceed the County's noise standard of 65 dBA at the exterior of the nearest receptors. Regardless, this increase in noise levels will be short term drilling per well. The increased noise levels will not be severe enough to pose a health or hearing hazard, but could be considered a short- term nuisance. However, mitigation is provided below to ensure that a noise wall is constructed during the period to minimize noise levels at nearby sensitive receptors; furthermore, should any residents find that the well drilling noise levels are a nuisance, a program will be created to minimize the noise further.

   The connection pipelines that will be required will be constructed at a similar distance to the well locations, and will be constructed concurrent with the determination that wells are viable to produce drinking water that then can be connected to HCSD's service area. Should wells be viable, pipeline construction will be limited to daylight hours to prevent significant impacts during the short (no more than one or two week) construction period for each.

   Temporary construction noise is exempt from the County Noise Performance Standards between 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays. The proposed project would be constructed

in compliance with the County's Noise Performance Standards, and therefore construction of the project would be less than significant. However, to minimize the noise generated on the site to the extent feasible, the following mitigation measures shall be implemented:

Mitigation Measures:

**NOI 1 Noise measures shall be implemented to reduce noise levels to the greatest extent feasible (at or below 65 dBA). Measures may include portable noise barriers, scheduling specific construction activities to avoid conflict with adjacent sensitive receptors , or any other means by which to accomplish this noise minimization.**

**NOI 2 All construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by Applicant personnel during construction activities.**

**NOI 3 HCSD will establish a noise complaint/response program and will respond to any noise complaints received for this project by measuring noise levels at the affected receptor. If the noise level exceeds 60 dBA exterior or 45 dBA interior between the hours of 7 PM and 7 AM on any day except Sunday or a Federal holiday, or between the hours of 8 PM and 9 AM on Sunday or a Federal holiday at the receptor, the Applicant will implement adequate measures to reduce noise levels to the greatest extent feasible, including portable noise barriers at the project site or at affected residences, offer temporary relocation to affected residences, or scheduling specific construction activities to avoid conflict with adjacent sensitive receptors.**

**NOI 4 Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible, for example on the north- or south- west corners of the project site.**

This 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 pipeline 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.

Mitigation Measure:

**NOI 5 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. Alternative design criteria may be accomplished to reduce noise impacts. The aforementioned or other noise reducing measures shall be implemented should HCSD be unable to demonstrate that noise levels are limited to 50 dBA at the nearest sensitive receptor.**

Therefore, through the implementation of the mitigation measures identified above, neither operation nor construction of the proposed project would violate noise standards outlined in the San Bernardino County Development Code. Impacts under this issue are considered less than significant with mitigation incorporated.

b. **Less Than Significant Impact** - The project is not anticipated to generate excessive ground borne vibration or noise levels, as described in section a. above. The surrounding properties are disturbed vacant desert, Silver Lakes community, Mojave River, and historically disturbed agricultural uses. However, due to the extended distance to sensitive receptors 1,100 Feet (0.2 miles), the exposure of persons to noise levels in excess of standards is less than significant.

c. **No Impact** - The project site is not located in an airport land use plan or within the vicinity of any public or private airstrip that would be affected.

## 3.14 Population and Housing

| | Issues | Potentially Significant Impact | Less than Significant w/Mitigation Incorporated | Less than Significant | No Impact |
|---|---|---|---|---|---|
| | **POPULATION AND HOUSING** - Would the project: | | | | |
| a) | Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? (4; 6; 11; 26; 27) | ☐ | ☐ | ☐ | ☒ |
| b) | Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? (4; 6) | ☐ | ☐ | ☐ | ☒ |

**POPULATION AND HOUSE**

Explanations:

a. **No Impact** - The proposed project will not directly increase the population within Helendale as the current jobs-housing balance demonstrates a lack of jobs for the current population, therefore the population of Helendale will not increase as a result of the proposed project.

b. **No Impact** - The proposed project will not displace substantial numbers of existing people or housing as no existing housing or areas currently designated for housing will be removed or reduced or divide an existing neighborhood.

## 3.15 Public Services

| | Issues | Potentially Significant Impact | Less than Significant w/Mitigation Incorporated | Less than Significant | No Impact |
|---|---|---|---|---|---|
| | **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? | ☐ | ☐ | ☐ | ☒ |

**PUBLIC SERVICES**

Explanations:

a.-e. **Less Than Significant/No Impact** - The proposed expansion of an existing well field project will not result in an increase in public services.

## 3.16 Recreation

| | Issues | Potentially Significant Impact | Less than Significant w/Mitigation Incorporated | Less than Significant | No Impact |
|---|---|---|---|---|---|
| | **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? | ☐ | ☐ | ☐ | ☒ |

**RECREATION**
The project is the expansion of an existing well field.

Explanations:

a.&b. **No Impact** - The proposed project will not increase the use of existing neighborhood or regional parks or other recreational facilities because it will not cause an increase in population in the Helendale area.

## 3.17 Transportation

| | Issues | Potentially Significant Impact | Less than Significant w/Mitigation Incorporated | Less than Significant | No Impact |
|---|---|---|---|---|---|
| | **TRANSPORTATION -** *Would the project result in*: | | | | |
| a) | Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities? (11; 18) | ☐ | ☒ | ☐ | ☐ |
| b) | Conflict or be inconsistent with CEQA Guidelines Section 15064.3 Subdivision (b)? (11; 20) | ☐ | ☐ | ☒ | ☐ |
| c) | Substantially increase hazards due to geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (11; 18) | ☐ | ☒ | ☐ | ☐ |
| d) | Result in inadequate emergency access? (4; 24) | ☐ | ☒ | ☐ | ☐ |

**TRANSPORTATION**
Explanations:

a. **Less Than Significant Impact w/Mitigation Incorporated** – The proposed well field development project is located within the community of Helendale in San Bernardino County. Construction of the wells will be limited to within the boundaries of the project site, though they will require extension of existing water lines that currently have connection to HCSD's existing potable water distribution system, which will require a short period of construction vehicles within the corresponding roadways adjacent to the project site. The roadways within which construction will occur are as follows: Helendale and/or Shadow Mountain roads. In the short term, construction of the proposed wells and pipeline will result in the generation of around 15-20 additional roundtrips per day on the adjacent roadways by construction personnel and the

removal of any graded material and delivery of well construction materials. No new roads are required to construct or operate this Project. However, construction activity within existing roadways is necessary to complete construction activities for the new well(s), for a period of approximately one to two weeks per well connection. No temporary roadway closure will be required though one lane may require closure at any given time throughout construction; given the temporary nature of the construction proposed the proposed project is not anticipated to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. However, the proposed project shall implement the following mitigation measure to ensure that disturbances within public roadways will be repaired to at existing or better conditions.

**TRAN 1 The construction contractor will provide adequate traffic management resources, as determined by the HCSD. If needed, HCSD shall require a construction traffic management plan for work in public roads that complies with the Work Area Traffic Control Handbook, or other applicable standard, to provide adequate traffic control and safety during excavation activities. The traffic management plan shall be prepared and approved by the HCSD prior to initiation of excavation or pipeline construction. At a minimum this plan shall include how to minimize the amount of time spent on construction activities; how to minimize disruption of vehicle and alternative modes of transport traffic at all times, but particularly during periods of high traffic volumes; how to maintain safe traffic flow on local streets affected by construction at all times, including through the use of adequate signage, protective devices, flag persons or police assistance to ensure that traffic can flow adequately during construction; the identification of alternative routes that can meet the traffic flow requirements of a specific area, including communication (signs, webpages, etc.) with drivers and neighborhoods where construction activities will occur; and at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining.**

**TRAN 2 HCSD shall require 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 Local Agency standard design requirements.**

The operation phase of the proposed project would require minimal new trips to the well development site on a maintenance basis only, and the traffic on adjacent roadways as a result of well operations would be minimal due to remote operational capabilities. As such, operation of the proposed project would not conflict with a program, plan, ordinance, or policy addressing the applicable circulation systems; including transit, roadway, bicycle, and pedestrian facilities. Therefore, with implementation of the above mitigation measure, implementation of the Project would have a less than significant impact under this issue.

b. **Less Than Significant Impact** – The proposed project would install new wells and connecting existing water lines and associated valves within Helendale and Shadow Mountain roads. The Local Agency does not have thresholds for vehicle miles travelled; however, the proposed project will not require a substantial amount of operational traffic beyond any maintenance trips to the well site. Construction of the proposed project will require about 15-20 trips to and from the well site each day as a result of employee and construction related trips. Given that these trips are temporary, and are not anticipated to exceed a 45 miles round trip per day during the 5 week period required to complete construction at each construction of the wells; however, additional back-up wells may be developed, and as such, construction may require up to one year), construction related vehicle miles traveled impacts are considered less than significant. As such, development of the project is not anticipated to result in 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 Impact w/Mitigation Incorporated** – The proposed project would not substantially increase hazards due to a design feature or incompatible uses. With the exception of the aforementioned trip generation during the construction phase and the installation of the connection pipeline from the wells to HCSD's distribution system located adjacent to the site the proposed project will not alter any adjacent roadways. No planned construction within the adjacent roadway because existing water lines and valving has already been constructed. As stated under issue a. above, with the implementation of mitigation measures TRAN-1 and TRAN-2 below, which require implementation of a construction traffic management plan, if needed, 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 hazards or incompatible uses in existing roadways are anticipated because water pipeline have already been installed, regardless 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.

a. - e. **Less Than Significant Impact w/Mitigation Incorporated** – Please refer to the discussion under issue a. above. The proposed project will not require any closure of any lanes within Helendale and Shadow Mountain Roads and water line and well connections have been installed. Due to the proposed well locations, no potential exists for short-term hazards or constraints on both normal and emergency access within the affected area. There are no emergency access roadways located within the project footprint. Regardless, any traffic impacts are reduced by the implementation of mitigation measures TRAN-1 and TRAN-2 which will ensure that impacts are reduced to a level of less than significant. No additional mitigation is required.

## 3.18 Tribal Cultural Resources

| | Issues | Potentially Significant Impact | Less than Significant w/Mitigation Incorporated | Less than Significant | No Impact |
|---|---|---|---|---|---|
| | **TRIBAL CULTURAL RESOURCES** | | | | |
| a) | Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | ☐ | ☒ | ☐ | ☐ |
| i) | Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or | ☐ | ☐ | ☐ | ☒ |
| ii) | A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | ☐ | ☐ | ☒ | ☐ |

### TRIBAL CULTURAL RESOURCES

As noted in the Cultural Resources Section, a Cultural Resource Assessment has been prepared which recommends no additional cultural resources wolrk or monitoring. However, Ryan Nordness,

CItural Resources Analyst for the San Manuel Band of Mission Indians recommended revised mitigation measures to address the potential discovery of cultural resources during well construction.

Explanations:

A request for Tribal Consultation List and Sacred Lands File Search has been submitted to the Native American Heritage Commission. Once that information is received, consultation with the applicable tribes will be undertaken, as applicable.

a. & ii. **Less Than Significant Impact w/Mitigation Incorporated** – Based on the above information and analysis contained in the Cultural Resources section, the following mitigation measures are included.

Mitigation Measures:

**TRI 1. The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed in CR-1, of any pre-contact and/or post-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 discovery 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 SMBMI, and, all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to represent SMBMI for the remainder of the project, should SMBMI elect to place a monitor on-site.**

**TRI 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 applicant and Lead Agency for dissemination to SMBMI. The Lead Agency and/or applicant shall, in good faith, consult with SMBMI throughout the life of the project.**

i. **No Impact** – The site does not meet the criteria to be listed or eligible for listing in the California Register of Historical Resources or in a local register. Therefore, there is no impact.

## 3.19 Utilities and Service Systems

| | *Issues* | *Potentially Significant Impact* | *Less than Significant w/Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| | **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? (3; 15; 25) | ☐ | ☐ | ☒ | ☐ |
| b) | Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? (1; 3; 17; 22) | ☐ | ☐ | ☒ | ☐ |
| 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? (3; 9; 25) | ☐ | ☐ | ☒ | ☐ |

| | | | | | |
|---|---|---|---|---|---|
| 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? (3; 25) | ☐ | ☐ | ☒ | ☐ |
| e) | Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? (3) | ☐ | ☐ | ☒ | ☐ |

## UTILITIES AND SERVICE SYSTEMS

Explanations:

a. **Less Than Significant Impact** - The proposed project is the expansion of an existing well field to serve the Helendale area. No wastewater will be generated by the project, either in the short or long term. Current wells located on and abutting the Site already use existing utilities, however capacity and distribution improvements may be needed to meet new peak demand scenarios, updated, or current expansion plans expedited if deemed necessary as a result of cumulative projects. However, the proposal itself will not immediately require the construction or expansion of utility facilities. Therefore, since the project will not directly require the construction or expansion of water or electrical lines, or communication facilities for remote operational purposes, this project will have a less than significant impact.

b. **Less Than Significant Impact** - Presently the area under the jurisdiction of the Mojave Water Agency (MWA) by the existing four-(4) contracts is entitled to 85,800 acre-feet cumulative per year of supplemental water from the California Water Project (CWP or California Aqueduct), increasing another 4,000 acre-feet in January 2020. The original 50,800 acre-feet entitlement of the CWP has been available for 50+ years and the MWA has purchased additional water transfers (first of several from Dudley Ranch) on March 26, 1996, which increased the entitlement by 25,000 acre-feet yearly. Only 7,257 acre-feet per year has been committed to the Morongo Basin, leaving 82,543 acre-feet available to provide “Supplement/Make Up Water” under MWA’s jurisdiction in 2020. The water demand for the project will not increase.

c. **Less Than Significant Impact** - The well operation will not require installation of restroom facilities; construction may 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 wells, the Project will not generate a substantial amount of solid wastes and will not adversely affect the existing solid waste disposal system. Once in operation, the only above-ground features of the Project will be the developed well. Construction and demolition (C & D) waste will be recycled to the maximum extent feasible in accordance with the California Green Building Code, and any residual materials will be delivered to one of several C & D disposal sites in the area surrounding the project site. Additionally, any hazardous materials collected on the project site during either construction of the Project will be transported and disposed of by a permitted and licensed hazardous materials service provider. The Project will not conflict with any state, federal, or local regulations regarding solid waste. Solid waste will be disposed of in

accordance with existing regulations at an existing licensed landfill-such as the Victorville Sanitary Landfill -with adequate capacity to handle the waste. According to the CalRecycle and San Bernardino County Solid Waste Management-which serves the community of Helendale-the maximum permitted capacity of Victorville Sanitary Landfill is 83,200,000 Cubic Yards (CY), while its remaining capacity is 81,510,000 CY; the Victorville Sanitary Landfill can accept 3,000 tons per day. Thus, there is adequate solid waste disposal capacity for solid waste generated as a result of implementation of the proposed Project both in the short term and long term. These impacts are considered less than significant. No additional mitigation is required.

## 3.20 Wildfire

| | ***Issues*** | ***Potentially Significant Impact*** | ***Less than Significant w/Mitigation Incorporated*** | ***Less than Significant*** | ***No Impact*** |
|---|---|---|---|---|---|
| | **WILDFIRE:** *If located in or near state responsibility areas or lands classified as very-high fire hazard severity zones, would be 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 other uncontrolled spread of a 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 I 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? | ☐ | ☐ | ☐ | ☒ |

**WILDFIRE**

Explanations:

a. – d. The project is not located within or near a state responsibility area according to the Fire and Resource Assessment Program (FRAP) map. Additionally, the Project Site has a low level of mass-loading of native and invasive vegetation for wildland fire potential to occur on the Site.

## 3.21 Mandatory Findings of Significance

| | *Issues* | *Potentially Significant Impact* | *Less than Significant w/Mitigation Incorporated* | *Less than Significant* | *No Impact* |
|---|---|---|---|---|---|
| | **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? (1; 3; 12) | ☐ | ☒ | ☐ | ☐ |
| 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)? (20; 25) | ☐ | ☐ | ☒ | ☐ |
| c) | Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly? (1; 2; 27) | ☐ | ☒ | ☐ | ☐ |

### MANDATORY FINDINGS OF SIGNIFICANCE

Explanations:

a. **Less Than Significant Impact W/Mitigation** - The Project has no potential to cause a significant impact any biological or cultural resources. The project has been identified as having no potential- with the implementation of mitigation measures-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 site is historical agricultural property, currently with three (3) water production wells located on-site. The remainder of the site contains a mixture of re-grown native vegetation and invasive species. No sensitive natural biological habitat exists within the proposed well sites; however, mitigation is required to protect riparian trees, burrowing owls, nesting birds, and other sensitive species. The cultural resources evaluations of nearby projects indicates there is a low probability of cultural resources, no impacts are anticipated. To ensure that any accidentally exposed subsurface cultural resources are properly handled, contingency mitigation measures will be implemented. With incorporation of Project mitigation measures all biology and cultural resource impacts will be reduced to a less than significant level.

b. **Less Than Significant Impact** - The proposed project is the expansion of an existing well field, on property zoned for residential development. Therefore, the impacts of the project are substantially less than those considered under the San Bernardino County General Plan included an environmental impact report (EIR), which incorporates approved projects under construction and their impacts to the Community as a whole. While the subject site was not individually studied, the impacts of all existing zoned and existing uses were included, and appropriate mitigation and implementation measures are included in the General Plan. Therefore, the proposed project impacts are individually limited, but cumulatively considerably less than significant.

c. **Less Than Significant Impact W/Mitigation** - The Project will achieve long-term community goals by providing reliable potable water from the new wells. 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, and Noise 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.

## 3.22 Earlier Analyses

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). In this case a discussion identifies the following:

a) **Earlier analyses used**. Earlier analyses are identified and stated where they are available for review.

b) **Impacts adequately addressed**. Effects from the above checklist that were identified to be within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards are noted with a statement 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 Incorporated", describe the mitigation measures which are incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project are described.

**Authority**: Public Resources Code Sections 21083 and 21087.
**Reference**: Public Resources Code Sections 21080(c), 21080.1, 21083, 21083.3, 21093, 21094, 21151; Sundstrum v. County of Mendocino, 202 CalApp 3d 296 (1988); Leonoff v. Monterey Board of Supervisors, 222 CalApp 3d 1337 (1990.

# Section 4.0 Conclusions

## 4.1 Findings

The Initial Study determined that the proposed project is not expected to have significant adverse environmental impacts. The following findings can be made regarding the Mandatory Findings of Significance set forth in Section 15065 of the CEQA Guidelines based on the results of this Initial Study:

- The proposed project, with the proposed mitigation measures, will not 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 an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory.

- The proposed project will not have impacts that are individually limited, nor cumulatively considerable.

- The proposed project, with proposed mitigation measures, will not have environmental effects which will cause substantially adverse effects on human beings, either directly or indirectly.

## 4.2 Mitigation Monitoring

In addition, pursuant to Section 21081(a) of the Public Resources Code, findings must be adopted by the decision-maker coincidental to the approval of a Mitigated Negative Declaration. These findings shall be incorporated as part of the decision-maker's findings of fact, in response to AB-3180 and in compliance with the requirements of the Public Resources Code. In accordance with the requirements of Section 21081(a) and 21081.6 of the Public Resources Code, the City of Adelanto can make the following additional findings: a mitigation monitoring and reporting program will be required and is included below.

A completed and signed checklist for each measure indicates that a measure has been implemented and fulfills the monitoring requirements with respect to Public Resources Code Section 21081.6.

# MITIGATION MONITORING AND REPORTING PROGRAM FOR HCSD WELL FIELD PROJECT

| Mitigation Measure | Responsible Party | Timing of Compliance | Signature and Date of Compliance |
|---|---|---|---|
| ***Air Quality Measures*** | | | |
| 1. Dust Control Plan (Ref. Mitigated Negative Declaration Measure AIR 1) | Project Developer | Prior to project construction activities | |
| 2. Signage (Ref. Mitigated Negative Declaration Measure AIR 2) | Project Developer | Prior to project construction activities | |
| 3. Watering (Ref. Mitigated Negative Declaration Measure AIR 3) | Project Construction Superintendent | Prior to and during all construction activities until final construction | |
| 4. Fencing (Ref. Mitigated Negative Declaration Measure AIR 4) | Project Construction Superintendent | Prior to and during all construction activities until final construction | |
| 5. Maintenance and access roads and parking areas (Ref. Mitigated Negative Declaration Measure AIR 5) | Project Construction Superintendent | Prior to and during all construction activities until final construction | |
| ***Biological Resource Measures*** | | | |
| 6. Riparian tree protection (Ref. Mitigated Negative Declaration Measure BIO 1) | Project Developer & Project Biologist | Prior to project construction activities | |
| 7. Preconstruction Survey – Desert kit fox and American badger (Ref. Mitigated Negative Declaration Measure BIO 2) | Project Developer & Project Biologist | Prior to project construction activities | |
| 8. Preconstruction Survey – Burrowing owl (Ref. Mitigated Negative Declaration Measure BIO 3) | Project Developer & Project Biologist | Prior to project construction activities | |

| Mitigation Measure | Responsible Party | Timing of Compliance | Signature and Date of Compliance |
|---|---|---|---|
| 9. Active nest survey (Ref. Mitigated Negative Declaration Measure BIO 4) | Project Developer & Project Biologist | Prior to project construction activities | |
| 10. Sensitive species found during subsequent surveys (Ref. Mitigated Negative Declaration Measure BIO 5) | Project Developer & Project Biologist | Prior to project construction activities | |
| ***Cultural Resource Measures*** | | | |
| 12. Tribal cultural resources found during project activities (Ref. Mitigated Negative Declaration Measure CUL 1) | Project Developer & Project Archaeologist | Prior to and during project construction activities | |
| 13. Monitoring and Treatment Plan for significant Tribal cultural resources (Ref. Mitigated Negative Declaration Measure CUL 2) | Project Developer & Project Archaeologist | Prior to and during project construction activities | |
| 14. Human remains and funerary objects encountered during project activities. (Ref. Mitigated Negative Declaration Measure CUL 3) | Project Developer & Project Archaeologist | Prior to and during project construction activities | |
| | | | |
| **Mitigation Measure** | **Responsible Party** | **Timing of Compliance** | **Signature and Date of Compliance** |
| ***Geology & Soils Measures*** | | | |
| 15. Storage of backfill material (Ref. Mitigated Negative Declaration Measure GEO 1) | Project Developer | Prior to project construction activities | |

| | | | |
|---|---|---|---|
| | & Project Contractor | | |
| 16. Excavated areas (Ref. Mitigated Negative Declaration Measure GEO 2) | Project Developer & Project Contractor | Prior to and during project construction activities | |
| 17. Exposed, disturbed soil (Ref. Mitigated Negative Declaration Measure GEO 3) | Project Developer & Project Contractor | Prior to and during project construction activities | |
| 18. Trenching (Ref. Mitigated Negative Declaration Measure GEO 4) | Project Developer & Project Contractor | Prior to and during project construction activities | |
| 19. Discharge of surface waters BMPs (Ref. Mitigated Negative Declaration Measure GEO 5) | Project Developer & Project Contractor | Prior to and during project construction activities | |
| 20. Fossils found during development (Ref. Mitigated Negative Declaration Measure GEO 6) | Project Developer & Project Paleontologist | Prior to and during project construction activities | |
| ***Hazards and Hazardous Materials Measures*** | | | |
| 21. Spills or leakage of petroleum products (Ref. Mitigated Negative Declaration Measure HAZ 1) | Project Developer & Project Contractor | Prior to and during project construction activities | |
| ***Hydrology & Water Quality Measures*** | | | |
| 22. Groundwater production testing (Ref. Mitigated Negative Declaration Measure HYD 1) | Project Developer & Project Contractor | Prior to discharge | |

| Mitigation Measure | Responsible Party | Timing of Compliance | Signature and Date of Compliance |
|---|---|---|---|
| 23. Drilling Plan (Ref. Mitigated Negative Declaration Measure HYD 2) | Project Developer & Project Contractor | Prior to construction activities | |
| 24. SWPPP (Ref. Mitigated Negative Declaration Measure HYD 3) | Project Developer & Project Engineer | Prior to project construction activities | |
| 25. Pump Test (Ref. Mitigated Negative Declaration Measure HYD 4) | Project Developer & Project Contractor | Prior to permanent well operation | |
| 26. Reduction in pollutants (Ref. Mitigated Negative Declaration Measure HYD 5) | Project Developer & Project Contractor | Prior to permanent well operation | |
| ***Noise Measures*** | | | |
| 27. Reduction of noise levels (Ref. Mitigated Negative Declaration Measure NOI 1) | Project Developer & Project Contractor | Prior to and during project construction activities | |
| 28. Noise control equipment (Ref. Mitigated Negative Declaration Measure NOI 2) | Project Developer & Project Contractor | Prior to and during project construction activities | |
| 29. Noise complaint/response program (Ref. Mitigated Negative Declaration Measure NOI 3) | Project Developer | Prior to project construction activities | |
| 30. Construction staging area locations (Ref. Mitigated Negative Declaration Measure NOI 4) | Project Developer & Project Contractor | Prior to and during construction activities | |
| 31. Well pump noise level reduction (Ref. Mitigated Negative Declaration Measure NOI 5) | Project Developer & Project Contractor | Prior to, during and after construction activities | |
| ***Transportation Measures*** | | | |
| 32. Traffic management resources (Ref. Mitigated Negative Declaration Measure TRAN 1) | Project Developer & Project Contractor | Prior to and during project construction activities | |

| Mitigation Measure | Responsible Party | Timing of Compliance | Signature and Date of Compliance |
|---|---|---|---|
| 33. Disturbances to public roadways (Ref. Mitigated Negative Declaration Measure TRAN 2) | Project Developer & Project Contractor | During and after project construction activities | |
| ***Tribal Cultural Resources Measures*** | | | |
| 35. Tribal cultural resources found during project activities (Ref. Mitigated Negative Declaration Measure TRI 1) | Project Developer & Project Archaeologist | Prior to and during project construction activities | |
| 36. Provide archaeological/cultural documents to SMBMI and consult with SMBMI throughout the life of the project.(Ref. Mitigated Negative Declaration Measure TRI 2) | Project Developer & Project Archaeologist | Prior to and during project construction activities | |
| | | | |
| | | | |

# Section 5.0 References

## 5.1 Preparers

Randolph J. Coleman, AICP, CA, CWB and Environmental Engineer
Altec Land Planning
19531 Highway 18
Apple Valley, CA 92307

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## 5.2 References

1. County of San Bernardino General Plan Land Use Element.
2. San Bernardino County Land Use Plan/General Plan Land Use Zoning Districts, Map EH22A Helendale.
3. County of San Bernardino 2007 General Plan Conservation Element.
4. Aerial photos of Helendale, Google Earth.
5. United States Soil Conservation Service *Soil Survey of San Bernardino County*, California.
6. County of San Bernardino 2007 General Plan 2013-2021 Housing Element.
7. County of San Bernardino 2007 General Plan Safety Element.
8. Latest adopted version of the California Building Code.
9. Flood Insurance Rate Map, Community Number 06071C5150J, Effective Date September 2, 2016, Federal Emergency Management Agency.
10. Mojave Desert Air Quality Management District CEQA Guidelines, August 2016.
11. County of San Bernardino 2007 General Plan Circulation Element.
12. United States Bureau of Land Management California Desert Conservation Area, 1988.
13. County of San Bernardino 2007 Development Code, Chapter 88.01, *Plant Protection and Management*, Section 88.01.040, *Regulated Trees and Plants and General Permit*.
14. County of San Bernardino 2007 General Plan Noise Element.
15. County of San Bernardino 2007 Development Code, Chapter 83.090.050, *Infrastructure Improvement Standards – Desert Region*.
16. County of San Bernardino Public Works – Transportation Design Standards.
17. County of San Bernardino 2007 Development Code, Chapter 83.10, *Landscape Standards*.
18. County of San Bernardino Public Works – Transportation Design Standards.
19. 2006 San Bernardino County Important Farmland Map, California Department of Conservation.
20. California Environmental Quality Act.

21. Mojave Desert Air Quality Management District Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Non-attainment area); June 9, 2008.
22. County of San Bernardino 2007 Development Code, Chapter 83.10, *Landscape Standards*.
23. County of San Bernardino 2007 Development Code, Section 83.01.080, *Noise*.
24. San Bernardino County Fire Department Regulations.
25. County of San Bernardino 2007 General Plan Final Environmental Impact Report.
26. Southern California Association of Governments 5th Cycle Regional Housing Needs Assessment Allocation Plan 1/1/2014 - 10/1/2021, October 2012.
27. County of San Bernardino 2007 Development Code.
28. DOC (California Department of Conservation, Division of Land Resource Protection) A Guide to the Farmland Mapping and Monitoring Program, Table A-28
29. MDAQMD (Mojave Desert Air Quality Management District) 2009, California Environment al Quality Act and Federal Conformity Guidelines
30. Mojave Water Agency 2015 Urban Water Management Plan and Environmental Impact Report
31. San Bernardino County Greenhouse Gas Emissions Reduction Plan

# Section 6.0 Appendices

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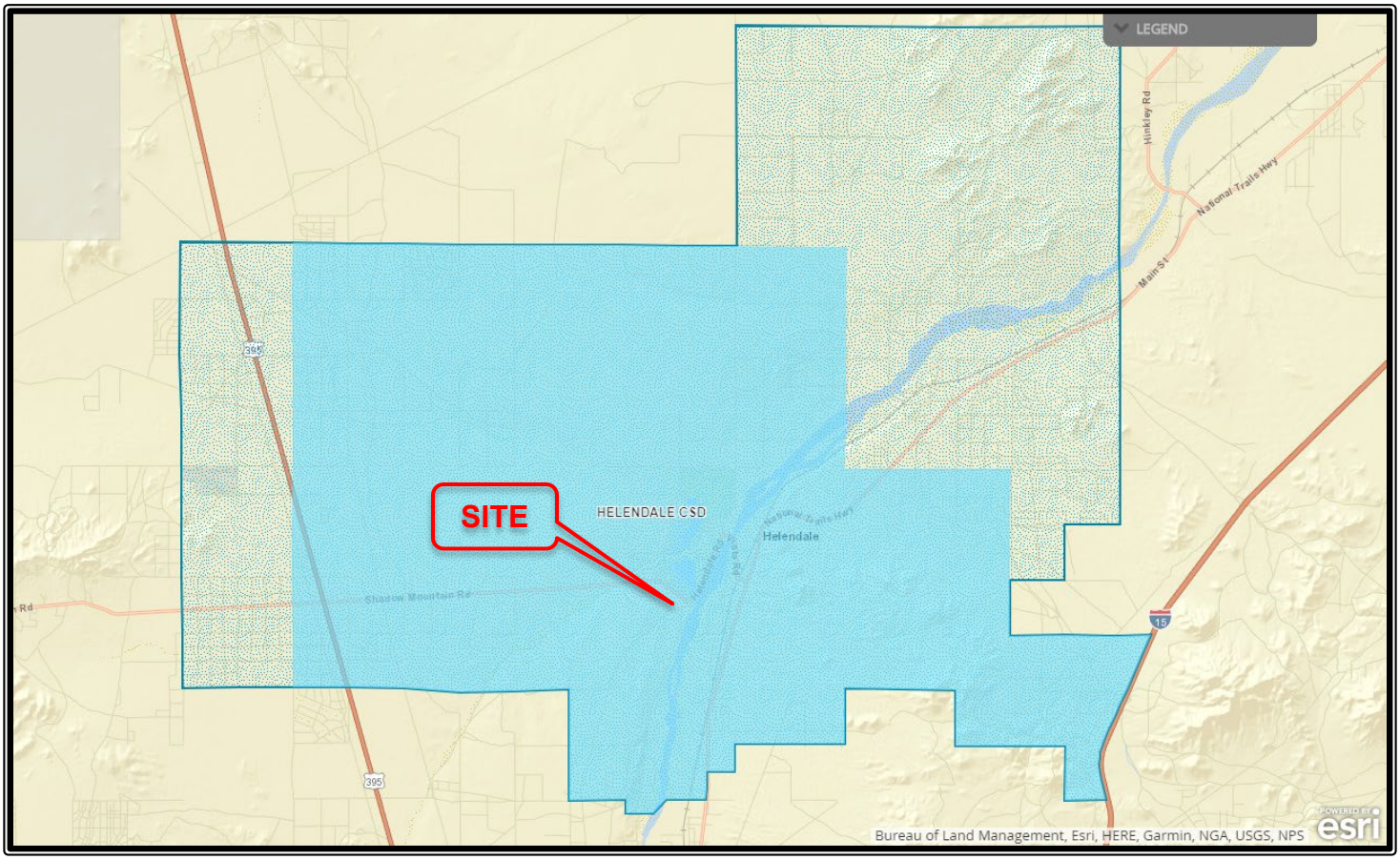
## 6.1 Exhibits

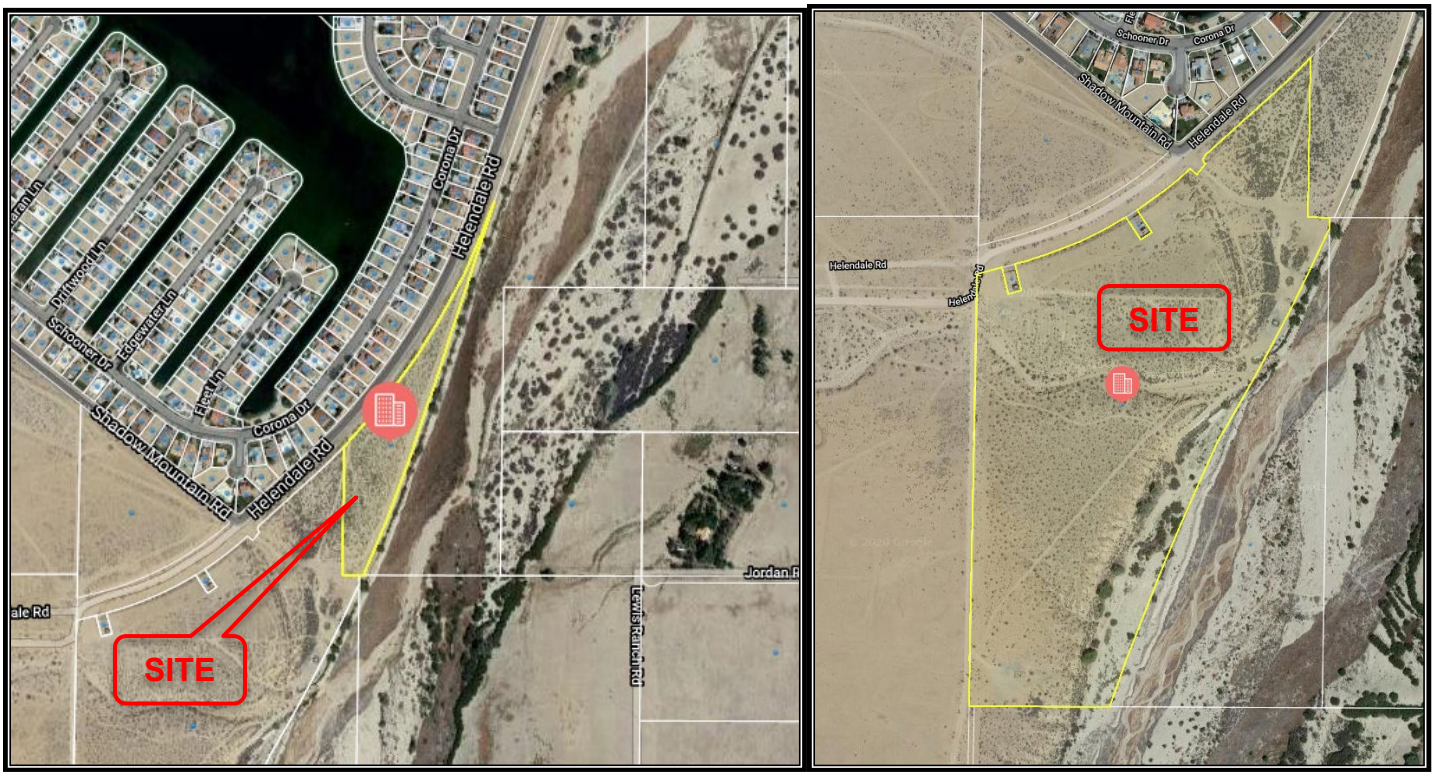
Exhibit 6.1.1 - Regional Location Map

Exhibit 6.1.2 - Regional Aerial Map

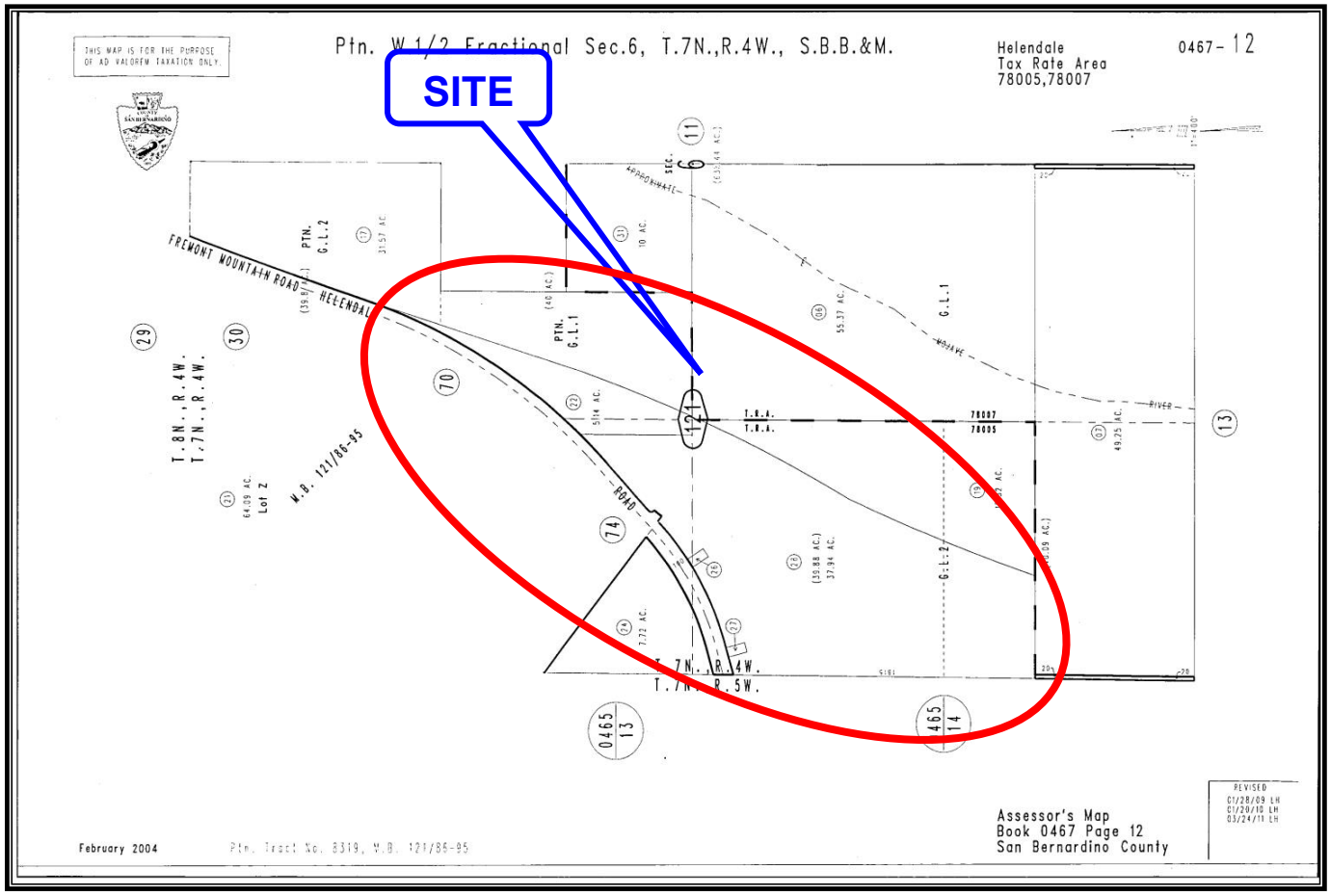
Exhibit 6.1.3 - Helendale Community Services District Boundary and Sphere



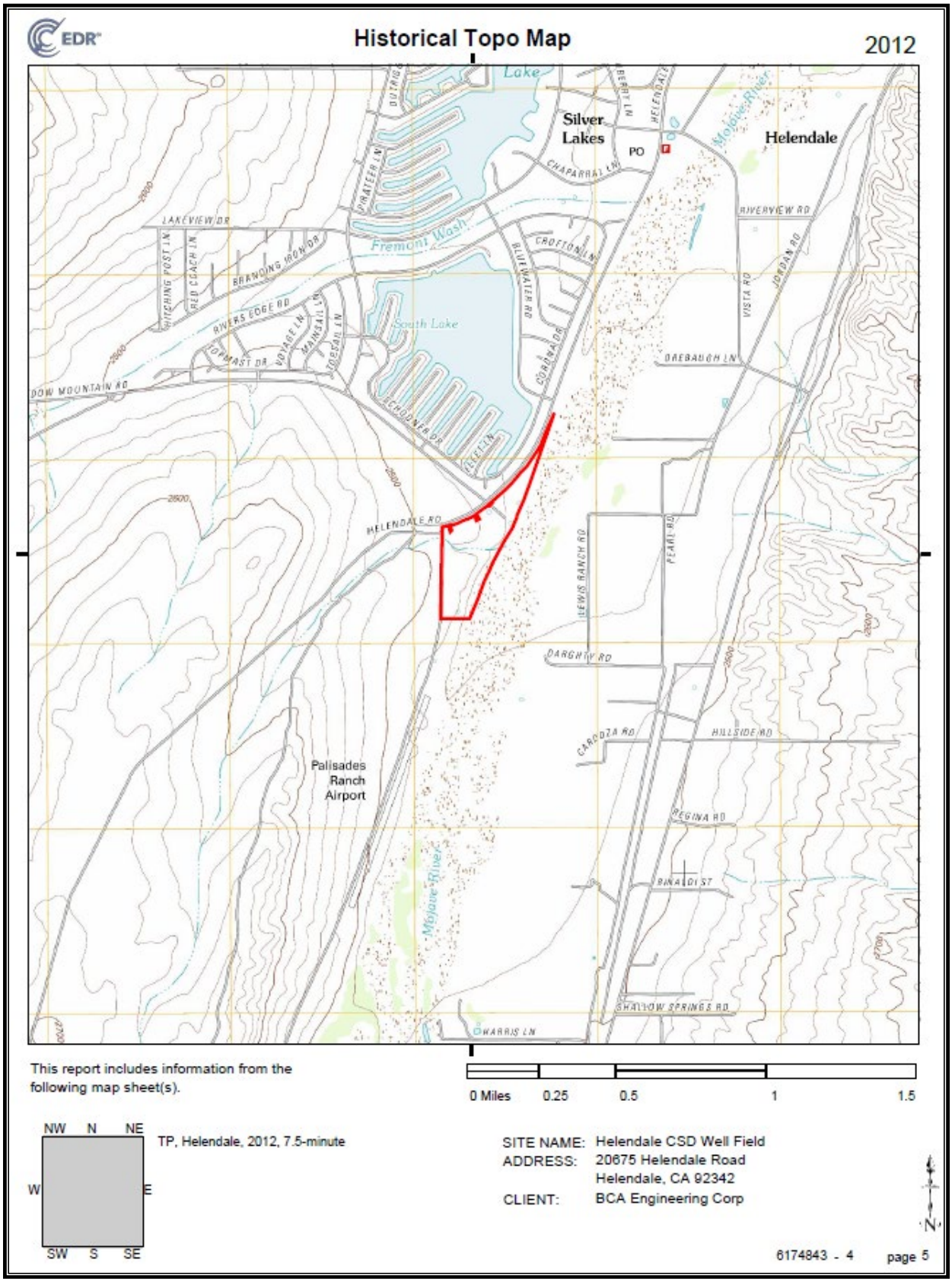
# Exhibit 6.1.4 - Site Aerial Maps



# Exhibit 6.1.5 - Site Assessor Parcel Map (APN)

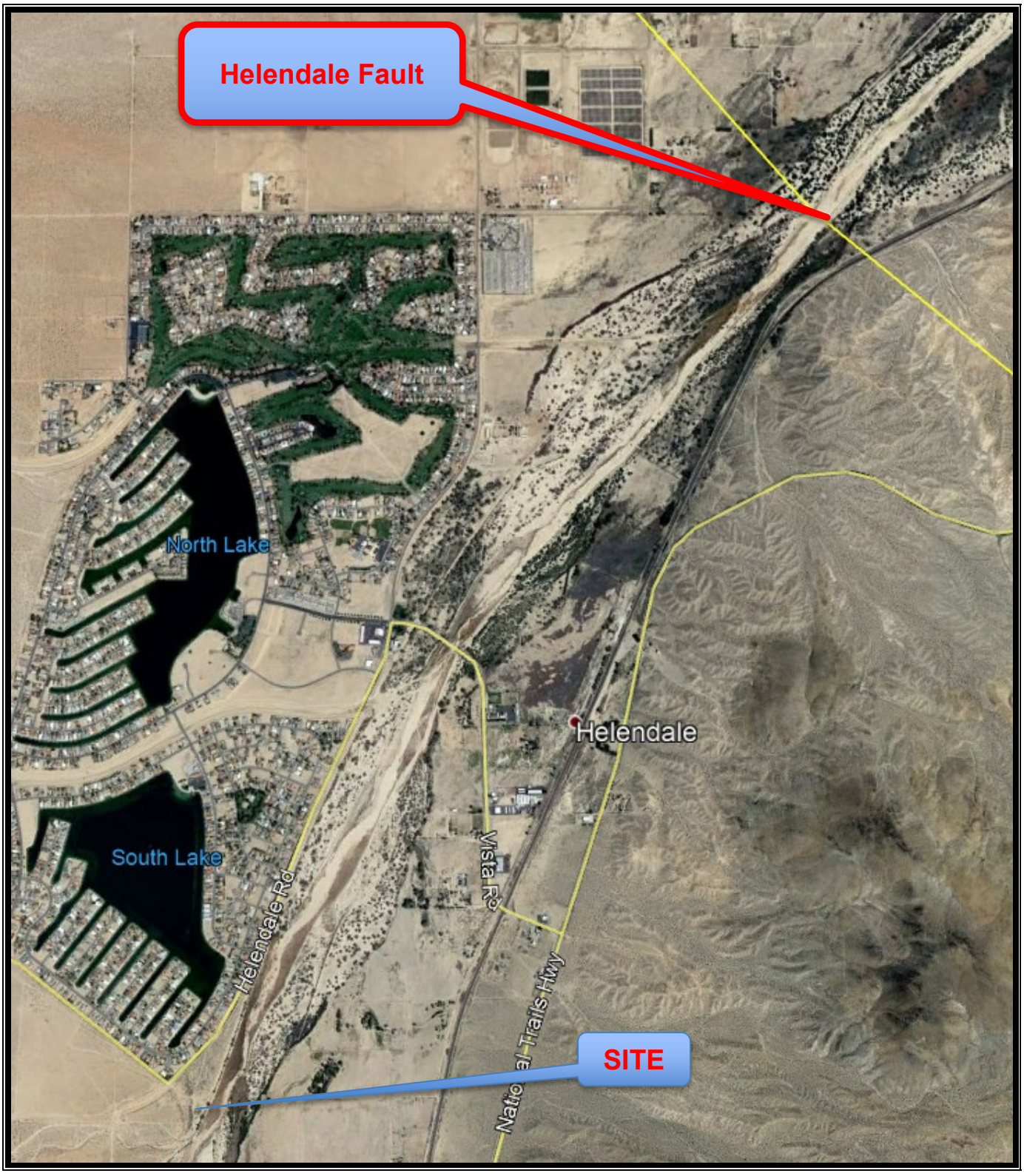


# Exhibit 6.1.6 - 2012 USGS QUAD Sheet - Helendale



# Exhibit 6.1.7 - Earthquake Faults

**Helendale Fault 2 miles Northeast is nearest**
**Helendale-South Lockhart fault zone, South Lockhart section**



# Exhibit 6.1.8 - Soils Map

**United States Department of Agriculture Natural Resources Conservation Service**

**117 – Cajon Loamy Sand (majority of Site), 103 - Badlands; 113 – Cajon Sand (Bluffs along Mojave River); 171 – Villa Loamy Sand (Drainage); 163 – Torriorthents-Torripsamments-Urban Land Complex (Along Silver Lakes development)**

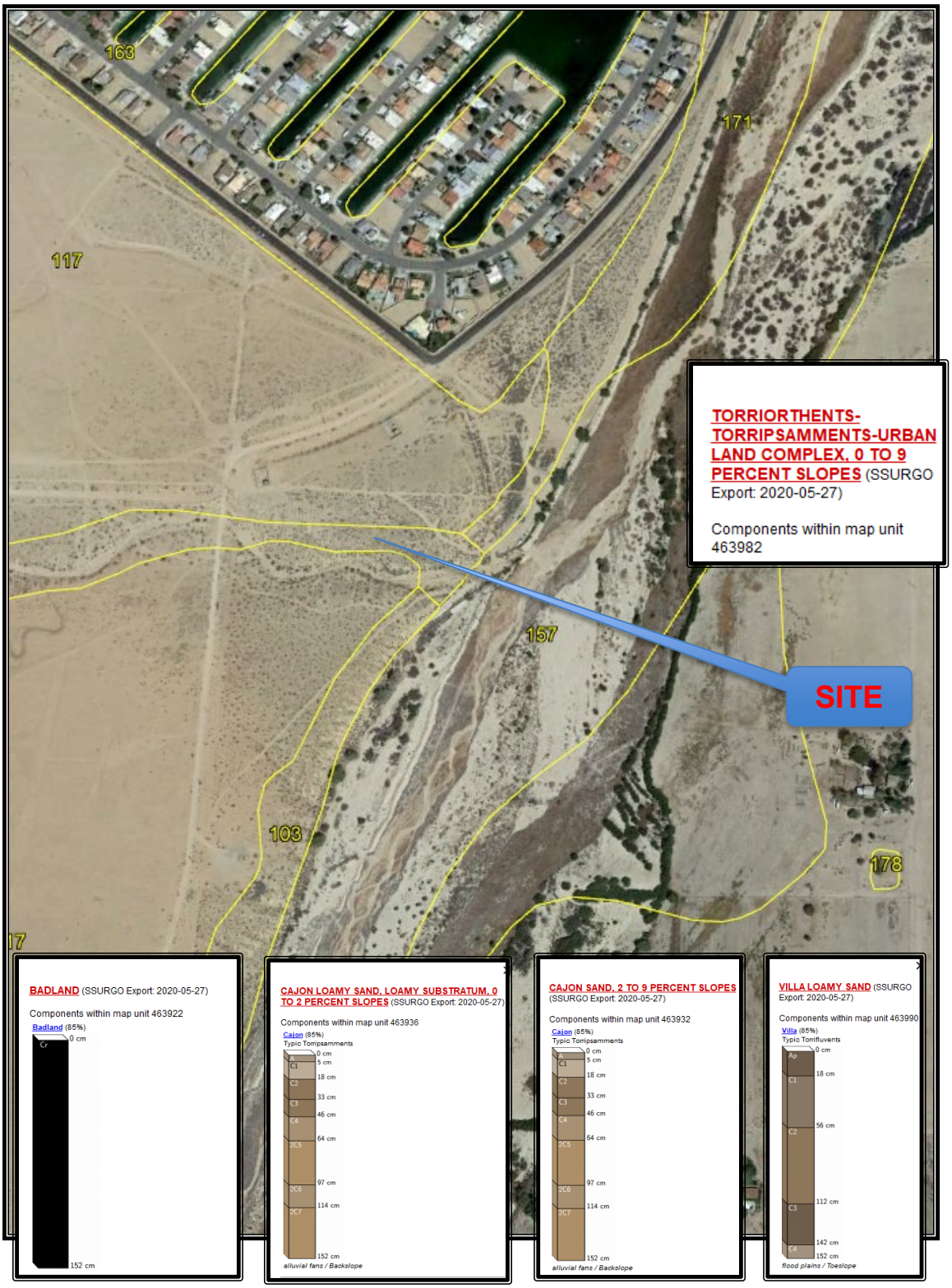
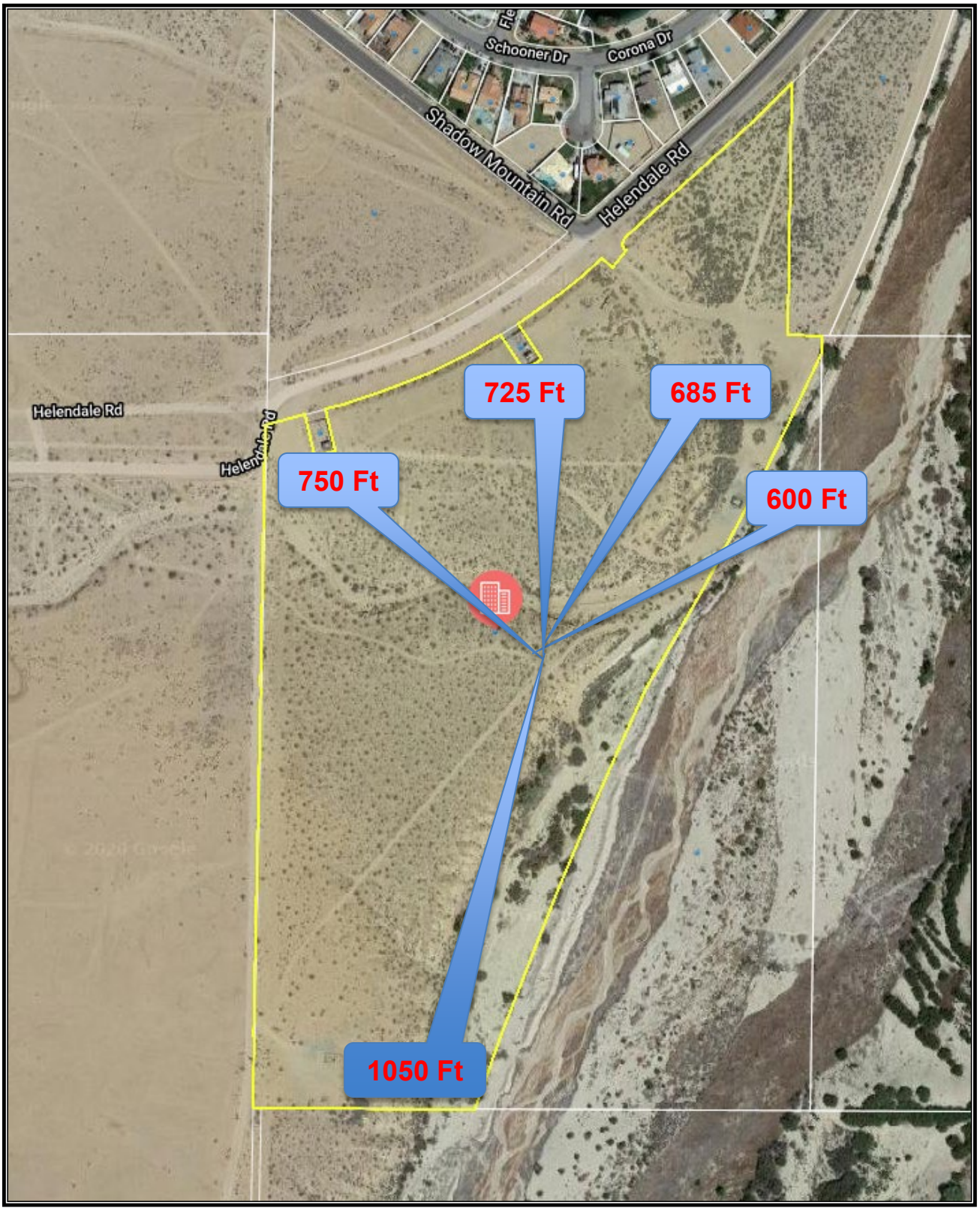


Exhibit 6.1.10 - Approximate Location of New Well and Pipeline

Exhibit 6.1.11 - Approximate Distance to Nearby Water Wells



# Exhibit 6.1.12 - FEMA Flood Map Information

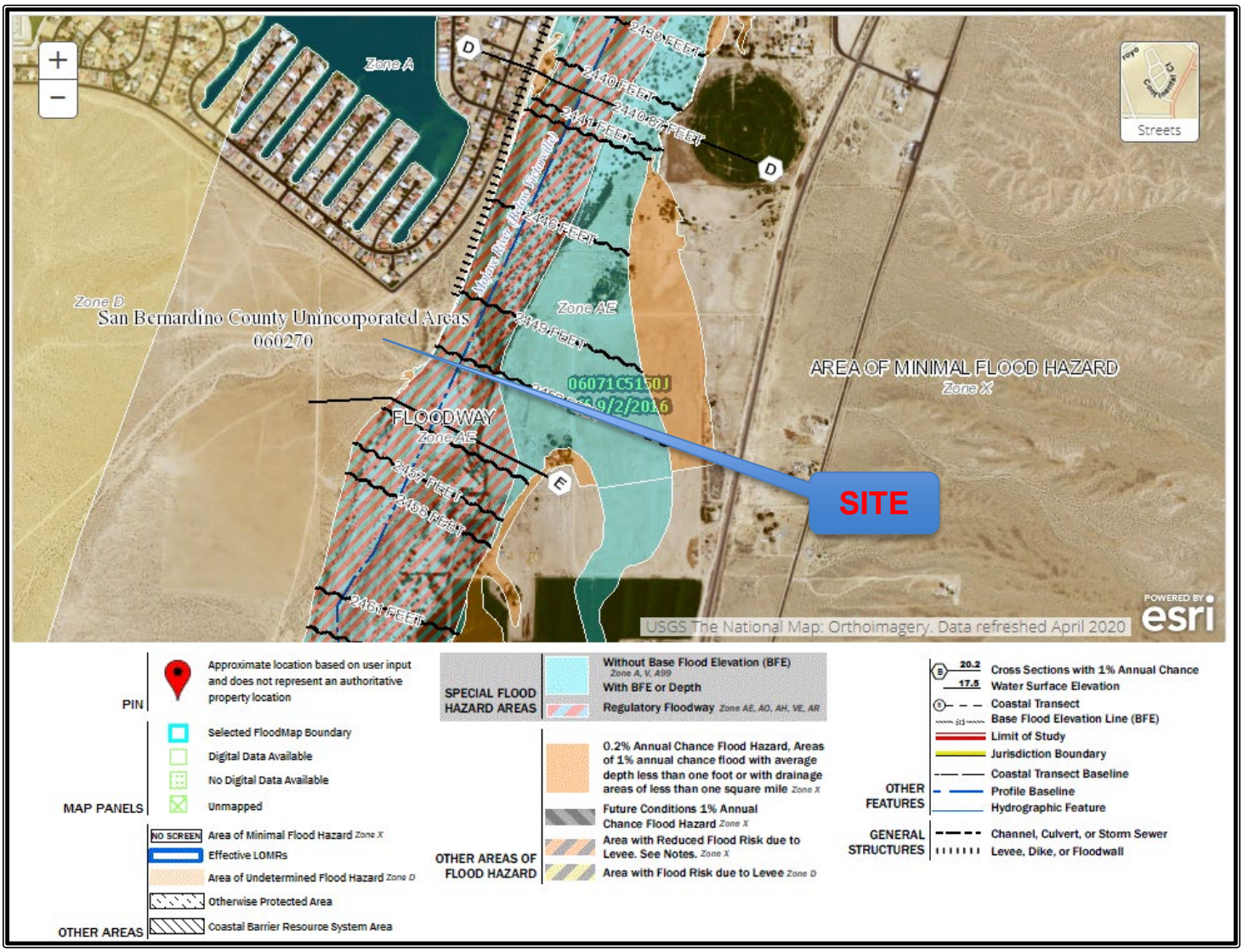
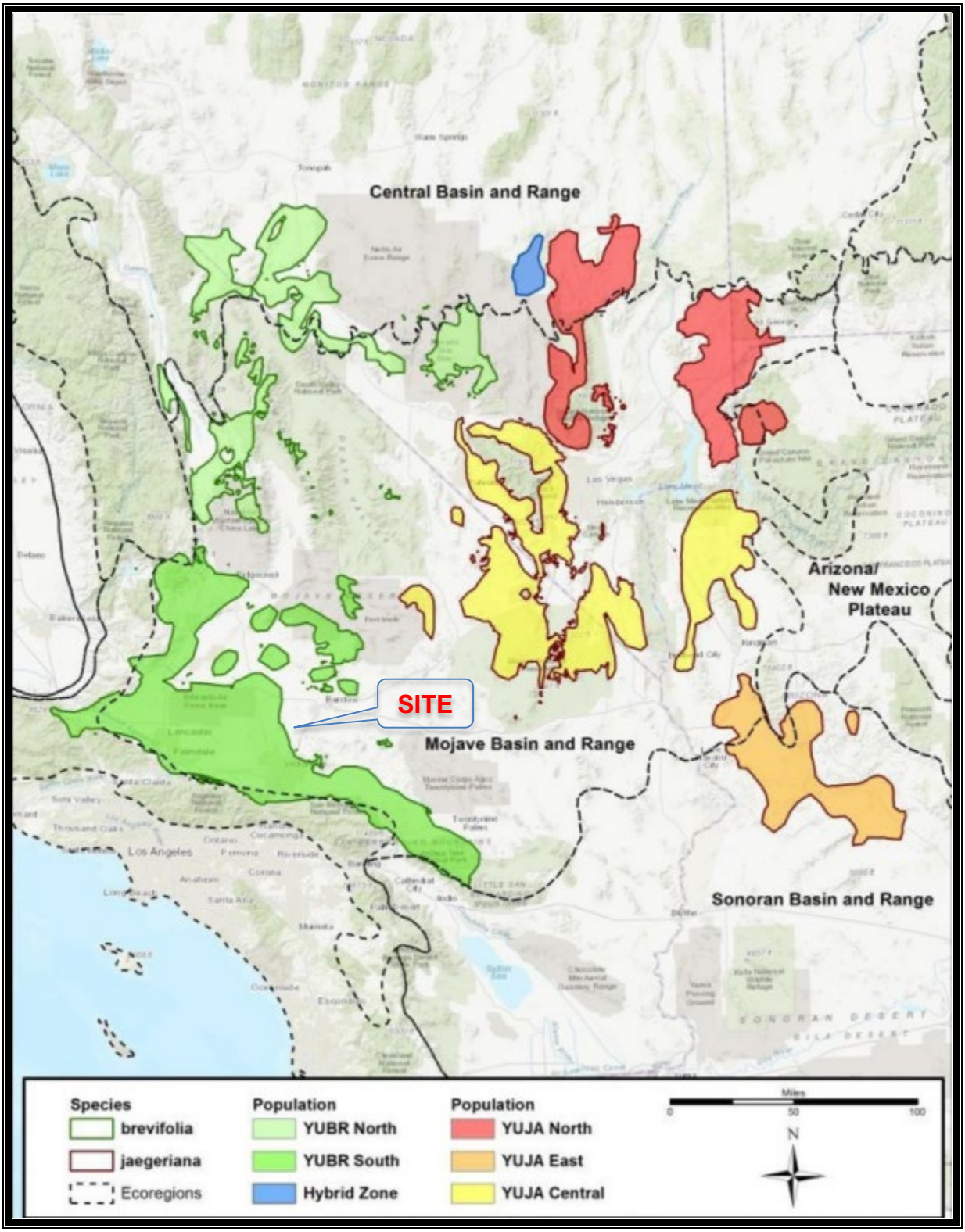


Exhibit 6.1.13 - Western Joshua Tree CESA Petition & DFW's Evaluation of Petition Map



## California Looks at Protections for Iconic Joshua Tree

April 13, 2020NATHAN SOLIS

*Conservationists say climate change and urban sprawl could erase the Joshua tree from California's deserts by the end of the century.*

**The iconic Joshua tree in California's Mojave Desert.**

(CN) — The Joshua trees of the Mojave Desert may get a lifeline from California following the Trump administration's refusal to give them federal endangered species protection last year.

The emblematic species of the West face threats from urban sprawl on undeveloped wilderness and the unrelenting effects of climate change. Researchers estimate with more frequent drought and wildfires in California, most or all of the Joshua trees in the Golden State could be gone in the next 80 years.

This past October, the Center for Biological Diversity petitioned California Fish and Game Commission to list the Joshua tree as threatened, which would require state and local agencies to mitigate harm to the species' habitat and slow down the destruction of undeveloped land.

On Monday, the California Department of Fish and Wildlife wrote in summary memo there is "sufficient scientific information available to indicate that the petitioned action may be warranted and recommends that the petition be accepted and considered.

In its 39-page report, the California Department of Fish and Wildlife writes that the petitioners provide enough evidence on the western Joshua tree (Yucca brevifolia) that "identifies predation, invasive species, wildfires, climate change, and habitat loss to human development as the factors affecting the ability of western Joshua tree to survive and reproduce, stating that these factors are often related, synergistic, and collectively threaten the continued viability of the species.

Drought will likely lead to higher deaths of Joshua trees along with invasive grass species which will lead to more frequent fires according to the report's findings.

Later this summer, the state's Fish and Game Commission could take up the petition and determine if they will accept Fish and Wildlife's recommendation to consider the western species of the Joshua tree as a candidate for protection under California's Endangered Species Act.

We are elated that Joshua trees are a step closer to protection," said Brendan Cummings, the center's conservation director and a Joshua Tree resident. "These beautiful trees face huge threats that could drive them extinct in the wild. We urge the state to finalize these protections quickly so Joshua trees can survive and thrive in California for generations to come.

According to the Center for Biological Diversity, approximately 40% of the Joshua tree range in California is located on private land. Joshua Tree National Park spans an area larger than the state of Rhode Island across portions the Mojave and Colorado deserts.

The Joshua tree was identified as one species until recently, when botanists determined there are two distinct species. The petition seeks to address the species in the national park westward toward the northern slopes of the San Bernardino and San Gabriel mountains, through the Antelope Valley, north toward the southern Sierra Nevada and east to the edges of Death Valley National Park and into Nevada.

## California Commission OKs Petition Protecting Joshua Trees Under State's Endangered Species Act

*Iconic Desert Plant Legally Protected During Yearlong Review*www.biologicaldiversity.org

By **Center for Biological Diversity** September 23, 2020

SACRAMENTO, Calif. September 22, 2020— The California Fish and Game Commission agreed today to accept a petition protecting western Joshua trees under the state's Endangered Species Act, granting legal protection to the iconic trees for at least a year. Joshua trees are threatened by climate change, fire and habitat destruction from urban sprawl and other development in their Mojave Desert home.

"This is a huge victory for these beautiful trees and their fragile desert ecosystem," said Brendan Cummings, the Center for Biological Diversity's conservation director, and a Joshua Tree resident. "If Joshua trees are to survive the inhospitable climate, we are giving them, the first and most important thing we can do is protect their habitat. This decision will do that across most of their range."

Today's vote grants Joshua trees candidate status under the California Endangered Species Act, giving them legal protection during a yearlong review to determine whether the species should be formally protected under the state law.

The vote affirms the California Department of Fish and Wildlife's April recommendation, which came in response to a petition from the Center.

Commissioners also agreed to give developers of 15 shovel-ready industrial solar projects in Kern and San Bernardino counties so-called "take authorization," allowing them to kill Joshua trees. In exchange the developers must pay into a state fund that will be used to purchase and permanently preserve Joshua tree habitat. This exemption applies only during the review period and requires developers to pay approximately $10,000 an acre, based on a ratio of 1.5 acres for every acre of occupied habitat that is destroyed.

"This summer's raging wildfires, heatwaves and hurricanes confirm our dire climate crisis and the need to urgently achieve 100% renewable energy," said Cummings. "But the best places to put solar panels are on rooftops, parking lots and degraded farmland, not pristine desert habitats. We disagree that these exemptions are needed, but we understand the commission's decision."

Recent studies show Joshua trees are dying off because of hotter, drier conditions, with very few younger trees becoming established. Even greater changes are projected over the coming decades. Earlier this year scientists projected that the Joshua tree will be largely gone from its namesake national park by the end of the century.

Last year the U.S. Fish and Wildlife Service denied federal protection to the species.

"Joshua trees face extinction in the wild and there's not much time left to save them. Human-caused climate change is making matters worse," said Cummings. "It's critical that the state stood up for these spectacular trees, because the federal government, local officials and for-profit corporations are facilitating their destruction."

Climate change could wipe out western Joshua trees, which already are failing to reproduce at drier, lower elevations. Prolonged droughts are projected to be more frequent and intense over the coming decades, shrinking the species' range and leading to more tree deaths. Higher elevations, where Joshua trees might survive increasing temperatures and drying conditions, are at risk of fire due to invasive non-native grasses.

Habitat loss and degradation are also major threats. Outside of Joshua Tree National Park, off-road vehicle use, cattle grazing, powerlines and pipelines and large-scale energy projects are destroying habitat. Approximately 40% of the western Joshua tree's range in California is on private land, with only a tiny fraction protected from development. Current projections show that virtually all of this habitat will be lost without stronger legal protections for the trees.

"Developers are bulldozing Joshua trees every day to build roads, powerlines, strip malls and vacation rentals," said Cummings. "If these beautiful plants are to have any hope of surviving in a warming world, we have to stop killing them. The California Endangered Species Act may be the only hope for saving these iconic symbols of the Mojave Desert."

The Joshua tree has recently been recognized as composed of two distinct species, the western Joshua tree (*Yucca brevifolia*) and the eastern Joshua tree (*Y. Jaegeriana*). The two species occupy different areas of the desert, are genetically and morphologically distinguishable, and have different pollinating moths.

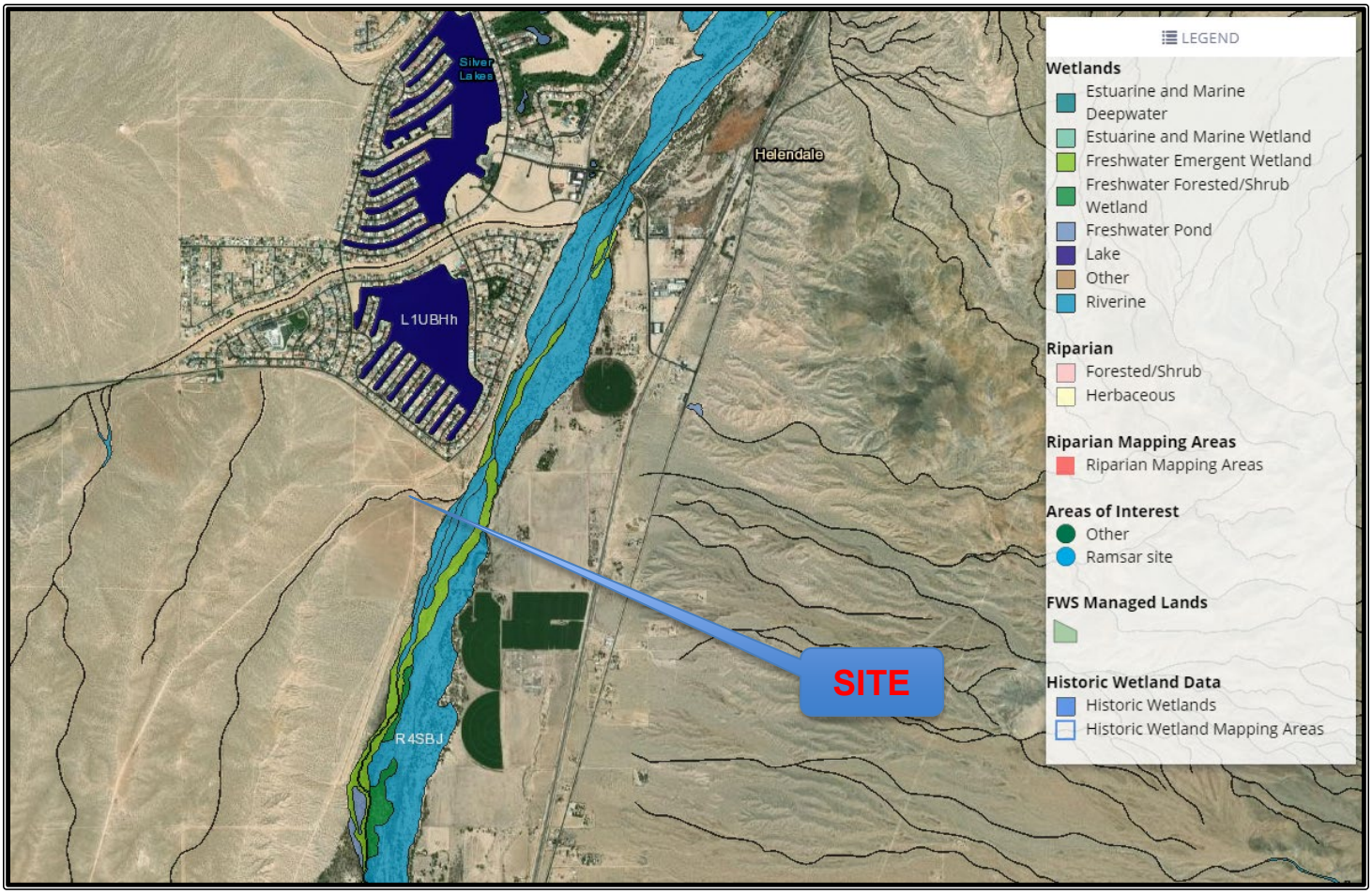
Today's vote addresses the western species. The western Joshua tree has a boomerang-shaped range stretching from Joshua Tree National Park westward along the northern slopes of the San Bernardino and San Gabriel Mountains, through the Antelope Valley, northward along the eastern flanks of the southern Sierra Nevada and eastward to the edges of Death Valley National Park and into Nevada.

The eastern Joshua tree's range in California is centered in the Mojave National Preserve and extends east into Nevada, Arizona, and Utah.

If Joshua trees win protection under California's Endangered Species Act, state and local agencies will have to manage threats to them, including developing a recovery plan outlining a strategy to protect the species in the face of climate change.

# Exhibit 6.1.14 - National Wetlands Inventory

**https://www.fws.gov/wetlands/Data/Mapper.html**



# Exhibit 6.1.15 - Site Photographs

**Street Scene: Looking Northerly along Helendale Road (Site on Right)**


**Street Scene: Looking Westerly along Shadow Mountain Road from Helendale Road (Site behind)**

**Street Scene: Looking Southerly along the unpaved portion of Helendale Road (Site on Left)**

**Street Scene: Looking at Site Easterly from Helendale and Shadow Mountain Intersection (Site on Right and Left)**

**Well Site #26081 along Helendale Road and west property line**

**Well Site #26063 along Helendale Road and west property line**


**Rivers Edge Middle School**

**Well Site within Silver Lakes, just west of Site**


**Well Site within Silver Lakes, just west of Site**

**Easement through north parcel Site**

**Near North Corner of Site looking Northerly along Helendale Road**

**Near North Corner of Site looking Southerly at Site along Helendale Road**

**Near North Corner of Site looking Easterly at Mojave River**

**Midpoint of Site west line looking Northerly along Helendale Road (Site on Right)**

**Midpoint of Site west line looking Easterly from Helendale Road (Site on Both sides)**

**Midpoint of Site west line looking Southerly along Helendale Road (Site on Left)**

**Midpoint of Site west line looking Easterly at Drainage Course from Helendale Road**

**Looking at Mojave Water Agency Water Line Easement along Helendale Road**


**Looking Southerly at Natural Gas Line along Helendale Road**

**Near Southwest Corner: Looking Easterly at Well Site and Mojave River area (Site on left)**

**Near Southwest Corner: Looking Northerly along Helendale Road (Site on right)**

**Midpoint of Site east line looking Southerly at Bluff area of Mojave River (Typical)**

**Looking at well sites and power poles near Mojave River And OHV use with jumps and trails**

**Looking southerly across south parcel near well sites and power poles**

**Looking at remnants of alfalfa ranching near well sites and power poles near Mojave River**

**Looking at remnants of alfalfa ranching near well sites and power poles near Mojave River**

## 6.2 Technical Studies

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Exhibit 6.2.1 - Biological Assessment Clearance Letter

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**ALTEC Land Planning** **(760) 242-9917**
19531 U.S. Highway 18
Apple Valley, CA 92307 RandyAICP@gmail.com

Ginger Coleman, MPA, Director of Environmental Planning & Community Relations
Randy Coleman: AICP, CCIM, MIRM, Certified Wildlife Biologist #04390, Certified Arborist #WE-8024A, R.E. Broker #00836955,
Calif. Licenses: Civil Engineer #36293, Land Surveyor #5413, QSD/P #21595,

Helendale Community Services District
c/o Dr. Kimberly Cox, General Manager
26540 Vista Road
P.O. Box 359
Helendale, CA 92342
Office 760-951-0006
FAX 760-217-2221
kcox@helendalecsd.org

August 5, 2020

**RE: Phase 1 Environmental Assessment completed in 2011 Update Letter**

Prior to the purchase of this property by Helendale Community Services District in 2011, Randolph Coleman, AICP, CA, CWB, PE, PLS [Altec Land Planning] completed a thorough Site Survey with 10-meter transects specifically for Hazardous Materials and a review of the Governmental Records Search for Hazardous Materials.

This Site Survey also included a review for various Endangered and Species of Concern on this Site and visual observation of the adjacent properties for the following species:

- Desert tortoise
- Burrowing owls
- Mojave ground squirrel
- American badger
- Desert kit fox
- Nesting Birds
- Protected Native Desert Trees, Cactus, and other plants

This is to confirm no hazardous material were observe on the Site and no Endangered or Species of Concern were observed on in 2011 or August 4th and 5th, 2020.

If you have any question, please call. Thank you for your cooperation and we look forward to providing other services and assistance as needed, I and my family have been operating continuously since 1973 operating full-service, Civil & Soils Engineering, Planning, Land Surveying, Construction Management and since 1981 required Biological, Protected Plant, CEQA and other Environmental services for new projects.

Respectfully submitted,

**Randolph J. Coleman, AICP CEP, CCIM, CDP, MIRM, Certified Wildlife Biologist #43090, QSD/P #21595**
**CDFW: Scientific Collecting Permit #11586, Certified Arborist/Tree Risk Assessment Qualified #WE-8024A**
**CA Licenses: Engineer-Civil #36293 expires June 30, 2022, Land Surveyor #5413 expires Sept. 30, 2022**

**ALTEC Land Planning** **(760) 242-9917**
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Calif. Licenses: Civil Engineer #36293, Land Surveyor #5413, QSD/P #21595,

**MEMO:** September 10, 2020

**RE: Biological Assessment Clearance Letter for CEQA Initial Study**
**Helendale CSD proposed Replacement Wells and Expansion of Well Field**

Today, September 10, 2020, I completed a reconnaissance survey which consisted of a pedestrian (perimeter and interior trails) survey and vehicular observations in the greater area for potential endangered species or species of concern listed below for the preparation of a CEQA Initial Study and the incorporation of Biological Mitigation Recommendations and a Mitigation and Monitoring Plan with the final CEQA Initial Study being prepared for the well replacement(s) and expansion of an existing Well Field.

It is also noted that the Site was also reviewed specifically for hazardous materials during the preparation of Phase 1 Environmental Assessments in 2011 and again on August 4th and 5th, 2020 for the potential purchase by Helendale Community Services District (HCSD). This specifically did not include a boundary survey. However, the western section line is known. Additionally, discussions and prior experiences with the both the Safari Ranch (Carl Ross owner and long term prior owner was Robert Older) and Palisades Ranch have occurred.

In 2011 and in 2020, Randolph Coleman, AICP, CA, CWB, PE, PLS reviewed the Site for any new Hazardous Materials issues and various Endangered and Species of Concern on this Site and visual observation of the adjacent properties for the following species:

- Desert tortoise
- Burrowing owls
- Mojave ground squirrel
- American badger [added in 2019 but these are rare species to find anytime]
- Desert kit fox [added in 2019 but these are rare species to find anytime]
- Nesting Birds
- Protected Native Desert Trees [Joshua Trees], Cactus and other plants

This is to confirm no observations of Endangered or Species of Concern were observed on the Site in 2011 or during 2020.

Respectfully submitted,

**Randolph J. Coleman, AICP CEP, CCIM, CDP, MIRM, Certified Wildlife Biologist #43090, QSD/P #21595**
**CDFW: Scientific Collecting Permit #11586, Certified Arborist/Tree Risk Assessment Qualified #WE-8024A**
**CA Licenses: Engineer-Civil #36293 expires June 30, 2022, Land Surveyor #5413 expires Sept. 30, 2022**

Exhibit 6.2.2 - Cultural Resources Assessment – Helendale Community Services District Well Field Project, Unincorporated San Bernardino County, California dated February 15, 2021

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# CULTURAL RESOURCES ASSESSMENT

## Helendale Community Services District Well Field Project

## Unincorporated San Bernardino County, California

Prepared for:

Randolph Coleman
Altech Land Planning
19531 Highway 18
Apple Valley, California 92307

Prepared by:

David Brunzell, M.A., RPA
Contributions by Joseph Orozco, M.A., RPA
BCR Consulting LLC
Claremont, California 91711

Project No. COL2002

**National Archaeological Data Base Information:**

*Type of Study:* Intensive Survey
*Resources Recorded:* COL2002-H-2, COL2002-H-3, COL2002-I-1, COL2002-I-2,
*Keywords:* Helendale, Historic-Period Well, Historic-Period Water Basin, Prehistoric Isolates
*USGS Quadrangle:* 7.5-minute *Helendale, California* (1993)

BCRCONSULTING LLC

February 15, 2021

## MANAGEMENT SUMMARY

BCR Consulting LLC (BCR Consulting) is under contract to Altec Land Planning to conduct a Cultural Resources Assessment of the Helendale Community Services District Well Field Project (the project) located in the unincorporated Helendale, San Bernardino County, California. A cultural resources records search, intensive-level pedestrian cultural resources survey, shovel test pit excavation, a Sacred Lands File search with the Native American Heritage Commission, and a Paleontological Overview were conducted for the project in partial fulfillment of the California Environmental Quality Act (CEQA).

The cultural resources records search completed revealed that eight cultural resource studies have taken place resulting in the recording of two cultural resources within the one-mile research radius.

During the field survey, BCR Consulting personnel identified two prehistoric isolates temporarily designated COL2002-I-1 and COL2002 I-2, and two historic-age sites temporarily designated COL2002-H-1 and COL2002-H-3. Isolated finds are not considered "historical resources" under CEQA and as such the isolated artifacts do not require further evaluation. COL2002-H-1 and COL2002-H-3 have been evaluated and are recommended not eligible for listing on the California Register of Historical Resources (California Register). As such they are not recommended "historical resources" (i.e. are not significant) under CEQA. They do not warrant further consideration. No other cultural resources (including other architectural historical resources, prehistoric archaeological resources, or historic archaeological resources) were identified. Furthermore, excavations for previous wells and past agricultural uses on the project site have disturbed soils throughout the property beyond depths at which buried resources are likely. Finally, findings were negative during the Sacred Lands File search with the Native American Heritage Commission (NAHC). Due to a lack of historical resources located within the project site combined with low sensitivity for buried resources, BCR Consulting recommends that no additional cultural resources work or monitoring is necessary for any proposed project activities. No cultural resource mitigations are recommended. Although not expected to occur, if previously undocumented cultural resources are identified during earthmoving activities, it is recommended that a qualified archaeologist should be contacted to assess the nature and significance of the find, diverting construction excavation if necessary.

According to CEQA Guidelines, projects subject to CEQA must determine whether the project would "directly or indirectly destroy a unique paleontological resource". The appended Paleontological Overview provided in Appendix B has recommended that:

> The geologic units underlying this project are mapped entirely as alluvial silt, sand and gravel or channel sand deposits dating from the Holocene period (Dibblee, 2008). While Holocene alluvial and sedimentary units are considered to be of high preservation value, material found is unlikely to be fossil material due to the relatively modern associated dates of the deposits. However, if development requires any substantial depth of disturbance, the likelihood of reaching Pleistocene alluvial sediments would increase. The Western Science Center does not have localities within the project area or within a 1 mile radius.

> While the presence of any fossil material is unlikely, if excavation activity disturbs deeper sediment dating to the earliest parts of the Holocene or Late Pleistocene periods, the material would be scientifically significant. Excavation activity associated with the development of the project area is unlikely to be paleontologically sensitive, but caution during development should be observed.

If human remains are encountered during the undertaking, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.

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## FIGURES



## TABLES



## APPENDICES

# INTRODUCTION

BCR Consulting LLC (BCR Consulting) is under contract to Altec Land Planning to conduct a Cultural Resources Assessment of the proposed Helendale Community Services District Well Field Project (the project) located in the community of Helendale, unincorporated San Bernardino County, California. The project site is located in Section 6 of Township 7 North, Range 4 West, San Bernardino Baseline and Meridian, in unincorporated San Bernardino County. It is depicted on the United States Geological Survey (USGS) *Helendale, California* (1993) 7.5-minute topographic quadrangle (Figure 1).

## Regulatory Setting

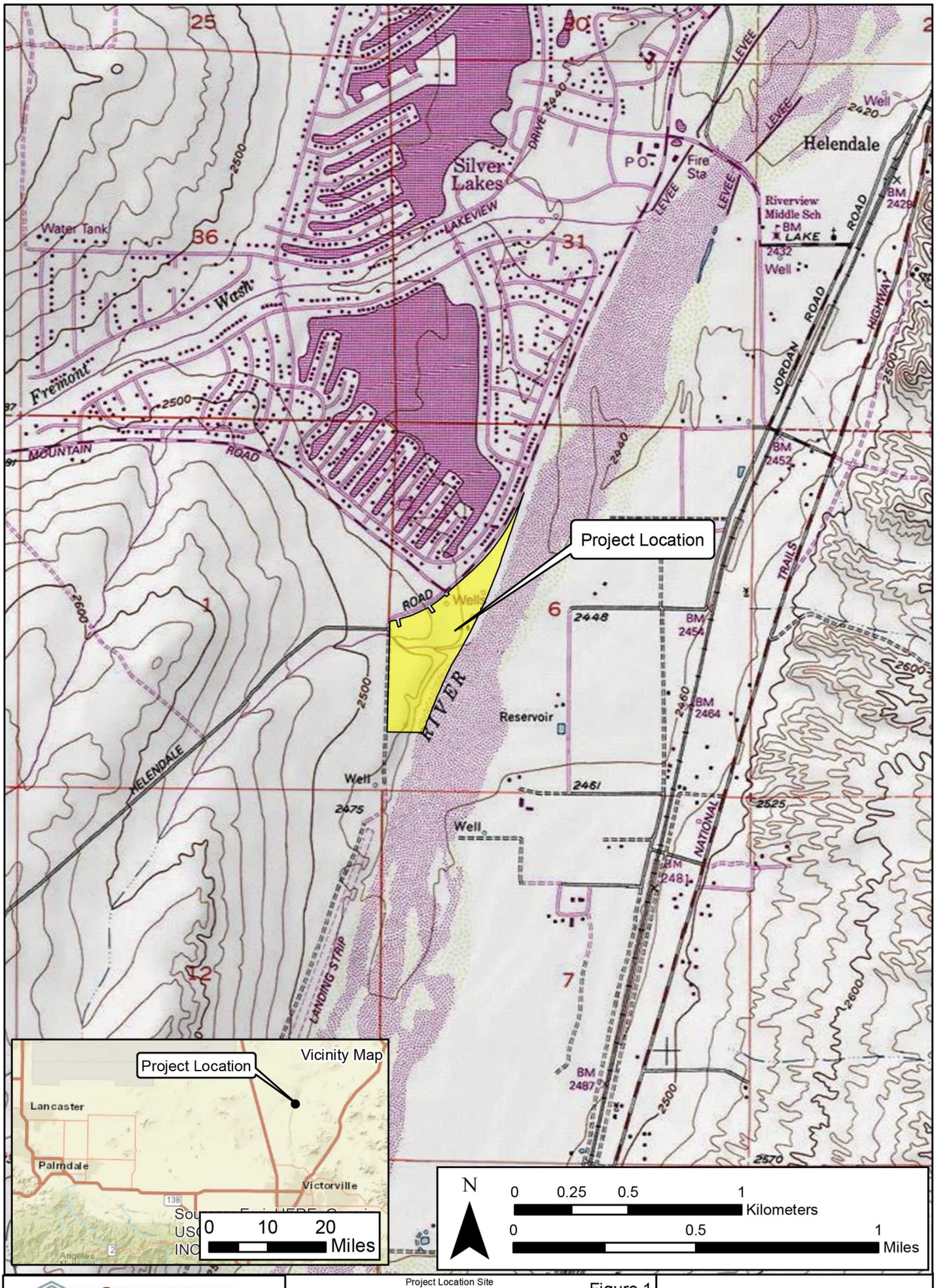
**The California Environmental Quality Act.** CEQA applies to all discretionary projects undertaken or subject to approval by the state's public agencies (California Code of Regulations 14(3), § 15002(i)). Under CEQA, "A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (Cal. Code Regs. tit. 14(3), § 15064.5(b)). State CEQA Guidelines section 15064.5(a) defines a "historical resource" as a resource that meets one or more of the following criteria:

- Listed in, or eligible for listing in, the California Register of Historical Resources (California Register)
- Listed in a local register of historical resources (as defined at Cal. Public Res. Code § 5020.1(k))
- Identified as significant in a historical resource survey meeting the requirements of § 5024.1(g) of the Cal. Public Res. Code
- Determined to be a historical resource by a project's lead agency (Cal. Code Regs. tit. 14(3), § 15064.5(a))

A historical resource consists of "Any object, building, structure, site, area, place, record, or manuscript which 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…Generally, a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing in the California Register of Historical Resources" (Cal. Code Regs. tit. 14(3), § 15064.5(a)(3)).

The significance of a historical resource is impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for the California Register. If an impact on a historical or archaeological resource is significant, CEQA requires feasible measures to minimize the impact (State CEQA Guidelines § 15126.4 (a)(1)). Mitigation of significant impacts must lessen or eliminate the physical impact that the project will have on the resource.

Section 5024.1 of the Cal. Public Res. Code established the California Register. Generally, a resource is considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register (Cal. Code Regs. tit. 14(3), §

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909-625-7078

Project Location Site
Helendale Community Services
Well Field Project
Reference: ESRI; USGS Quad: Helendale (1993), California

Figure 1

**Altect Land Planning**

15064.5(a)(3)). The eligibility criteria for the California Register are similar to those of the National Register of Historic Places (National Register), and a resource that meets one of more of the eligibility criteria of the National Register will be eligible for the California Register.

The California Register program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding and affords certain protections under CEQA. Criteria for Designation:

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2. Associated with the lives of persons important to local, California or national history.
3. 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.
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

In addition to meeting one or more of the above criteria, the California Register requires that sufficient time has passed since a resource's period of significance to "obtain a scholarly perspective on the events or individuals associated with the resources." (CCR 4852 [d][2]). Fifty years is normally considered sufficient time for a potential historical resource, and in order that the evaluation remain valid for a minimum of five years after the date of this report, all resources older than 45 years (i.e. resources from the "historic-period") will be evaluated for California Register listing eligibility, or CEQA significance. The California Register also requires that a resource possess integrity. This is defined as the ability for the resource to convey its significance through seven aspects: location, setting, design, materials, workmanship, feeling, and association.

**Assembly Bill 52.** California Assembly Bill 52 was approved on September 25, 2014. As stated in Section 11 of AB 52, the act applies only to projects that have a notice of preparation or a notice of negative declaration or mitigated negative declaration filed on or after July 1, 2015.

AB 52 establishes "tribal cultural resources" (TCRs) as a new category of resources under CEQA. As defined under Public Resources Code Section 21074, TCRs are "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe" that are either: (1) included or determined to be eligible for inclusion in the CRHR; included in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or (2) determined by the lead agency to be significant pursuant to the criteria for inclusion in the CRHR set forth in Public Resources Code Section 5024.1(c), if supported by substantial evidence and taking into account the significance of the resource to a California Native American tribe. A "historical resource" as defined in Public Resources Code Section 21084.1, a "unique archaeological resource" as defined in

Public Resources Code Section 21083.2(g), or a "nonunique archaeological resource" as defined in Public Resources Code Section 21083.2(h) may also be TCRs.

AB 52 further establishes a new consultation process with California Native American tribes for proposed projects in geographic areas that are traditionally and culturally affiliated with that tribe. Per Public Resources Code Section 21073, "California Native American tribe" includes federally and non-federally recognized tribes on the NAHC contact list. Subject to certain prerequisites, AB 52 requires, among other things, that a lead agency consult with the geographically affiliated tribe before the release of an environmental review document for a proposed project regarding project alternatives, recommended mitigation measures, or potential significant effects, if the tribe so requests in writing. If the tribe and the lead agency agree upon mitigation measures during their consultation, these mitigation measures must be recommended for inclusion in the environmental document (Public Resources Code Sections 21080.3.1, 21080.3.2, 21082.3, 21084.2, and 21084.3).

**Paleontological Resources.** CEQA provides guidance relative to significant impacts on paleontological resources, indicating that a project would have a significant impact on paleontological resources if it disturbs or destroys a unique paleontological resource or site, or unique geologic feature. Section 5097.5 of the California Public Resources Code specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, California Penal Code Section 622.5 sets the penalties for damage or removal of paleontological resources. CEQA documentation prepared for projects would be required to analyze paleontological resources as a condition of the CEQA process to disclose potential impacts. Please note that as of January 2018 paleontological resources are considered in the geological rather than cultural category. Therefore, paleontological resources are not summarized in the body of this report. A paleontological overview completed by professional paleontologists from the Western Science Center is provided as Appendix C.

## NATURAL SETTING

### Geology

The subject property is located in the southwestern portion of the Mojave Desert. Sediments within the subject property boundaries include "unconsolidated stream-laid sand deposited in former flood plain of Mojave River" (Dibblee 1960). Field observations during the current study are basically consistent with these descriptions, although modern excavation and grading have resulted in severe disturbances throughout the project site.

### Hydrology

The subject property elevation ranges from approximately 2,455 to 2,490 feet above mean sea level (AMSL). Sheetwashing occurs generally from west to east across the subject property, and local runoff drains into the Mojave River, adjacent to the east. To the south, the peaks of the San Bernardino Mountains rise above 10,000 feet and are often capped with snow until late spring or early summer. The area currently exhibits a relatively arid climate, with dry, hot summers and cool winters. Rainfall ranges from five to 15 inches annually (Jaeger and Smith 1971:36-37). Precipitation usually occurs in the form of winter and spring rain or snow at high elevations, with occasional warm monsoonal showers in late summer.

### Biology

The mild climate of the late Pleistocene allowed piñon-juniper woodland to thrive throughout most of the Mojave (Van Devender et al. 1987). The vegetation and climate during this epoch attracted significant numbers of Rancho labrean fauna, including dire wolf, saber-toothed cat, short-faced bear, horse, camel, antelope, mammoth, as well as birds which included pelican, goose, duck, cormorant, and eagle (Reynolds 1988). The drier climate of the middle Holocene resulted in the local development of complementary flora and fauna, which remain largely intact to this day. Common native plants include creosote, cacti, rabbit bush, interior golden bush, cheesebush, species of sage, buckwheat at higher elevations and near drainages, Joshua tree, and various grasses. Common native animals include coyotes, cottontail and jackrabbits, rats, mice, desert tortoises, roadrunners, raptors, turkey vultures, and other bird species (see Williams et al. 2008).

## CULTURAL SETTING

### Prehistory

The prehistoric cultural setting of the Mojave Desert has been organized into many chronological frameworks (see Warren and Crabtree 1986; Bettinger and Taylor 1974; Lanning 1963; Hunt 1960; Wallace 1958, 1962, 1977; Wallace and Taylor 1978; Campbell and Campbell 1935), although there is no definitive sequence for the region. The difficulties in establishing cultural chronologies for the Mojave are a function of its enormous size and the small amount of archaeological excavations conducted there. Moreover, throughout prehistory many groups have occupied the Mojave and their territories often overlap spatially and chronologically resulting in mixed artifact deposits. Due to dry climate and capricious geological processes, these artifacts rarely become integrated in-situ. Lacking a milieu hospitable to the preservation of cultural midden, Mojave chronologies have relied upon temporally diagnostic artifacts, such as projectile points, or upon the presence/absence of other temporal indicators, such as groundstone. Such methods are instructive, but can be limited by prehistoric occupants' concurrent use of different artifact styles, or by artifact re-use or re-sharpening, as well as researchers' mistaken diagnosis, and other factors (see Flenniken 1985; Flenniken and Raymond 1986; Flenniken and Wilke 1989). Recognizing the shortcomings of comparative temporal indicators, this study synthesizes Warren and Crabree (1986), who have drawn upon this method to produce a commonly cited and relatively comprehensive chronology.

**Paleoindian (12,000 to 10,000 BP) and Lake Mojave (10,000 to 7,000 BP) Periods.** Climatic warming characterizes the transition from the Paleoindian Period to the Lake Mojave Period. This transition also marks the end of Pleistocene Epoch and ushers in the Holocene. The Paleoindian Period has been loosely defined by isolated fluted (such as Clovis) projectile points, dated by their association with similar artifacts discovered in-situ in the Great Plains (Sutton 1996:227-228). Some fluted bifaces have been associated with fossil remains of Rancholabrean mammals approximately dated to ca. 13,300-10,800 BP near China Lake in the northern Mojave Desert. The Lake Mojave Period has been associated with cultural adaptations to moist conditions, and resource allocation pointing to more lacustrine environments than previously (Bedwell 1973; Hester 1973). Artifacts that characterize this period include stemmed points, flake and core scrapers, choppers, hammerstones, and crescentics (Warren and Crabtree 1986:184). Projectile points

associated with the period include the Silver Lake and Lake Mojave styles. Lake Mojave sites commonly occur on shorelines of Pleistocene lakes and streams, where geological surfaces of that epoch have been identified (Basgall and Hall 1994:69).

**Pinto Period (7,000 to 4,000 BP).** The Pinto Period has been largely characterized by desiccation of the Mojave. As formerly rich lacustrine environments began to disappear, the artifact record reveals more sporadic occupation of the Mojave, indicating occupants' recession to the more hospitable fringes (Warren 1984). Pinto Period sites are rare, and are characterized by surface manifestations that usually lack significant in-situ remains. Artifacts from this era include Pinto projectile points and a flake industry similar to the Lake Mojave tool complex (Warren 1984), though use of Pinto projectile points as an index artifact for the era has been disputed (see Schroth 1994). Milling stones have also occasionally been associated with sites of this period (Warren 1984).

**Gypsum Period. (4,000 to 1,500 BP).** A temporary return to moister conditions during the Gypsum Period is postulated to have encouraged technological diversification afforded by the relative abundance of resources (Warren 1984:419-420; Warren and Crabtree 1986:189). Lacustrine environments reappear and begin to be exploited during this era (Shutler 1961, 1968). Concurrently a more diverse artifact assemblage reflects intensified reliance on plant resources. The new artifacts include milling stones, mortars, pestles, and a proliferation of Humboldt Concave Base, Gypsum Cave, Elko Eared, and Elko Corner-notched dart points (Warren 1984; Warren and Crabtree 1986). Other artifacts include leaf-shaped projectile points, rectangular-based knives, drills, large scraper planes, choppers, hammer stones, shaft straighteners, incised stone pendants, and drilled slate tubes. The bow and arrow appears around 2,000 BP, evidenced by the presence of a smaller type of projectile point, the Rose Spring point (Rogers 1939; Shutler 1961; Yohe 1992).

**Saratoga Springs Period (1,500 to 800 BP).** During the Saratoga Springs Period regional cultural diversifications of Gypsum Period developments are evident within the Mojave. Basketmaker III (Anasazi) pottery appears during this period, and has been associated with turquoise mining in the eastern Mojave Desert (Warren and Crabtree 1986:191). Influences from Patayan/Yuman assemblages are apparent in the southern Mojave, and include buff and brown wares often associated with Cottonwood and Desert Side-notched projectile points (Warren 1984:423). Obsidian becomes more commonly used throughout the Mojave and characteristic artifacts of the period include milling stones, mortars, pestles, ceramics, and ornamental and ritual objects. More structured settlement patterns are evidenced by the presence of large villages, and three types of identifiable archaeological sites (major habitation, temporary camps, and processing stations) emerge (McGuire and Hall 1988). Diversity of resource exploitation continues to expand, indicating a much more generalized, somewhat less mobile subsistence strategy.

**Shoshonean Period (800 BP to Contact).** The Shoshonean period is the first to benefit from contact-era ethnography –as well as be subject to its inherent biases. Interviews of living informants allowed anthropologists to match artifact assemblages and particular traditions with linguistic groups, and plot them geographically (see Kroeber 1925; Gifford 1918; Strong 1929). During the Shoshonean Period continued diversification of site assemblages, and reduced Anasazi influence both coincide with the expansion of Numic

(Uto-Aztecan language family) speakers across the Great Basin, Takic (Uto-Aztecan language family) speakers into southern California, and the Hopi across the Southwest (Sutton 1996). Hunting and gathering continued to diversify, and the diagnostic arrow points include desert side-notch and cottonwood triangular. Ceramics continue to proliferate, though are more common in the southern Mojave during this period (Warren and Crabtree 1986). Trade routes have become well established across the Mojave, particularly the Mojave Trail, which transported goods and news across the desert via the Mojave River, to the west of the subject property. Trade in the western Mojave was more closely related to coastal groups than others.

## Ethnography

The Uto-Aztecan "Serrano" people occupied the western Mojave Desert periphery. Kroeber (1925) applied the generic term "Serrano" to four groups, each with distinct territories: the Kitanemuk, Tataviam, Vanyume, and Serrano. Only one group, in the San Bernardino Mountains and West-Central Mojave Desert, ethnically claims the term Serrano. Bean and Smith (1978) indicate that the Vanyume, an obscure Takic population, was found along the Mojave River near Apple Valley at the time of Spanish contact. The Kitanemuk lived to the north and west, while the Tataviam lived to the west. The Serrano lived mainly to the south (Bean and Smith 1978). All may have used the western Mojave area seasonally. Historical records are unclear concerning precise Serrano territory, although archaeologists have recorded evidence of a number of prehistoric sites (including some villages), particularly along the Mojave River. It is doubtful that any group, except the Vanyume, actually lived in the region for several seasons yearly.

## History

Historic California is divided into three periods: the Spanish/Mission Period (1769 to 1821), the Mexican/Rancho Period (1821 to 1848), and the American Period (1848 to present).

**Spanish Period.** The first European to pass through the area is thought to be a Spaniard called Father Francisco Garces. Having become familiar with the area, Garces acted as a guide to Juan Bautista de Anza, who had been commissioned to lead a group across the desert from a Spanish outpost in Arizona to set up quarters at the Mission San Gabriel in 1771 near what today is Pasadena (Beck and Haase 1974). This is the first recorded group crossing of the Mojave Desert and, according to Father Garces' journal, they camped at the headwaters of the Mojave River, one night less than a day's march from the mountains. Today, this is estimated to have been approximately 11 miles southeast of Victorville (Marenczuk 1962). Garces was followed by Alta California Governor Pedro Fages, who briefly explored the western Mojave region in 1772. Searching for San Diego Presidio deserters, Fages had traveled north through Riverside to San Bernardino, crossed the mountains into the Mojave, then west to the San Joaquin Valley (Beck and Haase 1974).

**Mexican Period.** In 1821, Mexico overthrew Spanish rule and the missions began to decline. By 1833, the Mexican government passed the Secularization Act, and the missions, reorganized as parish churches, lost their vast land holdings, and released their neophytes (Beattie and Beattie 1974).

**American Period.** The American Period, 1848–Present, began with the Treaty of Guadalupe Hidalgo. In 1850, California was accepted into the Union of the United States primarily due to the population increase created by the Gold Rush of 1849. The cattle industry reached its greatest prosperity during the first years of the American Period. Mexican Period land grants had created large pastoral estates in California, and demand for beef during the Gold Rush led to a cattle boom that lasted from 1849–1855. However, beginning about 1855, the demand for beef began to decline due to imports of sheep from New Mexico and cattle from the Mississippi and Missouri Valleys. When the beef market collapsed, many California ranchers lost their ranchos through foreclosure. A series of disastrous floods in 1861–1862, followed by a significant drought diminished the economic impact of local ranching. This decline combined with ubiquitous agricultural and real estate developments of the late 19th century, set the stage for diversified economic pursuits that have continued to proliferate to this day (Beattie and Beattie 1974; Cleland 1941).

**Local Sequence.** Prior to the 20th century, greater Victor Valley's main industries included cattle ranching, and mining. In 1893, Ursula M. Poates named the community of Apple Valley in an effort to convince settlers that fruit could be grown in the desert. The charismatic Poates had resided in the Mojave most of her life, and attempted to substantiate the claim by planting three apple trees in her wind-blown, greasewood-covered yard (Bright 1998). By 1910, locals had followed suit and soon 17 apple orchards occupied 1,000 acres within the valley. The success of Apple Valley prompted Arthur E. Hull, founder of Beaumont, California, to invest in the agricultural potential of the area. Hull was instrumental in publicizing Victor Valley's development, and successfully lobbied for the construction of the first paved Cajon Pass road. He also procured water rights to accommodate the area's growing agricultural endeavors (O'Rourke 2004).

Contemporaneous with the agricultural boom, large federal grants were made available and the government encouraged homesteaders to occupy and improve thousands of additional acres. The homestead and agricultural era was locally short-lived, however, and as a result of the United States' 1917 entry into World War I, mining (specifically limestone) and cattle ranching became the region's driving economic force. During the decades after World War I, the few remaining apple orchards became increasingly unprofitable and died out due to fungus, bad weather, and stiff competition from fruit growers in Central California and the American Northwest. The limestone mining industry continued to grow, and was primarily concentrated in the Victorville-Oro Grand district (Wright et al. 1953). By the 1950s more than half the mineral production (by value) in San Bernardino County came from limestone operations, the bulk of which was used by Portland cement plants.

In spite of limited diversification of local industries during the early 20th century, improvements to local infrastructure allowed more varied economic growth. In 1926, U.S. Route 66 was constructed to connect the American Midwest with California. The route commenced in Chicago, winding south through the Midwest and Southwest, through the Mojave Desert and the Cajon Pass to the Los Angeles Basin, before terminating at the Pacific Ocean in Santa Monica. Within Victor Valley, the route promoted some economic growth as an artery used to transport limestone, which fed the growing demand for concrete throughout southern California's growing municipalities. It would also promote businesses along its corridor and eventually provide a commuter route for the burgeoning bedroom

communities that sprang up across the Victor Valley during the latter half of the 20th century (O'Rourke 2004). By 1949, petroleum magnate Newton T. Bass saw potential for significant land speculation in the area based upon the discovery deep aquifers in Apple Valley. During the ensuing decades, Bass and his partner Bernard Westlund acquired approximately 25,000 acres of land in Apple Valley. Through a series of promotional campaigns, the partners proceeded transform the sparsely-populated strip of desert into the thriving residential and commercial community that continues to expand to this day (O'Rourke 2004:41-43).

## PERSONNEL

David Brunzell, M.A., RPA acted as the Project Manager and Principal Investigator for the current study. Staff from the South Central Coastal Information Center (SCCIC) completed the cultural resources records search. BCR Consulting Archaeological Field Director Joseph Orozco, M.A., RPA and BCR Consulting Archaeological Crew Chief Nicholas Shepetuk, B.A. completed the field assessment. Additional research was performed by BCR Consulting Staff Historian Dylan Williams. Mr. Brunzell compiled the technical report with contributions from Mr. Orozco.

## METHODS

This work was completed pursuant to the CEQA, Public Resources Code (PRC) Chapter 2.6, Section 21083.2, and California Code of Regulations (CCR) Title 14, Chapter 3, Article 5, Section 15064.5. The pedestrian cultural resources survey is intended to locate and document previously recorded or new cultural resources, including archaeological sites, features, isolates, and historic buildings, that exceed 45 years in age within defined project boundaries. The subject property was examined using 10 to 15 meter transect intervals. Shovel test pits were also excavated to assess the potential for any buried resources or geoarchaeological context immediately below the surface. This testing was not warranted by research or field conditions, but was completed based on informal consultation between Altec Land Planning and local tribal entities. The study is intended to determine whether cultural resources are located within the subject property boundaries, whether any cultural resources are significant pursuant to the above-referenced regulations and standards, and to develop specific mitigation measures that will address potential impacts to existing or potential resources. Tasks pursued to achieve that end include:

- Sacred Lands File Search through the Native American Heritage Commission
- Vertebrate paleontology resources report through the Los Angeles County Natural History Museum
- Cultural resources records search to review any studies conducted and the resulting cultural resources recorded within a one-mile radius of the subject property
- Additional land-use history research through local archives and repositories
- Systematic pedestrian survey of the entire subject property
- Evaluation of California Register of Historical Resources (California Register) eligibility for any cultural resources discovered
- Development of recommendations for any cultural resources documented within the subject property, following CEQA guidelines
- Completion of DPR 523 forms for any discovered cultural resources.

# METHODS

## Research

Prior to fieldwork, a cultural resources records search was conducted by the SCCIC. This included a review of all prerecorded historic and prehistoric cultural resources, as well as a review of known cultural resource surveys and excavation reports generated from projects located within one mile of the subject property. In addition, a review was conducted of the National Register of Historic Places (National Register), the California Register, and documents and inventories from the California Office of Historic Preservation (OHP) including the lists of California Historical Landmarks, California Points of Historical Interest, Listing of National Register Properties, and the Inventory of Historic Structures. Additional land use research was conducted through the General Land Office records of the Bureau of Land Management, the San Bernardino County Assessor's office, and various Internet resources.

## Field Survey

An intensive-level cultural resources field survey of the subject property was conducted on December 10, 2020. The survey was conducted by walking parallel transects spaced approximately 10-15 meters apart across 100 percent of the subject property. Digital photographs were taken at various points within the subject property boundaries, including overviews as well as detail photographs of all cultural resources. Cultural resources were recorded per the California OHP *Instructions for Recording Historical Resources* in the field using:

- Detailed note taking for entry on DPR Forms (Appendix A)
- Hand-held Garmin Global Positioning systems for mapping purposes
- Digital photography of all cultural resources (Appendix D).

## Subsurface Test Excavations

After completing the field survey, BCR Consulting completed subsurface test excavations in the subject property to assess the potential for any buried resources or geoarchaeological context. A total of 24 shovel test pits (STPs) were excavated to apprehend data from immediately below the surface. STPs were approximately 35 centimeters in diameter and were excavated at 10-centimeter intervals. During STP excavation, each discrete interval was screened to identify the presence/absence of cultural remains. Sediment was screened through 1/8-inch hardware mesh, and the screens were carefully inspected for evidence of cultural remains.

Per the scope of work, STPs were considered negative and were terminated after three sterile 10-centimeter intervals are complete. If intact cultural remains had been identified during the field survey or test excavations, an archaeological site would have been considered present in the area of the STP. STP locations were recorded on a hand-held Global Positioning System (GPS) unit and coordinates are provided in Table A.

# RESULTS

## Research

The records search revealed that eight cultural resources studies have taken place resulting in the recording of two cultural resources within one-mile of the subject property. Of the eight cultural resources studies, one has previously assessed a portion of the subject property and no cultural resources have been previously identified within its boundaries. A summary of the records search is included below.

**Table A. Cultural Resources Located Within One Mile of the Project Site**

| USGS 7.5 Min Quad | Cultural Resources Within One Mile | Reports Within One Mile |
|---|---|---|
| *Helendale, California* (1993) | P-36-2074 Prehistoric Lithic Scatter (1/2 Mile SW)<br>P-26-6793 Historic Railroad (3/4 Mile SE) | SB-106-330, 680, 1758, 2055, 2257, 5435, 6504*, 7283 |

*Previously assessed a portion of the project

**Additional Research.** (Please note that references for this section are provided in Appendix A.) The project site comprises two vacant parcels along the northwest bank of the Mojave River. It is located immediately south of the Silver Lakes residential development in Helendale. The project site was originally part of two separate 160-acre parcels patented to William H. Robinson and Ephraim D. Boren in 1889 and 1891, respectively. Robinson owned the southern parcel and Boren owned the northern parcel. Historic aerial photographs demonstrate that the lot was vacant in 1929. A small agricultural operation which extended off the property to the north was present on the northwest portion of the project site in the 1950s. This agricultural plot encompassed the well site, but no buildings or structures were visible in the aerial photos. Construction of the South Lake portion of the Silver Lakes residential development replaced the agricultural operation in 1970, although no houses extended onto the project site. The USGS map indicates that three wells were constructed on the northern parcel after 1956. The parcels were both owned by Standard Properties Inc. prior to 1978. Robert T. and Barbara Older acquired the parcels in 1987, and Carl Ross Living Trust acquired them in 2005 before selling to the Helendale Community Services District in 2020.

## Field Survey

During the field survey BCR Consulting staff carefully inspected the subject property for evidence of cultural resources. Vegetation was dominated by non-native scrub affording approximately 65 percent surface visibility. Sediments included silty sand interspersed with some granitic and quartz pebbles and cobbles. Ground disturbances within the project site have included excavations for road grading, recreational off-road vehicle use, modern refuse dumping, rilling and sheet washing, and disturbances from former agricultural irrigation. One historic-period well site, the remnants of one historic-period water basin, and two prehistoric isolates were identified during the field survey. These are described in detail below. The required DPR 523 forms have been completed for these resources and are provided in Appendix A.

**COL2002-I-1.** This isolate consists of one mustard-colored chert core fragment measuring 4 cm in length and 2.5 cm in width.

**COL2002-I-2.** This isolate consists of one basalt core fragment measuring 7 cm in length and 5.5 cm in width.

**COL2002-H-2.** The site consists of two concrete standpipes, one capped steel well, two concrete footings, and a standpipe opening. The concrete standpipes are approximately 16 feet in height and two feet in diameter. A steel well pipe, measuring 2.5 feet in height and 1.5 feet in diameter, appears to have been cut and welded shut. Two concrete footings (probably well pump stands) are present measuring five feet in length and two feet in width. A 16-inch-deep standpipe hole is also present. The vegetation is creosote scrub and local sediments are dominated by silty sand interspersed with poorly sorted gravels. Aerial photographs and methods of construction indicate that the site was in use concurrent with the agricultural operation from the 1950s until the early 1970s (see Additional Research above and Appendix A).

**COL2002-H-3.** The site consists of a concrete foundation and severely fragmented, historic-period glass. The concrete foundation is approximately 25 feet by 12 feet and is very coarse with small to medium sized rocks embedded into the matrix. Historic aerials suggest the foundation was once part of a water basin associated with former agricultural operations. Various types and colors of broken glass and ceramic are present on the foundation. Two 1950s era soft drink bottle fragments, Pepsi and Hires Root Beer, were identified. Other bottle bases contained dates ranging from 1953 through 1956. The vegetation is creosote scrub and local sediments are dominated by silty sand interspersed with poorly sorted gravels. Aerial photographs and artifact types indicate that the site was in use concurrent with the agricultural operation from the 1950s until the early 1970s (see Additional Research above and Appendix A).

## Subsurface Test Excavations

Per the scope of work, STPs were considered negative and were terminated after three sterile 10-centimeter intervals are complete. If intact cultural remains had been identified during the field survey or test excavations, an archaeological site would have been considered present in the area of the STP. STP locations were recorded on a hand-held Global Positioning System (GPS) unit and coordinates are provided in Table A. Findings were negative for each STP.

**Table B. Shovel Test Pit Locations**

| STP No. | Zone and Easting | Northing | Elevation |
|---|---|---|---|
| 001 | 11S 468179mE | 3842526mN | 2498ft. |
| 002 | 11S 468180mE | 3842449mN | 2498ft. |
| 003 | 11S 468193mE | 3842343mN | 2490ft. |
| 004 | 11S 468201mE | 3842230mN | 2490ft. |
| 005 | 11S 468223mE | 3842147mN | 2485ft. |
| 006 | 11S 468251mE | 3842229mN | 2486ft. |
| 007 | 11S 468287mE | 3842334mN | 2491ft. |
| 008 | 11S 468271mE | 3842382mN | 2494ft. |
| 009 | 11S 468374mE | 3842448mN | 2487ft. |
| 010 | 11S 468360mE | 3842474mN | 2488ft. |

| STP No. | Zone and Easting | Northing | Elevation |
|---|---|---|---|
| 011 | 11S 468276mE | 3842471mN | 2494ft. |
| 012 | 11S 468198mE | 3842508mN | 2497ft. |
| 013 | 11S 468264mE | 3842536mN | 2490ft. |
| 014 | 11S 468348mE | 3842568mN | 2489ft. |
| 015 | 11S 468385mE | 3842549mN | 2485ft. |
| 016 | 11S 468360mE | 3842661mN | 2490ft. |
| 017 | 11S 468426mE | 3842614mN | 2487ft. |
| 018 | 11S 468427mE | 3842633mN | 2486ft. |
| 019 | 11S 468413mE | 3842667mN | 2485ft. |
| 020 | 11S 468504mE | 3842746mN | 2468ft. |
| 021 | 11S 468521mE | 3842793mN | 2467ft. |
| 022 | 11S 468547mE | 3842731mN | 2466ft. |
| 023 | 11S 468602mE | 3842863mN | 2464ft. |
| 024 | 11S 468650mE | 3842964mN | 2463ft. |

## SIGNIFICANCE EVALUATIONS

During the field survey, two prehistoric isolates and two historic-age resources were identified. CEQA (PRC Chapter 2.6, Section 21083.2 and CCR Title 145, Chapter 3, Article 5, Section 15064.5) calls for the evaluation and recordation of historic-age and archaeological resources. The criteria for determining the significance of impacts to cultural resources are based on Section 15064.5 of the *CEQA Guidelines* and Guidelines for the Nomination of Properties to the California Register. Properties eligible for listing in the California Register and subject to review under CEQA are those meeting the criteria for listing in the California Register, National Register, or designation under a local ordinance. Please note that isolated finds are not considered “historical resources” under CEQA and as such the isolated artifacts do not require further evaluation.

### Significance Criteria

**California Register of Historical Resources.** The California Register criteria are based on National Register criteria. For a property to be eligible for inclusion on the California Register, one or more of the following criteria must be met:

1. It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S.;
2. It is associated with the lives of persons important to local, California, or U.S. history;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of a master, possesses high artistic values; and/or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to meeting one or more of the above criteria, the California Register requires that sufficient time has passed since a resource’s period of significance to “obtain a scholarly perspective on the events or individuals associated with the resources.” (CCR 4852 [d][2]). The California Register also requires that a resource possess integrity. This is defined as the

ability for the resource to convey its significance through seven aspects: location, setting, design, materials, workmanship, feeling, and association.

### Evaluations

**COL2002-H-2.** Criterion 1: The concrete wells and ancillary irrigation equipment is characteristic of past agricultural development of the local area; however, it is not associated with important events related to this context. It is therefore not eligible for the California Register under Criterion 1. Criterion 2: Substantial research has not linked the subject property with individuals who have been notable in local, state, or national history. Criterion 3: The concrete well and irrigation features are a common design. Therefore, they do not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual or possess high artistic values. Criterion 4: Extensive research, field recording, and shovel test pit excavations have exhausted this resource's data potential. This resource has not and is not likely to yield information important in prehistory or history. This historic-age site is therefore recommended not eligible under any of the four criteria for listing on the California Register, and as such is not recommended a historical resource under the California Environmental Quality Act (CEQA).

**COL2002-H-3.** Criterion 1: This feature was once part of a concrete water basin. It is characteristic of past agricultural development in the local area; however it is not associated with important events related to this context. It is therefore not eligible for the California Register under Criterion 1. Criterion 2: Substantial research has not linked the subject property with individuals who have been notable in local, state, or national history. Criterion 3: The basin is a common design and there is nothing remarkable about the bottle fragments identified. Therefore, it does not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual or possess high artistic values. Criterion 4: Extensive research, field recording, and shovel test pit excavations have exhausted this resource's data potential. This resource has not and is not likely to yield information important in prehistory or history. This historic-age site is therefore recommended not eligible under any of the four criteria for listing on the California Register, and as such is not recommended a historical resource under the California Environmental Quality Act (CEQA).

## RECOMMENDATIONS

The two historic-age sites and isolated artifacts are recommended not eligible for the California Register. As such, they are not considered "historical resources" and do not warrant further consideration under CEQA. Furthermore, subsurface test excavation has not identified any significant geoarchaeological context or sensitivity for buried resources. Therefore, no significant impacts related to archaeological or historical resources is anticipated and no further investigations are recommended for the proposed project unless:

- the proposed project is changed to include areas not subject to this study.
- the proposed project is changed to include the construction of additional facilities.
- cultural materials are encountered during project activities.

Although the current study has not indicated sensitivity for cultural resources within the project boundaries, ground disturbing activities always have the potential to reveal buried deposits not observed on the surface during previous surveys. Prior to the initiation of ground-disturbing activities, field personnel should be alerted to the possibility of buried prehistoric or historic cultural deposits. In the event that field personnel encounter buried cultural materials, work in the immediate vicinity of the find should cease and a qualified archaeologist should be retained to assess the significance of the find. The qualified archaeologist shall have the authority to stop or divert construction excavation as necessary. If the qualified archaeologist finds that any cultural resources present meet eligibility requirements for listing on the California Register or the National Register, plans for the treatment, evaluation, and mitigation of impacts to the find will need to be developed. Prehistoric or historic cultural materials that may be encountered during ground-disturbing activities include:

- historic artifacts such as glass bottles and fragments, cans, nails, ceramic and pottery fragments, and other metal objects;
- historic structural or building foundations, walkways, cisterns, pipes, privies, and other structural elements;
- prehistoric flaked-stone artifacts and debitage (waste material), consisting of obsidian, basalt, and or cryptocrystalline silicates;
- groundstone artifacts, including mortars, pestles, and grinding slabs;
- dark, greasy soil that may be associated with charcoal, ash, bone, shell, flaked stone, groundstone, and fire affected rocks.

According to CEQA Guidelines, projects subject to CEQA must determine whether the project would “directly or indirectly destroy a unique paleontological resource”. The Paleontological Overview provided in Appendix B has recommended that:

> The geologic units underlying this project are mapped entirely as alluvial silt, sand and gravel or channel sand deposits dating from the Holocene period (Dibblee, 2008). While Holocene alluvial and sedimentary units are considered to be of high preservation value, material found is unlikely to be fossil material due to the relatively modern associated dates of the deposits. However, if development requires any substantial depth of disturbance, the likelihood of reaching Pleistocene alluvial sediments would increase. The Western Science Center does not have localities within the project area or within a 1 mile radius.
>
> While the presence of any fossil material is unlikely, if excavation activity disturbs deeper sediment dating to the earliest parts of the Holocene or Late Pleistocene periods, the material would be scientifically significant. Excavation activity associated with the development of the project area is unlikely to be paleontologically sensitive, but caution during development should be observed.

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will

determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.

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Wallace, William J.
1958 Archaeological Investigation in Death Valley National Monument. *University of California Archaeological Survey Reports* 42:7-22.

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1978 *Ancient Peoples and Cultures of Death Valley National Monument.* Acoma Books, Ramona, California.

Warren, Claude N.
1984 The Desert Region. In *California Archaeology*, by M. Moratto, contributions by D.A. Fredrickson, C. Raven, and C.N. Warren, pp. 339–430. Academic Press, Orlando, Florida.

Warren, Claude N., and R.H. Crabtree
1986 The Prehistory of the Southwestern Great Basin. In *Handbook of the North American Indians, Vol. 11, Great Basin,* edited by W.L. d'Azevedo, pp.183-193. W.C. Sturtevant, General Editor. Smithsonian Institution, Washington D.C.

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1953 *Mines and Mineral Deposits of San Bernardino County, California.* California Journal of Mines and Geology, Vol. 49, Nos. 1 and 2

Yohe, Robert M., II
1992 *A Reevaluation of Western Great Basin Cultural Chronology and Evidence for the Timing of the Introduction of the Bow and Arrow to Eastern California Based on New Excavations at the Rose Spring Site (CA-INY-372).* Unpublished PhD Dissertation, University of California, Riverside.

# APPENDIX A

# DPR 523 FORMS

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

# PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

 *Resource Name or #: COL2002-H-2
**P1. Other Identifier:**

***P2. Location:** ☐ **Not for Publication** ☑ **Unrestricted** ***a. County:** San Bernardino
**and** (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** *Helendale, California* **Date:** 1993 **T** 7N; **R** 4W; Section 6**;** SBBM
c. Address: City: Unincorporated Helendale Zip:
d. UTM: Zone: 11; 468350 mE/ 3842614 mN (NAD83) at site datum (see Sketch Map, page 3); Elevation: 2490' AMSL
e. Other Locational Data: Located 500' southwest of the intersection at Helendale Road and Shadow Mountain Road in the unincorporated community of Helendale, San Bernardino County.

***P3a. Description:** (Describe resource and its major elements: design, materials, condition, alterations, size, setting, boundaries)
The site consists of two concrete standpipes, one capped steel well, two concrete footings, and a standpipe opening. The concrete standpipes are approximately 16 feet in height and two feet in diameter. A steel well pipe, measuring 2.5 feet in height and 1.5 feet in diameter, appears to have been cut and welded shut. Two concrete footings (probably well pump stands) are present measuring five feet in length and two feet in width. A 16-inch-deep standpipe hole is also present. The vegetation is creosote scrub and local sediments are dominated by silty sand interspersed with poorly sorted gravels.

***P3b. Resource Attributes:** AH5. Wells/Cisterns

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

**P5b. Description of Photo:** (View, date, accession #)
Photo 17: Site Overview 12/17/20 (View North)

***P6. Date Built; Age and Source:**
☑Historic
☐Prehistoric ☐Both

***P7. Owner:**
Helendale Community Services District

***P8. Recorded by:**
J. Orozco, N Shepetuk
BCR Consulting LLC
Claremont, CA 91711

**P9. Date:** 12/17/20

**10. Survey Type:** Intensive

***P11. Report Citation:**
*Cultural Resources Assessment Helendale Community Services District Well Field Project, San Bernardino County, California*

***Attachments:** ☐NONE ☑ Location Map ☑ Sketch Map ☐ Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

# ARCHAEOLOGICAL SITE RECORD



***A1. Dimensions:** 380 x 25 feet

**Method of Measurement:** ☐ Paced ☐ Taped ☐ Visual estimate ☑ Other: GPS Extrapolation

**Method of Determination** (Check any that apply): ☐ Artifacts ☑ Features ☐ Soil ☐ Vegetation ☐ Topography ☐ Cut bank ☐ Animal burrow ☐ Excavation ☐ Property boundary ☐ Other (Explain):

**Reliability of Determination:** ☐ High ☑Medium ☐ Low Explain: Off-road vehicular activity.

**Limitations** (Check any that apply): ☐ Restricted access ☐ Paved/built over ☑ Site limits incompletely defined ☐ Disturbances ☐ Vegetation ☐ Other (Explain):

A2. Depth: ☐ None ☑ Unknown Method of Determination: Surface Survey

***A3. Human Remains:** ☐ Present ☑ Absent ☐ Possible ☐ Unknown (Explain):

***A4. Features:** The site consists of two concrete stand pipes, one capped steel well, two concrete footings, and a standpipe opening. The concrete standpipes are approximately 16 feet in height and two feet in diameter. A steel well pipe, measuring 2.5 feet in height and 1.5 feet in diameter, appears to have been cut and welded shut. Two concrete five by two foot footings are present. A 16-inch-deep standpipe hole is also present.

***A5. Cultural Constituents (**Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.): N/A

***A6. Were Specimens Collected?** ☑ No ☐ Yes (If yes, attach Artifact Record or catalog and identify curation location.)

***A7. Site Condition:** ☐ Good ☐ Fair ☑ Poor (Describe disturbances.): Alterations to the site include well capping, removal of a standpipe(s), off-road vehicular activity, and past mechanical clearing

***A8. Nearest Water** (Type, distance, and direction.)**:** The site is 385 feet west of the Mojave River which flows seasonally.

***A9. Elevation:** 2490 Feet Above Mean Sea Level

A10. Environmental Setting**:** The vegetation is creosote scrub and local sediments are dominated by silty sand interspersed with poorly sorted gravels.

A11. Historical Information: The project site comprises two vacant parcels along the northwest bank of the Mojave River. It is located immediately south of the Silver Lakes residential development in Helendale. The project site was originally part of two separate 160-acre parcels patented to William H. Robinson and Ephraim D. Boren in 1889 and 1891, respectively. Robinson owned the southern parcel and Boren owned the northern parcel. Historic aerial photographs demonstrate that the lot was vacant in 1929. A small agricultural operation which extended off the property to the north was present on the northwest portion of the project site in the 1950s. This agricultural plot encompassed the well site, but no buildings or structures were visible in the aerial photos. Construction of the South Lake portion of the Silver Lakes residential development in 1970 replaced the agricultural operation, although no houses extended onto the project site. The USGS map indicates that three wells were constructed on the northern parcel after 1956 (USGS 1956/1993). The parcels were both owned by Standard Properties Inc. prior to 1978. Robert T. and Barbara Older acquired the parcels in 1987, and Carl Ross Living Trust acquired them in 2005 before selling to the Helendale Community Services District in 2020 (San Bernardino County Assessor; USDA 1929, 1952, 1959, 1969, 1973, 1994, 2005, 2010; USDI 1889, 1891).

***A12. Age:** ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☐ 1848-1880 ☐ 1880-1914 ☐ 1914-1945 ☑ Post 1945 ☐ Undetermined

A13. Interpretations (Discuss data potential, function[s], ethnic affiliation, and other interpretations): The well sites were constructed between 1956 and the early 1970s.

A14. Remarks: Mechanical clearing/discing from past agricultural farming near the site have resulted in high surface visibility and indicate low potential for buried resources not related to the well sites.

A15. References (Documents, informants, maps, and other references):

U.S. Department of the Interior. 1889. "Patent Details, Accession Number CA0610_.292." *Bureau of Land Management – General Land Office Records.* Electronic Document. Accessed 12/3/20. Glorecords.blm.gov.1891. "Patent Details, Accession Number CA0550_.487." *Bureau of Land Management – General Land Office Records.* Electronic Document. Accessed 12/3/20. Glorecords.blm.gov.

San Bernardino County Assessor. 2020. "San Bernardino County PIMS Package Report – 467-121-28." *San Bernardino County Office of the Assessor, Property Information Management System.* Electronic Database. Accessed 12/3/20. http://www.sbcounty.gov/assessor/pims/.

United States Department of Agriculture. 1929-2010. Historic Aerial Photographs (taken in 1929, 1952, 1959, 1969, 1973, 1994, 2005, 2010). Historicaerials.com and UCSB Frame Finder online databases**.**

A16. Photographs: See Primary Form, Page 1 and report appendix. Original Media/Negatives Kept at: BCR Consulting

***A17. Form Prepared by:** Joseph Orozco **Date:** February 13, 2021

**Affiliation and Address:** BCR Consulting, Claremont, CA 91711

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

# SKETCH MAP

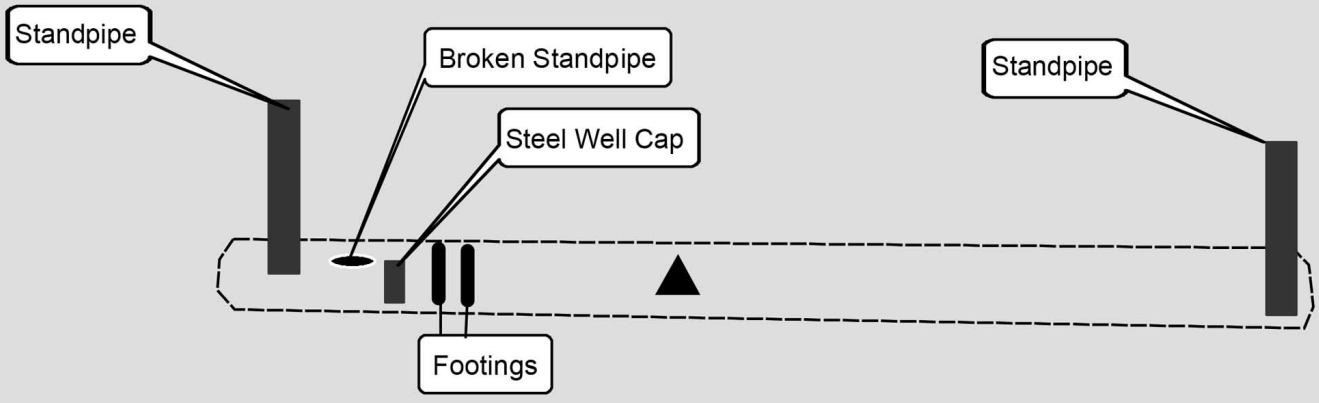
Primary #
HRI#
Trinomial



**Resource Name or #**(Assigned by Recorder) COL2002-H-2

***Drawn By:** Joseph Orozco

***Date:** 12/18/20




**Legend**

H-2 Site Boundary

Site Datum
11; 468350 mE/ 3842614 mN (G.P.S.; NAD83)

N

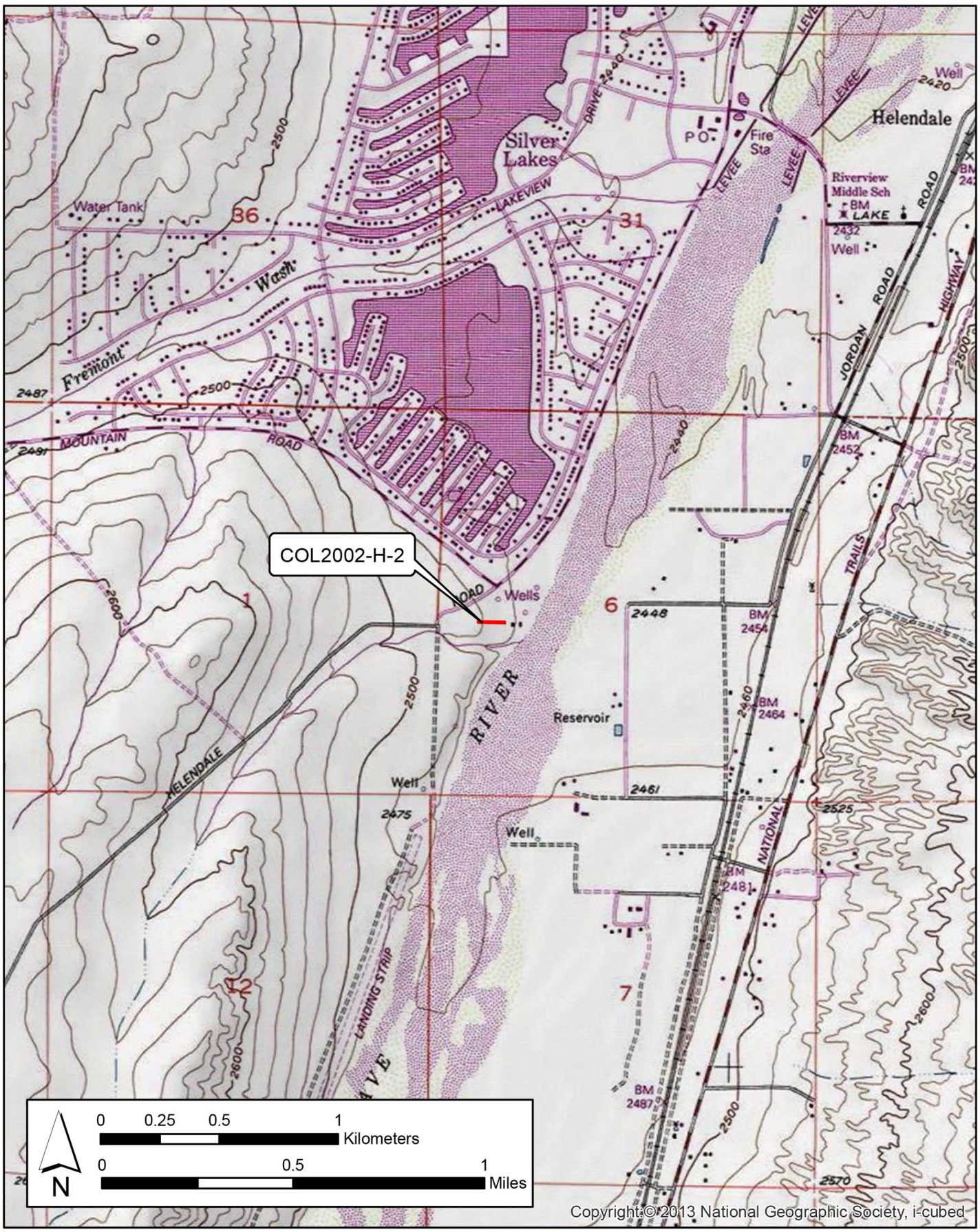
0 5 10 20 Meters

0 25 50 100 Feet

| State of California - The Resources Agency<br>DEPARTMENT OF PARKS AND RECREATION<br>**LOCATION MAP** | Primary #<br>HRI#<br>Trinomial |
|---|---|

**Page:** 4 of 4 ***Resource Name or#:** COL2002-H-2

***Map Name:** *Helendale, CA* ***Scale:** 1:24,000 ***Date of Map:** 1993



**State of California — The Resources Agency**
**DEPARTMENT OF PARKS AND RECREATION**

# PRIMARY RECORD

**Primary #**
**HRI #**
**Trinomial**
**NRHP Status Code**

**Other Listings**
**Review Code** **Reviewer** **Date**

 *__Resource Name or #:__ COL2002-H-3
**P1. Other Identifier:**

***P2. Location:** ☐ **Not for Publication** ☑ **Unrestricted** ***a. County:** San Bernardino
**and** (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** *Helendale, California* **Date:** 1993 **T** 7N; **R** 4W; Section 6**;** SBBM
c. Address: City: Unincorporated Helendale Zip: 92342
d. UTM: Zone: 11; 468259 mE/ 3842593 mN (NAD83) at site datum; Elevation: 2498' AMSL
e. Other Locational Data: Located 730 feet southwest of the intersection at Helendale Road and Shadow Mountain Road.

***P3a. Description:** (Describe resource and its major elements: design, materials, condition, alterations, size, setting, boundaries)
The site consists of a concrete foundation and severely fragmented, historic-period glass. The concrete foundation is approximately 25 feet by 12 feet and is very coarse with small to medium sized rocks embedded into the matrix. Historic aerials suggest the foundation was once part of a water basin associated with former agricultural operations. Various types and colors of broken glass and ceramic are present on the foundation. Two 1950s era soft drink bottle fragments, Pepsi and Hires Root Beer, were identified. Other bottle bases contained dates ranging from 1953 through 1956. The vegetation is creosote scrub and local sediments are dominated by silty sand interspersed with poorly sorted gravels.

***P3b. Resource Attributes:** AH2. Foundations/structure Pads AH4. Privies/dumps/trash scatters

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

**P5b. Description of Photo:** (View, date, accession #)
Photo 17: Site Overview 12/22/20 (View North)

***P6. Date Built; Age and Source:**
☑Historic
☐Prehistoric ☐Both

***P7. Owner and Address:**
Helendale Community Services District

***P8. Recorded by:**
J. Orozco, N Shepetuk
BCR Consulting LLC
Claremont, CA 91711

**P9. Date:** 12/22/20

**P10. Survey Type:** Intensive

***P11. Report Citation:** *Cultural Resources Assessment Helendale Community Services District Well Field Project, San Bernardino County, California*

***Attachments:** ☐NONE ☑ Location Map ☑ Sketch Map ☐ Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

# ARCHAEOLOGICAL SITE RECORD



***A1. Dimensions:** 25 x 12 feet
**Method of Measurement:** ☐ Paced ☐ Taped ☐ Visual estimate ☑ Other: GPS Extrapolation
**Method of Determination** (Check any that apply): ☐ Artifacts ☑ Features ☐ Soil ☐ Vegetation ☐ Topography
☐ Cut bank ☐ Animal burrow ☐ Excavation ☐ Property boundary ☐ Other (Explain):
**Reliability of Determination:** ☐ High ☑Medium ☐ Low Explain: Shifting sediment on/around feature
**Limitations** (Check any that apply): ☐ Restricted access ☐ Paved/built over ☑ Site limits incompletely defined
☐ Disturbances ☐ Vegetation ☐ Other (Explain):
A2. Depth: ☐ None ☑ Unknown Method of Determination: Surface Survey
***A3. Human Remains:** ☐ Present ☑ Absent ☐ Possible ☐ Unknown (Explain):

***A4.** Features The site consists of a concrete foundation and severely fragmented, historic-period glass. The concrete foundation is approximately 25 feet by 12 feet and is very coarse with small to medium sized rocks embedded into the matrix. Historic aerials suggest the foundation was once part of a water basin (USDA 1968, 1969). Various types and colors of broken glass and ceramic are present on the foundation. Two 1950s era soft drink bottle fragments, Pepsi and Hires Root Beer, were identified. Other bottle bases contained dates ranging from 1953 through 1956.

***A5. Cultural Constituents (**Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.): N/A
***A6. Were Specimens Collected?** ☑ No ☐ Yes (If yes, attach Artifact Record or catalog and identify curation location.)
***A7. Site Condition:** ☐ Good ☐ Fair ☑ Poor (Describe disturbances.): Alterations to the site include demolition of the water basin and mechanical excavation to clear the former agricultural operation.
***A8. Nearest Water** (Type, distance, and direction.)**:** The site is 984 feet west of the Mojave River which flows seasonally.
***A9. Elevation:** 2498 Feet Above Mean Sea Level

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.)**:** The vegetation is creosote scrub and local sediments are dominated by silty sand interspersed with poorly sorted gravels.

A11. Historical Information: The project site comprises two vacant parcels along the northwest bank of the Mojave River. It is located immediately south of the Silver Lakes residential development in Helendale. The project site was originally part of two separate 160-acre parcels patented to William H. Robinson and Ephraim D. Boren in 1889 and 1891, respectively. Robinson owned the southern parcel and Boren owned the northern parcel. Historic aerial photographs demonstrate that the lot was vacant in 1929. A small agricultural operation which extended off the property to the north was present on the northwest portion of the project site in the 1950s. This agricultural plot encompassed the well site, but no buildings or structures were visible in the aerial photos. Construction of the South Lake portion of the Silver Lakes residential development in 1970 replaced the agricultural operation, although no houses extended onto the project site. The USGS map indicates that three wells were constructed on the northern parcel after 1956 (USGS 1956/1993). The parcels were both owned by Standard Properties Inc. prior to 1978. Robert T. and Barbara Older acquired the parcels in 1987, and Carl Ross Living Trust acquired them in 2005 before selling to the Helendale Community Services District in 2020 (San Bernardino County Assessor; USDA 1929, 1952, 1959, 1969, 1973, 1994, 2005, 2010; USDI 1889, 1891).

***A12. Age:** ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☐ 1848-1880 ☐ 1880-1914 ☐ 1914-1945
☑ Post 1945 ☐ Undetermined
A13. Interpretations (Discuss data potential, function[s], ethnic affiliation, and other interpretations): None
A14. Remarks: Mechanical clearing/discing from past agricultural farming near the site have resulted in high surface visibility and indicate low potential for buried resources.

A15. References (Documents, informants, maps, and other references):

U.S. Department of the Interior. 1889. "Patent Details, Accession Number CA0610_.292." *Bureau of Land Management – General Land Office Records.* Electronic Document. Accessed 12/3/20. Glorecords.blm.gov.1891. "Patent Details, Accession Number CA0550_.487." *Bureau of Land Management – General Land Office Records.* Electronic Document. Accessed 12/3/20. Glorecords.blm.gov.

San Bernardino County Assessor. 2020. "San Bernardino County PIMS Package Report – 467-121-28." *San Bernardino County Office of the Assessor, Property Information Management System.* Electronic Database. Accessed 12/3/20. http://www.sbcounty.gov/assessor/pims/.

United States Department of Agriculture. 1929-2010. Historic Aerial Photographs (taken in 1929, 1952, 1959, 1969, 1973, 1994, 2005, 2010). Historicaerials.com and UCSB Frame Finder online databases**.**

A16. Photographs: See Primary Form, Page 1 and report appendix. Original Media/Negatives Kept at: BCR Consulting
***A17. Form Prepared by:** Joseph Orozco **Date:** January 5, 2021
**Affiliation and Address:** BCR Consulting, Claremont, CA 91711

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

# SKETCH MAP

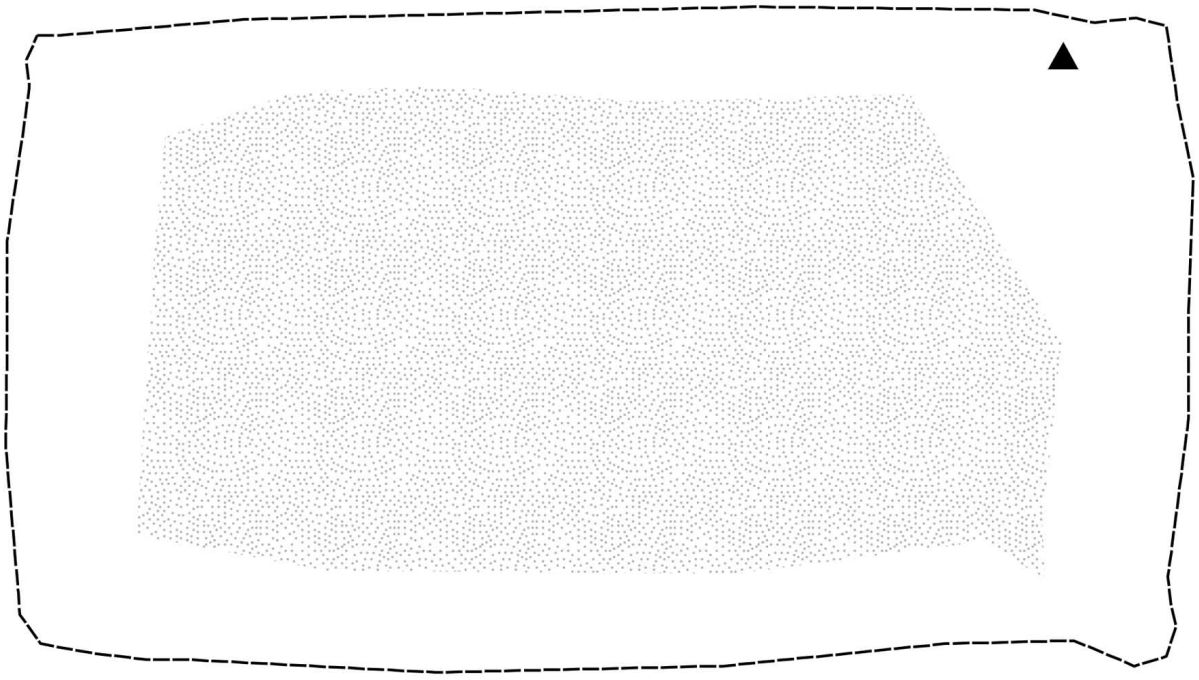
Primary #
HRI#
Trinomial



**Resource Name or #**(Assigned by Recorder) COL2002-H-3

***Drawn By:** Joseph Orozco

***Date:** 12/18/20



## Legend

H-3 Site Boundary

Broken Glass

Site Datum
11; 468259 mE/ 3842593 mN (G.P.S.; NAD83)

USGS National Ma
2018.

N

0 1 2 Meters

0 5 10 Feet

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
**LOCATION MAP**

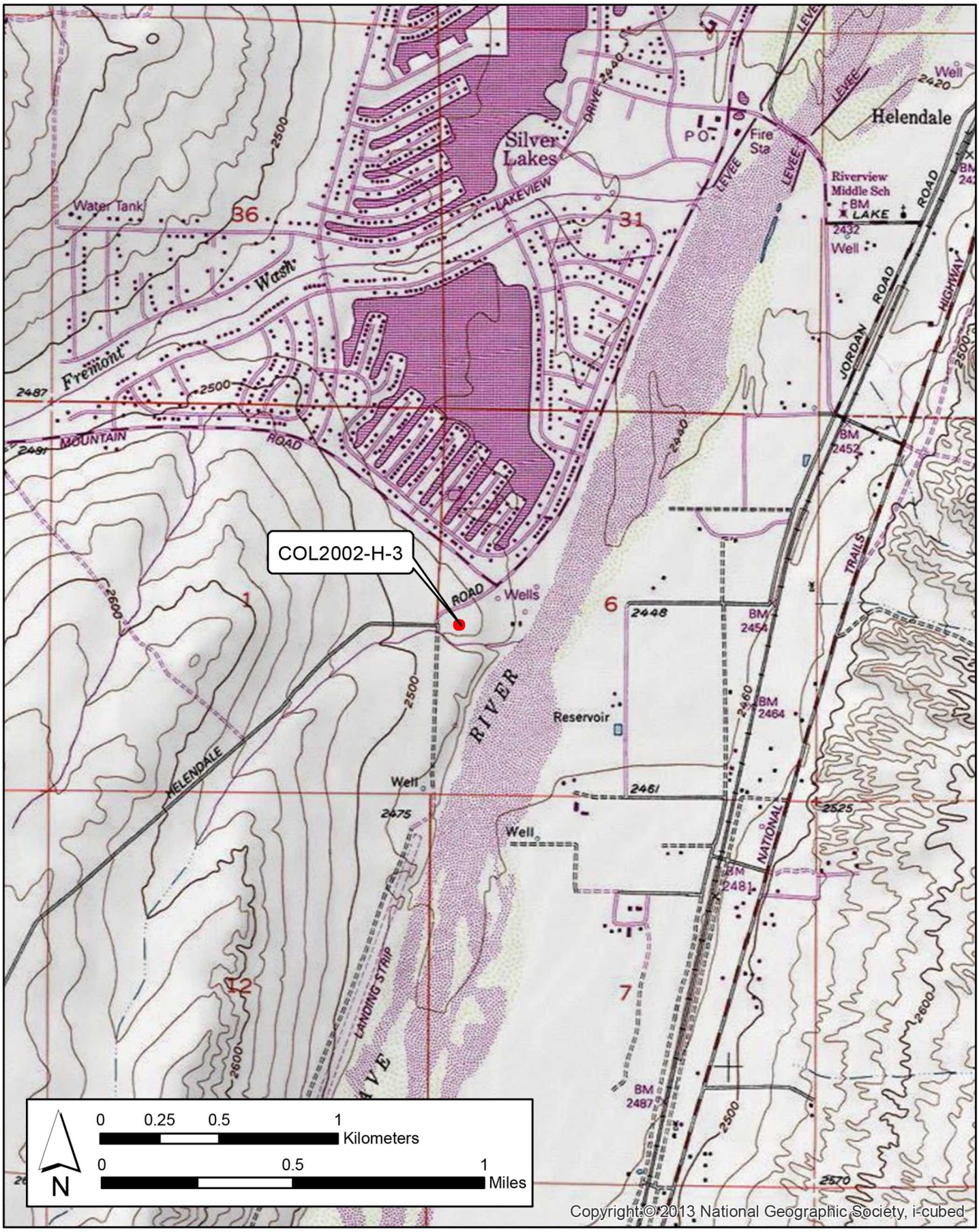
Primary #
HRI#
Trinomial



***Resource Name or#:** COL2002-H-3

***Map Name:** *Helendale, CA*

***Scale:** 1:24,000 ***Date of Map:** 1993



**State of California — The Resources Agency**
**DEPARTMENT OF PARKS AND RECREATION**

# PRIMARY RECORD

**Primary #**
**HRI #**
**Trinomial**
**NRHP Status Code**

**Other Listings**
**Review Code** **Reviewer** **Date**

 *__Resource Name or #:__ COL2002-I-1

**P1. Other Identifier:** N/A

***P2. Location:** ☐ **Not for Publication** ☑ **Unrestricted** ***a. County:** San Bernardino
**and** (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** *Helendale, California* **Date:** 1993 **T** 7 N; R 4 W; Section 6**;** SBBM

c. Address: N/A City: Unincorporated Community of Helendale Zip: 92342

d. UTM: Zone: 11S; 468368 mE/ 3842664 mN (G.P.S.; NAD83) Elevation: 2485 Feet AMSL

e. Other Locational Data: From National Trails Highway, turn northwest onto Vista Road. Proceed for approximately 1.25 miles to Helendale Road. Turn south on Helendale Road and Continue south for 1.5 miles. Park and walk approximately 50 meters southeast.

***P3a. Description:** (Describe resource and its major elements: design, materials, condition, alterations, size, setting, boundaries)
This isolate consists of one mustard-colored chert core fragment measuring 4 cm in length and 2.5 cm in width. The vegetation is creosote scrub and local sediments are dominated by silty sand interspersed with poorly sorted gravels.

***P3b. Resource Attributes:** AP16. Isolate

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)


**P5b. Description of Photo:** (View, date, accession #) overview, 12/10/2020, Photo 3

***P6. Date Built; Age and Source:**
☐Historic
☑Prehistoric ☐Both

***P7. Owner and Address:**
Helendale Community Services District

***P8. Recorded by:**
J. Orozco, N. Shepetuk
BCR Consulting LLC
Claremont, CA 91711

***P9. Date:** 12/17/2020

***P10. Survey Type:** Intensive.

***P11. Report Citation:** *Cultural Resources Assessment Helendale Community Services District Well Field Project, San Bernardino County, California*

***Attachments:** ☐NONE ☑ Location Map ☐Sketch Map ☐ Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
**LOCATION MAP**

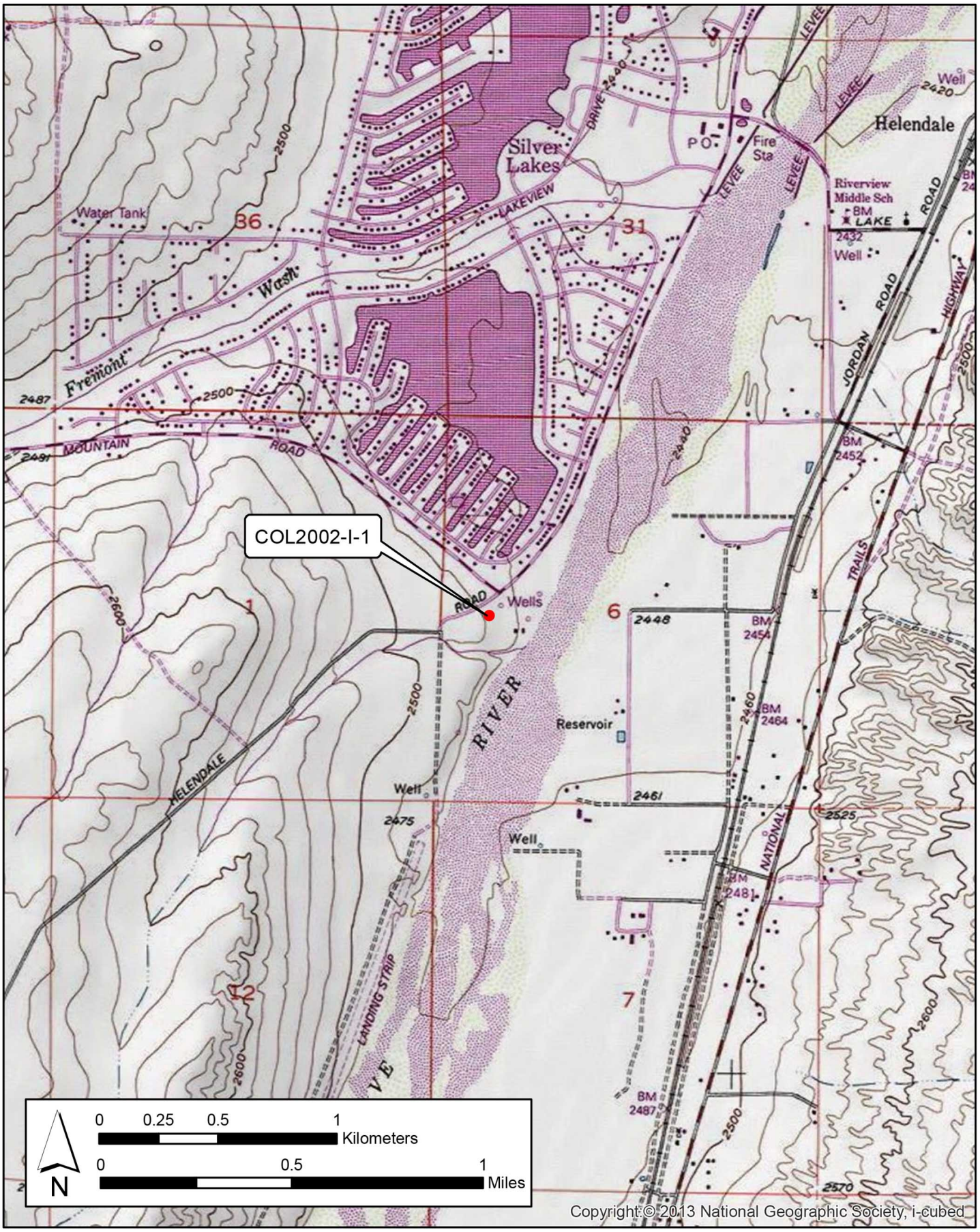
Primary #
HRI#
Trinomial

**Page:** 2 of 2

***Resource Name or#:** COL2002-I-1

***Map Name:** *Helendale, CA*

***Scale:** 1:24,000 ***Date of Map:** 1993



**State of California — The Resources Agency**
**DEPARTMENT OF PARKS AND RECREATION**

# PRIMARY RECORD

**Primary #**
**HRI #**
**Trinomial**
**NRHP Status Code**

**Other Listings**
**Review Code** **Reviewer** **Date**

 *__Resource Name or #:__ COL2002-I-2

**P1. Other Identifier:** N/A

***P2. Location:** ☐ **Not for Publication** ☑ **Unrestricted** ***a. County:** San Bernardino
**and** (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** *Helendale, California* **Date:** 1993 **T** 7 N; R 4 W; Section 6**;** SBBM

c. Address: N/A City: Unincorporated Community of Helendale Zip: 92342

d. UTM: Zone: 11S; 468361 mE/ 3842664 mN (G.P.S.; NAD83) Elevation: 2485 Feet AMSL

e. Other Locational Data: From National Trails Highway, turn northwest onto Vista Road. Proceed for approximately 1.25 miles to Helendale Road. Turn south on Helendale Road and Continue south for 1.5 miles. Park and walk approximately 60 meters southeast.

***P3a. Description:** (Describe resource and its major elements: design, materials, condition, alterations, size, setting, boundaries)
This isolate consists of one basalt core fragment measuring 7 cm in length and 5.5 cm in width. The vegetation is creosote scrub and local sediments are dominated by silty sand interspersed with poorly sorted gravels.

***P3b. Resource Attributes:** AP16. Isolate

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

**P5b. Description of Photo:** (View, date, accession #) overview, 12/10/2020, Photo 6

***P6. Date Built; Age and Source:**
☐Historic
☑Prehistoric ☐Both

***P7. Owner and Address:**
Helendale Community Services District

***P8. Recorded by:**
J. Orozco, N. Shepetuk
BCR Consulting LLC
Claremont, CA 91711

***P9. Date:** 12/17/2020
***P10. Survey Type:** Intensive.

***P11. Report Citation:** *Cultural Resources Assessment Helendale Community Services District Well Field Project, San Bernardino County, California*

***Attachments:** ☐NONE ☑ Location Map ☐Sketch Map ☐ Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
**LOCATION MAP**

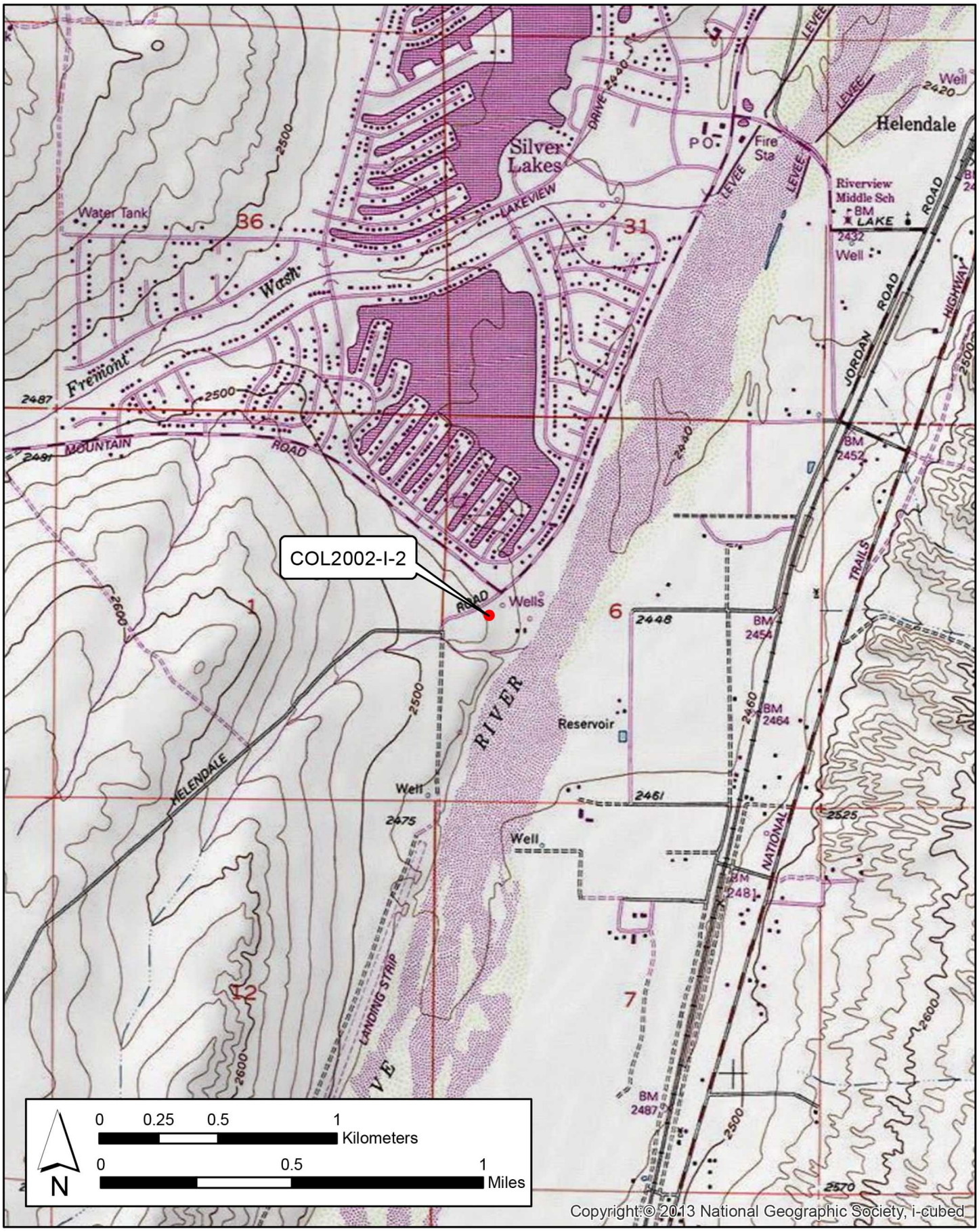
Primary #
HRI#
Trinomial



***Resource Name or#:** COL2002-I-2

***Map Name:** *Helendale, CA*

***Scale:** 1:24,000 ***Date of Map:** 1993



# APPENDIX B

# NATIVE AMERICAN HERITAGE COMMISSION SACRED LANDS FILE SEARCH

# NATIVE AMERICAN HERITAGE COMMISSION



**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

December 1, 2020

Joseph Orozco
BCR Consulting LLC

Via Email to: josephorozco513@gmail.com

**Re: Helendale Community Services District Well Field Project, San Bernardino County**

Dear Mr. Orozco:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded 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. I suggest you contact all of those indicated; if they cannot supply information, they might 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 me. 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: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
*Cultural Resources Analyst*

Attachment

**Native American Heritage Commission**
**Native American Contact List**
**San Bernardino County**
**12/1/2020**

***Kern Valley Indian Community***
Robert Robinson, Chairperson
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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 Helendale Community Services District Well Field Project, San Bernardino County.

***Twenty-Nine Palms Band of Mission Indians***
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***Twenty-Nine Palms Band of Mission Indians***
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# APPENDIX C

# PALEONTOLOGICAL RESOURCES ASSESSMENT

# WESTERN SCIENCE CENTER

BCR Consulting LLC
Joseph Orozco
505 West 8th Street
Claremont, CA 91711

December 1, 2020

Dear Mr. Orozco,

This letter presents the results of a record search conducted for the Helendale Community Services District Well Field Project in San Bernardino County, California. The project site is located east of the intersection of Shadow Mountain Road and Helendale Road in Township 7 North, Range 4 West in Section 6 of the Helendale CA USGS 7.5 minute quadrangle.

The geologic units underlying this project are mapped entirely as alluvial silt, sand and gravel or channel sand deposits dating from the Holocene period (Dibblee, 2008). While Holocene alluvial and sedimentary units are considered to be of high preservation value, material found is unlikely to be fossil material due to the relatively modern associated dates of the deposits. However, if development requires any substantial depth of disturbance, the likelihood of reaching Pleistocene alluvial sediments would increase. The Western Science Center does not have localities within the project area or within a 1 mile radius.

While the presence of any fossil material is unlikely, if excavation activity disturbs deeper sediment dating to the earliest parts of the Holocene or Late Pleistocene periods, the material would be scientifically significant. Excavation activity associated with the development of the project area is unlikely to be paleontologically sensitive, but caution during development should be observed.

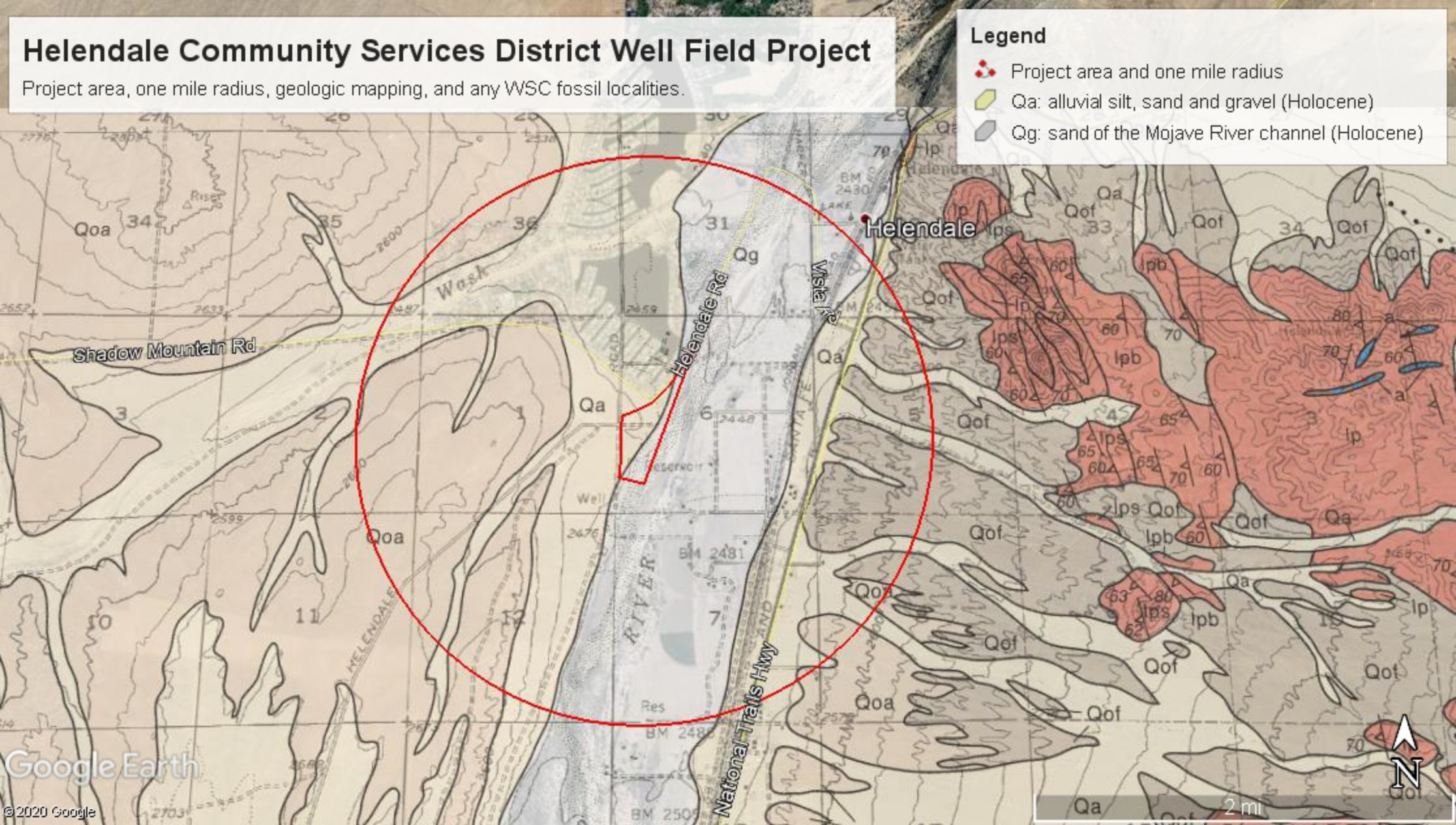
If you have any questions or would like further information, please feel free to contact me at dradford@westerncentermuseum.org

Sincerely,

Darla Radford
Collections Manager

# Helendale Community Services District Well Field Project

Project area, one mile radius, geologic mapping, and any WSC fossil localities.



# APPENDIX D

# PROJECT PHOTOGRAPHS


Photo 1: Project Overview (View South)


Photo 2: Project Overview (View NE)

Photo 3: Project Site Overview (View West)

Photo 4: Concrete Footings and Associated Well (View SE)

Exhibit 6.2.3 - Phase 1 Environmental Assessment dated September 10, 2020

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# PHASE 1 ENVIRONMENTAL ASSESSMENT

**43.08± (NET) ACRES AT 20675 HELENDALE ROAD**

**COMMUNITY OF HELENDALE, CA 92342**

**ASSESSOR'S PARCEL NUMBER: 0467-121-22 & 28-0000**

**REPORT #: 1 AND 2 OF 2 - FOR CLIENT**

**AT THE REQUEST OF CLIENT**

## Helendale CSD

**C/O DR. KIMBERLY COX, G.M.**
**16540 VISTA ROAD**
**HELENDALE, CA 92342**
**OFFICE: (760) 951-0006**
**KCOX@HELENDALECSD.ORG**

**PREPARED**



**REPORT PREPARATION DATE: SEPTEMBER 10, 2020**
**EFFECTIVE DATE OF REPORT: SEPTEMBER 10, 2020**
**EXPIRATION DATE OF REPORT: SEPTEMBER 10, 2021**

**DISTRIBUTION: TWO (2) ORIGINALS TO CLIENT**

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# 1.0 EXECUTIVE SUMMARY

The subject property (Site) consists of Vacant Land, Helendale Road and its logical extension on the west, Mojave River along the east, Daily Transit Mix, LLC and the "The California Desert Land Conservancy/Mojave Desert Land Trust (Older/Safari Ranch) on the south, as delineated by San Bernardino County Assessor Office records. The parcel(s) current owner is Carl E. Ross Living Trust 5 and consists of a total of 43.08± (net) acres [1,876,564 square feet) with existing road dedications on the west (legal and physical Helendale Road).APN 0467-121-22 & 28-0000. Numerous easements and a significant drainage course affect the Site. The Site is located in San Bernardino County and Unincorporated Community of Helendale and adjacent on the south of the Silver Lakes Community.

The Land Use and Development around the site includes the following:

| | Land Use and Development |
|---|---|
| **Subject** | **HELENDALE COMMUNITY SERVICES DISTRICT (proposed owner)** |
| **North** | Helendale Road, Fallow Agricultural Land, Silver Lakes Community |
| **South** | Native Vacant Desert and Mojave River |
| **East** | Mojave River |
| **West** | Helendale Road, Fallow Agricultural Land, Silver Lakes Community |

**Discussion:** The Site was visited September 10, 2020 and numerous previous site reviews for other consulting services for the existing property owners. The Site has never been known to be developed with previous historical operations (Agricultural, Commercial, Industrial or Mining uses).

**Final Conclusions, Recommendations and Opinions**

ALTEC's investigation has revealed no existing, new, or undocumented evidence of recognized environmental conditions or historical recognized environmental conditions associated with the Site, adjacent or nearby properties. This site and extended area along the Mojave River generally have a typical mix of historical (fallow) alfalfa ranches or vacant desert. The alfalfa ranches are almost all fallow along the Mojave River, at this time because the Water Rights were adjudicated in 1996 by the Mojave Water Agency Court Judgements and most Water Rights have been sold; some ranches have been converted to Photovoltaic facilities for State of California mandated "Alternative Energy" requirements.

| | |
|---|---|
| **Chain of Title:** | Was not completed because the Site is vacant land for the last 50 years and does not have any known historical or pre-existing uses |
| **Opinions:** | None |
| **Final Conclusion:** | No known or unusual specific issues of environmental concern related to the Site, or adjacent uses or other up-gradient regional operations. |
| **Recommendations:** | ALTEC recommends no further investigations for the Site at this time. |

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# 2.0 INTRODUCTION

## 2.1 Purpose

The purpose of this study was to assess the likelihood that potentially hazardous materials or wastes are present at or near or up-gradient from the subject property (the Site). For purposes of this report, the Site vicinity is defined as all property located within a 0.5-mile radius of the Site. Specifically, the movement of hazardous materials which are generally up-gradient from the south from underground water movement towards the north, its vadose zone or prevailing wind dispersion, all in the north-northeasterly direction paralleling the Mojave River.

## 2.2 Involved Parties

**Consultant:** Randolph J. Coleman has the following education, California licenses, and professional designations:

- 1980 - B.S. in Environmental & Civil Engineering from University of California, Irvine
- 1982 - Licensed Real Estate Broker #00836955 (NAR Designations: ALC, CCIM, CRB, CRS,GRI)
- 1983 - Registered Civil Engineer #36293
- 1984 - Licensed Land Surveyor #5413
- 1988 - Licensed Contractor – "A" and "B" General Engineering & Building (Not currently licensed)
- 1993 - American Institute of Certified Planners #080546
- 1994 - Registered Environmental Assessor #05791; program ended in 2013 (Cal-EPA-DTSC)
- 2007 - Certified Arborist WE#-8024A by the International Society of Arboriculture
- 2010 - Certified Wildlife Biologist #43090 by The Wildlife Society
- 2011 - Certified Environmental Planner by the American Planning Association
- 2011 - Qualified Stormwater Developer/Planner – QSD/P #21595 by CASQA
- 2012 - Scientific Collecting Permit #11586 by California Department of Fish and Wildlife
- 2014 - Tree Risk Assessment Qualified TRAQ-WE#-8024A by the International Society of Arboriculture

ALTEC provides general land planning, environmental consulting, Phase 1 Reports, CEQA Initial Studies, Assessments (Native Plants, Fuel Modification, Biological for endangered species issues and Clearance Letters). This is in addition to typical civil engineering, land surveying, project/construction management and legal entitlement and permitting services for Federally Funded water systems, approval and construction of numerous school sites through the Department of Toxic Substance Control (DTSC), Dept. of Education (CDE) and funded by State Allocation Board for local School Districts and San Bernardino County Superintendent of Schools (Special Educational).

| **Proposed Property Owner/Operator:** | **Existing Property Owner:** |
|---|---|
| Helendale Community Services District | Carl E. Ross Living Trust 5 |

## 2.3 The Scope of Work

- Site Inspection & Observation by a Registered Civil Engineer to observe and assess Site, adjacent properties, and vicinity characteristics of potential environmental concerns.
- Review of a regulatory agency database search and Site history/land use to identify potential uses that may have contributed to the presence of environmental concerns at the Site.
- Written Report for review by agents for the client (Proposed Property Owner and/or Attorney).

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# 3.0 GENERAL SITE CHARACTERISTICS

The following is a list of Figures that will depict the site:

| Figure | Purpose |
|---|---|
| **1** | Regional Map |
| **2** | USGS Maps - Current and Historical and soil information |
| **3** | Aerial Photographs - Current and Historical |
| **4** | Assessor's Map and Information<br>Aerial Photograph with Assessor's Map overlay<br>Ownership Information available from County Assessor's office |
| **5** | Site Photographs |

## 3.1 Location

The Site is located in the RS zoned area (Residential Single Family) within the legal jurisdictional entitlement and permitting control by County of San Bernardino. Helendale CSD provides water, sewer and park and recreational services and various contractual agreements with San Bernardino County (i.e. Sherriff, Fire, Trash). This Project Site occupies the entire Site and the site has no perimeter fencing.

The Site is also located from the following major arterial corridors.

| | Distance (Miles) | Major Arterial Corridors |
|---|---|---|
| **West** | 7± | Highway 395 [along Shadow Mountain Road (paved)] |
| **East** | 0.75 | Route 66/National Trails Highway |
| **East** | 8± | Interstate 15 and the Dale Evans Parkway on/off-ramp |
| **North** | 14± | Highway 58 |
| **South** | 15± | Highway 18 |

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# 3.0 GENERAL SITE CHARACTERISTICS - continued

## 3.2 Adjacent Properties and Property Uses

The subject property (Site) presently consists of two –(2) legal parcels and consists of a total of 43.08± (net) acres with existing road dedication for Helendale Road along a portion of the western boundary, as delineated on the Assessor's Map.

The Site is located in the RS zoned area within the legal jurisdictional control of San Bernardino County and located in the Unincorporated Community of Helendale. The entire Site is vacant.

Adjacent Properties and Land Use around the site includes the following:

| | Adjacent Properties and Property Uses |
|---|---|
| **Subject** | **HELENDALE COMMUNITY SERVICES DISTRICT (proposed owner)** |
| **North** | Helendale Road, Fallow Agricultural Land, Silver Lakes Community |
| **South** | Native Vacant Desert and Mojave River |
| **East** | Mojave River |
| **West** | Helendale Road, Fallow Agricultural Land, Silver Lakes Community |

# 4.0 ENVIRONMENTAL SETTING

## 4.1 Regional Physiographic and Geologic Conditions

The Site is located within the Mojave Desert Geomorphic Province, a large structural block of land bounded on the southwest by the San Andreas Fault; on the north and northwest by the Garlock fault, the Tehachapi Mountains and the Basin and Range Province; and on the southeast by the Colorado Desert. The Mojave Desert Province also extends eastward into Arizona and southern Nevada and southeastern corner of Utah. Much of the topographical relief of the Mojave Desert represents remnants of mountainous topography, now partially or wholly obscured by erosion and alluvial cover.

The greater Victor Valley area and specifically the Helendale community is in the southwestern portion of the Mojave Desert and drains into the Mojave River. For example, the Palmdale/Lancaster area is at the southwestern edge and drains into Rosamond Dry Lake and the City of Needles is essentially near the eastern edge of the Mojave Desert and drains into the Colorado River. This famous Basin and Range Province of the southwest United States and ultimately are part of the Death Valley drainage complex. In the contiguous U.S., Mount Whitney's summit is the highest at 14,505 feet and is 84.6 miles west-northwest of the lowest at Badwater in Death Valley National Park (-282 feet below sea level). Along with the Great Salt Lake in Utah and Pyramid Lake in Nevada, this Basin and Range Province spans 300,000± square miles and includes almost all of Nevada, western Utah, southeastern California, and portions of Arizona and northwestern Mexico.

The Tehachapi Mountains to the west further bifurcates the Mojave Desert from the Central Valley. Additionally, the Mojave Desert is comprised of numerous valleys and transmontane ranges or sky islands (i.e. New York Mountains, White Mountains, Sandia Mountains, San Francisco Peaks and the Telescope Peak in the Panamint Range to the west of Death Valley has an elevation of 11,050 feet) that create dramatic biological and geological diversity for plants, animals and mineral resources.

The Transverse Mountain Ranges (east-west orientation, being transverse to the north-south orientation of California coastal mountain and Sierra ranges) at Cajon Pass (Interstate 15) are divided with the San Gabriel Mountains to the west and the San Bernardino Mountains to the east. These two mountain ranges begin the western edge of the basin and range system and provide the source of the clear majority (5 major of 18+/- ice-age cycles) of ground water aquifers and current surface flooding during storm events for potential aquifer recharge as numerous creeks and the Mojave River drain off the northern side of these mountain ranges. These mountain ranges create the rain shadow effect on the Mojave Desert that reduces the amount of moisture from storms, and additionally the Mojave Desert is distinguish by the large alluvial fans into the greater Mojave from all mountain ranges.

The subject site is about 5 miles southerly of the Helendale Fault, and the famous San Andreas Fault that can create a significant earthquake is southerly about 30 miles, and issues of concern are below.

- **Liquefaction** is the loss of soil strength because of an increase in pore water pressure due to dynamic earthquake loading. Conditions for liquefaction to occur generally include relatively high water table (within 40 feet of the ground surface), low relative densities of the saturated soils, and a susceptibility of the soil to liquefy based on grain size. Research indicates the groundwater varies greatly depending upon localized conditions, being less than or greater than 40 feet, the soil sequence is predominantly in a relatively medium-dense state, hence the potential for on-site liquefaction is considered potentially significant along the eastern edges of the Site.

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# 4.0 ENVIRONMENTAL SETTINGS - continued

- **Landslides** are the downslope movement of geologic materials. The majority of the Site is relatively flat terrain where landslides do not occur; therefore, impacts are considered less than significant with respect to seismic-related (or other) landslide hazards. It is noted the eastern edge of the Site is the bluff area adjacent to the Mojave River.

**Riparian area** of the Mojave River is located adjacent to and to about 600 feet east of the Site.

**Native Mojave Desert Vegetation** remains on vacant parcels in the undisturbed areas, including Mojave Scrub with Creosote and other perennial bushes and annuals.

**Earthquake Fault Zone and Seismic Hazard Maps** per the California Alquist-Priolo, California Department of Conservation, USGS Fault Maps; identify the nearest faults approximately as shown.

Per the USGS Earthquake Hazards Program the nearest faults are delineated below. The probably of this fault releasing enough energy to cause significant-damage near the site is considered negligible.

| Fault | Location |
|---|---|
| **SITE** | Not located within a California Alquist-Priolo Fault Zone |
| San Andreas Fault | 30± miles southerly in the Cajon Pass area of Interstate 15 |
| Helendale Faults | 5± miles northeasterly |

**SUBSURFACE SETTING**

There were no subsurface exploration(s) on the Project Site. However, multiple Well Sites are located along the western edge and the east edge of the Site. Generally, the soil sequence consists of sandy loams to coarse grained gravelly sand with cobbles. This is consistent with what is to be expected based upon other studies that have been performed in the general area. The in-situ density results indicate that the subsurface soils at the site are generally medium-dense state.

The Groundwater Surface along the Mojave River is at or near the River ground surface (2,456± MSL) at the southwest corner of the Site. The Ground Surface of the Site is 2,472± MSL near the Southwest corner and MSL 2,461± MSL near the Northeast corner of the Site.

**Mojave River Note:** Groundwater depth varies greatly within the Mojave Desert depending upon exact location within some specific aquifer basins and exact well location due to above and below surface rock formations, high localized pumping rates, historical and current agricultural uses, active faults with dramatic differential from one side to the other; the faults essentially create a below surface damning affect or surface springs, such as locations along the Mojave River (Deep Creek, Upper and Lower Narrows, Oro Grande/Helendale area, Afton Canyon) and other scattered smaller spring locations (i.e. Old Woman Springs) scattered throughout the Mojave Desert region.

# 4.0 ENVIRONMENTAL SETTINGS - continued

Generally, the areal geology in local desert soils are described as sands, silts, and gravelly sands formed from "Alluvium Deposits" derived dominantly from granitic materials, soils unique to active drainage areas. This very deep and excessively drained soil is on alluvial fans from the nearby transmontane ranges within the boundaries of the Mojave Desert.

Generally, alluvial soils are typically subject to erosion by wind and storm waters when disturbed. These are soils with high to moderate potential for water erosion includes these soil types. Soil controls such as limited grading, creation of impermeable surfaces, establishment of windbreaks and other erosion control techniques are advisable to protect these fragile desert topsoil layers from both water and wind erosion.

- **Ground Water Conditions**

The community obtains its water supply from the underground aquifers along the Mojave River.

There are no known springs or perched groundwater conditions at the Site. Groundwater is of good quality with all drinking water standards met and water and wastewater services are provided by the Helendale CSD.

- **Seismically Related Flooding:**

Another seismically related hazard is earthquake induced flooding and includes tsunamis, seiches and reservoir failure. Due to the inland location of the site, hazards due to tsunamis are considered unlikely. The Mojave River is adjacent to the east.

**4.2 Annual Rainfall** 4± inches per year.

**4.3 Soil Conditions**

The Site has four –(4) native soil types consisting of a variety of Sandy Loams which are well-drainage (have high percolation rates). Generally, all these local desert soils described are sands and gravelly sands formed from alluvium derived dominantly from granitic materials, soils unique to active drainage areas. This very deep, somewhat excessively drained soil is on alluvial fans from the nearby San Bernardino and San Gabriel Mountain along with other transmontane ranges within the Mojave Desert.

Generally, alluvial soils are typically subject to erosion by wind and storm waters when disturbed. These are soils with high to moderate potential for water erosion includes these soil types. Soil controls such as limited grading, creation of impermeable surfaces, establishment of windbreaks and other erosion control techniques are advisable to protect these fragile desert topsoil layers from both water and wind erosion.

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# 4.0 ENVIRONMENTAL SETTING - continued

## 4.4 Ground Water Conditions

The community obtains its water supply from the underground aquifer and is within the Mojave Water Agency and the Adjudicated Water Rights, along with a large variety of related and supplement Laws and Regulations.

**NOTE:** Attempting to attain some type of written verification from Lahontan RWQCB, in the past, has taken approximately 90 days for non-typical gas station or similar sites.

**NOTE:** The Mojave Water Agency, which monitors water-rights ownership and use. In 1991, Riverside County Superior Court Case No. 211504 was an Original Judgment, which has been amended and expanded. The Water Supply has been supplemented with the nearby available water rights from the California State Water Project where the local agencies have a pipeline delivering water to the communities from the California Aqueduct turn-out in the Hesperia Community and traveling eastward under the authority and control of the Mojave Water Agency, the regional water agency. The Mojave Water Agency and the Water Master create yearly reports for the Court to review to indicate if the various groundwater basins within the Mojave Water Agency are in balance and other legal requirements.

There are no known springs or perched groundwater conditions at the Site, excluding the Mojave River riparian corridor. Groundwater is of good quality with all drinking water standards met.

**4.5 Depth to Groundwater** 0 - 75± feet estimate - Varies on the Site and greatly depending upon location of within the specific aquifer basin and exact well location due to above and below surface rock formations, numerous active faults in the general area and dramatic differential from one side to the other of the faults essentially create a below surface damning affect or surface springs, such as the Old Woman Springs and other scattered spring locations scattered throughout the Mojave Desert region.

Ground Elevation at about 2,481± feet MSL. (EDR Report)
per United States Geological Survey
Areal Geology: Alluvium Deposits.

**4.6 Certified Sanborn Maps** Provided no relevant or additional information

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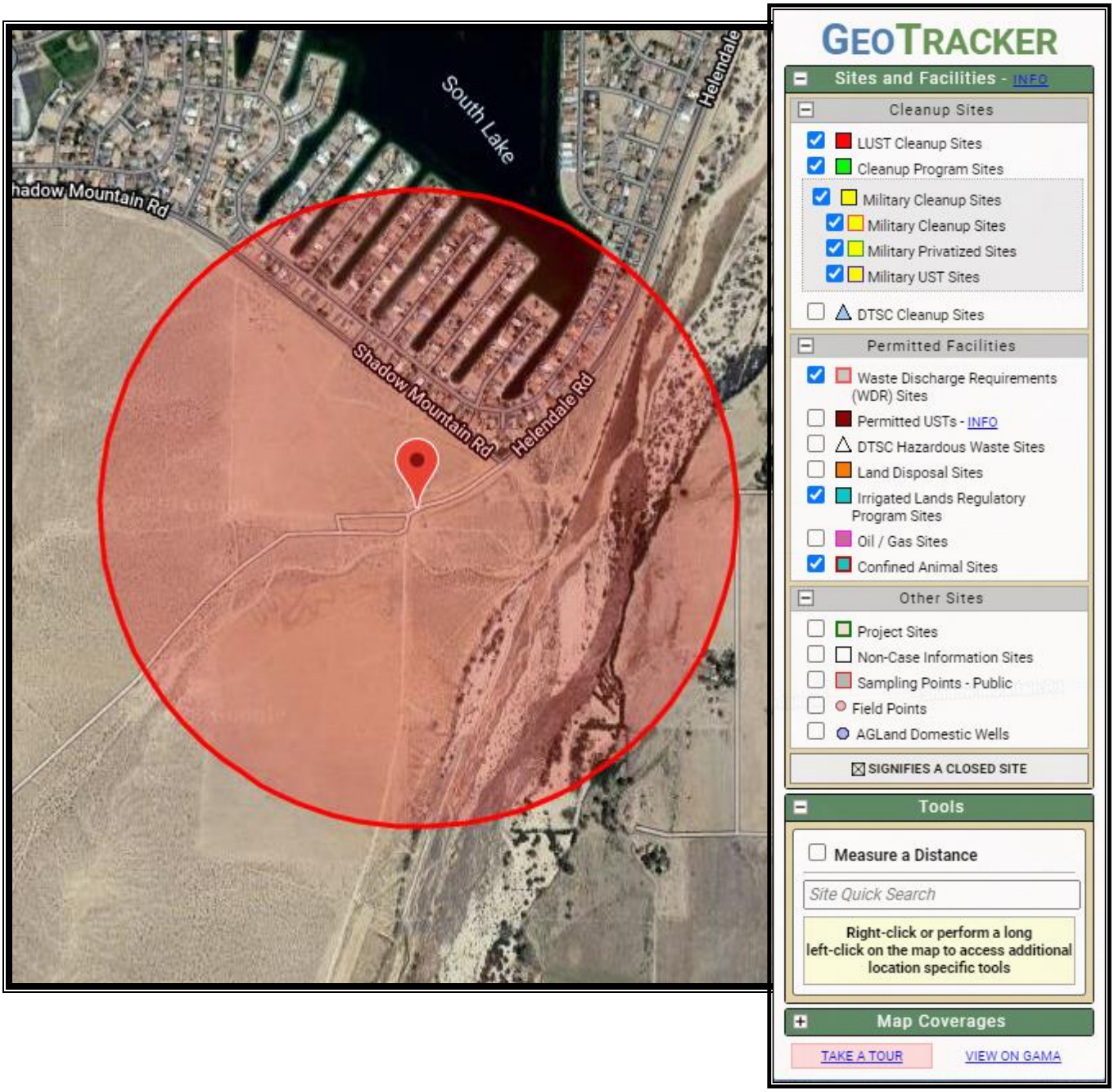
# 4.0 ENVIRONMENTAL SETTING - continued

**4.7 GeoTracker** system operated by the State Water Quality Control Board

(http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Landers%2C+CA#)

**Indicates no businesses or hazardous issues within 0.5 miles. Reviewing this Website provided no relevant or additional information not already within the EDR Report.**



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# 5.0 RESULTS OF INVESTIGATION

## 5.1 Site Inspection Observations

Specifically, on September 10, 2020, Randolph J. Coleman conducted a vehicular inspection of the Site, water wells and the school site that were in the EDR Report and nearby surrounding areas.

The Site remains native desert outside the numerous easements and access roads.

The historical USGS quad sheets and aerial photographs did not indicate other historical uses. I have personally been on the Older/Safari Ranch numerous times, both casually and performing various consulting services with the current and previous owner since the 1970's.

There are no apparent encroachments of existing improvements (see Photographs and Aerial Photograph).

During the vehicular inspection along perimeter and interior dirt roads and specifically along downstream gradient portions of the Site for specific observations of non-natural colored soils, soils without native forbs and other abnormal plant growth patterns, or invasive weed and plant growth indicating some type of shallow-surface soil contamination corresponding to an issue of potential concern was not found. Site photographs and historical aerial photographs are in Addenda.

No observations of current "Nuisance Water" (urban drool) from upstream development landscaping draining onto or near the Site. This is a typical occurrence downstream and subsequent to new development. Numerous utility easements were observed on and adjacent to the Site. Utilities for any specific proposed development would need to be verified independently. Current California drought issues will probably minimize these issues in future.

No 500 kV or smaller Transmission lines are located on the Site, but generally criss-cross the Mojave Desert. Thousands of new homes have been built in the greater Victor Valley area since the 1980's and many are adjacent and nearby these 500 kV lines in the Cities of Adelanto, Victorville and Hesperia with no specific impact to sales or valuations.

There are no site improvements on the site.

| **Subject** | **HELENDALE COMMUNITY SERVICES DISTRICT (proposed owner)** |
|---|---|
| **North** | Helendale Road, Fallow Agricultural Land, Silver Lakes Community |
| **South** | Native Vacant Desert and Mojave River |
| **East** | Mojave River |
| **West** | Helendale Road, Fallow Agricultural Land, Silver Lakes Community |

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# 5.0 RESULTS OF INVESTIGATION - continued

## 5.1 Site Inspection Observations – continued

| | Site Inspection Observations Summary: |
|---|---|
| **Present Activities** | **Vacant Desert** |
| **Past Activities** | The site is vacant desert with no perimeter fencing and has no historical agricultural, mining, commercial, or industrial activities known to be performed on the site. |
| **Asbestos** | No evidence of specific asbestos uses or activities existing on the site.<br>No "Asbestos Containing Materials" (ACM's) were observed.<br>No Transite Water Pipe observed. |
| **Underground Storage Tanks** | EDR Report does not indicate any historical above-ground or underground storage tanks. Additionally, there was no apparent historical leaking onto shallow surface soils observable during the vehicular inspection. |
| **Leaks and Spills** | No evidence of major leaks or spills observed during the inspection.<br>NOTE: The site has adequate natural on-site stormwater runoff that allows native desert annuals and invasive plant species of weeds (i.e. Bromus sp., Schismus, Saharan Mustard, Russian Thistle) to be growing within the down-gradient Site perimeter that would indicate adequate evidence of NO poisoned shallow sub-surface soils within the root zone and/or additional discolored surface soils. |
| **Agricultural** | No evidence of historical agricultural activities existing on the site. |
| **Mining** | No evidence of historical mining activities existing on the site. |
| **Residential** | No evidence of historical residential activities existing on the site. |
| **Commercial** | No evidence of historical commercial activities existing on the site. |
| **Industrial** | No evidence of historical industrial activities existing on the site. |
| **Gas Stations** | No evidence of historical Gas Station activities existing on the site. |
| **Summary** | No adverse environmental conditions observed during the Site inspection. |

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# 5.0 RESULTS OF INVESTIGATION - continued

## 5.2 Adjacent Site and Vicinity Observations

The site is 100% vacant with numerous easements and the general area has scattered development and vacant desert and fallow alfalfa field.

## 5.3 Results of Regulatory Agency List Review and File Research

Environmental Data Resources Inc. (ERD Report) to provide a report with a list of facilities within the vicinity currently under review, management, or notification by various regulatory agencies was ordered, reviewed, and made a part of this Phase 1 Assessment.

- The site is not "Geocoded" within the EDR Report.

**Leaking Underground Storage Tanks (LUST) list and Cortese list:** This is a list that compiles the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB) identified facilities that have had unauthorized releases from UST's and non-tank spills in the area.

A review of the list has revealed that there are **0** sites within approximately 0.5 miles of the target property.

**Historical Underground Storage Tanks (HIST UST):** This is a list of **Historical** underground storage tanks.

A review of the list has revealed that there are **0** sites within approximately 0.5 miles of the target property.

**Local Lists of Registered Storage Tanks:** CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board. A review of the CA FID UST list, as provided by EDR, has revealed the following:

A review of the list has revealed that there are **0** sites within approximately 0.5 miles of the target property.

**Clandestine Drug Labs (CDL):** This is a list of illegal drugs and/or laboratory equipment locations.

A review of the list has revealed that there are **0** sites within approximately 0.5 miles of the target property.

**State Environmental Evaluation and Planning System (SWEEPS UST):** This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the list has revealed that there are **0** sites within approximately 0.5 miles of the target property.

## 5.0 RESULTS OF INVESTIGATION - continued

**HIST CORTESE:** The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency. A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed the following:

A review of the list has revealed that there are **0** sites within approximately 0.5 miles of the target property.

**HAZNET:** Is a list of manifests from copies of Hazardous waste from Dept. of Toxic Substances Control (DTSC)

A review of the list has revealed that there are **0** sites within approximately 0.5 miles of the target property.

**The United States Environmental Protection Agency (EPA), National Priority List (NPL):** is a listing of hazardous waste generators that are, or proposed to be, EPA-enforced Superfund sites.

A review of the list has revealed that there are **0** sites within approximately 0.5 miles of the target property.

**Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS):** is a listing of facilities which represent environmental concerns from the discharge of hazardous materials by hazardous waste generators, treatment and storage facilities, and hazardous waste disposal facilities. The listing includes sites subject to investigation under the state superfund program and federal Comprehensive Environmental Response Compensation and Liability Act (CERCLA) programs.

A review of the list has revealed that there are **0** sites within approximately 0.5 miles of the target property.

**Resource Conservation and Recovery (RCRA):** is a list maintained by the EPA which identifies waste generators, treatment, and disposal facilities. The purpose of this listing is to summarize registration of Hazardous Waste Generators and does not imply that contamination has occurred on the property but does identify potential sources of contamination. No cases were identified on the RCRA within a 1/2-mile radius of the Site.

A review of the list has revealed that there are **0** sites within approximately 0.5 miles of the target property.

**Waste Discharge Systems (WDS):** This contains information on sites, which have been issued waste discharge requirements.

A review of the list has revealed that there are **0** sites within approximately 0.5 miles of the target property.

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# 5.0 RESULTS OF INVESTIGATION - continued

## 5.4 Site History/Land Use Review

Aerial and Site photographs of the Site and vicinity reviewed in order to ascertain historical land uses that may have been responsible for the generation or storage of potentially hazardous materials. Photographs are in the Addenda.

| Photo Date | Site Description |
|---|---|
| **1953 thru 2016** | South Parcel is Vacant Desert. |
| **1953 thru 1968** | North Parcel is part of original Alfalfa Ranch prior to development of the Silver Lakes Master Planned Community. |
| **1973 thru 2016** | North Parcel is vacant an adjacent to the Silver Lakes Community |

## 5.5 Synopsis of Previous Environmental or other Investigations

No known previous environmental assessments for this site, however I have personally reviewed nearby sites, both up-gradient and down-gradient, for various purposes (i.e. CEQA Initial Studies, Phase 1 Environmental Assessments, Real Estate Brokerage, Construction Management and Inspections, Appraisals, Biological Baseline and Native Plant Assessments and various Letter Clearances) since the 1981 and Civil Engineering, Land Surveying since 1976.

## 5.6 Suspect Native Minerals (Serpentine Rock – i.e. Asbestos or Tremolite)

No suspect serpentine rock formation at, near or upstream gradient from the Site.

## 5.7 Suspect Asbestos Containing Materials Observations

The Site currently is a remnant portion of the Older/Safari Ranch (Vacant Desert with numerous easement) and is proposed for purchase by the HELENDALE COMMUNITY SERVICES DISTRICT for a Water Well Field for long term planning purposes. The Site has no known historical mining, agricultural or commercial/industrial operations. There was no observable asbestos containing materials (ACM's) from building materials and no observable materials (i.e. Transite Pipe) were on the Site.

## 5.8 Railroad Corridors and Alignments (Existing or Historical)

No railroad corridor or alignments are adjacent to the Site presently, in the past or proposed. The railroad corridor is on the east side of the Mojave River.

# 5.0 RESULTS OF INVESTIGATION - continued

## 5.9 District Attorney, FBI, and other potential Governmental Investigations

Coleman has been previously contacted by the FBI, Resolution Trust Corporation (1989-1997 era), Federal Deposit Insurance Corporation (FDIC 2004-2007 era), San Bernardino Sheriff's, San Bernardino County Fire Department and District Attorney's office relating to the following:

- Hazardous Material issues
- FDIC Loan issues
- Review of Sites with probable arson fires
- Appraisal Fraud issues
- Real Estate Fraud incidents
- Stolen Property

Coleman has provided Expert Witness services in San Bernardino County Superior Court regarding real estate issues in the Victor Valley numerous times and U.S. Federal Bankruptcy Court, as follows:

- Civil Engineering
- Environmental Engineering
- Real Estate Brokerage issues
- Real Estate Appraisals
- Land Surveying
- Easements and potential associated Rights-of-Way and related purposes
- Southern California Association of Governments (SCAG) Regional Transportation Plans and Planning and associated Rights-of-Way purposes for the proposed E-220 alignment.
- Jurisdictional Approvals and various Planning issues and requirements for proposed projects

No public information is available because these investigations are confidential until these agencies (i.e. FBI, District Attorney, or the Criminal Investigation Division [CID] of FDIC and IRS) starts legal action, which then makes this information public. Generally, this site is not within an industrial zoned area or industrial park and has no characteristics that would indicate an additional potential or negatively affected by hazardous conditions from nearby sites or upstream gradient contamination.

Industrial Parks and industrial users, commercial corridors and other commercial, medical, and general office uses do contain, and subject to rapid change, a variety of businesses, which operate with a variety of hazardous and biological hazardous materials. Ongoing investigations by the following:

- Federal, State and City agencies
- San Bernardino County
  - Special Districts
  - Code Enforcement
  - Fire Department
  - District Attorney
- California Water Quality Control Board - Lahontan Region
- Mojave Desert Air Quality Management District
- Local and regional governmental organizations are not public information until charges are filed.

In conclusion, the parameters of these non-typical hazardous material incidents have little probability of occurrence at this site and at this time. However, new industrially oriented development can change this potential issue and no consideration will be given to this potential situation.

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# 6.0 CONCLUSIONS AND RECOMMENDATIONS

The Site is vacant desert with numerous easements. The Site has no known prior historical mining, agricultural or commercial/industrial operations. There are no additional issues of environmental concern related to the site or up-gradient adjacent or regional uses or operations. The following is a summary of the conclusions:

| Elements of Concern | No Apparent Concern | Potential Concern |
|---|---|---|
| **Site and Land Use Issues** | | |
| Agricultural Uses<br>Herbicides (nearby wells regularly tested)<br>Pesticides (nearby wells regularly tested) | <br>X<br>X | NO because of the general testing completed by the local Water Purveyor, Mojave Water Agency, USGS and others |
| Air Emissions | X | |
| Asbestos | X | No materials testing completed |
| Mining Activities | X | |
| District Attorney Investigations | X | |
| GeoTracker GIS program by SWQCB | X | None -See in Addenda |
| Native Minerals (Serpentine Rock) | X | |
| PCB's (in old transformers, fluorescent ballasts) | X | |
| Radon | X | |
| Regional Land Use Problems | X | |
| Regulatory Actions | X | Appear to be in Compliance |
| Adjacent Site and Land Issues | X | |
| Solid Waste or Hazardous Waste Issues<br>Generation<br>Storage<br>Other | <br>X<br>X<br>X | |
| Storage Tanks<br>Above-Ground<br>Below-Ground (historical)<br>Drums [55 Gal. or other containers] | <br>X<br>X<br>X | Appear to be in Compliance |
| Wastewater Issues (nearby wells tested) | X | |
| Water Supply Issues (wells regularly tested) | X | |

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## 6.0 CONCLUSIONS AND RECOMMENDATIONS - continued

The Site currently is a remnant portion of the Older/Safari Ranch (Vacant Desert with numerous easement) and is proposed for purchase by the HELENDALE COMMUNITY SERVICES DISTRICT for a Water Well Field for long term planning purposes. The Site has no known historical mining, agricultural or commercial/industrial operations. There are no observable issues of environmental concern related to the site, adjacent or regional operations. There are still adjacent and nearby areas that are essentially native desert (to the south and west)and the Mojave River to the east.

The neighborhood has typical numbers of government documentation for the variety of uses near the Site and these uses are relatively newer indicating a robust ongoing review and analysis of the general area. No significant issues found during the records research process and the use of historical underground storage tank(s) [UST's] for fuel was common in this area and these UST's have been systematically removed. If leaking had occurred, it would have shown up during the regular well and water testing activities of the area.

No other known issues of environmental concern related to the Site, or adjacent uses or other regional site operations. While there are no observed issues of concern appearing at this time, Site and vicinity conditions may change over time. In the future, on-site and off-site sources of environmental concern may impact the Site. It is our opinion that there is very-little chance of such impact at this time and foreseeable future.

Due to changing conditions and expansion of the operations on the Site or immediately adjacent site to that are up-gradient, the following recommendations for any future storage tanks may be applicable.

To alleviate any potential hazardous material release from any storage tanks or other potentially hazardous products should require storage tanks and systems with the following attributes and subsequent state-of-the-art systems to safeguard against potential soil and groundwater contamination occurring from the following:

| | Attributes of System | Attributes of Safeguards |
|---|---|---|
| Tanks | Above Ground Tanks and being a Double Walled design | Leaking Storage Tanks is visible |
| Piping System | Doubled Walled design Piping Distribution Systems | Leaking Piping Distribution Systems will be indicated by the Annulus Leak Detector |
| Leak Detection | Annulus Leak Detector System (Monitoring System) | Leaking Piping System connecting to Tanks and Dispensers |
| Refilling | Fuel Tank Supply (Refilling) Containment Boxes. | Spilling occurring from refilling of Storage Tanks. |
| Dispenser | Dispenser Containment Boxes, if applicable. | Spilling occurring from dispensers, if applicable. |

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# 7.0 LIMITATIONS

The conclusions and recommendations presented above are based upon the scope of work outlined in the above report. Consultant makes no warranties or guarantees as to the accuracy or completeness of information obtained from, or compiled by others, which is specifically numerous governmental (Federal, State, Regional, County and Local jurisdictions) agencies. It is possible that information exists beyond the scope of this investigation.

> **Note:** Significant geological activity (numerous large and small earthquake faults) has created the Mojave Desert Bioregion and this geological activity will continue to shape the desert surface and surrounding mountain ranges. These tremendous weather changes in the Mojave Desert Bioregion have occurred numerous times during the last (5 major) 20± ice-age events with enormous variations in rainfall, temperature, water usage and variations in the animal and plant life. This geological activity has created extremely rich mining activity throughout the Mojave Desert and some of these minerals are very-important for military and high-technology equipment (Lanthanides) or hazardous, even in their native state (i.e. Asbestos, Tremolite, Fluorides, Chromium -3 & 6).
>
> "Anthropogenic" Global Climate Change issues will continue to shape public policy.

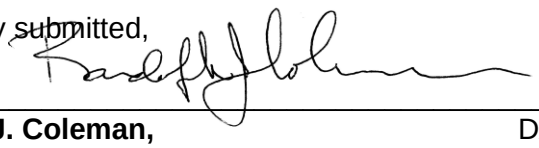
Additionally, economic, local, county, regional, state, and federal political policy, and other factors change regularly creating additional challenges and issues of concern in the future, which are unknown at this time. Additional information not found or available to the Consultant, at the time of Report writing, may result in a modification of the conclusions and recommendations presented.

This report is not a legal opinion and is intended for exclusive use by the CLIENT AND LENDER ONLY. The report must have a wet signature and stamp in original ink, non-copied, to be an authorized copy of this report. If this is not a signed original, this copy is unauthorized. Current testing requirement thresholds and the creation of new testing threshold requirements and standards are probable for the foreseeable future (i.e. relatively recent new Chromium thresholds and lower arsenic thresholds).

Please review the complete Phase 1 Environmental Site Assessment in its entirety to better understand the conclusions presented. ALTEC appreciates the opportunity to furnish this Assessment.

Please do not hesitate to contact us if you have any questions or request additional services.

Respectfully submitted,



ORIGINAL SIGNATURE, STAMP & PDF
CREATED ON SEPTEMBER 11, 2020

**Randolph J. Coleman,** DATE
Licensed Real Estate Broker #836955 (1982) Expires 10/28/2023
Registered Civil Engineer #36293, (1983) Expires 06-30-2022
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# 8.0 REFERENCES

EDR, Inc. – Report ID located in the Addenda

Community of Helendale: Misc. Information:

Title Report: Provided
No 50-Year Title Search was completed
Property has been owned by Carl Ross and previously by Mr. & Mrs. Robert Older for over the previous 50 years. I have been on portions of this Ranch many times in the last 40 years and completed a variety of Consulting services during these previous times.

Bulletin 84 – Mojave River Ground Water Basins Investigation, approved August 1967
State of California – Department of Water Resources

United States Department of the Interior Geological Survey, 7.5-Minute Series (Topographic),

Geologic Map of San Bernardino County, showing Mines and Mineral Deposits,
California Division of Mine and Geology, Published 1981

Information from Department of Toxic Substance Control

Preliminary Endangerment Assessment – Guidance Manual, January 1994
Interim Guidance for Sampling Agricultural Soils on June 28, 2000
Fact Sheet #2 on February 2001
Phase 1 Advisory on March 1, 2001

SFPD MEMO 01-01 on February 28, 2001
California Department of Education

San Bernardino Count Development Code

San Bernardino County Land Use Designation (Zoning) Map

San Bernardino County Fire Department • Hazardous Materials Division
620 South 'E' Streets
San Bernardino, CA 92415-0153
(909) 386-8401 FAX (909) 386-8460
REQUEST FOR RECORDS RESEARCH (4+/- week Timeframe at a minimum or not at all based upon previous experiences) NOT REQUESTED BECAUSE THIS SITE IS VACANT DESERT.

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# CERTIFICATION:

I, RANDOLPH J. COLEMAN, the Consultant certifies and agrees that:

The purpose of this Assessment is for a potential purchase by Helendale CSD for the development of a “Well Field”.

Randolph J. Coleman is providing professional consulting services as a California Licensed Civil Engineer (PE-Civil #36293) and has personally inspected the property by vehicle only, and has made an exterior visual inspection, if applicable, of all nearby or adjacent properties listed in the report and the analysis, opinions and conclusions developed.

- 3 SITES: 2 nearby Well Sites and the Local School (See pictures) were the only Sites.

Randolph J. Coleman certifies the assignment was not based on a requested conclusion; or the approval of a loan; a specific valuation, or contingent upon any other conclusion for the subject property.

Randolph J. Coleman certifies he is the “Sole-Owner” of ALTEC LAND PLANING.

Neither current nor future employment is applicable to complete this Phase 1 Environmental Assessment. No compensation for this assessment were for other professional services (i.e. active California Real Estate Broker (#00836955 since 1982 with a variety of professional designations: ALC, CCIM, CRB, CRS, GRI), American Planning Association professional AICP CEP Land Planner, California Licenses: Land Surveyor #5413, Qualified Stormwater Developer/Planner #21595, or as a Certified Wildlife Biologist #43090 by The Wildlife Society or Certified Arborist/Tree Risk Assessment Qualified by the International Arborist Society WE#8024A.

Randolph J. Coleman certifies this Assessment is not based in whole or in part upon the race, color, or national origin of the prospective occupants or owners of the properties or vicinity of the subject property.

To the best of Randolph J. Coleman's knowledge and belief, all statements and information in this Assessment are true and correct, and no information was knowingly withheld.

Randolph J. Coleman certifies the Assessment sets forth all contingent and limiting conditions, premises, assumptions, exclusions (imposed by the terms of the assignment or by the undersigned) and those conditions affecting analyses, opinions, and conclusions contained in the Assessment.

All analysis, conclusions and opinions concerning the real estate that are set forth in the Phase 1 Environmental Assessment were prepared by Randolph J. Coleman, the Consultant, whose signature appears on the Phase 1 Environmental Assessment.

No one provided significant professional assistance in the preparation of this report.

If a "Review Consultant" also has signed this Phase 1 Environmental Assessment Report, the reviewer's certification and narrative would clarify any modifications.

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## CERTIFICATION - continued:

I, RANDOLPH J. COLEMAN, the Consultant certifies and agrees that:

I have provided a large variety of Consulting Services [Real Estate Brokerage Services - Acquisitions, Dispositions, Appraisals & Valuations, Site Selection, Leasing and Sales; Environmental Services – Phase 1's, Hazardous Materials; Biological Services – ESA Surveys, Baseline Assessments and associated Mitigation, Recommendations, Monitoring and Mapping; Master and Land Planning with Legal Entitlements, Plan Processing and Permitting; Soils, Structural and Civil Engineering and Land Surveying; Construction/Project Management] for personal investments, developers, churches, schools and governmental agencies (i.e. Cities, Special and School Districts) and other professional consultants and banks/lenders since 1980. This has included specifically both the existing and proposed owner of the subject property and in general terms included nearby properties in the general area. It has included all local Cities, Redevelopment Agencies, local school districts and most special districts in the Victor Valley and greater Mojave Desert area of Southern California (i.e. various projects in San Bernardino and Riverside Counties).

This Phase 1 Environmental Assessment is certified to:

**HELENDALE COMMUNITY SERVICE DISTRICT**
**C/O DR. KIMBERLY COX, GENERAL MANAGER**

The undersigned has the appropriate knowledge and experience required to complete this assignment competently. Any lack of knowledge or experience is disclosed within this Phase 1 Environmental Assessment.

Respectfully submitted,

ORIGINAL SIGNATURES, STAMP & PDF
CREATED ON SEPTEMBER 11, 2020

SEPTEMBER 11, 2020

**Randolph J. Coleman,** DATE

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# ADDENDA

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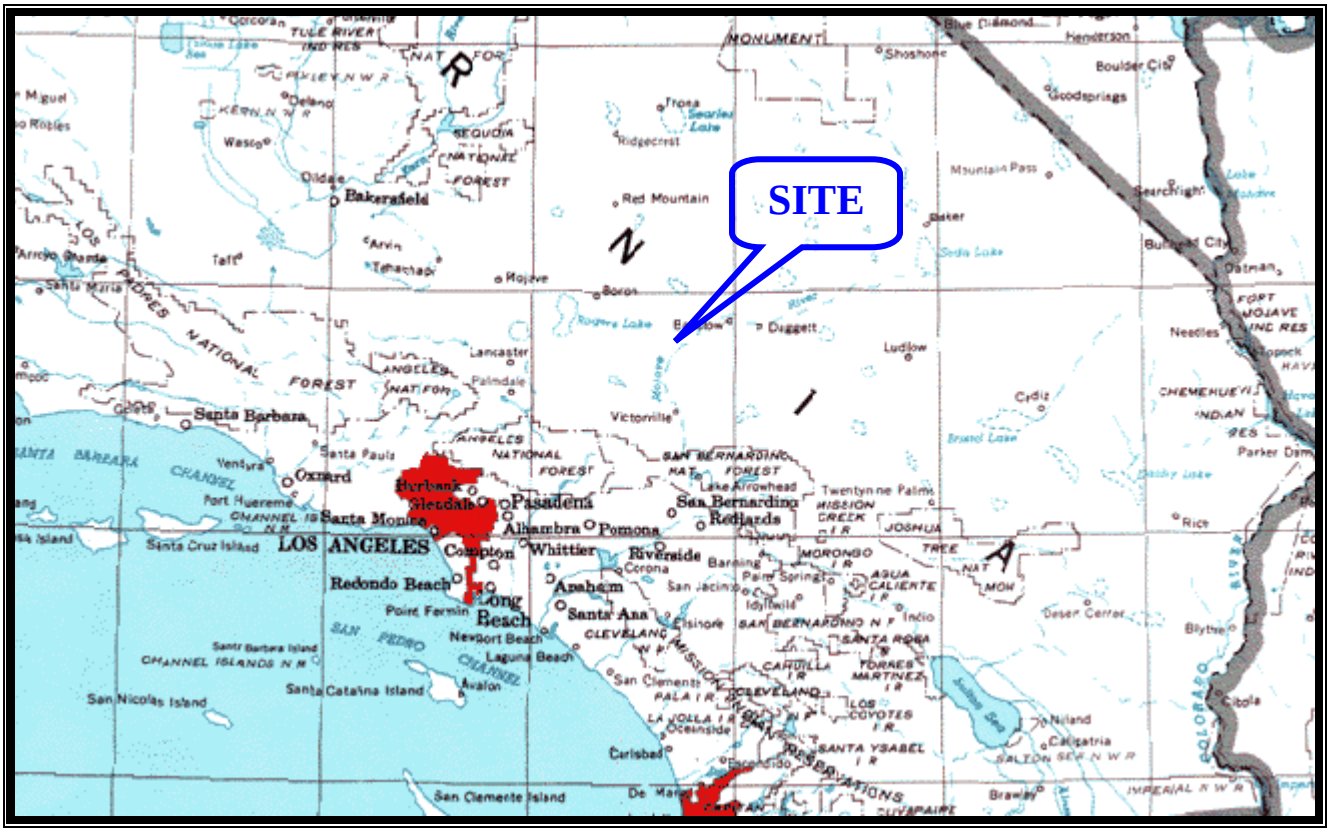
# FIGURE 1 - REGIONAL LOCATION MAP OF SOUTHERN CALIFORNIA



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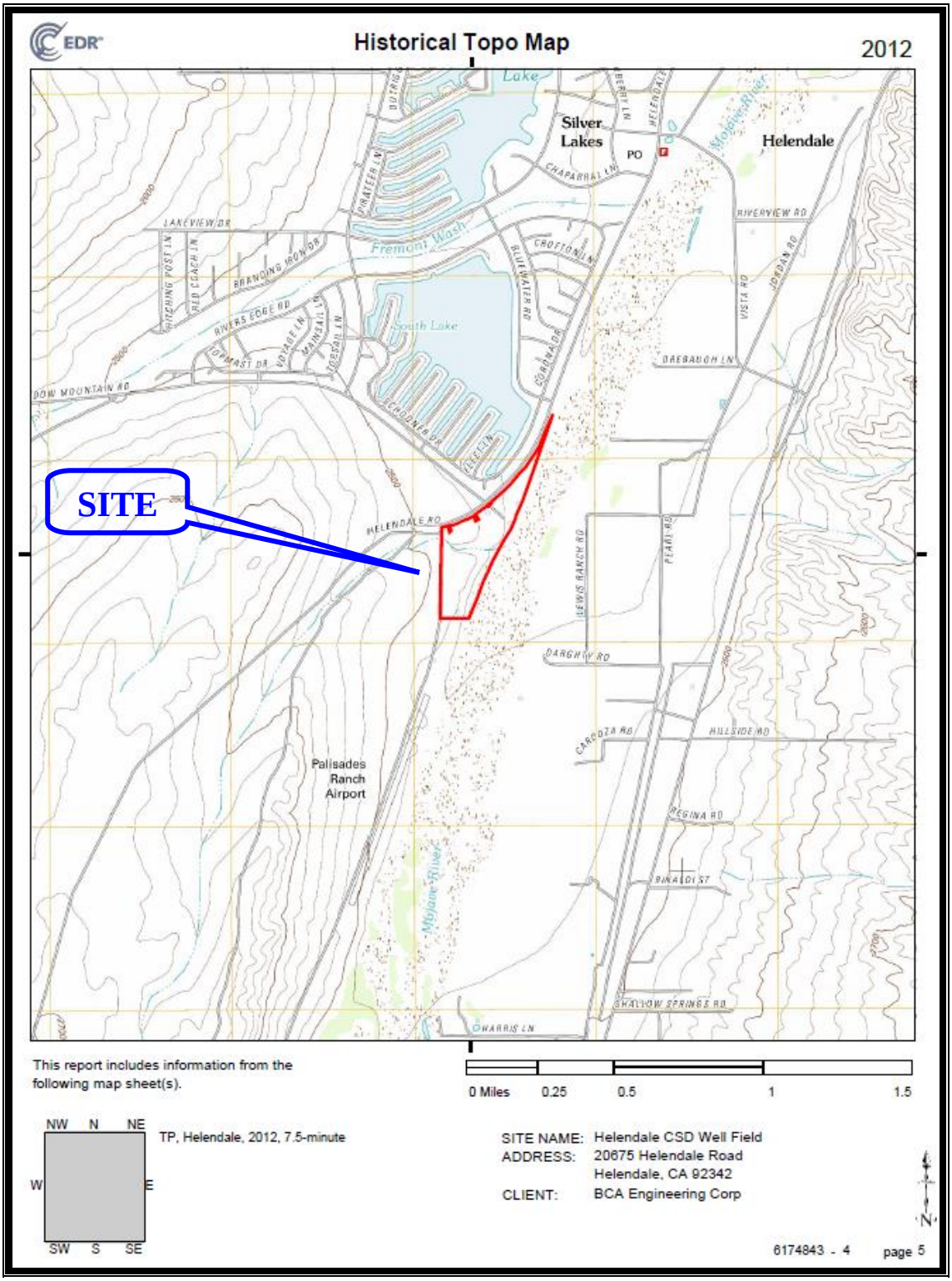
# FIGURE 2- 2012 USGS QUADRANGLE MAP



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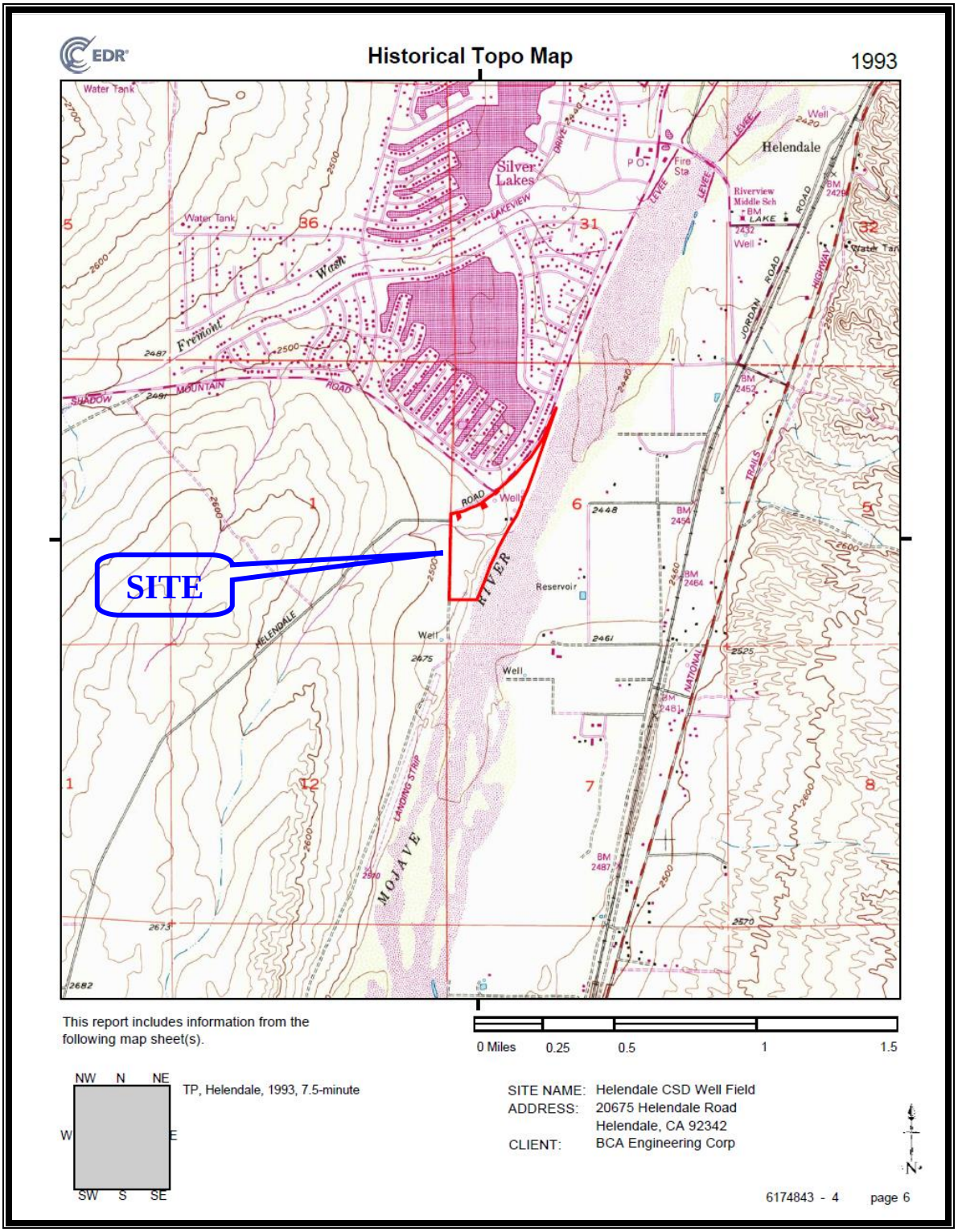
# FIGURE 2- 1993 USGS QUADRANGLE MAP



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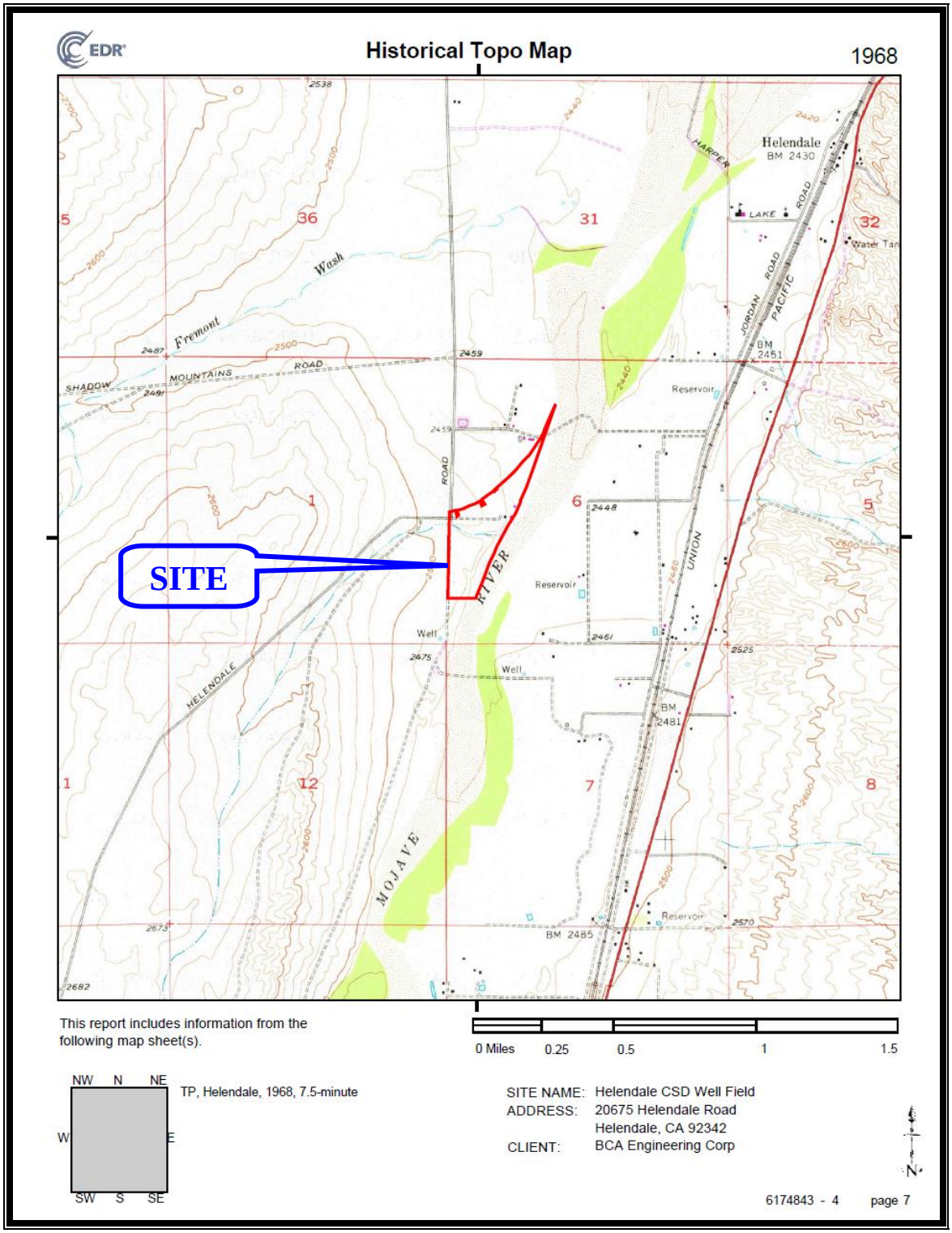
# FIGURE 2- 1968 USGS QUADRANGLE MAP



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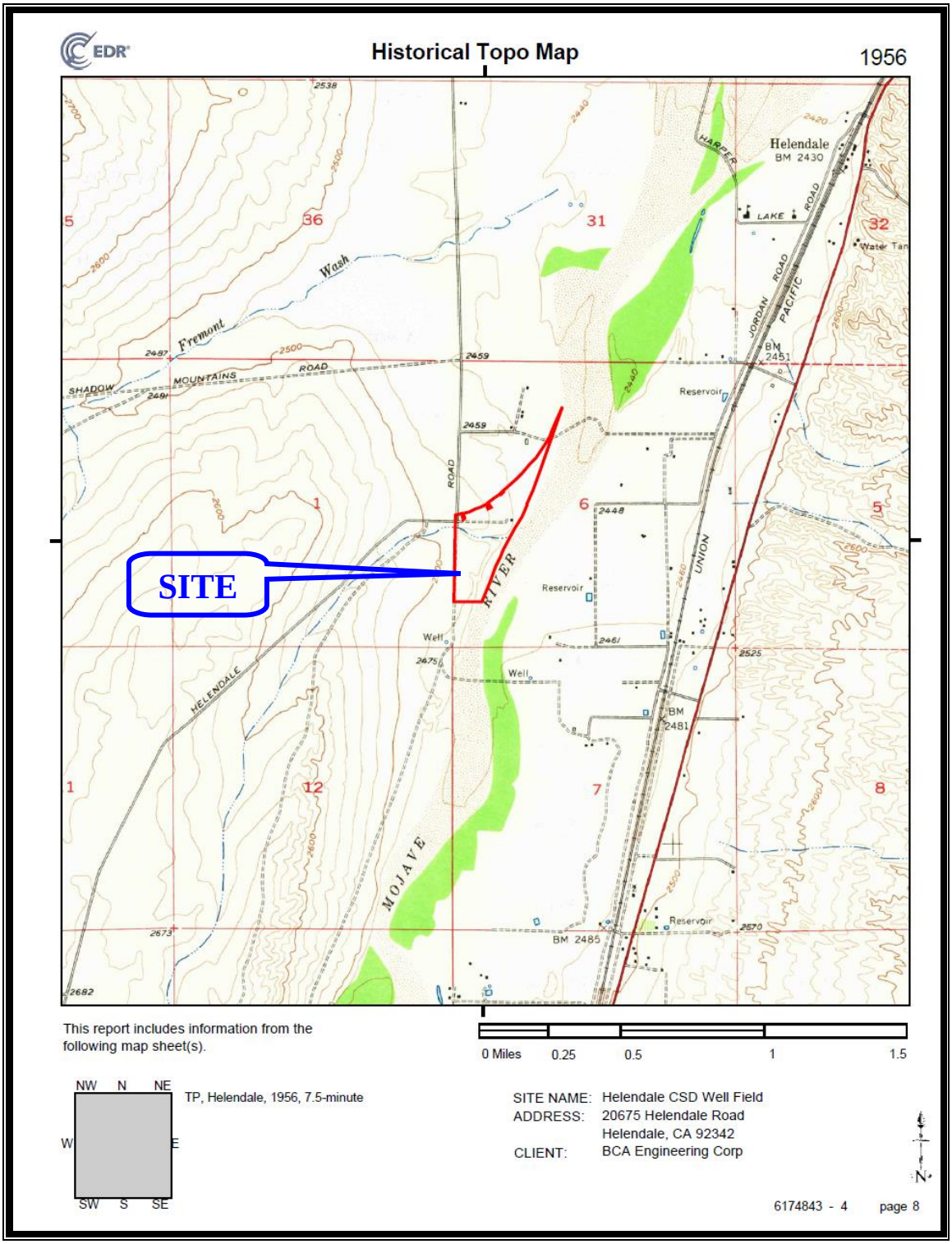
# FIGURE 2- 1956 USGS QUADRANGLE MAP



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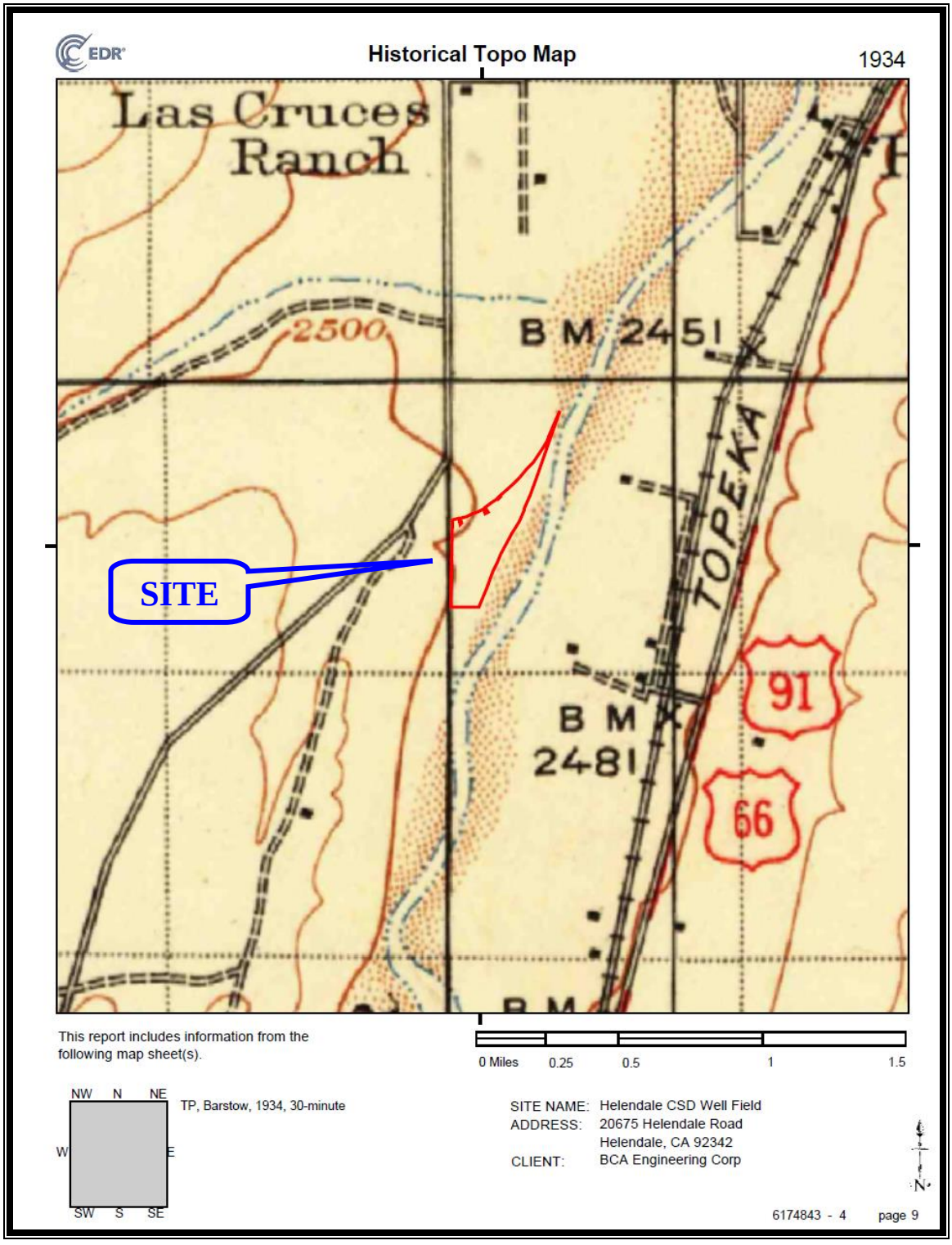
## FIGURE 2- 1934 USGS QUADRANGLE MAP



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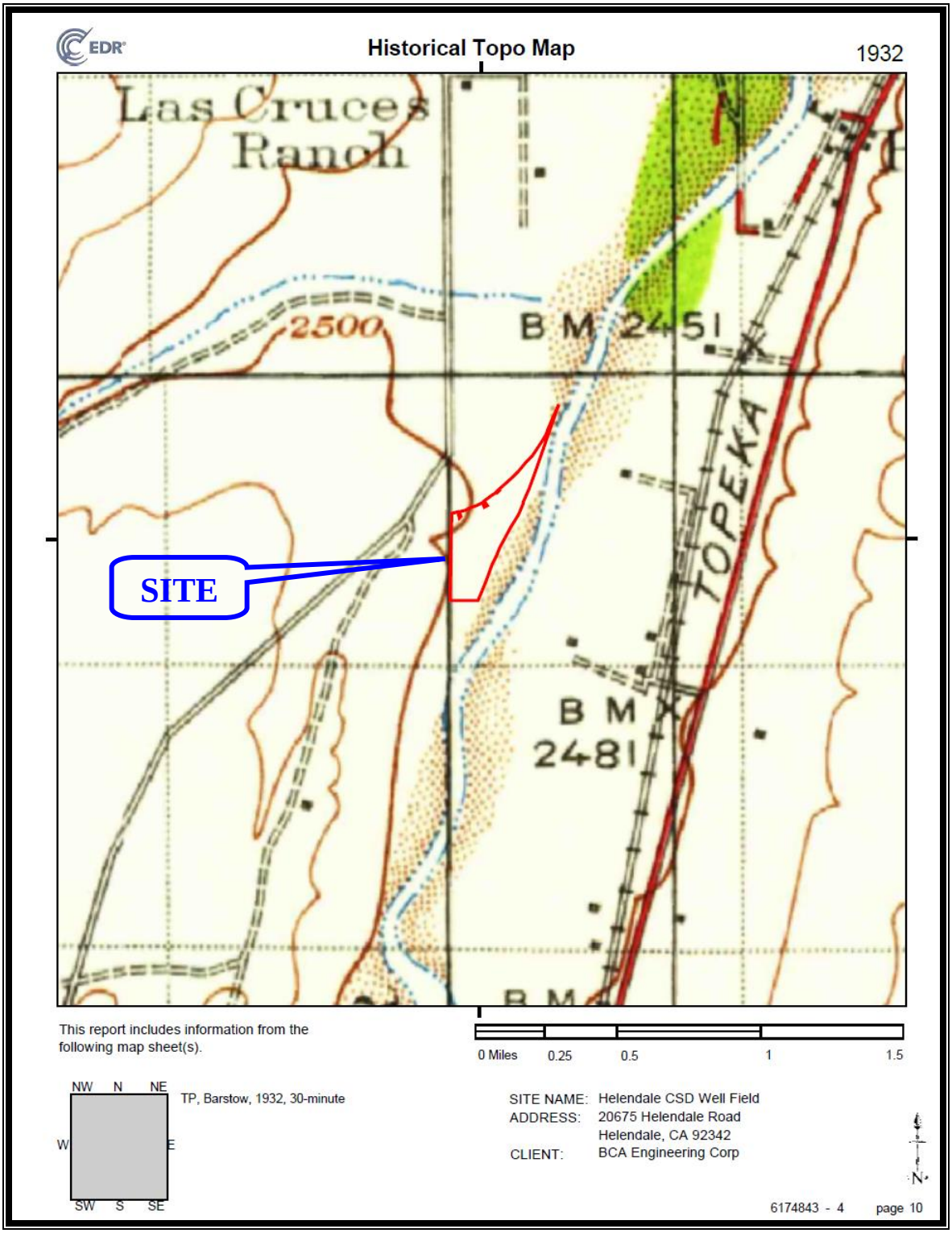
# FIGURE 2- 1932 USGS QUADRANGLE MAP



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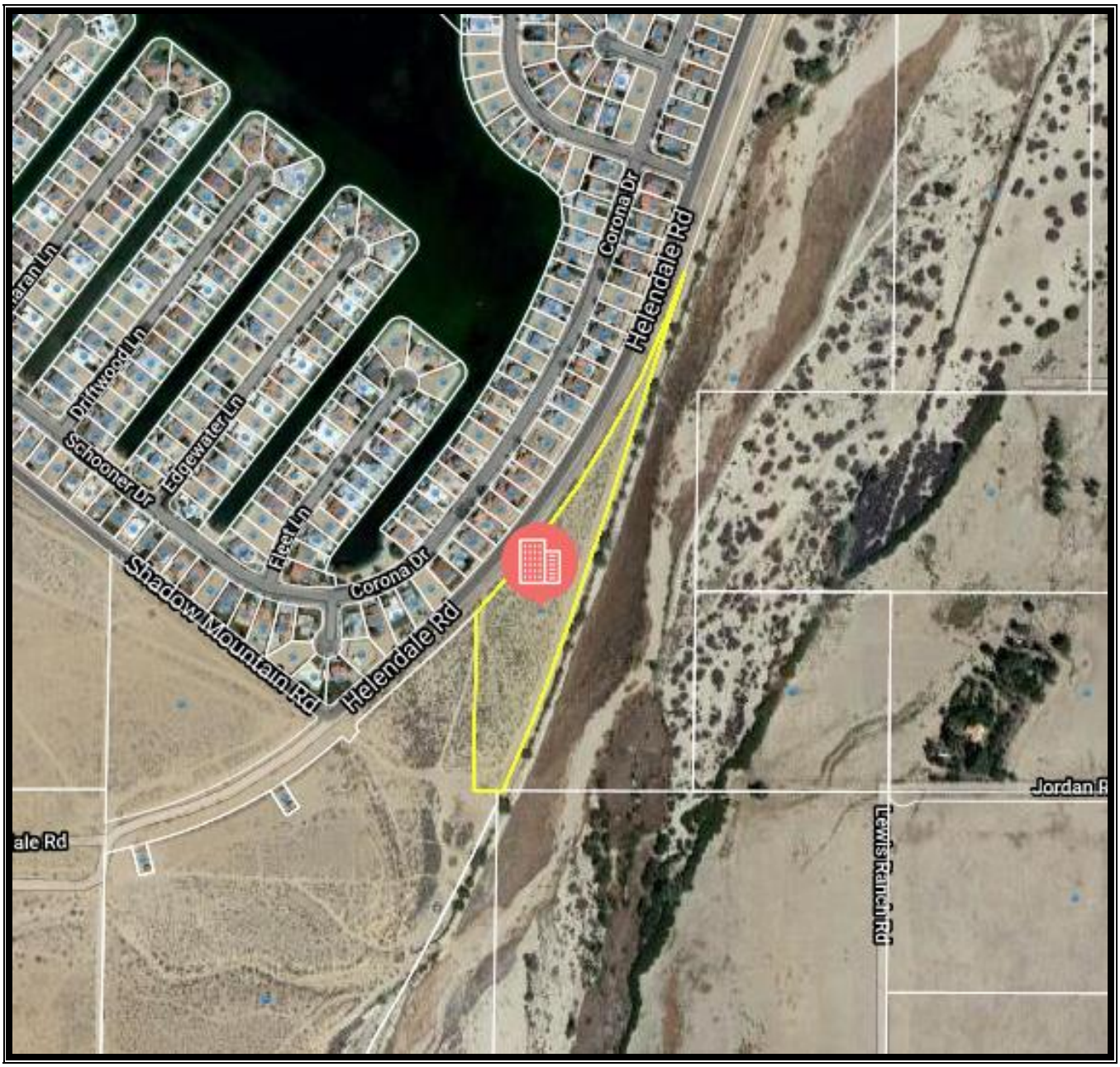
# FIGURE 3- FIRST AMERICAN TITLE AERIAL



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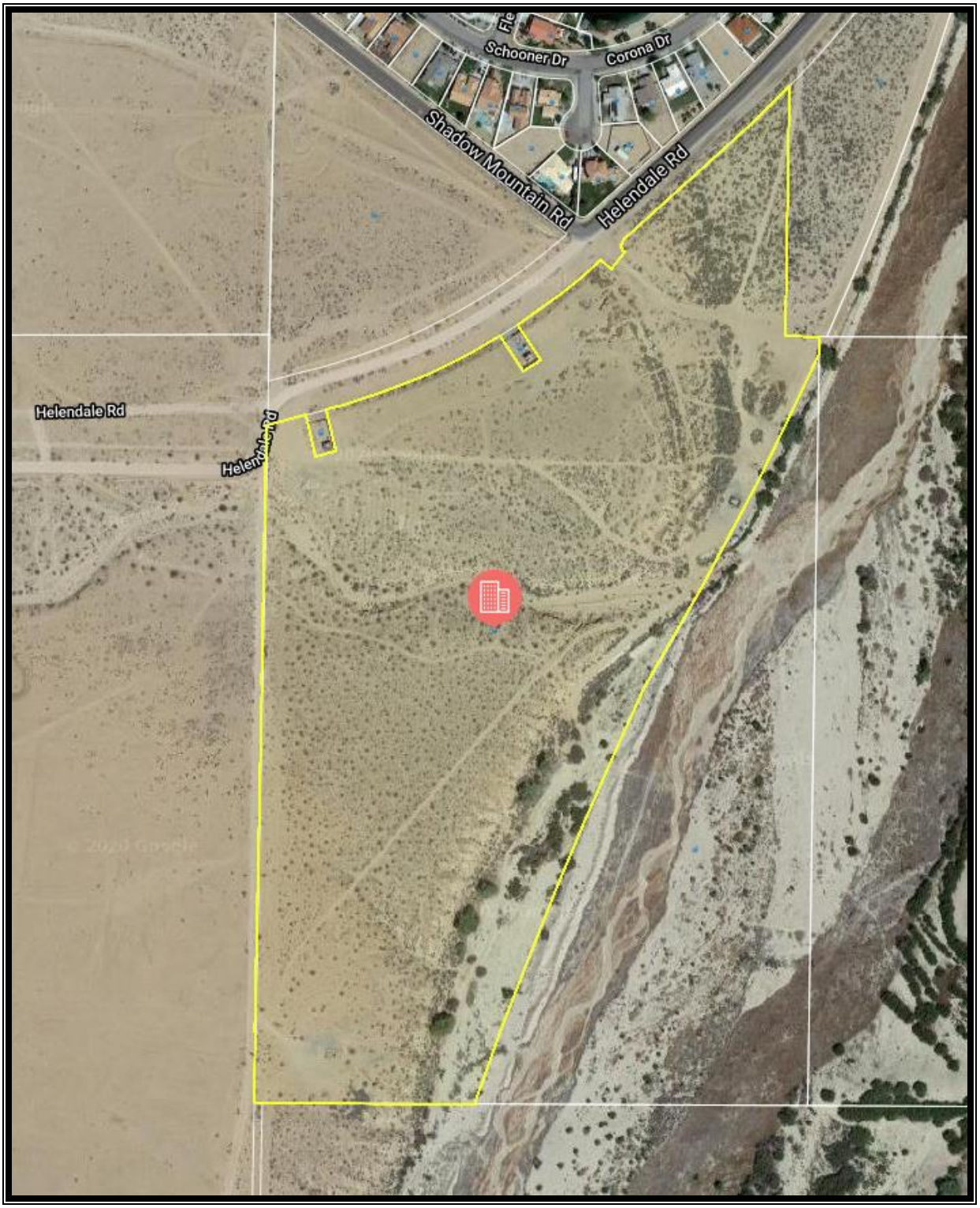
# FIGURE 3- FIRST AMERICAN TITLE AERIAL



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# FIGURE 3- USGS AERIAL WITH SOILS OVERLAY

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# FIGURE 3- USGS AERIAL WITH SOILS OVERLAY

## 117 – CAJON LOAMY SANDS, 0-2% SLOPES – MAJORITY OF SITE

### Map Unit Composition

Map units consist of 1 or more soil types, commonly referred to as "components".

| Component Name | Geomorphic Position | Area Fraction | Component Type |
|---|---|---|---|
| Soil Type 1 Cajon | alluvial fans / Backslope | 85% | Major Soil Type |
| Soil Type 2 **Cajon** | | 8% | Inclusion |
| Soil Type 3 **Halloran** | | 5% | Inclusion |
| Soil Type 4 **Torrifluvents** | playas | 2% | Inclusion |

*Note: links to horizon data marked with an * are approximate.*

### Map Unit Data *What is a Map Unit?*

Cartographic information about this map unit.

| | |
|---|---|
| **Map Unit Name:** | CAJON LOAMY SAND, LOAMY SUBSTRATUM, 0 TO 2 PERCENT SLOPES |
| **Map Unit Type:** | Consociation |
| **Map Unit Symbol:** | 117 |
| **Map Unit Area:** | acres (28800ac. total in survey area) |

Raw Map Unit Data
Raw Component Data (All Components)

### Map Unit Aggregated Data

Generalized soils information within this map unit.

| | |
|---|---|
| **Farmland Class:** | Prime farmland if irrigated |
| **Available Water Storage (0-100cm):** | 7 cm |
| **Max Flood Freq:** | None |
| **Drainage Class (Dominant Condition):** | Somewhat excessively drained |
| **Drainage Class (Wettest Component):** | Somewhat excessively drained |
| **Hydric Conditions:** | 2 |
| **[Annual] Min. Water Table Depth:** | n/a |
| **[April-June] Min. Water Table Depth:** | n/a |
| **Min Bedrock Depth:** | n/a |

Raw Aggregated Map Unit Data

### Associated Point Data

Links to any NSSL point data within this map unit.

| | |
|---|---|
| **1. SND (S1955CA071007)** | [Lab Data] \| [Pedon Description] |
| **2. Milham (S1955CA071010)** | [Lab Data] \| [Pedon Description] |

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# FIGURE 3- USGS AERIAL WITH SOILS OVERLAY

## 117 – CAJON LOAMY SAND, 2-9% SLOPES – WASH AREA

### Map Unit Composition

Map units consist of 1 or more soil types, commonly referred to as "components".

| Component Name | Geomorphic Position | Area Fraction | Component Type |
|---|---|---|---|
| Soil Type 1 Cajon | alluvial fans / Backslope | 85% | Major Soil Type |
| Soil Type 2 **Helendale** | | 5% | Inclusion |
| Soil Type 3 **Cajon** | | 5% | Inclusion |
| Soil Type 4 **Kimberlina** | | 5% | Inclusion |

*Note: links to horizon data marked with an * are approximate.*

### Map Unit Data *What is a Map Unit?*

Cartographic information about this map unit.

| | |
|---|---|
| **Map Unit Name:** | CAJON SAND, 2 TO 9 PERCENT SLOPES |
| **Map Unit Type:** | Consociation |
| **Map Unit Symbol:** | 113 |
| **Map Unit Area:** | acres (117160ac. total in survey area) |

Raw Map Unit Data
Raw Component Data (All Components)

### Map Unit Aggregated Data

Generalized soils information within this map unit.

| | |
|---|---|
| **Farmland Class:** | Farmland of statewide importance |
| **Available Water Storage (0-100cm):** | 5 cm |
| **Max Flood Freq:** | None |
| **Drainage Class (Dominant Condition):** | Somewhat excessively drained |
| **Drainage Class (Wettest Component):** | Somewhat excessively drained |
| **Hydric Conditions:** | 0 |
| **[Annual] Min. Water Table Depth:** | n/a |
| **[April-June] Min. Water Table Depth:** | n/a |
| **Min Bedrock Depth:** | n/a |

Raw Aggregated Map Unit Data

### Associated Point Data

Links to any NSSL point data within this map unit.

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# FIGURE 3- USGS AERIAL WITH SOILS OVERLAY

## 103 – BADLAND, BLUFF AREA NEXT TO MOJAVE RIVER

### Map Unit Composition

Map units consist of 1 or more soil types, commonly referred to as "components".

| Component Name |
|---|
| *Soil Type 1* ***Badland*** |
| *Soil Type 2* ***Rock outcrop*** |
| *Soil Type 3* ***Nebona*** |
| *Soil Type 4* ***Cajon*** |
| *Soil Type 5* ***Lithic Torriorthents*** |
| *Soil Type 6* ***Cuddeback*** |

*Note: links to horizon data marked with an * are approximate.*

### Map Unit Data *What is a Map Unit?*

Cartographic information about this map unit.

| | |
|---|---|
| **Map Unit Name:** | *BADLAND* |
| **Map Unit Type:** | *Consociation* |
| **Map Unit Symbol:** | *103* |
| **Map Unit Area:** | *acres (3500ac. total in survey area)* |

*Raw Map Unit Data*
*Raw Component Data (All Components)*

### Map Unit Aggregated Data

Generalized soils information within this map unit.

| | |
|---|---|
| **Farmland Class:** | *Not prime farmland* |
| **Available Water Storage (0-100cm):** | *0 cm* |
| **Max Flood Freq:** | |
| **Drainage Class (Dominant Condition):** | |
| **Drainage Class (Wettest Component):** | |
| **Hydric Conditions:** | *0* |
| **[Annual] Min. Water Table Depth:** | *n/a* |
| **[April-June] Min. Water Table Depth:** | *n/a* |
| **Min Bedrock Depth:** | *n/a* |

*Raw Aggregated Map Unit Data*

### Associated Point Data

Links to any NSSL point data within this map unit.

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# FIGURE 3- USGS AERIAL WITH SOILS OVERLAY

## 103 – VILLA LOAMY SANDS, NORTH END OF SITE

## Map Unit Composition

Map units consist of 1 or more soil types, commonly referred to as "components".

| Component Name |
|---|
| Soil Type 1 **Villa** |
| Soil Type 2 **Unnamed soils** |
| Soil Type 3 **Unnamed** |

*Note: links to horizon data marked with an * are approximate.*

## Map Unit Data *What is a Map Unit?*

Cartographic information about this map unit.

| | |
|---|---|
| **Map Unit Name:** | *VILLA LOAMY SAND* |
| **Map Unit Type:** | *Consociation* |
| **Map Unit Symbol:** | *171* |
| **Map Unit Area:** | *acres (13700ac. total in survey area)* |
| *Raw Map Unit Data* | |
| *Raw Component Data (All Components)* | |

## Map Unit Aggregated Data

Generalized soils information within this map unit.

| | |
|---|---|
| **Farmland Class:** | *Prime farmland if irrigated* |
| **Available Water Storage (0-100cm):** | *8.18 cm* |
| **Max Flood Freq:** | *Rare* |
| **Drainage Class (Dominant Condition):** | *Moderately well drained* |
| **Drainage Class (Wettest Component):** | *Moderately well drained* |
| **Hydric Conditions:** | *5* |
| **[Annual] Min. Water Table Depth:** | *137 cm* |
| **[April-June] Min. Water Table Depth:** | *137 cm* |
| **Min Bedrock Depth:** | *n/a* |
| *Raw Aggregated Map Unit Data* | |

## Associated Point Data

Links to any NSSL point data within this map unit.

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# FIGURE 3- USGS AERIAL WITH SOILS OVERLAY

## 163 – NEXT TO SILVER LAKES-URBAN LAND COMPLEX, 0-9% SLOPES

### Map Unit Composition

Map units consist of 1 or more soil types, commonly referred to as "components".

| Component Name |
|---|
| *Soil Type 1* ***Torriorthents*** |
| *Soil Type 2* ***Torripsamments*** |
| *Soil Type 3* ***Urban land*** |

*Note: links to horizon data marked with an * are approximate.*

### Map Unit Data *What is a Map Unit?*

Cartographic information about this map unit.

| | |
|---|---|
| **Map Unit Name:** | *TORRIORTHENTS-TORRIPSAMMENTS-URBAN LAND COMPLEX, 0 TO 9 PERCENT SLOPES* |
| **Map Unit Type:** | *Complex* |
| **Map Unit Symbol:** | *163* |
| **Map Unit Area:** | *acres (1900ac. total in survey area)* |
| *Raw Map Unit Data* | |
| *Raw Component Data (All Components)* | |

### Map Unit Aggregated Data

Generalized soils information within this map unit.

| | |
|---|---|
| **Farmland Class:** | *Not prime farmland* |
| **Available Water Storage (0-100cm):** | *cm* |
| **Max Flood Freq:** | |
| **Drainage Class (Dominant Condition):** | *Well drained* |
| **Drainage Class (Wettest Component):** | *Well drained* |
| **Hydric Conditions:** | *0* |
| **[Annual] Min. Water Table Depth:** | *n/a* |
| **[April-June] Min. Water Table Depth:** | *n/a* |
| **Min Bedrock Depth:** | *n/a* |
| *Raw Aggregated Map Unit Data* | |

### Associated Point Data

Links to any NSSL point data within this map unit.

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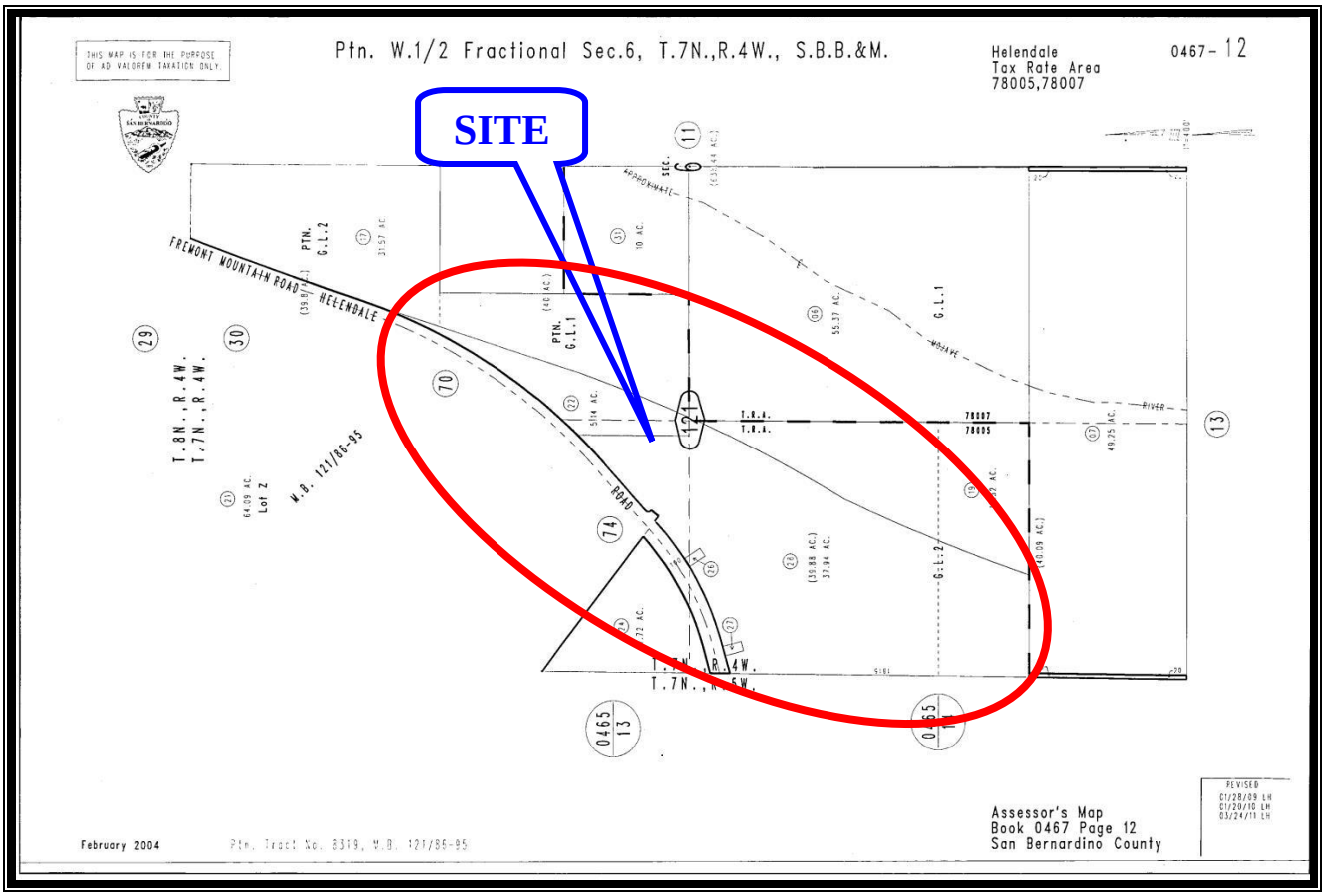
# FIGURE 4- ASSESSOR'S PARCEL MAP



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# FIGURE 4- ASSESSOR'S PARCEL MAP INFORMATION

**Property Information**

| | | | |
|---|---|---|---|
| Owner(s): | Ross Carl E Living Trust 5 | Mailing Address: | 7850 Dean Martin Dr #502, Las Vegas, NV 89139 |
| Owner Phone: | Unknown | Property Address: | Helendale Rd, Helendale, CA 92342 |
| Vesting Type: | N/A | Alt. APN: | 0467-121-22-0000 |
| County: | San Bernardino | APN: | 0467-121-22-0000 |
| Map Coord: | 291-A5 | Census Tract: | 011600 |
| Lot#: | | Block: | |
| Subdivision: | | Tract: | 8319 |
| Legal: | N 1/2 Nw 1/4 And W 1/2 Se 1/4 Nw 1/4 And E 75 Ft Sw 1/4 Nw 1/4 Sec 6 Tp 7N R 4W Ex Ptn In Tracts 8319 And 8320 And Ex Ptn To Sbdo Cnty Flood Control Dist As Cov 8/18/71 In Bk 7734 Pg 591 O R 5.14 Ac M/L | | |

**Property Characteristics**

| | | | | | |
|---|---|---|---|---|---|
| Use: | Vacant Land (Nec) | Year Built / Eff. : | / | Sq. Ft. : | |
| Zoning: | | Lot Size Ac / Sq Ft: | 5.14 / 223898 | # of Units: | |

**Sale and Loan Information**

| | | | | | |
|---|---|---|---|---|---|
| Sale / Rec Date: | 04/22/2004 / 06/30/2004 | *$/Sq. Ft.: | | 2nd Mtg.: | |
| Sale Price: | $5,500,000 | 1st Loan: | | Prior Sale Amt: | |
| Doc No.: | 464589 | Loan Type: | | Prior Sale Date: | |
| Doc Type: | Deed | Transfer Date: | 06/30/2004 | Prior Doc No.: | |
| Seller: | Older Trust | Lender: | | Prior Doc Type: | |

*$/Sq. Ft. is a calculation of Sale Price divided by Sq. Feet.

**Tax Information**

| | | | |
|---|---|---|---|
| Imp Value: | | Exemption Type: | |
| Land Value: | $23,402 | Tax Year / Area: | 2019 / 078-005 |
| Total Value: | $23,402 | Tax Value: | |
| Total Tax Amt: | $457.77 | Improved: | |

**Property Information**

| | | | |
|---|---|---|---|
| Owner(s): | Ross Carl E Living Trust 5 | Mailing Address: | 7850 Dean Martin Dr #502, Las Vegas, NV 89139 |
| Owner Phone: | Unknown | Property Address: | 20675 Helendale Rd, Helendale, CA 92342 |
| Vesting Type: | N/A | Alt. APN: | |
| County: | San Bernardino | APN: | 0467-121-28-0000 |
| Map Coord: | | Census Tract: | 011600 |
| Lot#: | | Block: | |
| Subdivision: | | Tract: | |
| Legal: | Ptn N 1815 Ft Gov Lot 2 Sw 1/4 Sec 6 And W 1/2 Gove Lot 1 Nw 1/4 Sec 6 And W 20 Ft S 825 Ft Sw 1/4 Sec 6 Tp 7N R 4W Lying Sely Of A Strip Of Land 100 Ft Wide C/L Of Which Is Desc As Beg At Pt C/L Helendale Rd 100 Ft Wide As Shown Tract 8319 Sd Pt Being N 47 Deg 41 Min 42 Seconds E 50 Ft From Swly Terminus Of Certain Course Having Bearing N 47 Deg 41 Min 42 Seconds E 410.45 Ft Alg Sd C/L Th S 47 Deg 41 Min 42 Seconds W 50 Ft To Beg Of Tangent Curve Concave Nwly Having Radius Of 1500 Ft Th Swly Alg Sd Curve Thru C/A 27 Deg 22 Min 18 Seconds 716.59 Ft Th Tangent To Sd Curve S 75 Deg 04 Min 00 Seconds W 135 Ft M/L To Intersection With C/L Helendale Rd Ex E 75 Ft W 1/2 Gov Lot 1 And Ex Ptn To Sbdo Cnty Flood Control As Conv 8/18/71 In Bk 7734 Pg | | |

**Property Characteristics**

| | | | | | |
|---|---|---|---|---|---|
| Use: | Well/Water | Year Built / Eff. : | / | Sq. Ft. : | |
| Zoning: | | Lot Size Ac / Sq Ft: | 37.94 / 1652666 | # of Units: | |
| Stories: | | Improvements: | | Parking / #: | / |
| Gross Area: | | Garage Area : | | Basement Area: | |

**Sale and Loan Information**

| | | | |
|---|---|---|---|
| Sale / Rec Date: | *$/Sq. Ft.: | 2nd Mtg.: | |
| Sale Price: | 1st Loan: | Prior Sale Amt: | |
| Doc No.: | Loan Type: | Prior Sale Date: | |
| Doc Type: | Transfer Date: | Prior Doc No.: | |
| Seller: | Lender: | Prior Doc Type: | |

*$/Sq. Ft. is a calculation of Sale Price divided by Sq. Feet.

**Tax Information**

| | | | |
|---|---|---|---|
| Imp Value: | $65,004 | Exemption Type: | |
| Land Value: | $143,006 | Tax Year / Area: | 2019 / 078-005 |
| Total Value: | $208,010 | Tax Value: | |
| Total Tax Amt: | $2,821.83 | Improved: | 31% |

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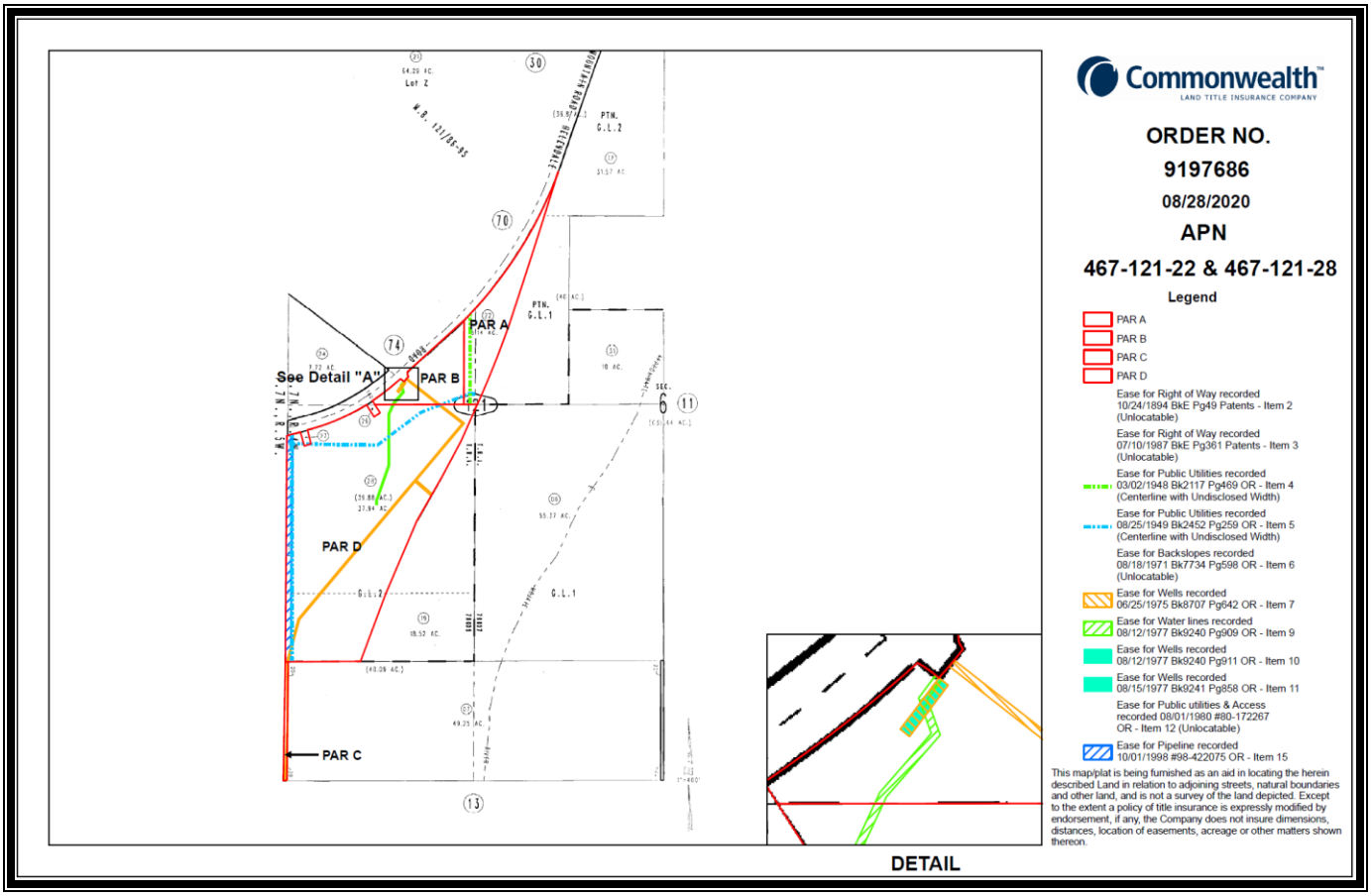
# FIGURE 4- ASSESSOR'S PARCEL MAP WITH EASEMENT INFORMATION



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# FIGURE 4- GRANT DEED FOR PARENT PARCELS
## Total of 41 Parcels on Grant Deed - with 49 Individual Parcels

RECORDING REQUESTED BY
CHICAGO TITLE COMPANY
AND WHEN RECORDED MAIL TO

CARL E. ROSS, TRUSTEE
2020 LYNX TRAIL
ONTARIO, CA. 91761

Recorded in Official Records, County of San Bernardino
6/30/2004
8:00 AM
VT

LARRY WALKER
Auditor/Controller – Recorder

729 Chicago Title Company – CIS

Doc#: 2004-0464589

Titles: 1 Pages: 11

| | |
|---|---|
| Fees | 66.00 |
| Taxes | 6,050.00 |
| Other | 0.00 |
| PAID | $6,116.00 |

Escrow No. 42048053 - K53
Order No. 32040006 - K32

SPACE ABOVE THIS LINE FOR RECORDER'S USE

# GRANT DEED

assessor's parcel numbers and legal description

THE UNDERSIGNED GRANTOR(S) DECLARE(S)
DOCUMENTARY TRANSFER TAX IS $ 6,050.00
[X] unincorporated area [ ] City of
[X] computed on the full value of the interest or property conveyed, or is
[ ] computed on the full value less the value of liens or encumbrances remaining at time of sale, and
FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,
BARBARA T. OLDER TRUSTEE OF THE OLDER TRUST AGREEMENT OF 1988

hereby **GRANT(S)** to
CARL E. ROSS, TRUSTEE OF THE CARL E. ROSS LIVING TRUST DATED 5/21/91

the following described real property in the
County of SAN BERNARDINO , State of California:
LEGAL DESCRIPTION ATTACHED HERETO AND MADE A PART HEREOF BY REFERENCE

Dated April 22, 2004

Barbara T. Older Trustee
BARBARA T. OLDER, TRUSTEE
OF THE OLDER TRUST AGREEMENT OF 1988

STATE OF
COUNTY OF San Bernardino } SS.
On June 28, 2004 before me,
Linda J. Cardinal
a Notary Public in and for said County and State, personally appeared
BARBARA T. OLDER

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

LINDA J. CARDINAL
COMMISSION #1327255
NOTARY PUBLIC-CALIFORNIA
SAN BERNARDINO COUNTY
My Commission Expires Dec. 15, 2004

WITNESS my hand and official seal.

Linda J Cardinal
Signature of Notary

12-15-2004
Date My Commission Expires

FOR NOTARY SEAL OR STAMP

MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE: IF NO PARTY SO SHOWN, MAIL AS DIRECTED ABOVE

Name | Street Address | City, State & Zip

GD1 –05/30/97bk

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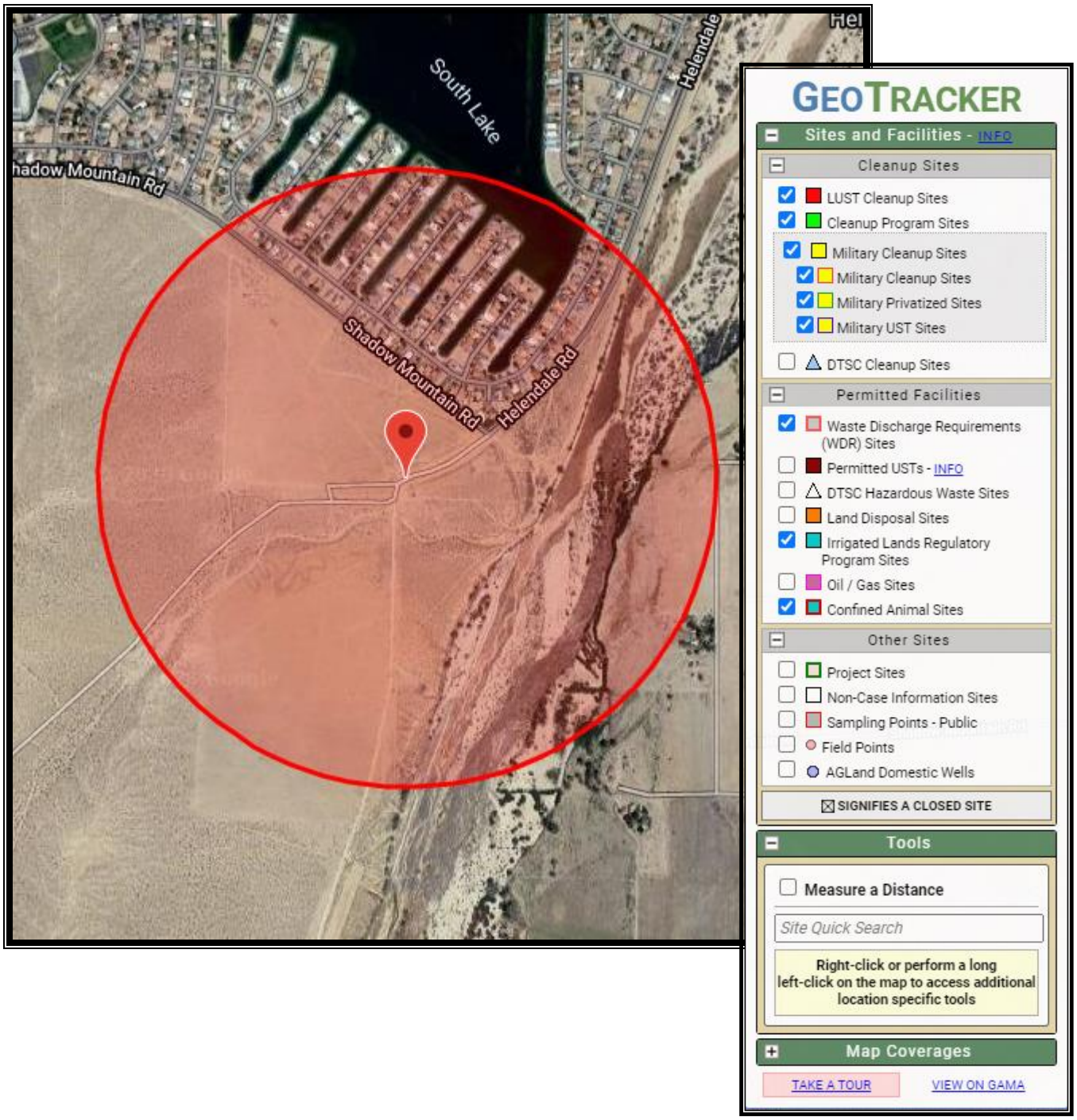
# FIGURE 4- GEOTRACKER INFORMATION



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# FIGURE 5 - SITE PHOTOGRAPHS

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**Street Scene: Looking Northerly along Helendale Road (Site on Right)**

**Street Scene: Looking Westerly along Shadow Mountain Road from Helendale Road (Site behind)**

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**Street Scene: Looking Southerly along the unpaved portion of Helendale Road (Site on Left)**

**Street Scene: Looking at Site Easterly from Helendale and Shadow Mountain Intersection (Site on Right and Left)**

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**Well Site #26081 along Helendale Road and west property line**

**Well Site #26063 along Helendale Road and west property line**

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**Rivers Edge Middle School**

**Well Site within Silver Lakes, just west of Site**

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**Well Site within Silver Lakes, just west of Site**

**Easement through north parcel Site**

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**Near North Corner of Site looking Northerly along Helendale Road**

**Near North Corner of Site looking Southerly at Site along Helendale Road**

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**Near North Corner of Site looking Easterly at Mojave River**

**Midpoint of Site west line looking Northerly along Helendale Road (Site on Right)**

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**Midpoint of Site west line looking Easterly from Helendale Road (Site on Both sides)**

**Midpoint of Site west line looking Southerly along Helendale Road (Site on Left)**

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**Midpoint of Site west line looking Easterly at Drainage Course from Helendale Road**

**Looking at Mojave Water Agency Water Line Easement along Helendale Road**

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**Looking at Natural Gas Line along Helendale Road**

**Near Southwest Corner: Looking Easterly at Well Site and Mojave River area (Site on left)**

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**Near Southwest Corner: Looking Northerly along Helendale Road (Site on right)**

**Midpoint of Site east line looking Southerly at Bluff area of Mojave River (Typical)**

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**Looking at well sites and power poles near Mojave River**

**Looking southerly across south parcel near well sites and power poles**

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**Looking at remnants of alfalfa ranching near well sites and power poles near Mojave River**

**Looking at remnants of alfalfa ranching near well sites and power poles near Mojave River**

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# CORRESPONDENCE

**(NONE)**

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# QUALIFICATIONS

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# CURRICULUM VITAE – RESUME OVERVIEW of RANDOLPH J. COLEMAN

**B. S. Degree: University of California - IRVINE - CIVIL & *Environmental* ENGINEERING, 1980**

| | | | |
|---|---|---|---|
| *Environmental Impact Report Analysis* | *Adv. Transportation Modeling* | *Environmental Economics* | *Planning Theory* |
| *Public Health Aspects of Pollution* | *Adv. Wastewater Treatment* | *Noise and Vibration Control* | *Air Pollution* |

## STATE LICENSES AND PROFESSIONAL DESIGNATIONS ATTAINED (STATE, YEAR, #, EXPIRES, ETC.):

**Licensed Real Estate Broker**: CA-1982 (#00836955 – Expires 10/28/23)
**Registered Civil Engineer**: CA-1983 (#36293 – Exp. 06/30/22), AZ (#16969 – Exp. 6/30/23), NV (#7441-12/31/2020)
**Licensed Land Surveyor**: CA-1984 (#5413 – Exp. 09/30/22) and NV (#7441- 12/21/2020)
**Contractor's License**: CA-1988 [Engineering "A" & Building "B" CA (No current license or RMO)
**Registered Environmental Assessor**: CA-1994 (DTSC & Cal/EPA #05791 – Program ended in 2013)
**Water Treatment Operator T2 #32553** (2010) & **Water Operator D2#38614** (2011): CA. DPH (Passed D3/T3 tests)
**Qualified SWPPP Developer/Practitioner:** (CASQA-2011 - #21595 - Exp. 10/30/2021)
**Certified Arborist** #WE-8024A –Life Member-International Society of Arboriculture (2007 -Exp.-12/2021)
**Certified Wildlife Biologist -** Life Member of Western Chapter/The Wildlife Society (2010 -Exp.-12/2021)
**AICP-CEP-** American Institute of Certified Planners-Certified Environmental Planner (1994 - #9892– Exp. 12/2021)

| | |
|---|---|
| CDP - | Certified Downtown Professional (2008 - California Downtown Association) |
| SR/WA - | Senior Member, International Right of Way Association (#4462-Retired) |
| **Builder -** MIRM - | Member, Institute of Residential Marketing (non-member of NAHB-09/30/1992 #none) |
| CAAHS [SHMS] - | Certified Active Adult Housing Specialist (2009) [Senior Housing Marketing/Management Specialist] |
| CAPS/CGP - | Certified Aging-in-Place Specialist (2008) / Certified Green Professional (2008) |
| CSP - | Certified Hew Home Sales Professional (1992) |
| **R.E. Broker -** CCIM - | Certified Commercial-Investment Member (1989 - #3167) |
| ALC - | Accredited Land Consultant (1994 - #772 – Retired – Realtors Land Institute) |
| CRB - | Certified Real Estate Brokerage Manager (1987 - #8514) |
| CRS/CSP - | Certified Residential Specialist (1992 - #19091)/ |
| GAA/GRI - | General Accredited Appraiser (#492)/Graduate of the Realtors Institute (1987 - #8483) |

## CERTIFICATES, RECENT CONFERENCES, MEMBERSHIP, ENVIRONMENTAL & BIOLOGICAL TRAINING:

**Geographical Information Systems Certificate – UC Riverside - (24+ units)**
**Desert Ecology, Field Ecology, Botany, Geology & Ornithology Certificates – UC Riverside (21/21/12/12 units)**
**Global Positioning Systems Certificate – UC Riverside - (21.5 units)**

**LAFCO Conference 2011** (Napa)
**Advances in Desert Weeds Management** 2010-11: Center for Conservation Biology, UC Riverside Palm Desert Campus
**Southern California Association of Governments Conference** 2010-11: @ La Quinta, CA
Largest Metropolitan Planning Organization (MPO) in the U.S. for 18 million people within 38,000 square miles and serving six (6) of ten (10) counties in Southern California - Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura Counties.
**Habitat Conservation Plans: Moving across Boundaries:** UC Riverside & San Diego Zoo-(Nov.16-17, 2009)
**Governor's Conference–Siting & Permitting Large-Scale Projects in the California Desert:** @ UC Riverside-Mar. 24, 2010
**Congressional Cities Conference:** @ Washington D.C. - 2009 -11 [meet w/Senators, Congressmen, staffs, various Dept.'s]
**San Bernardino County-City Conference:** @ Arrowhead - 2009 -11
**San Bernardino Water Conference:** @ Ontario Convention Center – 2008 - 2009
**Wildlife Management** & **Ecosystem Management** – 3 unit courses taught by Dr. Cameron Barrow, UC Riverside Research Center
**Water Treatment Plant Operation I** @ CSU Sacramento – 6 units - April 216, 2010
**Sp. Dist. & Local Gov. Institute** (2010 Workshops): HR Principles for Managing Employees, Supplying Water & Board Secretaries
**40-Hr & 8-Hr Transportation [Cert. #11671]: HAZWOPER** – Haz. Waste Operations-29CFR1910.120 (e) (3)-DOT HM-126(f) **38-Hr. Army Corps of Engineers Wetland Delineation Method Training & Management** (Jan. 2007 in San Diego)
Life Member: Sierra Club & Desert Tortoise Council & 2-Day Workshop (Nov. 2002) for handling and monitoring Tortoises
Member: The Wildlife Society - Attended California Burrowing Owl Symposium in Sacramento (Nov. 2003)
Attended Mojave Ground Squirrel 2-Day Workshop (Apr. 2005)
Rare Pond Species Survey Techniques Workshop – Western Pond Turtle, CA Tiger Salamander & Red-legged Frog (Mar 2009)
Member: California Native Plant Society - 4-Day Vegetation Mapping Workshop - CDFG & CNPS (11/2006)
3-Day Botanical Protocol Workshop – UC Davis, CDFG & CNPS (05/07) & 2-Day Riparian Ecology & Plant ID. (11/07)

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**PHASE 1 ASSESSMENT: HELENDALE CSD NEW WELL FIELD, HELENDALE, CA 92345 - APN 0467-121-22&28**

**Consultant has completed the following education, workshops, licenses, and professional designations:**

- **Tree Care for Birds & Other Wildlife** *(Arizona/California/Nevada & Hawaii)* - International Society of Arboriculture

2020 - **Wildland-Urban Interface** – American Planning Association

2019 - **Joshua Tree Master Naturalist**: Joshua Tree National Park Desert Institute & UC Riverside (8 courses)
- **Desert Plant Phenology of Joshua Tree National Park:** UC Riverside and JTNP Desert Institute
- **Desert Tortoise Biology & Conservation:** CDFW/BLM/UC Riverside and JTNP Desert Institute
- **Fugitive Dust Control (CV1903-007751-7796):** South Coast Air Quality Management District

2018 - **Tree Risk Assessment Qualified** (International Society of Arboriculture – Certified Arborist WE#-8024A)
- Large Branchiopods of California Workshop: TWS-SoCal and USFWS @ San Diego Botanic Garden
- Sea Turtle Workshop: NMFS Protected Res. Div., West Coast Region/NOAA @ Long Beach Aquarium

2010/15 - San Bernardino County Planning & Airport Commissioner - Review & Approval of CEQA Studies & Projects

2014 - **Arroyo Toad *(Anaxyrus californicus)* Workshop** (The Wildlife Society San Diego Chapter)
- Sustainable Communities @ APA-PTS Conference: Feb. 7-8, 2014 in San Diego
- California Annual Conference/APA (4 Days – Anaheim and Visalia in 2013 & 2014)

2013 - **Yellow Billed Cuckoo (*Coccyzus americanus)* Workshop** (Kern River Valley – KRV Audubon Facility)
- **Southwestern Willow Flycatcher *(Empidonax traillii extimus)* Workshop** (KRV Audubon Facility)
- National Innovative Communities Conference: 2013 (Ontario CA – San Diego mention as a leader may times)
- **Tree Risk Assessment Qualified** International Society of Arboriculture (WE#-8024A – Renewed in 2018)
- National Innovative Communities Conference: 2013 (Ontario CA – San Diego mention as a leader may times)

2012 - American Planning Association Annual Conference (4 Days - Los Angeles)
- **Environmental Leadership Certificate:** CSU San Marcos (Matt Rahm, PhD., Esq.)

1998/12 - **UC Riverside Field & Other Certificates: -** Desert Ecology - Field Ecology - Botany - Ornithology - Geology - Geographic Information Systems - Geographical Positioning Systems - Educational Facility Planning
- American Planning Association Annual Conference (4 Days - Los Angeles)
- California County Planning Commissioners Association (2 Days - Suisun City)

2011 - **Scientific Collecting Permit #11586** by California Department of Fish and Wildlife
- **Legends of the Fall: Exploring the Clandestine Flora of Early Fall in the Eastern Mojave Desert**
  Rare Autumn Annuals – Dr. James Andre & Dr. Tasha La Doux - Calif. Native Plant Society @ UC- DRC
- **Certified Environmental Planner** - Advanced Specialty Certification for AICP (2011 [1 of 33 in U.S.])
- **Qualified Storm Water Developer & Planner (QSD/P #21595)** by CASQA

2010 - **Certified Wildlife Biologist #43090 -** by The Wildlife Society - Life Member (2006)-Western Sec.

2009 - **Western Pond Turtle, California Tiger Salamander & Red-legged Frog Workshop** (CSU Sonoma)
- **Wildlife Management & Ecosystem Management** (Dr. Barrow, UC Riverside Research Center/3-unit courses)
- **Bird Biology** - Cornell University/3-unit course

2008 - **Palms Culture in the Southwest** (2 days - International Society of Arboriculture (ISA) in Las Vegas)

2007 - **Certified Arborist/ [Tree Risk Assessment Qualified]** WE#-8024A – Int. Society of Arboriculture (+60hours CE)
- **Riparian Ecology & Plant Identification Workshop (**CNPS - Ventura River)
- **Jurisdictional Delineation of Wetlands** (38-hours of Army Corps of Engineering training in San Diego)
- **Protocols for Botanical Reports** (2 day - U.C. Davis – Bodega Bay Marine Research Lab)

2006 - **Vegetation Mapping** in Redlands (4 day – Dr. Todd Keeler-Wolf, Senior Vegetation Ecologist, CDFW & Dir. California Native Plant Society's (CNPS) Vegetation Program. Author of Manual of California Vegetation and Terrestrial Vegetation of California, among other books and resources)

2005 - **Mojave Ground Squirrel Workshop -** Wildlife Society, CDFG & USFW

2003 - **California Burrowing Owl Symposium –** The Wildlife Society/Western Section in Sacramento

2002 - **Tortoise Workshop by Desert Tortoise Council** (Life Member), CDFG & USF&W

1994 - Registered Environmental Assessor #05791; Calif. Environmental Protection Agency (DTSC/ended in 2012)

1993 - American Institute Certified Planners #9892 & Certified Environmental Professional (2011 [1 of 33 in U.S.])

1982/4 - CA Licenses: Land Surveyor #5413 (1984); Civil Engineer #36293 (1983); Real Estate Broker #836955 (1982)

1980 **- B.S. in Civil & Environmental Engineering** from University of California,

1976 - Personally familiar with the general area; have completed various Surveys, Engineering, Planning & Appraisals

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**PHASE 1 ASSESSMENT: HELENDALE CSD NEW WELL FIELD, HELENDALE, CA 92345 - APN 0467-121-22&28**

The International Society of Arboriculture

Hereby Announces That

Randy Coleman

Has Earned the Credential

ISA Certified Arborist ®

By successfully meeting ISA Certified Arborist certification requirements through demonstrated attainment of relevant competencies as supported by the ISA Credentialing Council

Carlyn Pollihan
CEO & Executive Director

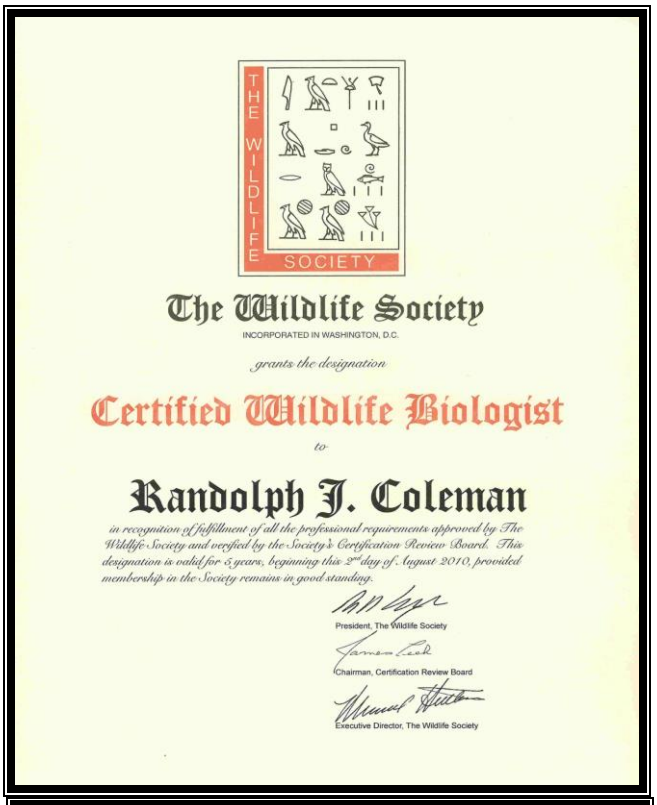
14 July 2007
Issue Date

31 December 2022
Expiration Date

WE-8024A
Certification Number

ANAB
ACCREDITED
ISO/IEC 17024
PERSONNEL CERTIFICATION
#5201

ISA Certified Arborist



THE WILDLIFE SOCIETY

The Wildlife Society

INCORPORATED IN WASHINGTON, D.C.

grants the designation

Certified Wildlife Biologist

to

Randolph J. Coleman

in recognition of fulfillment of all the professional requirements approved by The Wildlife Society and verified by the Society's Certification Review Board. This designation is valid for 5 years, beginning this 2nd day of August 2010, provided membership in the Society remains in good standing.

President, The Wildlife Society

Chairman, Certification Review Board

Executive Director, The Wildlife Society

The International Society of Arboriculture

Hereby Announces That

Randy Coleman

Has Earned the Credential

ISA Tree Risk Assessment Qualification®

By successfully meeting ISA Tree Risk Assessment Qualification certification requirements through demonstrated attainment of relevant competencies as supported by the ISA Credentialing Council

Carlyn Pollihan
CEO & Executive Director

7 March 2014
Issue Date

7 March 2024
Expiration Date

CERTIFICATE OF TRAINING

CALIFORNIA CONSTRUCTION GENERAL PERMIT

QUALIFIED SWPPP DEVELOPER (QSD)
AND
QUALIFIED SWPPP PRACTITIONER (QSP)

RANDOLPH J. COLEMAN

Aug 02, 2017 - Oct 30, 2019

*Certificate # 21595*

California Stormwater Quality Association and
California Construction General Permit Training Team

CASQA

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# ASBESTOS[1]

Asbestos is a naturally occurring, fibrous, silicate mineral that is found naturally in the earth's crust. The molecules arrange themselves into very-long, thin fibers, which are flexible and extraordinarily strong. These fibers are fireproof, flexible, and chemical-resistant. The most common form of asbestos, chrysotile appears white in light-refraction, but the individual fibers are actually-colorless. Asbestos occurs in abundance in the serpentine deposits found in the areas of continental subduction zones. The most common form of asbestos has been mined extensively in California, Arizona, and Vermont. In 1975, 100,000 short tons of asbestos were mined in the US.

Asbestos has been used for literally thousands of uses in the United States since the industrial revolution:

| | | |
|---|---|---|
| Fireproofing | Paper productsTextiles | Thermal and acoustic insulation |
| Electrical insulation | Gaskets, packaging | Plastic products (vinyl floor tiles) |
| Asbestos-concrete | Roofing felts, papers | Automotive brake pads & other uses |

The uses of asbestos have been systematically banned since the early 1970's. A list of these bans is as follows:

| | | | |
|---|---|---|---|
| 1971 | Pipe-lagging (Casi and Aircell) | 1973 | Most sprayed-on friable ACM |
| 1975 | Joint compounds and spackles | 1977 | Fireplace logs: patch compounds |
| 1978 | All sprayed-on friable ACM | | |

Historically, millions of tons of asbestos-containing materials have been used in building construction in the United States. The US-EPA has published a survey regarding the use of asbestos-containing building materials (ACBM's) in buildings and concludes that there are an estimated 733,000 buildings in the USA that contain ACBM's.

The general rule of thumb is that if a building was built prior to 1978, it most likely contains some form of ACBM. If it was built after 1978, the probability is less but there should still be a physical inspection and material testing to determine whether ACBM's are present.

In-order-to be harmful, asbestos must become airborne and be taken in the respiratory system. Consequently, the friability of the asbestos is the most important quality to evaluate. Numerous certified laboratories perform fiber counts on materials submitted to them and friability tests on materials found to be asbestos.

NOTE: Tremolite is a naturally occurring mineral and is naturally above the designated PPM threshold values. It is one of the minerals in some of the nearby hills in the Town of Apple Valley and is being currently mined for the commercial value of other minerals (i.e. Talc) on the east side of Interstate 15.

---

1 "California Groundwater & Soil Contamination", by Thomas J. Bois, Esq. and Bernard J. Luther, CEG; 1994

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## ASBESTOS - continued[2]

The most critical factor in analyzing asbestos is friability. A friable material is one that will crumble under human contact at some time, become airborne, and be introduced into the lung tissue of persons breathing in the area. Because many of these materials have been used for construction purposes inside buildings, there is a high probability of human contact with them.

Products that are generally considered friable include:

Sprayed-on Acoustic insulation
Structural fireproofing

Products that are sometimes friable include:

Pipe insulation Boiler insulation
Roofing felt
Woven asbestos
Duct wrap

Products that are rarely friable include:

Transite ducts
Vinyl asbestos tile
Asphalt asbestos shingles
Transite boards

California has many institutions that train and certify asbestos inspectors. Some consulting firms have several certified asbestos inspectors and will perform asbestos services as a matter of course during a Phase I Environmental Assessment, if requested in advance, for an additional fee and additional laboratory testing costs.

Generally, millions of older, asbestos-containing buildings are still in existence throughout the United States. These older buildings are of the type and price range that tend to remain active on the real estate market and are frequently excused. If you are a consultant for buyers in this market, be sure to place your client on alert regarding their exposure to environmental liability.

[2] "California Groundwater & Soil Contamination", by Thomas J. Bois, Esq. and Bernard J. Luther, CEG; 1994

## LEAD[3]

Lead is a heavy metal that was discovered to be systemically harmful several decades ago. Society is gradually processing lead out of common use, but its dangers and effects are still prevalent.

Historically, lead has been used in paint as a durability enhancer and coloring agent, in gasoline as an antiknock agent, in pewter (an alloy containing lead), in ceramics as part of the glossing process, and in lead pipes and solder, which have been used for water delivery since Roman times.

The primary problem with lead is that it is slightly water-soluble and because of this can end up in the human system through the consumption of water. The use of lead in automobile fuel has placed billions of tons of lead into the air as particulate matter. This particular metal can be assimilated into the human system through the lungs and cause lead poisoning.

Lead poisoning can cause damage to the heavy tissue of the body, primarily the liver, kidneys, and brain. Mental retardation in children has been attributed to their consumption of lead paint as infants.

The laboratory test to specify for lead is the EPA 200/6000/7000. These are all series of tests for metals and the particular metal you are looking for should be specified on the chain of custody sheet. Often, a call to the laboratory will allow you to specify a particular method that has been approved by the State

## RADON

The State of California is not considered a high radon area based on national database of over 60,000 indoor radon concentrations recorded in the "Nationwide Distribution of Indoor Radon Measurements: A Preliminary Data base" by H. Ward Alter and Richard A. Oswald. The publication indicates that only 4.5 percent of the 688 indoor radon measurements compiled for California were greater than the action guideline of 4 Pico curies per liter (Pci/L); indication that California is potentially a low-radon area.

[3] "California Groundwater & Soil Contamination", by Thomas J. Bois, Esq. and Bernard J. Luther, CEG; 1994

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# Clarifiers, Interceptors, Industrial Waste Systems & Docks

## CLARIFIERS, SAND AND GREASE INTERCEPTORS

Normally, the installation of clarifiers, sand and grease interceptors are required by local codes and ordinances. These codes and ordinances are designed to prevent the entrance of heavy industrial solids, sand, grit, and oils into the sewage collection system.

Clarifiers are typically installed at machine shops and fabricators, while sand and grease interceptors are normally installed at car washes, gas stations and Mechanic/Repair operations.

The capacity of both interceptors and clarifiers are typically based upon a specified retention time. However, very satisfactory results can be obtained using velocity and surface overflow rates. Using this basis of design, the maximum allowable velocity is 3 feet per second (FPS) or designed gallons per day for the surface overflow rate.

### GREASE INTERCEPTORS

Restaurants, institutions, fast-food establishments, and camps all produce grease in quantities, which require grease interceptors. Due to the composition of grease, large volume interceptors are required to provide cooling for coagulation and separation.

Grease causes frequent line plugging when entering the community sewage collection systems. Grease-clogged soils cause On-site disposal systems failure because of the failure in seepage pits or leach lines. This is caused by the clogging of the soils by coagulated grease, thereby preventing the percolation of wastewater into the soil.

## SAND TRAPS

The sand trap is a two-compartment interceptor designed to trap grit, sand and oil from wastewater or steam cleaning. It is installed in service stations where the volume of wastewater does not warrant the installation of a sand and grease interceptor.

Gas stations typically install a sand trap in a central location, inside the service bays of such establishments. Other wash-down facilities can be located indoors or outdoors. The inlet compartment is supplied with a grated cover. The bay's floor area is then sloped for direct drainage of wash-down water into this compartment. Fitting placement then allows for maximum grit collection. Simply removing grated covers does removal of accumulated grit, which exposes the entire interior of the trap, for cleaning.

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# Clarifiers, Interceptors, Industrial Waste Systems & Docks - continued

## INDUSTRIAL WASTE SYSTEMS

Many Industrial and Commercial operations produce, as a by-product or result of their operations, wastewater which cannot be disposed of directly into the sewage collection system. Wastewater containing grease, sand, solids, flammable wastes and acidic or very alkaline materials must be intercepted or treated before being discharged. Small amounts from many sources can produce increased maintenance costs and collection system deterioration, either by direct contact or the production of destruction gases which cause deterioration of materials (i.e. gases can cause concrete manholes and/or grout to deteriorate at a rapid rate).

Local codes and ordinances have been adopted to protect communities from increased operational costs caused by a number of dischargers. Interceptor requirements vary greatly from area to area. Due to this situation, the following information has been provided for general use in designing Industrial Systems.

### LOCAL & REGIONAL WASTEWATER FACILITIES

The local or regional wastewater facilities may have a designated **"Pretreatment Coordinator"** for these more advanced industrial waste systems.

### DOCK SUMP PUMPS

At-grade docks typically have a drainage containment device with a small sump pump to drain the lowered dock area.

## LAUNDRY ROCK FILTERS

These filters are designed for rural or recreational area laundries with on-site disposal. Historically, direct disposal systems have failed rapidly from lint-clogged soils. The rock filters are designed to provide quiescence and filtration. The inlet section is equal to the total daily flow. This section then provides the necessary quiescence and filtration by allowing the grit and heavy materials to settle while the lint floats to the surface forming a mat.

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# Clarifiers, Interceptors, Industrial Waste Systems & Docks – continued

## SIZING OF INTERCEPTOR, CLARIFIER'S, AND INDUSTRIAL SYSTEM'S

Engineering design and sizing are affected by numerous factors (industrial and commercial uses, intervals and patterns of use, temperature extremes and variations, weather patterns) and designed accordingly to these numerous factors on an individual basis. There are a few basic guidelines to follow after sizing is completed:

| Attributes of the Design of Industrial System |
|---|
| The interceptor shall be installed as close to the grease/sand source as possible. |
| Proper setbacks shall be maintained from structures, property lines, building setbacks, etc. to comply with local codes. |
| Location of the interceptor should be dependent upon easy pump truck access to allow proper maintenance. |
| Influent should enter below normal water level to allow for quiescence. |
| The inlet, outlet, and baffling system should be of "T" design with vertical extension twelve (12") inches from the interceptor floor and well above the normal water level. |
| To allow for proper maintenance, manholes/access to finished grade shall be provided. (Local codes and ordinances shall be followed.) |
| The manhole cover(s) shall be of gas-tight construction, if applicable. They shall be designed to withstand the expected live loads and dead loads. |
| For on-site disposal systems, separate disposal areas shall be used from grease interceptors and septic tank effluent. |
| A check of local ordinance, codes and local design parameters shall be made and followed. |

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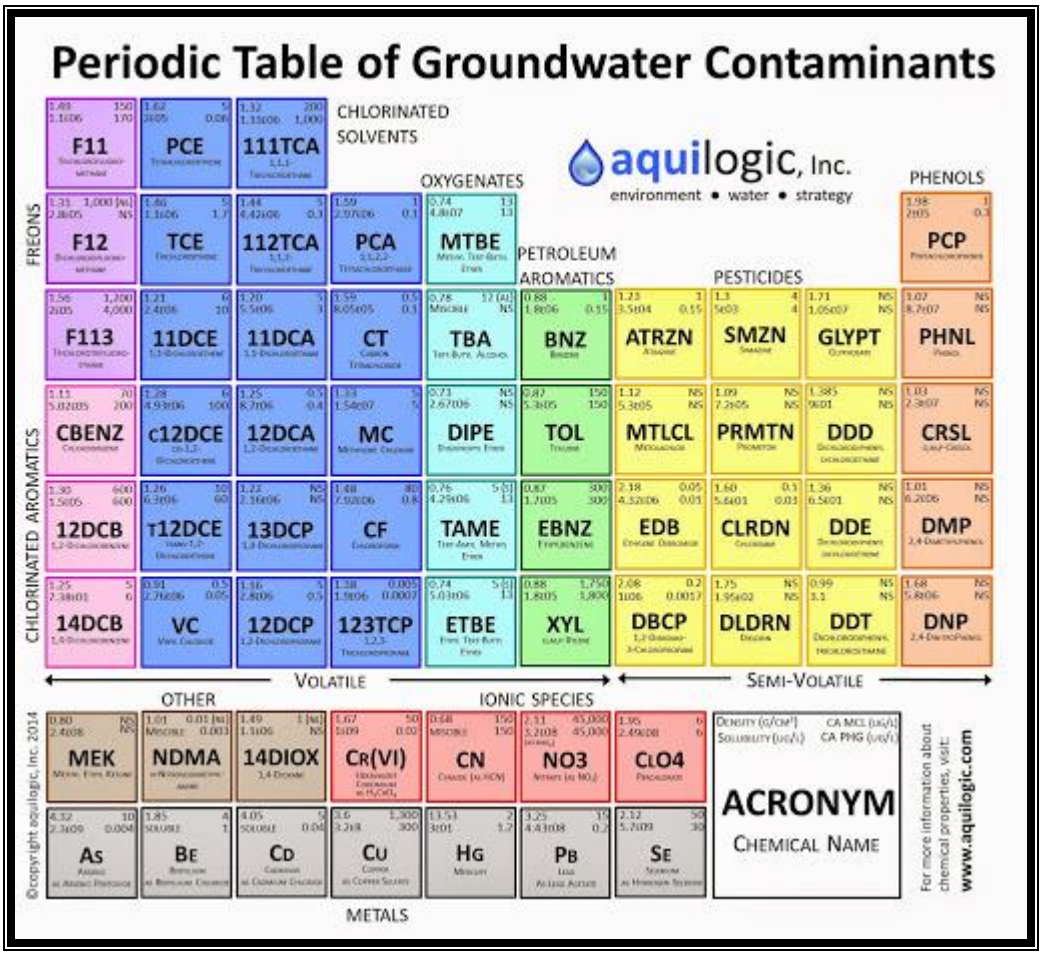
**PHASE 1 ASSESSMENT: HELENDALE CSD NEW WELL FIELD, HELENDALE, CA 92345 - APN 0467-121-22&28**



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## ADDENDA #1:

## Sanborn Map REPORT (2 Pages)

## Historical USGS Topo Maps (10 Pages)

## EDR INC. - ENVIRONMENTAL REPORT (134 Pages)

**ALTEC Land Planning**
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Apple Valley, CA 92307

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Helendale CSD Well Field
20675 Helendale Road
Helendale, CA 92342

Inquiry Number: 6174843.3
August 31, 2020

# Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

# Certified Sanborn® Map Report

08/31/20

**Site Name:**

Helendale CSD Well Field
20675 Helendale Road
Helendale, CA 92342
EDR Inquiry # 6174843.3

**Client Name:**

BCA Engineering Corp
15181 Pocahontas Street
Apple Valley, CA 92307
Contact: Randy Coleman

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by BCA Engineering Corp were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

## *Certified Sanborn Results:*

**Certification #** D55F-4538-87A4

**PO #** N/A

**Project** HCSD New Well Field

### UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: D55F-4538-87A4

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

*The Sanborn Library LLC Since 1866™*

### Limited Permission To Make Copies

BCA Engineering Corp (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Helendale CSD Well Field
20675 Helendale Road
Helendale, CA 92342

Inquiry Number: 6174843.4
August 31, 2020

# EDR Historical Topo Map Report

## with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

# EDR Historical Topo Map Report

08/31/20

**Site Name:**

Helendale CSD Well Field
20675 Helendale Road
Helendale, CA 92342
EDR Inquiry # 6174843.4

**Client Name:**

BCA Engineering Corp
15181 Pocahontas Street
Apple Valley, CA 92307
Contact: Randy Coleman

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by BCA Engineering Corp were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

***Search Results:***

**P.O.#** N/A

**Project:** HCSD New Well Field

***Coordinates:***

| | |
|---|---|
| **Latitude:** | 34.723909 34° 43' 26" North |
| **Longitude:** | -117.345905 -117° 20' 45" West |
| **UTM Zone:** | Zone 11 North |
| **UTM X Meters:** | 468329.87 |
| **UTM Y Meters:** | 3842480.77 |
| **Elevation:** | 2482.21' above sea level |

**Maps Provided:**

2012
1993
1968
1956
1934
1932

## *Topo Sheet Key*

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### 2012 Source Sheets

Helendale
2012
7.5-minute, 24000

### 1993 Source Sheets

Helendale
1993
7.5-minute, 24000
Aerial Photo Revised 1989

### 1968 Source Sheets

Helendale
1968
7.5-minute, 24000
Aerial Photo Revised 1968

### 1956 Source Sheets

Helendale
1956
7.5-minute, 24000
Aerial Photo Revised 1952

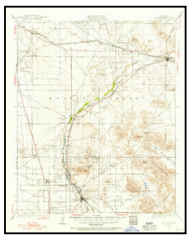
## *Topo Sheet Key*

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### 1934 Source Sheets

Barstow
1934
30-minute, 125000

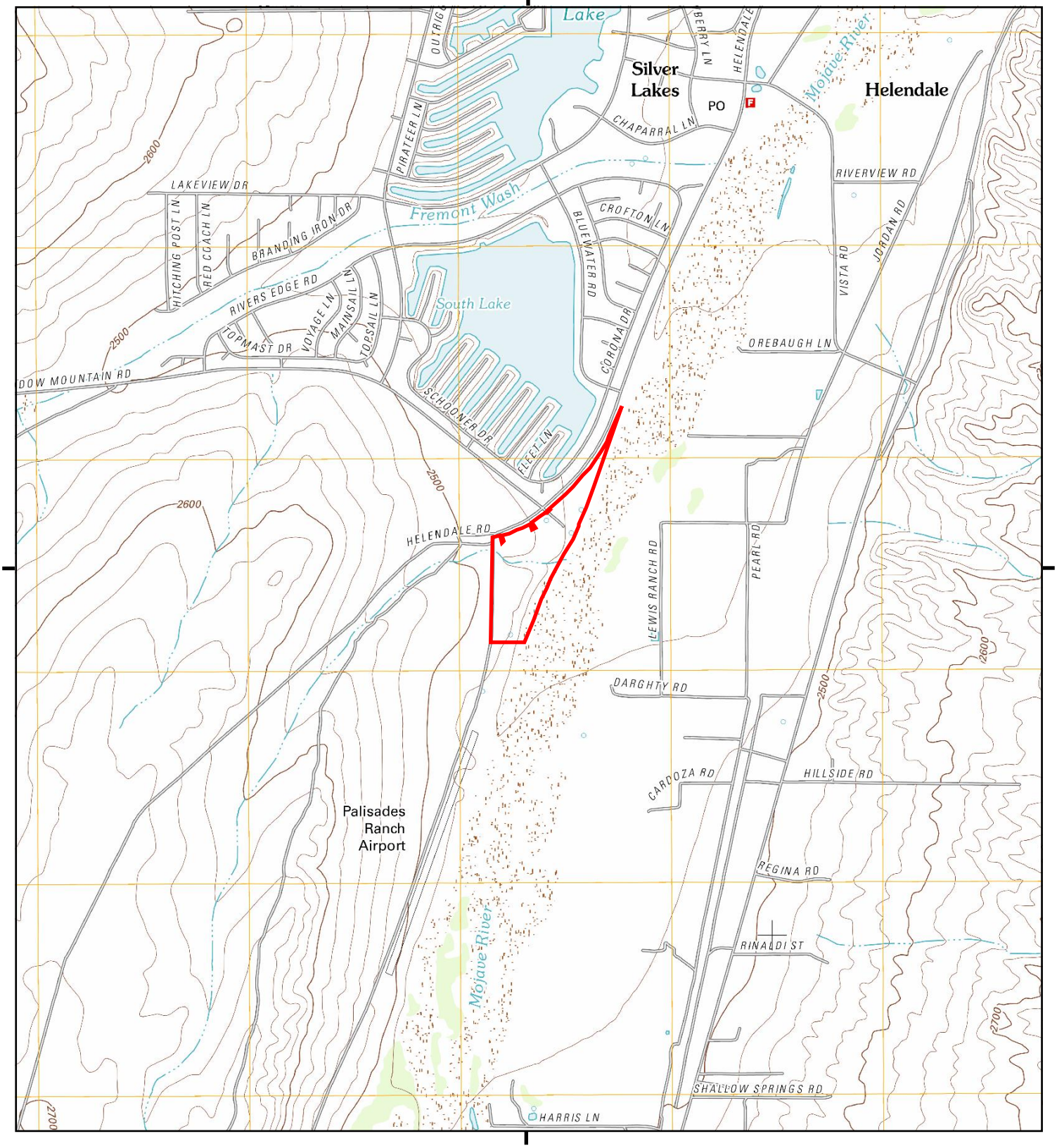
### 1932 Source Sheets



Barstow
1932
30-minute, 125000

# Historical Topo Map

2012




This report includes information from the following map sheet(s).

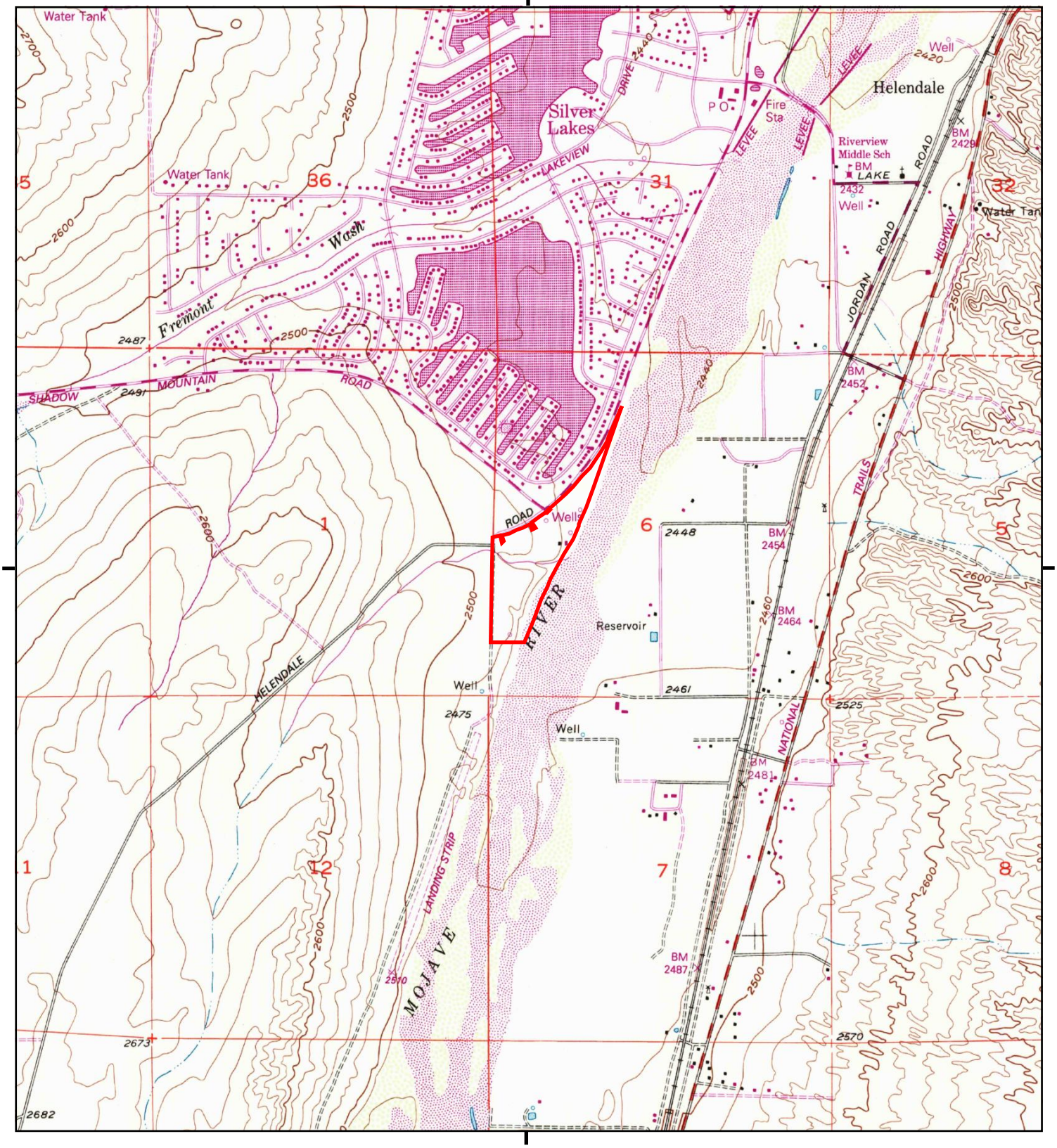
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Helendale, 2012, 7.5-minute

SITE NAME: Helendale CSD Well Field
ADDRESS: 20675 Helendale Road
Helendale, CA 92342
CLIENT: BCA Engineering Corp

N

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NW N NE
W E
SW S SE

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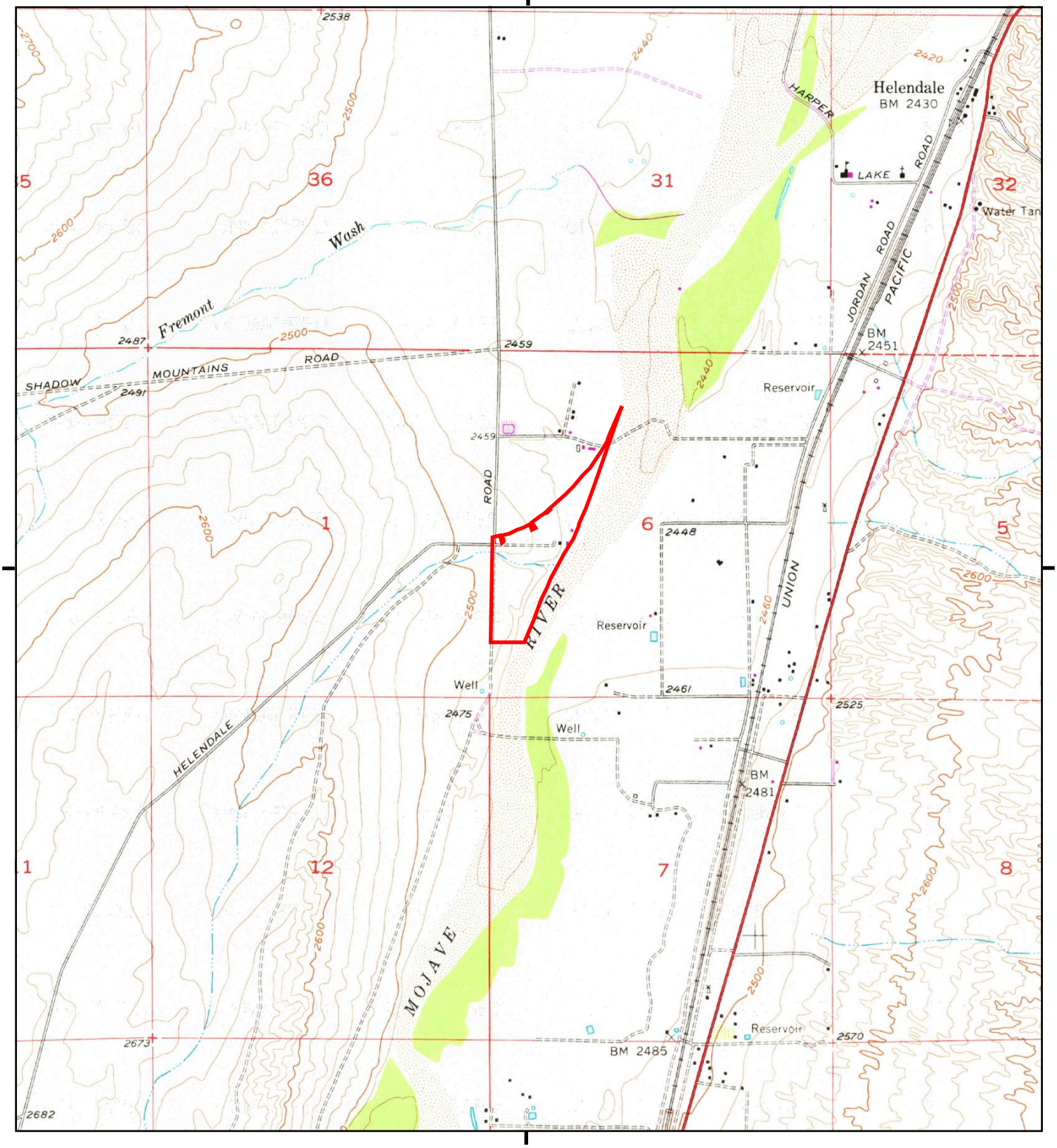
SITE NAME: Helendale CSD Well Field
ADDRESS: 20675 Helendale Road
Helendale, CA 92342
CLIENT: BCA Engineering Corp

N

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NW N NE
W E
SW S SE

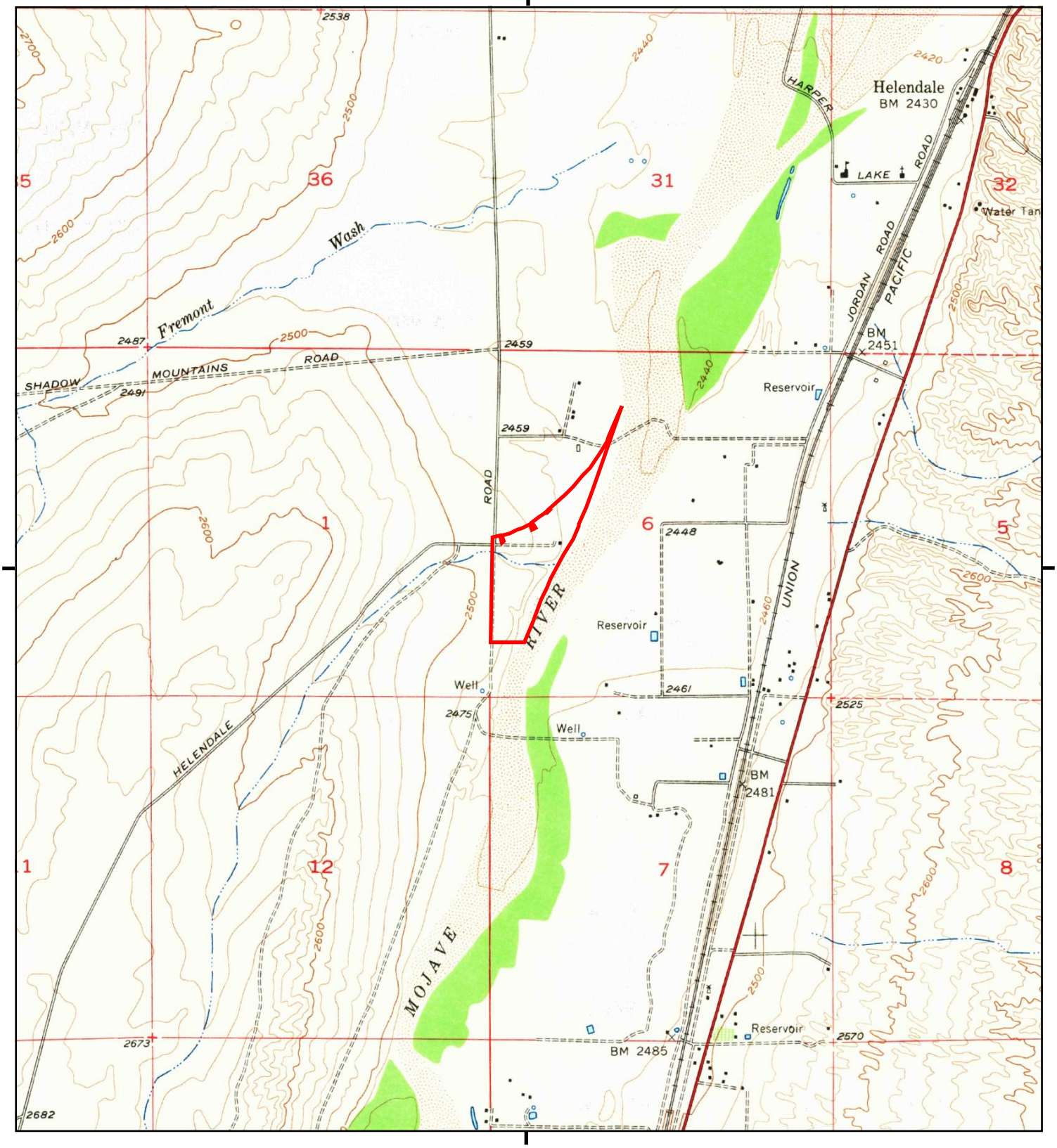
TP, Helendale, 1968, 7.5-minute

SITE NAME: Helendale CSD Well Field
ADDRESS: 20675 Helendale Road
Helendale, CA 92342
CLIENT: BCA Engineering Corp

N

# Historical Topo Map

1956

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W E
SW S SE

TP, Helendale, 1956, 7.5-minute

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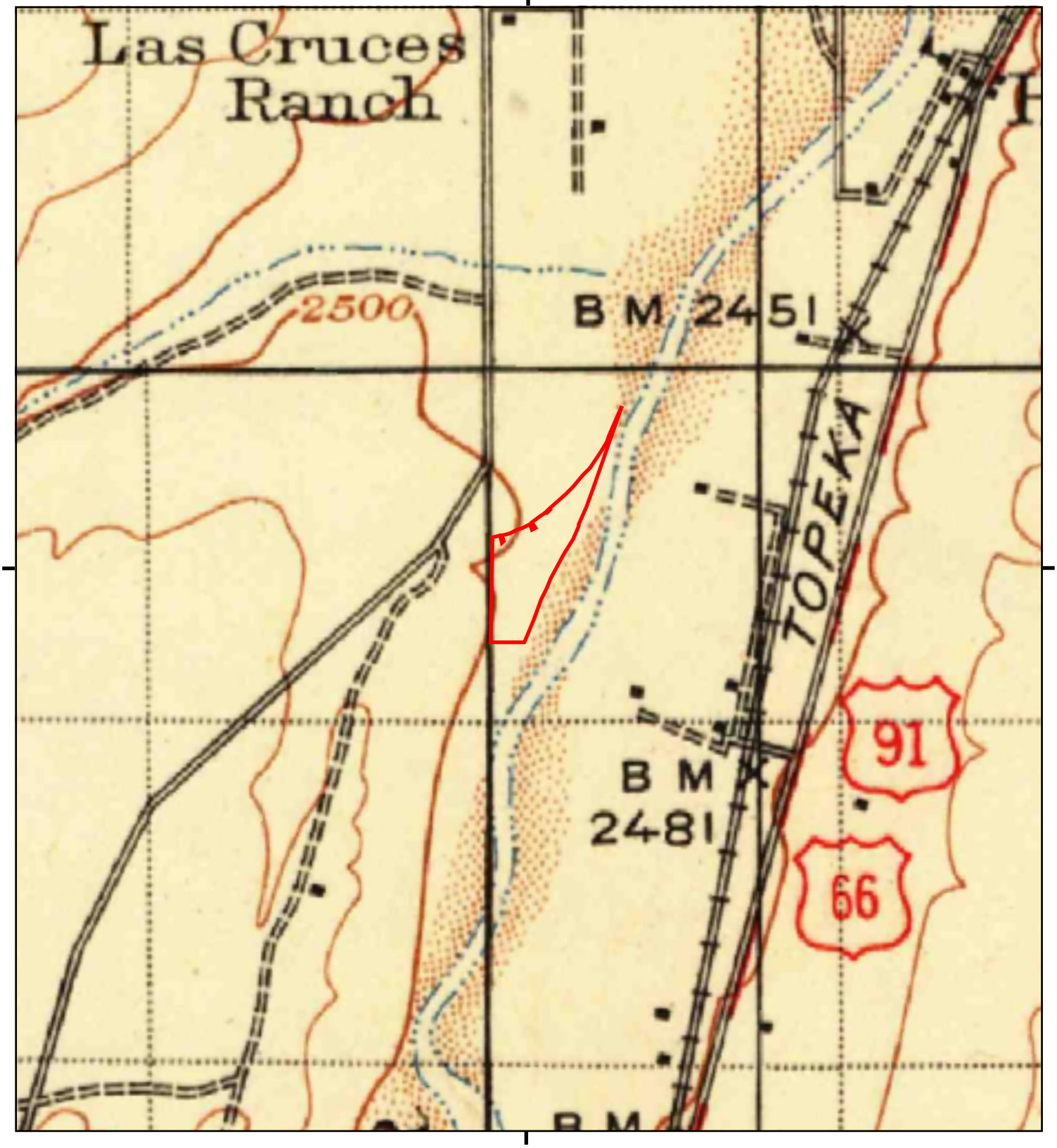
ADDRESS: 20675 Helendale Road
Helendale, CA 92342
CLIENT: BCA Engineering Corp

N

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NW N NE
W E
SW S SE

TP, Barstow, 1934, 30-minute

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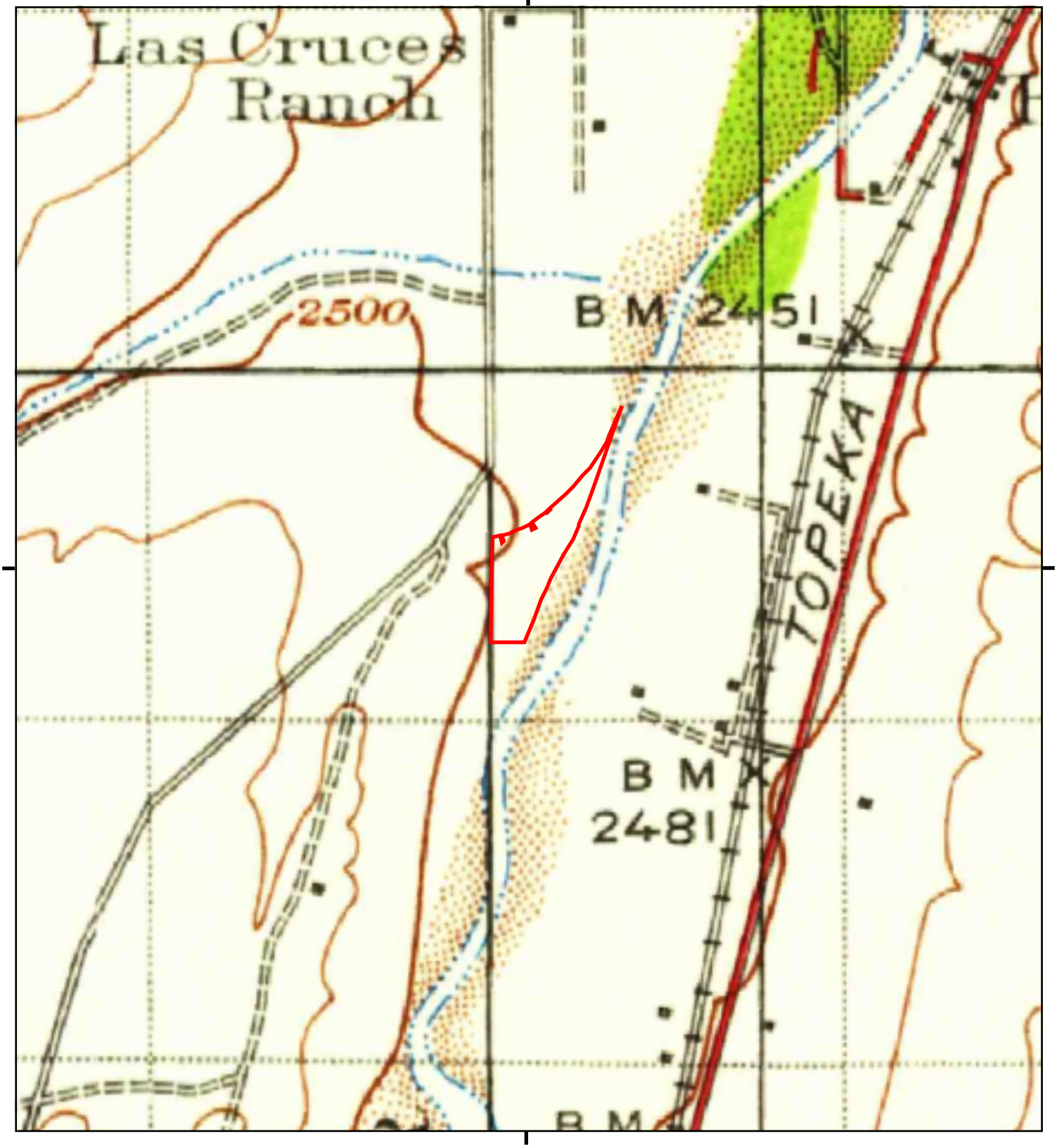
ADDRESS: 20675 Helendale Road
Helendale, CA 92342
CLIENT: BCA Engineering Corp

N

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NW N NE
W E
SW S SE

TP, Barstow, 1932, 30-minute

SITE NAME: Helendale CSD Well Field
ADDRESS: 20675 Helendale Road
Helendale, CA 92342
CLIENT: BCA Engineering Corp

N

**Helendale CSD Well Field**
20675 Helendale Road
Helendale, CA 92342

Inquiry Number: 6174843.2s
August 31, 2020

# The EDR Radius Map™ Report with GeoCheck®

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Shelton, CT 06484
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# TABLE OF CONTENTS



***Thank you for your business.***
Please contact EDR at 1-800-352-0050
with any questions or comments.

# EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

## TARGET PROPERTY INFORMATION

### ADDRESS

20675 HELENDALE ROAD
HELENDALE, CA 92342

### COORDINATES

| | |
|---|---|
| Latitude (North): | 34.7239090 - 34° 43' 26.07'' |
| Longitude (West): | 117.3459050 - 117° 20' 45.25'' |
| Universal Tranverse Mercator: | Zone 11 |
| UTM X (Meters): | 468329.2 |
| UTM Y (Meters): | 3842284.0 |
| Elevation: | 2481 ft. above sea level |

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

| | |
|---|---|
| Target Property Map: | 5619060 HELENDALE, CA |
| Version Date: | 2012 |

### AERIAL PHOTOGRAPHY IN THIS REPORT

| | |
|---|---|
| Portions of Photo from: | 20140601 |
| Source: | USDA |

## MAPPED SITES SUMMARY

Target Property Address:
20675 HELENDALE ROAD
HELENDALE, CA 92342

Click on Map ID to see full detail.

| MAP ID | SITE NAME | ADDRESS | DATABASE ACRONYMS | RELATIVE ELEVATION | DIST (ft. & mi.) DIRECTION |
|---|---|---|---|---|---|
| 1 | HELENDALE CSD - WELL | 26081 HELENDALE RD | San Bern. Co. Permit, CERS | Lower | 18, 0.003, North |
| 2 | HELENDALE CSD - WELL | 26161 BALBOA CT | San Bern. Co. Permit, CERS | Lower | 151, 0.029, NNE |
| A3 | HELENDALE CSD - WELL | 26275 CORONA DR | San Bern. Co. Permit | Lower | 200, 0.038, NNE |
| A4 | HELENDALE CSD - WELL | 26257 CORONA DR | San Bern. Co. Permit, CERS | Lower | 219, 0.041, NNE |
| 5 | RIVERS EDGE MIDDLE S | RIVERS EDGE ROAD/VOY | ENVIROSTOR, SCH | Higher | 4490, 0.850, NW |

# EXECUTIVE SUMMARY

## TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

## DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

## STANDARD ENVIRONMENTAL RECORDS

### *Federal NPL site list*

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

### *Federal Delisted NPL site list*

Delisted NPL ---------- National Priority List Deletions

### *Federal CERCLIS list*

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

### *Federal CERCLIS NFRAP site list*

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

### *Federal RCRA CORRACTS facilities list*

CORRACTS ---------- Corrective Action Report

### *Federal RCRA non-CORRACTS TSD facilities list*

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

### *Federal RCRA generators list*

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

### *Federal institutional controls / engineering controls registries*

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROLS ..... Institutional Controls Sites List

***Federal ERNS list***

ERNS ..... Emergency Response Notification System

***State- and tribal - equivalent NPL***

RESPONSE ..... State Response Sites

***State and tribal landfill and/or solid waste disposal site lists***

SWF/LF ..... Solid Waste Information System

***State and tribal leaking storage tank lists***

LUST ..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC ..... Statewide SLIC Cases

***State and tribal registered storage tank lists***

FEMA UST ..... Underground Storage Tank Listing
UST ..... Active UST Facilities
AST ..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST ..... Underground Storage Tanks on Indian Land

***State and tribal voluntary cleanup sites***

VCP ..... Voluntary Cleanup Program Properties
INDIAN VCP ..... Voluntary Cleanup Priority Listing

***State and tribal Brownfields sites***

BROWNFIELDS ..... Considered Brownfieds Sites Listing

**ADDITIONAL ENVIRONMENTAL RECORDS**

***Local Brownfield lists***

US BROWNFIELDS ..... A Listing of Brownfields Sites

***Local Lists of Landfill / Solid Waste Disposal Sites***

WMUDS/SWAT ..... Waste Management Unit Database
SWRCY ..... Recycler Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ..... Open Dumps on Indian Land

***Local Lists of Hazardous waste / Contaminated Sites***

US HIST CDL ..... Delisted National Clandestine Laboratory Register

HIST Cal-Sites ---- Historical Calsites Database
SCH ---- School Property Evaluation Program
CDL ---- Clandestine Drug Labs
CERS HAZ WASTE ---- CERS HAZ WASTE
Toxic Pits ---- Toxic Pits Cleanup Act Sites
US CDL ---- National Clandestine Laboratory Register
PFAS ---- PFAS Contamination Site Location Listing

***Local Lists of Registered Storage Tanks***

SWEEPS UST ---- SWEEPS UST Listing
HIST UST ---- Hazardous Substance Storage Container Database
CERS TANKS ---- California Environmental Reporting System (CERS) Tanks
CA FID UST ---- Facility Inventory Database

***Local Land Records***

LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information
DEED ---- Deed Restriction Listing

***Records of Emergency Release Reports***

HMIRS ---- Hazardous Materials Information Reporting System
CHMIRS ---- California Hazardous Material Incident Report System
LDS ---- Land Disposal Sites Listing
MCS ---- Military Cleanup Sites Listing
SPILLS 90 ---- SPILLS 90 data from FirstSearch

***Other Ascertainable Records***

RCRA NonGen / NLR ---- RCRA - Non Generators / No Longer Regulated
FUDS ---- Formerly Used Defense Sites
DOD ---- Department of Defense Sites
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---- Financial Assurance Information
EPA WATCH LIST ---- EPA WATCH LIST
2020 COR ACTION ---- 2020 Corrective Action Program List
TSCA ---- Toxic Substances Control Act
TRIS ---- Toxic Chemical Release Inventory System
SSTS ---- Section 7 Tracking Systems
ROD ---- Records Of Decision
RMP ---- Risk Management Plans
RAATS ---- RCRA Administrative Action Tracking System
PRP ---- Potentially Responsible Parties
PADS ---- PCB Activity Database System
ICIS ---- Integrated Compliance Information System
FTTS ---- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS ---- Material Licensing Tracking System
COAL ASH DOE ---- Steam-Electric Plant Operation Data
COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---- PCB Transformer Registration Database
RADINFO ---- Radiation Information Database
HIST FTTS ---- FIFRA/TSCA Tracking System Administrative Case Listing

DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---- Indian Reservations
FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites
LEAD SMELTERS ---- Lead Smelter Sites
US AIRS ---- Aerometric Information Retrieval System Facility Subsystem
US MINES ---- Mines Master Index File
ABANDONED MINES ---- Abandoned Mines
FINDS ---- Facility Index System/Facility Registry System
ECHO ---- Enforcement & Compliance History Information
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
UXO ---- Unexploded Ordnance Sites
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
CA BOND EXP. PLAN ---- Bond Expenditure Plan
Cortese ---- "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings ---- Hazardous Material Business Plan
CUPA Listings ---- Hazardous Material Business Plan
DRYCLEANERS ---- Cleaner Facilities
EMI ---- Emissions Inventory Data
ENF ---- Enforcement Action Listing
Financial Assurance ---- Financial Assurance Information Listing
HAZNET ---- Facility and Manifest Data
ICE ---- ICE
HIST CORTESE ---- Hazardous Waste & Substance Site List
HWP ---- EnviroStor Permitted Facilities Listing
HWT ---- Registered Hazardous Waste Transporter Database
MINES ---- Mines Site Location Listing
MWMP ---- Medical Waste Management Program Listing
NPDES ---- NPDES Permits Listing
PEST LIC ---- Pesticide Regulation Licenses Listing
PROC ---- Certified Processors Database
Notify 65 ---- Proposition 65 Records
UIC ---- UIC Listing
UIC GEO ---- UIC GEO (GEOTRACKER)
WASTEWATER PITS ---- Oil Wastewater Pits Listing
WDS ---- Waste Discharge System
WIP ---- Well Investigation Program Case List
MILITARY PRIV SITES ---- MILITARY PRIV SITES (GEOTRACKER)
PROJECT ---- PROJECT (GEOTRACKER)
WDR ---- Waste Discharge Requirements Listing
CIWQS ---- California Integrated Water Quality System
CERS ---- CERS
NON-CASE INFO ---- NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS ---- OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS ---- PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT ---- SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ ---- Well Stimulation Project (GEOTRACKER)
MINES MRDS ---- Mineral Resources Data System
HWTS ---- Hazardous Waste Tracking System

**EDR HIGH RISK HISTORICAL RECORDS**

***EDR Exclusive Records***

EDR MGP ---- EDR Proprietary Manufactured Gas Plants

EDR Hist Auto---------- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner---------- EDR Exclusive Historical Cleaners

**EDR RECOVERED GOVERNMENT ARCHIVES**

***Exclusive Recovered Govt. Archives***

RGA LF---------- Recovered Government Archive Solid Waste Facilities List
RGA LUST---------- Recovered Government Archive Leaking Underground Storage Tank

**SURROUNDING SITES: SEARCH RESULTS**

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

**STANDARD ENVIRONMENTAL RECORDS**

***State- and tribal - equivalent CERCLIS***

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 04/27/2020 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

| Equal/Higher Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***RIVERS EDGE MIDDLE S*** | ***RIVERS EDGE ROAD/VOY*** | ***NW 1/2 - 1 (0.850 mi.)*** | ***5*** | ***17*** |
| Facility Id: 60000839 | | | | |
| Status: No Action Required | | | | |

**ADDITIONAL ENVIRONMENTAL RECORDS**

***Other Ascertainable Records***

San Bern. Co. Permit: San Bernardino County Fire Department Hazardous Materials Division.

A review of the San Bern. Co. Permit list, as provided by EDR, and dated 02/25/2020 has revealed that there are 4 San Bern. Co. Permit sites within approximately 0.25 miles of the target property.

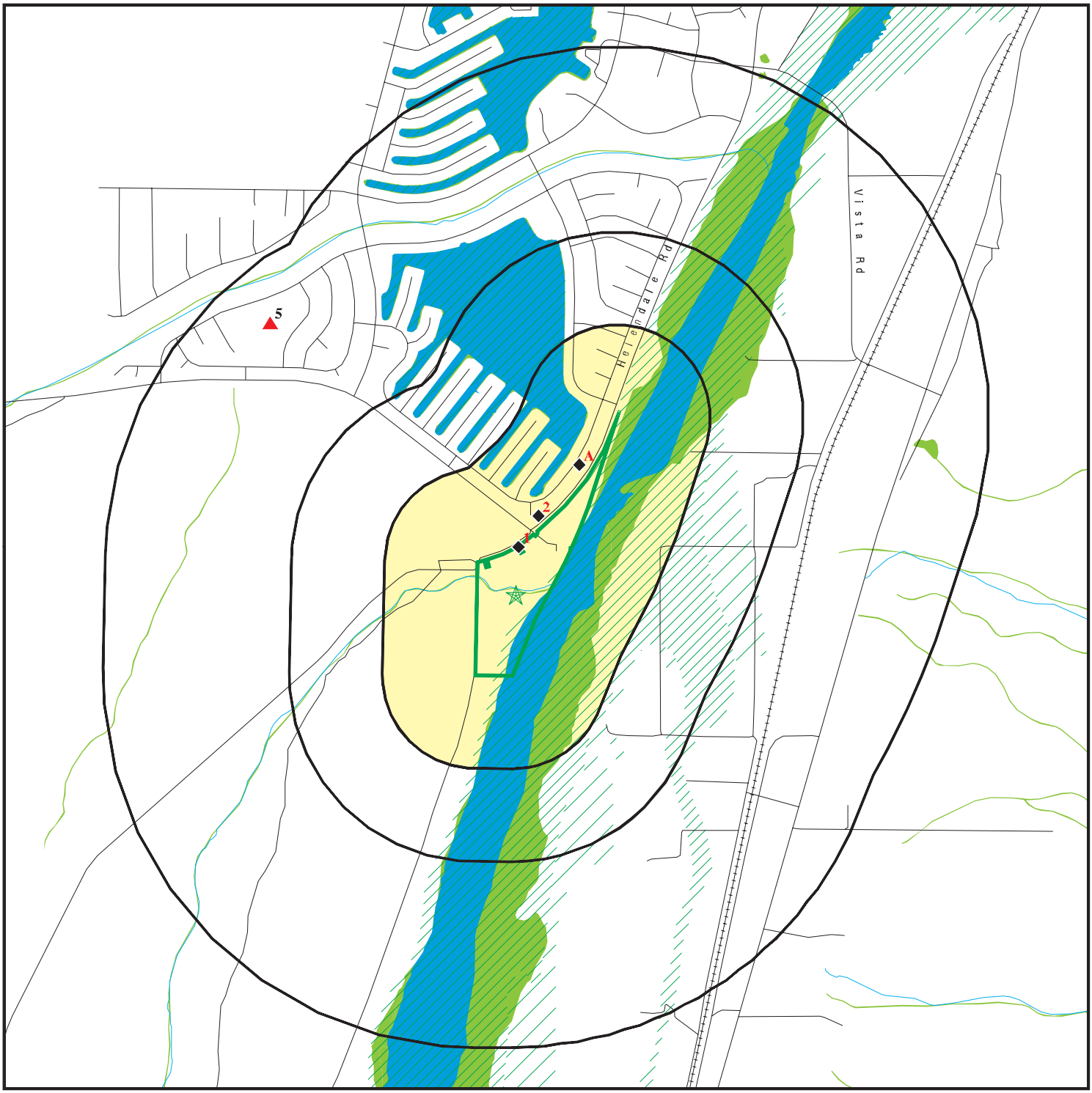
| Lower Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***HELENDALE CSD - WELL***<br>Facility Status: ACTIVE<br>Facility Id: FA0010036 | ***26081 HELENDALE RD*** | ***N 0 - 1/8 (0.003 mi.)*** | ***1*** | ***9*** |
| ***HELENDALE CSD - WELL***<br>Facility Status: INACTIVE<br>Facility Id: FA0010034 | ***26161 BALBOA CT*** | ***NNE 0 - 1/8 (0.029 mi.)*** | ***2*** | ***11*** |
| HELENDALE CSD - WELL<br>Facility Status: INACTIVE<br>Facility Id: FA0010033 | 26275 CORONA DR | NNE 0 - 1/8 (0.038 mi.) | A3 | 14 |
| ***HELENDALE CSD - WELL***<br>Facility Status: INACTIVE<br>Facility Id: FA0010026 | ***26257 CORONA DR*** | ***NNE 0 - 1/8 (0.041 mi.)*** | ***A4*** | ***15*** |

# EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

| Site Name | Database(s) |
| --- | --- |
| | CDL |

# OVERVIEW MAP - 6174843.2S




Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

| | | | |
|---|---|---|---|
| SITE NAME: | Helendale CSD Well Field | CLIENT: | BCA Engineering Corp |
| ADDRESS: | 20675 Helendale Road<br>Helendale CA 92342 | CONTACT: | Randy Coleman |
| | | INQUIRY #: | 6174843.2s |
| LAT/LONG: | 34.723909 / 117.345905 | DATE: | August 31, 2020 3:03 pm |

# DETAIL MAP - 6174843.2S


Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/8 1/4 1/2 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

| | | | |
|---|---|---|---|
| SITE NAME: | Helendale CSD Well Field | CLIENT: | BCA Engineering Corp |
| ADDRESS: | 20675 Helendale Road<br>Helendale CA 92342 | CONTACT: | Randy Coleman |
| | | INQUIRY #: | 6174843.2s |
| LAT/LONG: | 34.723909 / 117.345905 | DATE: | August 31, 2020 3:05 pm |

# MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|---|---|---|---|---|---|---|---|
| **STANDARD ENVIRONMENTAL RECORDS** | | | | | | | | |
| ***Federal NPL site list*** | | | | | | | | |
| NPL | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| Proposed NPL | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| NPL LIENS | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| ***Federal Delisted NPL site list*** | | | | | | | | |
| Delisted NPL | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| ***Federal CERCLIS list*** | | | | | | | | |
| FEDERAL FACILITY | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| SEMS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Federal CERCLIS NFRAP site list*** | | | | | | | | |
| SEMS-ARCHIVE | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Federal RCRA CORRACTS facilities list*** | | | | | | | | |
| CORRACTS | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| ***Federal RCRA non-CORRACTS TSD facilities list*** | | | | | | | | |
| RCRA-TSDF | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Federal RCRA generators list*** | | | | | | | | |
| RCRA-LQG | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| RCRA-SQG | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| RCRA-VSQG | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| ***Federal institutional controls / engineering controls registries*** | | | | | | | | |
| LUCIS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| US ENG CONTROLS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| US INST CONTROLS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Federal ERNS list*** | | | | | | | | |
| ERNS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ***State- and tribal - equivalent NPL*** | | | | | | | | |
| RESPONSE | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| ***State- and tribal - equivalent CERCLIS*** | | | | | | | | |
| ENVIROSTOR | 1.000 | | 0 | 0 | 0 | 1 | NR | 1 |
| ***State and tribal landfill and/or solid waste disposal site lists*** | | | | | | | | |
| SWF/LF | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***State and tribal leaking storage tank lists*** | | | | | | | | |
| LUST | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |

# MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|---|---|---|---|---|---|---|---|
| INDIAN LUST | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| CPS-SLIC | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***State and tribal registered storage tank lists*** | | | | | | | | |
| FEMA UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| AST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| INDIAN UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| ***State and tribal voluntary cleanup sites*** | | | | | | | | |
| VCP | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| INDIAN VCP | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***State and tribal Brownfields sites*** | | | | | | | | |
| BROWNFIELDS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| **ADDITIONAL ENVIRONMENTAL RECORDS** | | | | | | | | |
| ***Local Brownfield lists*** | | | | | | | | |
| US BROWNFIELDS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Local Lists of Landfill / Solid Waste Disposal Sites*** | | | | | | | | |
| WMUDS/SWAT | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| SWRCY | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| HAULERS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| INDIAN ODI | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ODI | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| DEBRIS REGION 9 | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| IHS OPEN DUMPS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Local Lists of Hazardous waste / Contaminated Sites*** | | | | | | | | |
| US HIST CDL | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HIST Cal-Sites | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| SCH | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| CDL | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| CERS HAZ WASTE | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| Toxic Pits | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| US CDL | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PFAS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Local Lists of Registered Storage Tanks*** | | | | | | | | |
| SWEEPS UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| HIST UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| CERS TANKS | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| CA FID UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| ***Local Land Records*** | | | | | | | | |
| LIENS | 0.001 | | 0 | NR | NR | NR | NR | 0 |

# MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|---|---|---|---|---|---|---|---|
| LIENS 2 | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| DEED | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Records of Emergency Release Reports*** | | | | | | | | |
| HMIRS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| CHMIRS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| LDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| MCS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| SPILLS 90 | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ***Other Ascertainable Records*** | | | | | | | | |
| RCRA NonGen / NLR | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| FUDS | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| DOD | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| SCRD DRYCLEANERS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| US FIN ASSUR | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| EPA WATCH LIST | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| 2020 COR ACTION | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| TSCA | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| TRIS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| SSTS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ROD | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| RMP | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| RAATS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PRP | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PADS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ICIS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| FTTS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| MLTS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| COAL ASH DOE | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| COAL ASH EPA | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| PCB TRANSFORMER | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| RADINFO | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HIST FTTS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| DOT OPS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| CONSENT | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| INDIAN RESERV | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| FUSRAP | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| UMTRA | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| LEAD SMELTERS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| US AIRS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| US MINES | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| ABANDONED MINES | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| FINDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ECHO | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| DOCKET HWC | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| UXO | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| FUELS PROGRAM | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| CA BOND EXP. PLAN | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| Cortese | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| CUPA Listings | 0.250 | | 0 | 0 | NR | NR | NR | 0 |

# MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|---|---|---|---|---|---|---|---|
| CUPA Listings | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| DRYCLEANERS | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| EMI | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ENF | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| Financial Assurance | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HAZNET | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ICE | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HIST CORTESE | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| HWP | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| HWT | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| MINES | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| MWMP | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| NPDES | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| San Bern. Co. Permit | 0.250 | | 4 | 0 | NR | NR | NR | 4 |
| PEST LIC | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PROC | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| Notify 65 | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| UIC | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| UIC GEO | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| WASTEWATER PITS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| WDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| WIP | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| MILITARY PRIV SITES | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PROJECT | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| WDR | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| CIWQS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| CERS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| NON-CASE INFO | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| OTHER OIL GAS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PROD WATER PONDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| SAMPLING POINT | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| WELL STIM PROJ | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| MINES MRDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HWTS | TP | | NR | NR | NR | NR | NR | 0 |
| **EDR HIGH RISK HISTORICAL RECORDS** | | | | | | | | |
| ***EDR Exclusive Records*** | | | | | | | | |
| EDR MGP | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| EDR Hist Auto | 0.125 | | 0 | NR | NR | NR | NR | 0 |
| EDR Hist Cleaner | 0.125 | | 0 | NR | NR | NR | NR | 0 |
| **EDR RECOVERED GOVERNMENT ARCHIVES** | | | | | | | | |
| ***Exclusive Recovered Govt. Archives*** | | | | | | | | |
| RGA LF | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| RGA LUST | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| - Totals -- | | 0 | 4 | 0 | 0 | 1 | 0 | 5 |

# MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|---|---|---|---|---|---|---|---|

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

**1**
**North**
**< 1/8**
**0.003 mi.**
**18 ft.**

**HELENDALE CSD - WELL #6**
**26081 HELENDALE RD**
**HELENDALE, CA 92342**

**San Bern. Co. Permit**
**CERS**

**S111160518**
**N/A**

**Relative:**
**Lower**

**Actual:**
**2480 ft.**

San Bern. Co. Permit:

| | |
|---|---|
| Name: | HELENDALE CSD - WELL #6 |
| Address: | 26081 HELENDALE RD |
| City,State,Zip: | HELENDALE, CA 92342 |
| Region: | SAN BERNARDINO |
| Facility ID: | FA0010036 |
| Owner: | HELENDALE CSD |
| Permit Number: | PT0017161 |
| Permit Category: | HAZARDOUS MATERIALS 1-3 CHEMICALS SPECIAL |
| Facility Status: | ACTIVE |
| Expiration Date: | 10/31/2020 |

CERS:

| | |
|---|---|
| Name: | HELENDALE CSD - WELL #6 |
| Address: | 26081 HELENDALE RD |
| City,State,Zip: | HELENDALE, CA 92342 |
| Site ID: | 122154 |
| CERS ID: | 10050682 |
| CERS Description: | Chemical Storage Facilities |

Evaluation:

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 07-25-2013 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | helendale csd well#6-insp |
| Eval Division: | San Bernardino County Fire Department |
| Eval Program: | HMRRP |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 10-27-2016 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | HANDLER INSPECTION |
| Eval Division: | San Bernardino County Fire Department |
| Eval Program: | HMRRP |
| Eval Source: | CERS |

| | |
|---|---|
| Eval General Type: | Compliance Evaluation Inspection |
| Eval Date: | 01-15-2020 |
| Violations Found: | No |
| Eval Type: | Routine done by local agency |
| Eval Notes: | Not reported |
| Eval Division: | San Bernardino County Fire Department |
| Eval Program: | HMRRP |
| Eval Source: | CERS |

Affiliation:

| | |
|---|---|
| Affiliation Type Desc: | Parent Corporation |
| Entity Name: | Helendale Community Services District |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |

**HELENDALE CSD - WELL #6 (Continued)** **S111160518**

| | |
|---|---|
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | CUPA District |
| Entity Name: | San Bernardino County Fire |
| Entity Title: | Not reported |
| Affiliation Address: | 620 South E Street |
| Affiliation City: | San Bernardino |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92415-0153 |
| Affiliation Phone: | (909) 386-8401 |
| | |
| Affiliation Type Desc: | Document Preparer |
| Entity Name: | Cheryl Vermette |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Environmental Contact |
| Entity Name: | Kimberly Cox |
| Entity Title: | Not reported |
| Affiliation Address: | PO BOX 359 |
| Affiliation City: | HELENDALE |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92342 |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Property Owner |
| Entity Name: | Helendale CSD |
| Entity Title: | Not reported |
| Affiliation Address: | 26081 HELENDALE RD |
| Affiliation City: | HELENDALE |
| Affiliation State: | CA |
| Affiliation Country: | United States |
| Affiliation Zip: | 92342 |
| Affiliation Phone: | (760) 951-0006 |
| | |
| Affiliation Type Desc: | Facility Mailing Address |
| Entity Name: | Mailing Address |
| Entity Title: | Not reported |
| Affiliation Address: | PO BOX 359 |
| Affiliation City: | HELENDALE |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92342 |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Identification Signer |

**HELENDALE CSD - WELL #6 (Continued)** **S111160518**

| | |
|---|---|
| Entity Name: | Kimberly Cox |
| Entity Title: | General Manager |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Operator |
| Entity Name: | CRAIG CARLSON |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (760) 951-0006 |
| | |
| Affiliation Type Desc: | Legal Owner |
| Entity Name: | Helendale CSD |
| Entity Title: | Not reported |
| Affiliation Address: | P.O. BOX 359 |
| Affiliation City: | HELENDALE |
| Affiliation State: | CA |
| Affiliation Country: | United States |
| Affiliation Zip: | 92342 |
| Affiliation Phone: | (760) 951-0006 |

---

**2** **HELENDALE CSD - WELL #4** **San Bern. Co. Permit S112142705**
**NNE** **26161 BALBOA CT** **CERS N/A**
**< 1/8** **HELENDALE, CA 92342**
**0.029 mi.**
**151 ft.**

**Relative:**
**Lower**

**Actual:**
**2464 ft.**

San Bern. Co. Permit:

| | |
|---|---|
| Name: | HELENDALE CSD - WELL #4 |
| Address: | 26161 BALBOA CT |
| City,State,Zip: | HELENDALE, CA 92342 |
| Region: | SAN BERNARDINO |
| Facility ID: | FA0010034 |
| Owner: | HELENDALE CSD |
| Permit Number: | PT0025669 |
| Permit Category: | HAZARDOUS MATERIALS 1-3 CHEMICALS SPECIAL |
| Facility Status: | INACTIVE |
| Expiration Date: | 09/30/2020 |

CERS:

| | |
|---|---|
| Name: | HELENDALE CSD - WELL #4 |
| Address: | 26161 BALBOA CT |
| City,State,Zip: | HELENDALE, CA 92342 |
| Site ID: | 122153 |
| CERS ID: | 10310878 |
| CERS Description: | Chemical Storage Facilities |

Violations:

| | |
|---|---|
| Site ID: | 122153 |

**HELENDALE CSD - WELL #4 (Continued)** **S112142705**

Site Name: HELENDALE CSD - WELL #4
Violation Date: 01-15-2020
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes: Returned to compliance on 01/17/2020. OBSERVATION: The last business plan submitted by this facility via CERS was dated 8/9/2018. CORRECTIVE ACTION: Update the business plan via CERS. CERS ID#10310878.
Violation Division: San Bernardino County Fire Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-15-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-25-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: helendale csd well#4-insp
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-27-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: HANDLER INSPECTION
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 122153
Facility Name: HELENDALE CSD - WELL #4
Env Int Type Code: HMBP
Program ID: 10310878
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 34.727050
Longitude: -117.344830

Affiliation:
Affiliation Type Desc: Identification Signer
Entity Name: Kimberly Cox

**HELENDALE CSD - WELL #4 (Continued)** **S112142705**

| | |
|---|---|
| Entity Title: | General Manager |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | CUPA District |
| Entity Name: | San Bernardino County Fire |
| Entity Title: | Not reported |
| Affiliation Address: | 620 South E Street |
| Affiliation City: | San Bernardino |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92415-0153 |
| Affiliation Phone: | (909) 386-8401 |
| | |
| Affiliation Type Desc: | Environmental Contact |
| Entity Name: | Kimberly Cox |
| Entity Title: | Not reported |
| Affiliation Address: | P O BOX 359 |
| Affiliation City: | HELENDALE |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92342 |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | Operator |
| Entity Name: | CRAIG CARLSON |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | (760) 951-0006 |
| | |
| Affiliation Type Desc: | Property Owner |
| Entity Name: | Helendale CSD |
| Entity Title: | Not reported |
| Affiliation Address: | 26161 BALBOA CT |
| Affiliation City: | HELENDALE |
| Affiliation State: | CA |
| Affiliation Country: | United States |
| Affiliation Zip: | 92342 |
| Affiliation Phone: | (760) 951-0006 |
| | |
| Affiliation Type Desc: | Document Preparer |
| Entity Name: | Cheryl Vermette |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

**HELENDALE CSD - WELL #4 (Continued)** **S112142705**

| | |
|---|---|
| Affiliation Type Desc: | Facility Mailing Address |
| Entity Name: | Mailing Address |
| Entity Title: | Not reported |
| Affiliation Address: | PO BOX 359 |
| Affiliation City: | HELENDALE |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92342 |
| Affiliation Phone: | Not reported |

| | |
|---|---|
| Affiliation Type Desc: | Legal Owner |
| Entity Name: | Helendale CSD |
| Entity Title: | Not reported |
| Affiliation Address: | P.O. BOX 359 |
| Affiliation City: | HELENDALE |
| Affiliation State: | CA |
| Affiliation Country: | United States |
| Affiliation Zip: | 92342 |
| Affiliation Phone: | (760) 951-0006 |

| | |
|---|---|
| Affiliation Type Desc: | Parent Corporation |
| Entity Name: | Helendale Community Services District |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |

---

**A3** **HELENDALE CSD - WELLS #2** **San Bern. Co. Permit** **S111160517**
**NNE** **26275 CORONA DR** **N/A**
**< 1/8** **HELENDALE, CA 92342**
**0.038 mi.**
**200 ft.** **Site 1 of 2 in cluster A**

**Relative:**
**Lower**

**Actual:**
**2454 ft.**

San Bern. Co. Permit:

| | |
|---|---|
| Name: | HELENDALE CSD - WELLS #2 |
| Address: | 26275 CORONA DR |
| City,State,Zip: | HELENDALE, CA 92342 |
| Region: | SAN BERNARDINO |
| Facility ID: | FA0010033 |
| Owner: | HELENDALE CSD |
| Permit Number: | PT0017160 |
| Permit Category: | HAZMAT HANDLER 0-10 EMPLOYEES |
| Facility Status: | INACTIVE |
| Expiration Date: | 10/31/2011 |

**A4** **HELENDALE CSD - WELL #1** **San Bern. Co. Permit** **S111160515**
**NNE** **26257 CORONA DR** **CERS** **N/A**
**< 1/8** **HELENDALE, CA 92342**
**0.041 mi.**
**219 ft.** **Site 2 of 2 in cluster A**

**Relative:**
**Lower**

**Actual:**
**2457 ft.**

San Bern. Co. Permit:
Name: HELENDALE CSD - WELL #1
Address: 26257 CORONA DR
City,State,Zip: HELENDALE, CA 92342
Region: SAN BERNARDINO
Facility ID: FA0010026
Owner: HELENDALE CSD
Permit Number: PT0024471
Permit Category: HAZARDOUS MATERIALS 1-3 CHEMICALS SPECIAL
Facility Status: INACTIVE
Expiration Date: 10/31/2020

CERS:
Name: HELENDALE CSD - WELL #1
Address: 26257 CORONA DR
City,State,Zip: HELENDALE, CA 92342
Site ID: 122151
CERS ID: 10310875
CERS Description: Chemical Storage Facilities

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-24-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: helendale csd well#1-insp prep
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-25-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: helendale csd well#1-insp
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-15-2020
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-27-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: HANDLER INSPECTION

**HELENDALE CSD - WELL #1 (Continued)** **S111160515**

Eval Division: San Bernardino County Fire Department
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 122151
Facility Name: HELENDALE CSD - WELL #1
Env Int Type Code: HMBP
Program ID: 10310875
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 34.729340
Longitude: -117.342890

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: Kimberly Cox
Entity Title: Not reported
Affiliation Address: PO BOX 359
Affiliation City: HELENDALE
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92342
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: PO BOX 359
Affiliation City: HELENDALE
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92342
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: CRAIG CARLSON
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (760) 951-0006

Affiliation Type Desc: Legal Owner
Entity Name: Helendale CSD
Entity Title: Not reported
Affiliation Address: P.O. BOX 359
Affiliation City: HELENDALE
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92342
Affiliation Phone: (760) 951-0006

Affiliation Type Desc: Parent Corporation

**HELENDALE CSD - WELL #1 (Continued)** **S111160515**

| | |
|---|---|
| Entity Name: | Helendale Community Services District |
| Entity Title: | Not reported |
| Affiliation Address: | Not reported |
| Affiliation City: | Not reported |
| Affiliation State: | Not reported |
| Affiliation Country: | Not reported |
| Affiliation Zip: | Not reported |
| Affiliation Phone: | Not reported |
| | |
| Affiliation Type Desc: | CUPA District |
| Entity Name: | San Bernardino County Fire |
| Entity Title: | Not reported |
| Affiliation Address: | 620 South E Street |
| Affiliation City: | San Bernardino |
| Affiliation State: | CA |
| Affiliation Country: | Not reported |
| Affiliation Zip: | 92415-0153 |
| Affiliation Phone: | (909) 386-8401 |

---

**5** **RIVERS EDGE MIDDLE SCHOOL** **ENVIROSTOR** **S118757173**
**NW** **RIVERS EDGE ROAD/VOYAGE LANE** **SCH** **N/A**
**1/2-1** **HELENDALE, CA 92342**
**0.850 mi.**
**4490 ft.**

**Relative:**
**Higher**

**Actual:**
**2488 ft.**

ENVIROSTOR:

| | |
|---|---|
| Name: | RIVERS EDGE MIDDLE SCHOOL |
| Address: | RIVERS EDGE ROAD/VOYAGE LANE |
| City,State,Zip: | HELENDALE, CA 92342 |
| Facility ID: | 60000839 |
| Status: | No Action Required |
| Status Date: | 04/02/2008 |
| Site Code: | 404781 |
| Site Type: | School Investigation |
| Site Type Detailed: | School |
| Acres: | 14.59 |
| NPL: | NO |
| Regulatory Agencies: | SMBRP |
| Lead Agency: | SMBRP |
| Program Manager: | Amit Pathak |
| Supervisor: | Shahir Haddad |
| Division Branch: | Southern California Schools & Brownfields Outreach |
| Assembly: | 33 |
| Senate: | 16 |
| Special Program: | Not reported |
| Restricted Use: | NO |
| Site Mgmt Req: | NONE SPECIFIED |
| Funding: | School District |
| Latitude: | 34.73458 |
| Longitude: | -117.3575 |
| APN: | NONE SPECIFIED |
| Past Use: | NONE |
| Potential COC: | NONE SPECIFIED No Contaminants found |
| Confirmed COC: | 31000-NO |
| Potential Description: | SOIL |
| Alias Name: | 404781 |
| Alias Type: | Project Code (Site Code) |

**RIVERS EDGE MIDDLE SCHOOL (Continued)** **S118757173**

Alias Name: 60000839
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 04/01/2008
Comments: Project Close out Cost Recovery Unit Memorandum.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 03/25/2008
Comments: DTSC approved the Phase I report with a No Action determination

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: RIVERS EDGE MIDDLE SCHOOL
Address: RIVERS EDGE ROAD/VOYAGE LANE
City,State,Zip: HELENDALE, CA 92342
Facility ID: 60000839
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 14.59
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Amit Pathak
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404781
Assembly: 33
Senate: 16
Special Program Status: Not reported
Status: No Action Required
Status Date: 04/02/2008
Restricted Use: NO
Funding: School District
Latitude: 34.73458
Longitude: -117.3575
APN: NONE SPECIFIED
Past Use: NONE
Potential COC: NONE SPECIFIED, No Contaminants found
Confirmed COC: 31000-NO

**RIVERS EDGE MIDDLE SCHOOL (Continued)** **S118757173**

| | |
|---|---|
| Potential Description: | SOIL |
| Alias Name: | 404781 |
| Alias Type: | Project Code (Site Code) |
| Alias Name: | 60000839 |
| Alias Type: | Envirostor ID Number |

Completed Info:

| | |
|---|---|
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Cost Recovery Closeout Memo |
| Completed Date: | 04/01/2008 |
| Comments: | Project Close out Cost Recovery Unit Memorandum. |

| | |
|---|---|
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Phase 1 |
| Completed Date: | 03/25/2008 |
| Comments: | DTSC approved the Phase I report with a No Action determination |

| | |
|---|---|
| Future Area Name: | Not reported |
| Future Sub Area Name: | Not reported |
| Future Document Type: | Not reported |
| Future Due Date: | Not reported |
| Schedule Area Name: | Not reported |
| Schedule Sub Area Name: | Not reported |
| Schedule Document Type: | Not reported |
| Schedule Due Date: | Not reported |
| Schedule Revised Date: | Not reported |

Count: 1 records. ORPHAN SUMMARY

| City | EDR ID | Site Name | Site Address | Zip | Database(s) |
|---|---|---|---|---|---|
| HELENDALE | S107539526 | | NEAR INTERSECTION OF HIGHWAY 3 | 92342 | CDL |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

**STANDARD ENVIRONMENTAL RECORDS**

***Federal NPL site list***

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 08/03/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 08/03/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

***Federal Delisted NPL site list***

Delisted NPL: National Priority List Deletions

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.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 08/03/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

***Federal CERCLIS list***

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 08/03/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Quarterly

***Federal CERCLIS NFRAP site list***

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates 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 the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The 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 potential NPL site.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 08/03/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Quarterly

***Federal RCRA CORRACTS facilities list***

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's 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. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

***Federal RCRA generators list***

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's 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. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's 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. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's 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. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

***Federal institutional controls / engineering controls registries***

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/15/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 30

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/24/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/24/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

***Federal ERNS list***

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/22/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 86

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

***State- and tribal - equivalent NPL***

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

***State- and tribal - equivalent CERCLIS***

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

***State and tribal landfill and/or solid waste disposal site lists***

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/11/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 08/10/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Quarterly

***State and tribal leaking storage tank lists***

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/26/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 78

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/15/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

***State and tribal registered storage tank lists***

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 02/01/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Semi-Annually

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 05/26/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/26/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 78

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/03/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/23/2020
Next Scheduled EDR Contact: 11/01/2020
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 85

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

***State and tribal voluntary cleanup sites***

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

***State and tribal Brownfields sites***

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/05/2020
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

**ADDITIONAL ENVIRONMENTAL RECORDS**

***Local Brownfield lists***

US BROWNFIELDS: A Listing of Brownfields Sites
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 takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Semi-Annually

***Local Lists of Landfill / Solid Waste Disposal Sites***

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/29/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 75

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

***Local Lists of Hazardous waste / Contaminated Sites***

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2019
Date Data Arrived at EDR: 05/28/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 83

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site 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. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

***Local Lists of Registered Storage Tanks***

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 05/20/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/06/2020
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks
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.

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 79

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

***Local Land Records***

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/29/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 75

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 08/03/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The 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 deed restrictions that are active. Some sites have multiple deed restrictions. The 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.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Semi-Annually

***Records of Emergency Release Reports***

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/27/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 86

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/23/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 03/31/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 79

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

***Other Ascertainable Records***

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's 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. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/18/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 86

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/13/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/05/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/06/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 79

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/14/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 03/01/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/15/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 08/03/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 01/31/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 08/03/2020
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/15/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 34

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 08/03/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 70

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/13/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 10/25/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 82

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 42
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/05/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/01/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 08/06/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/15/2020
Date Made Active in Reports: 07/21/2020
Number of Days to Update: 6

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/07/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/21/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 08/03/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/21/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/28/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 77
Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 08/26/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78
Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/28/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97
Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/28/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by 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 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.

Date of Government Version: 03/05/2020
Date Data Arrived at EDR: 03/06/2020
Date Made Active in Reports: 05/29/2020
Number of Days to Update: 84
Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/19/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 86
Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 08/26/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74
Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/04/2020
Date Data Arrived at EDR: 04/07/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 08/03/2020
Number of Days to Update: 76

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/05/2020
Number of Days to Update: 73

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 08/14/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

KERN CO CUPA: Hazardous Material Business Plan

A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 08/26/2020
Number of Days to Update: 113

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/04/2020
Date Data Arrived at EDR: 06/05/2020
Date Made Active in Reports: 08/17/2020
Number of Days to Update: 73

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 08/24/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Annually

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/29/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 75

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 03/26/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 81

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 06/16/2020
Date Made Active in Reports: 08/28/2020
Number of Days to Update: 73

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/16/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/03/2020
Date Data Arrived at EDR: 04/07/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 8

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/14/2020
Date Data Arrived at EDR: 05/15/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 73

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

ICE: ICE
Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 73

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/18/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 74

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/08/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/07/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/12/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/28/2020
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/10/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 08/21/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 08/27/2020
Number of Days to Update: 6

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 08/20/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 06/06/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing
In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System
The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data
The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 83

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)
Non-Case Information sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)
Other Oil & Gas Projects sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3
Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 08/28/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 04/09/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 83
Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 08/02/2020
Next Scheduled EDR Contact: 10/18/2020
Data Release Frequency: Varies

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 06/08/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Semi-Annually

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 07/01/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

**EDR HIGH RISK HISTORICAL RECORDS**

***EDR Exclusive Records***

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

**EDR RECOVERED GOVERNMENT ARCHIVES**

***Exclusive Recovered Govt. Archives***

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

**COUNTY RECORDS**

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/01/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 16

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/01/2020
Number of Days to Update: 13

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 03/27/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 04/01/2020
Date Data Arrived at EDR: 04/20/2020
Date Made Active in Reports: 07/06/2020
Number of Days to Update: 77

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 04/16/2020
Date Data Arrived at EDR: 04/20/2020
Date Made Active in Reports: 07/08/2020
Number of Days to Update: 79

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 08/13/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/07/2020
Date Data Arrived at EDR: 05/07/2020
Date Made Active in Reports: 07/23/2020
Number of Days to Update: 77

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 08/13/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/10/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/19/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 26

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 82

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 73

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/11/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 08/21/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/14/2020
Number of Days to Update: 77

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 01/31/2020
Date Made Active in Reports: 04/09/2020
Number of Days to Update: 69

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 03/26/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 81

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/13/2020
Date Data Arrived at EDR: 04/14/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 78

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/13/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 04/14/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 78

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/17/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/27/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 64

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/28/2020
Date Data Arrived at EDR: 07/30/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 1

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 05/15/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 07/13/2020
Date Data Arrived at EDR: 07/15/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 16

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/07/2020
Date Made Active in Reports: 07/24/2020
Number of Days to Update: 78

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/08/2020
Date Made Active in Reports: 07/24/2020
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/08/2020
Date Made Active in Reports: 07/24/2020
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/03/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/10/2020
Date Made Active in Reports: 08/24/2020
Number of Days to Update: 75

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 03/10/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 70

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 03/10/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 70

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 04/24/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/25/2020
Date Data Arrived at EDR: 02/26/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 71

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing
A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 77
Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/10/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/08/2020
Date Data Arrived at EDR: 05/08/2020
Date Made Active in Reports: 08/03/2020
Number of Days to Update: 87

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/12/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/03/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 05/08/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 04/22/2020
Date Data Arrived at EDR: 04/24/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 13
Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90
Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51
Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/02/2020
Date Data Arrived at EDR: 03/04/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 71
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 02/25/2020
Date Data Arrived at EDR: 02/26/2020
Date Made Active in Reports: 03/11/2020
Number of Days to Update: 14

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/03/2020
Date Data Arrived at EDR: 04/08/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 79

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/04/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 70

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 05/26/2020
Date Data Arrived at EDR: 05/28/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 77

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 73

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 05/14/2020
Date Data Arrived at EDR: 05/15/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 73

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 08/06/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 77

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 77
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/26/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/09/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 04/01/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 77
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 79
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

**OTHER DATABASE(S)**

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/12/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/10/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 12/10/2019
Number of Days to Update: 69

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/04/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

**STREET AND ADDRESS INFORMATION**

# GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

**TARGET PROPERTY ADDRESS**

HELENDALE CSD WELL FIELD
20675 HELENDALE ROAD
HELENDALE, CA 92342

**TARGET PROPERTY COORDINATES**

| | |
|---|---|
| Latitude (North): | 34.723909 - 34° 43' 26.07'' |
| Longitude (West): | 117.345905 - 117° 20' 45.26'' |
| Universal Tranverse Mercator: | Zone 11 |
| UTM X (Meters): | 468329.2 |
| UTM Y (Meters): | 3842284.0 |
| Elevation: | 2481 ft. above sea level |

**USGS TOPOGRAPHIC MAP**

| | |
|---|---|
| Target Property Map: | 5619060 HELENDALE, CA |
| Version Date: | 2012 |

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**GROUNDWATER FLOW DIRECTION INFORMATION**

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

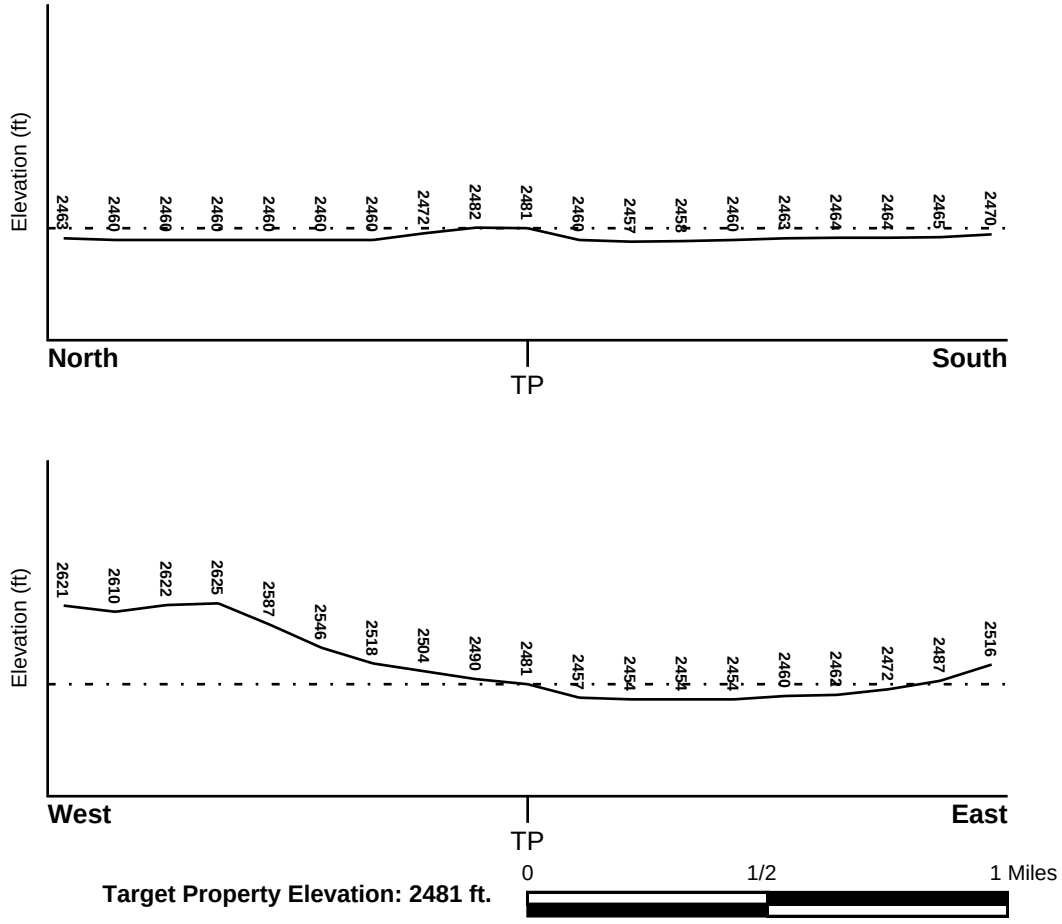
**TOPOGRAPHIC INFORMATION**

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

**TARGET PROPERTY TOPOGRAPHY**

General Topographic Gradient: General ESE

**SURROUNDING TOPOGRAPHY: ELEVATION PROFILES**




Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**HYDROLOGIC INFORMATION**

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

**FEMA FLOOD ZONE**

| Flood Plain Panel at Target Property | FEMA Source Type |
|---|---|
| 06071C5150H | FEMA FIRM Flood data |

| Additional Panels in search area: | FEMA Source Type |
|---|---|
| Not Reported | |

**NATIONAL WETLAND INVENTORY**

| NWI Quad at Target Property | NWI Electronic Data Coverage |
|---|---|
| NOT AVAILABLE | YES - refer to the Overview Map and Detail Map |

**HYDROGEOLOGIC INFORMATION**

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

***Site-Specific Hydrogeological Data*:***

| | |
|---|---|
| Search Radius: | 1.25 miles |
| Status: | Not found |

**AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

| MAP ID | LOCATION FROM TP | GENERAL DIRECTION GROUNDWATER FLOW |
|---|---|---|
| Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

**GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY**

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

**ROCK STRATIGRAPHIC UNIT**

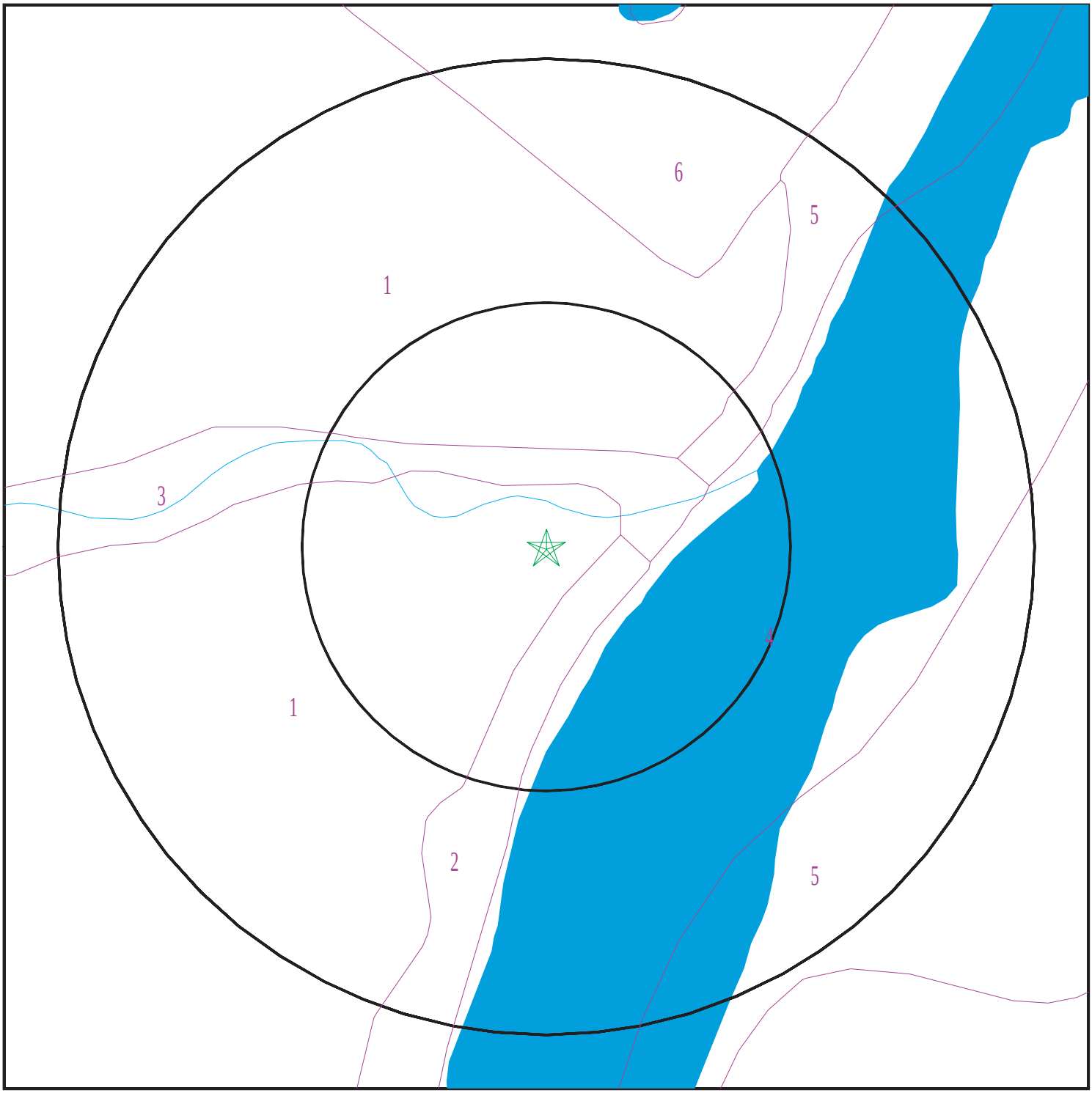
| | |
|---|---|
| Era: | Cenozoic |
| System: | Quaternary |
| Series: | Quaternary |
| Code: | Q *(decoded above as Era, System & Series)* |

**GEOLOGIC AGE IDENTIFICATION**

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 6174843.2s




Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

| | | | |
|---|---|---|---|
| SITE NAME: | Helendale CSD Well Field | CLIENT: | BCA Engineering Corp |
| ADDRESS: | 20675 Helendale Road<br>Helendale CA 92342 | CONTACT: | Randy Coleman |
| LAT/LONG: | 34.723909 / 117.345905 | INQUIRY #: | 6174843.2s |
| | | DATE: | August 31, 2020 3:06 pm |

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY**

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

---

**Soil Map ID: 1**

Soil Component Name: CAJON

Soil Surface Texture:
Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 7 inches | | Not reported | Not reported | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 7.4 |
| 2 | 7 inches | 20 inches | | Not reported | Not reported | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 7.4 |
| 3 | 20 inches | 42 inches | | Not reported | Not reported | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 7.4 |
| 4 | 42 inches | 59 inches | | Not reported | Not reported | Max: 14<br>Min: 4 | Max: 8.4<br>Min: 7.4 |

---

**Soil Map ID: 2**

Soil Component Name: BADLAND

Soil Surface Texture:
Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class:

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 59 inches | | Not reported | Not reported | Max:<br>Min: | Max: Min: |

---

**Soil Map ID: 3**

Soil Component Name: Cajon

Soil Surface Texture: sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 5 inches | sand | Granular materials (35 pct. or less passing No. 200), Fine Sand. | COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.<br>COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 141<br>Min: 42 | Max: 8.4<br>Min: 7.4 |

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 2 | 5 inches | 25 inches | sand | Granular materials (35 pct. or less passing No. 200), Fine Sand. | COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 141 Min: 42 | Max: 8.4 Min: 7.4 |
| 3 | 25 inches | 59 inches | stratified gravelly sand to sand | Granular materials (35 pct. or less passing No. 200), Fine Sand. | COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 141 Min: 42 | Max: 8.4 Min: 7.4 |

---

**Soil Map ID: 4**

Soil Component Name: RIVERWASH

Soil Surface Texture:
Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class:
Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 59 inches | | Not reported | Not reported | Max: Min: | Max: Min: |

**Soil Map ID: 5**

Soil Component Name: VILLA

Soil Surface Texture:
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 137 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 7 inches | | Not reported | Not reported | Max: 42<br>Min: 14 | Max: 8.4<br>Min: 7.4 |
| 2 | 7 inches | 59 inches | | Not reported | Not reported | Max: 42<br>Min: 14 | Max: 8.4<br>Min: 7.4 |

**Soil Map ID: 6**

Soil Component Name: TORRIORTHENTS

Soil Surface Texture:
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

| DATABASE | SEARCH DISTANCE (miles) |
|---|---|
| Federal USGS | 1.000 |
| Federal FRDS PWS | Nearest PWS within 1 mile |
| State Database | 1.000 |

## FEDERAL USGS WELL INFORMATION

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| A1 | USGS40000152673 | 0 - 1/8 Mile East |
| A4 | USGS40000152660 | 0 - 1/8 Mile ESE |
| A5 | USGS40000152646 | 0 - 1/8 Mile SE |
| B6 | USGS40000152695 | 0 - 1/8 Mile NNE |
| C7 | USGS40000152602 | 1/8 - 1/4 Mile SSW |
| D13 | USGS40000152672 | 1/8 - 1/4 Mile East |
| E14 | USGS40000152715 | 1/8 - 1/4 Mile NE |
| D15 | USGS40000152671 | 1/4 - 1/2 Mile East |
| D18 | USGS40000152670 | 1/4 - 1/2 Mile East |
| E20 | USGS40000152714 | 1/4 - 1/2 Mile ENE |
| F21 | USGS40000152669 | 1/4 - 1/2 Mile East |
| F22 | USGS40000152659 | 1/4 - 1/2 Mile East |
| G23 | USGS40000152713 | 1/4 - 1/2 Mile ENE |
| 25 | USGS40000152574 | 1/4 - 1/2 Mile SW |
| F27 | USGS40000152658 | 1/4 - 1/2 Mile East |
| H28 | USGS40000152582 | 1/4 - 1/2 Mile SE |
| 30 | USGS40000152783 | 1/4 - 1/2 Mile NE |
| H31 | USGS40000152568 | 1/4 - 1/2 Mile SE |
| 32 | USGS40000152700 | 1/4 - 1/2 Mile ENE |
| 33 | USGS40000152619 | 1/4 - 1/2 Mile ESE |
| J38 | USGS40000152889 | 1/4 - 1/2 Mile North |
| J39 | USGS40000152890 | 1/4 - 1/2 Mile North |
| I40 | USGS40000152741 | 1/4 - 1/2 Mile ENE |
| J41 | USGS40000152888 | 1/4 - 1/2 Mile North |
| K44 | USGS40000152740 | 1/2 - 1 Mile ENE |
| K46 | USGS40000152765 | 1/2 - 1 Mile ENE |
| K47 | USGS40000152764 | 1/2 - 1 Mile ENE |
| K49 | USGS40000152748 | 1/2 - 1 Mile ENE |
| 50 | USGS40000152887 | 1/2 - 1 Mile NNE |
| M52 | USGS40000152407 | 1/2 - 1 Mile SSE |
| K53 | USGS40000152782 | 1/2 - 1 Mile ENE |
| L54 | USGS40000152567 | 1/2 - 1 Mile ESE |
| 55 | USGS40000152566 | 1/2 - 1 Mile ESE |
| N58 | USGS40000152668 | 1/2 - 1 Mile East |
| O63 | USGS40000152406 | 1/2 - 1 Mile SE |
| O64 | USGS40000152397 | 1/2 - 1 Mile SE |

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**FEDERAL USGS WELL INFORMATION**

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| O66 | USGS40000152386 | 1/2 - 1 Mile SE |
| P69 | USGS40000152504 | 1/2 - 1 Mile ESE |
| Q70 | USGS40000152667 | 1/2 - 1 Mile East |
| P71 | USGS40000152503 | 1/2 - 1 Mile ESE |
| 72 | USGS40000153020 | 1/2 - 1 Mile North |
| R73 | USGS40000152502 | 1/2 - 1 Mile ESE |
| S74 | USGS40000152732 | 1/2 - 1 Mile ENE |
| 75 | USGS40000152796 | 1/2 - 1 Mile ENE |
| R76 | USGS40000152501 | 1/2 - 1 Mile ESE |
| Q77 | USGS40000152657 | 1/2 - 1 Mile East |
| R79 | USGS40000152529 | 1/2 - 1 Mile ESE |
| S80 | USGS40000152781 | 1/2 - 1 Mile ENE |
| 81 | USGS40000152565 | 1/2 - 1 Mile ESE |
| R82 | USGS40000152500 | 1/2 - 1 Mile ESE |
| 86 | USGS40000152886 | 1/2 - 1 Mile ENE |
| 87 | USGS40000152405 | 1/2 - 1 Mile ESE |
| T88 | USGS40000152327 | 1/2 - 1 Mile SSE |
| T89 | USGS40000152328 | 1/2 - 1 Mile SSE |

**FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION**

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| No PWS System Found | | |

Note: PWS System location is not always the same as well location.

**STATE DATABASE WELL INFORMATION**

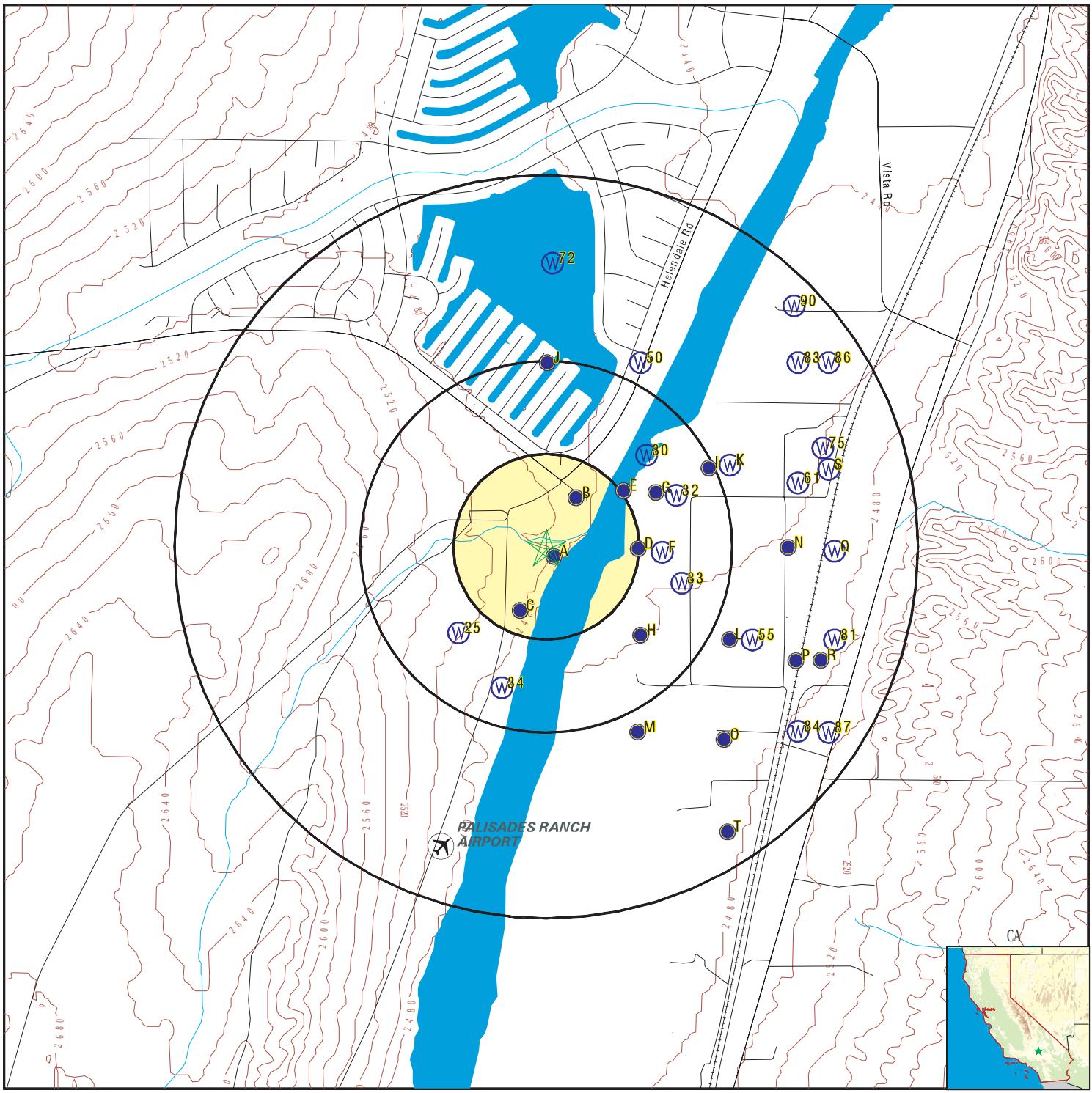
| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| A2 | CADWR8000012083 | 0 - 1/8 Mile SSW |
| A3 | CADWR8000012076 | 0 - 1/8 Mile South |
| B8 | CADWR8000012113 | 1/8 - 1/4 Mile NE |
| C9 | CADWR8000012062 | 1/8 - 1/4 Mile SSW |
| D10 | CADWR8000012088 | 1/8 - 1/4 Mile East |
| D11 | CADWR8000012087 | 1/8 - 1/4 Mile East |
| E12 | CADWR8000012112 | 1/8 - 1/4 Mile NE |
| E16 | CADWR8000012110 | 1/4 - 1/2 Mile NE |
| E17 | CADWR8000012111 | 1/4 - 1/2 Mile NE |
| D19 | CADWR8000012082 | 1/4 - 1/2 Mile East |
| G24 | CADWR8000012109 | 1/4 - 1/2 Mile ENE |
| H26 | CADWR8000012052 | 1/4 - 1/2 Mile SE |
| G29 | CADWR8000012105 | 1/4 - 1/2 Mile ENE |
| 34 | CADWR8000012054 | 1/4 - 1/2 Mile SSW |
| I35 | CADWR8000012140 | 1/4 - 1/2 Mile ENE |
| I36 | CADWR8000012131 | 1/4 - 1/2 Mile ENE |
| J37 | CADWR8000012190 | 1/4 - 1/2 Mile North |
| J42 | CADWR8000012191 | 1/4 - 1/2 Mile North |
| I43 | CADWR8000012139 | 1/2 - 1 Mile ENE |

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**STATE DATABASE WELL INFORMATION**

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| L45 | CADWR8000012051 | 1/2 - 1 Mile ESE |
| M48 | CADWR8000011975 | 1/2 - 1 Mile SSE |
| L51 | CADWR8000012050 | 1/2 - 1 Mile ESE |
| N56 | CADWR8000012086 | 1/2 - 1 Mile East |
| O57 | CADWR8000011974 | 1/2 - 1 Mile SE |
| O59 | CADWR8000011970 | 1/2 - 1 Mile SE |
| P60 | CADWR8000012023 | 1/2 - 1 Mile ESE |
| 61 | CADWR8000012121 | 1/2 - 1 Mile ENE |
| O62 | CADWR8000011963 | 1/2 - 1 Mile SE |
| P65 | CADWR8000012034 | 1/2 - 1 Mile ESE |
| P67 | CADWR8000012021 | 1/2 - 1 Mile ESE |
| P68 | CADWR8000012022 | 1/2 - 1 Mile ESE |
| R78 | CADWR8000012020 | 1/2 - 1 Mile ESE |
| 83 | CADWR8000012189 | 1/2 - 1 Mile NE |
| 84 | CADWR8000011973 | 1/2 - 1 Mile SE |
| T85 | CADWR8000011943 | 1/2 - 1 Mile SSE |
| 90 | 8248 | 1/2 - 1 Mile NE |

# PHYSICAL SETTING SOURCE MAP - 6174843.2s




- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

| | | | |
|---|---|---|---|
| SITE NAME: | Helendale CSD Well Field | CLIENT: | BCA Engineering Corp |
| ADDRESS: | 20675 Helendale Road<br>Helendale CA 92342 | CONTACT: | Randy Coleman |
| | | INQUIRY #: | 6174843.2s |
| LAT/LONG: | 34.723909 / 117.345905 | DATE: | August 31, 2020 3:06 pm |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**A1**
**East**
**0 - 1/8 Mile**
**Lower**

**FED USGS** **USGS40000152673**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06M001S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**A2**
**SSW**
**0 - 1/8 Mile**
**Higher**

**CA WELLS** **CADWR8000012083**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06M002S | Station ID: | 5989 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**A3**
**South**
**0 - 1/8 Mile**
**Higher**

**CA WELLS** **CADWR8000012076**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06M003S | Station ID: | 5990 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**A4**
**ESE**
**0 - 1/8 Mile**
**Lower**

**FED USGS** **USGS40000152660**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06M002S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 2 | Level reading date: | 1967-03-02 |
| Feet below surface: | 5.77 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |
| Level reading date: | 1958-06-10 | Feet below surface: | 5.12 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

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**A5**
**SE** **FED USGS** **USGS40000152646**
**0 - 1/8 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06M003S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 10.5 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-10 |
| Feet below surface: | Not Reported | Feet to sea level: | Not Reported |
| Note: | The site was dry (no water level recorded). | | |

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**B6**
**NNE** **FED USGS** **USGS40000152695**
**0 - 1/8 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06M007S | Type: | Well |
| Description: | Not Reported | HUC: | Not Reported |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1990 | Well Depth: | 360 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**C7**
**SSW** **FED USGS** **USGS40000152602**
**1/8 - 1/4 Mile**
**Higher**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06N001S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |

| | | | |
|---|---|---|---|
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 27 | Level reading date: | 2005-02-09 |
| Feet below surface: | 33.11 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

| | | | |
|---|---|---|---|
| Level reading date: | 2004-09-15 | Feet below surface: | 43.81 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 2004-03-10 | Feet below surface: | 33.48 |
| Feet to sea level: | Not Reported | | |
| Note: | The water level was affected by stage in nearby surface-water site. | | |

| | | | |
|---|---|---|---|
| Level reading date: | 2003-10-27 | Feet below surface: | 42.10 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 2003-04-01 | Feet below surface: | 35.19 |
| Feet to sea level: | Not Reported | | |
| Note: | The water level was affected by stage in nearby surface-water site. | | |

| | | | |
|---|---|---|---|
| Level reading date: | 2002-12-04 | Feet below surface: | 39.43 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 2002-04-24 | Feet below surface: | 35.79 |
| Feet to sea level: | Not Reported | | |
| Note: | The water level was affected by stage in nearby surface-water site. | | |

| | | | |
|---|---|---|---|
| Level reading date: | 2001-11-19 | Feet below surface: | 38.59 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 2000-03-22 | Feet below surface: | 35.50 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1999-10-12 | Feet below surface: | 41.51 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1999-03-24 | Feet below surface: | 32.39 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1998-10-07 | Feet below surface: | 37.77 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1998-04-07 | Feet below surface: | 33.67 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1997-10-09 | Feet below surface: | 42.46 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1997-03-18 | Feet below surface: | 36.00 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1996-10-07 | Feet below surface: | 43.46 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1996-03-28 | Feet below surface: | 38.72 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1995-11-09 | Feet below surface: | 40.28 |

| | | | |
|---|---|---|---|
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1995-03-22 | Feet below surface: | 37.62 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1994-11-15 | Feet below surface: | 63.04 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1994-03-23 | Feet below surface: | 52.83 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1993-11-18 | Feet below surface: | 60.08 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1992-11-19 | Feet below surface: | 69.61 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1992-05-07 | Feet below surface: | 69.26 |
| Feet to sea level: | Not Reported | Note: | The site had been pumped recently. |
| Level reading date: | 1992-03-22 | Feet below surface: | 55.10 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1992-03-12 | Feet below surface: | 58.70 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1991-12-03 | Feet below surface: | 68.72 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

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**B8**
**NE**
**1/8 - 1/4 Mile**
**Lower**

**CA WELLS** **CADWR8000012113**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06F006S | Station ID: | 23839 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**C9**
**SSW**
**1/8 - 1/4 Mile**
**Higher**

**CA WELLS** **CADWR8000012062**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06N001S | Station ID: | 5991 |
| Well Name: | WELL 15 | Well Use: | Other |
| Well Type: | Single Well | Well Depth: | 452 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

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**D10**
**East**
**1/8 - 1/4 Mile**
**Lower**

**CA WELLS** **CADWR8000012088**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06L001S | Station ID: | 28027 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |

| | | | |
|---|---|---|---|
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

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**D11**
**East**
**1/8 - 1/4 Mile**
**Lower**

**CA WELLS** **CADWR8000012087**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06L003S | Station ID: | 5988 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

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**E12**
**NE**
**1/8 - 1/4 Mile**
**Lower**

**CA WELLS** **CADWR8000012112**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06F005S | Station ID: | 37443 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

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**D13**
**East**
**1/8 - 1/4 Mile**
**Lower**

**FED USGS** **USGS40000152672**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06L007S | Type: | Well |
| Description: | COMPUTER GENERATED LAT/LONG ACCURATE +/- 500 FT | | |
| HUC: | 18090208 | Drainage Area: | Not Reported |
| Drainage Area Units: | Not Reported | Contrib Drainage Area: | Not Reported |
| Contrib Drainage Area Unts: | Not Reported | Aquifer: | Basin and Range basin-fill aquifers |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1966 | Well Depth: | 198 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**E14**
**NE**
**1/8 - 1/4 Mile**
**Lower**

**FED USGS** **USGS40000152715**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06F006S | Type: | Well |
| Description: | WELL B-3. Depth measured 19.79 ft in 2003. | | |
| HUC: | 18090208 | Drainage Area: | Not Reported |
| Drainage Area Units: | Not Reported | Contrib Drainage Area: | Not Reported |
| Contrib Drainage Area Unts: | Not Reported | Aquifer: | Basin and Range basin-fill aquifers |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19970618 | Well Depth: | 19.79 |
| Well Depth Units: | ft | Well Hole Depth: | 51 |

Well Hole Depth Units: ft

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 38 | Level reading date: | 2004-11-04 |
| Feet below surface: | 0.61 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |
| Level reading date: | 2004-10-11 | Feet below surface: | 11.23 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-09-09 | Feet below surface: | 10.24 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-08-02 | Feet below surface: | 8.47 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-07-12 | Feet below surface: | 7.27 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-06-10 | Feet below surface: | 5.41 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-05-10 | Feet below surface: | 3.57 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-04-16 | Feet below surface: | 5.30 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-03-29 | Feet below surface: | 4.63 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-02-19 | Feet below surface: | 8.06 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-01-15 | Feet below surface: | 10.32 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-12-10 | Feet below surface: | 13.84 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-11-14 | Feet below surface: | 13.52 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-10-16 | Feet below surface: | 10.31 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-09-03 | Feet below surface: | 8.70 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-08-05 | Feet below surface: | 7.33 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-07-14 | Feet below surface: | 6.08 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-06-16 | Feet below surface: | 4.37 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-05-13 | Feet below surface: | 2.35 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-04-18 | Feet below surface: | 0.29 |

| | | | |
|---|---|---|---|
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2002-03-19 | Feet below surface: | 4.25 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-07-21 | Feet below surface: | 4.63 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-06-15 | Feet below surface: | 3.13 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-05-15 | Feet below surface: | 1.60 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-04-17 | Feet below surface: | 0.21 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-03-15 | Feet below surface: | 0.14 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-02-23 | Feet below surface: | 0.21 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-01-18 | Feet below surface: | 6.86 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2000-05-17 | Feet below surface: | 2.10 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2000-04-19 | Feet below surface: | 0.18 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2000-03-15 | Feet below surface: | 0.12 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2000-01-19 | Feet below surface: | 7.26 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1999-12-16 | Feet below surface: | 6.94 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1999-11-15 | Feet below surface: | 6.73 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1998-10-27 | Feet below surface: | 9.15 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1997-10-16 | Feet below surface: | 8.22 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1997-08-06 | Feet below surface: | 5.28 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1997-06-18 | Feet below surface: | 3.42 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**D15**
**East**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000152671**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06L006S | Type: | Well |
| Description: | COMPUTER GENERATED LAT/LONG ACCURATE +/- 500 FT | | |
| HUC: | 18090208 | Drainage Area: | Not Reported |
| Drainage Area Units: | Not Reported | Contrib Drainage Area: | Not Reported |
| Contrib Drainage Area Unts: | Not Reported | Aquifer: | Basin and Range basin-fill aquifers |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1959 | Well Depth: | 100 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**E16**
**NE**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR8000012110**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06F003S | Station ID: | 29315 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**E17**
**NE**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR8000012111**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06F004S | Station ID: | 5444 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**D18**
**East**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000152670**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06L001S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 110 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-12 |
| Feet below surface: | 11.51 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**D19**
**East**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR8000012082**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06L004S | Station ID: | 28028 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**E20**
**ENE**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000152714**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06F005S | Type: | Well |
| Description: | Well destroyed during 2004-05 Winter Stormflows. | | |
| HUC: | 18090208 | Drainage Area: | Not Reported |
| Drainage Area Units: | Not Reported | Contrib Drainage Area: | Not Reported |
| Contrib Drainage Area Unts: | Not Reported | Aquifer: | Basin and Range basin-fill aquifers |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19970619 | Well Depth: | 90.51 |
| Well Depth Units: | ft | Well Hole Depth: | 100 |
| Well Hole Depth Units: | ft | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 40 | Level reading date: | 2004-11-04 |
| Feet below surface: | 13.18 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |
| Level reading date: | 2004-10-11 | Feet below surface: | 25.93 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-09-09 | Feet below surface: | 28.03 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-08-02 | Feet below surface: | 24.43 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-07-12 | Feet below surface: | 27.96 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-06-10 | Feet below surface: | 22.69 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-05-10 | Feet below surface: | 22.45 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-04-16 | Feet below surface: | 16.29 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-03-29 | Feet below surface: | 16.34 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 2004-02-19 | Feet below surface: | 11.40 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-01-15 | Feet below surface: | 16.43 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-12-10 | Feet below surface: | 20.07 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-11-14 | Feet below surface: | 19.93 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-10-16 | Feet below surface: | 25.19 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-09-03 | Feet below surface: | 27.14 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-08-05 | Feet below surface: | 23.39 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-07-14 | Feet below surface: | 29.03 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-06-16 | Feet below surface: | 26.11 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-05-13 | Feet below surface: | 20.64 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-04-18 | Feet below surface: | 16.51 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2002-03-19 | Feet below surface: | 13.76 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2002-01-31 | Feet below surface: | 12.97 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-07-15 | Feet below surface: | 27.07 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-06-15 | Feet below surface: | 20.94 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-05-15 | Feet below surface: | 17.69 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-04-17 | Feet below surface: | 14.80 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-03-15 | Feet below surface: | 9.67 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-02-23 | Feet below surface: | 10.16 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-01-18 | Feet below surface: | 22.30 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2000-05-17 | Feet below surface: | 26.21 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 2000-04-19 | Feet below surface: | 15.24 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2000-03-15 | Feet below surface: | 9.79 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2000-02-17 | Feet below surface: | 10.72 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2000-01-19 | Feet below surface: | 14.86 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1999-12-16 | Feet below surface: | 15.84 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1999-11-15 | Feet below surface: | 14.19 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1998-10-27 | Feet below surface: | 20.77 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1997-10-16 | Feet below surface: | 18.64 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1997-08-06 | Feet below surface: | 21.25 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1997-06-19 | Feet below surface: | 21.19 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

---

**F21**
**East**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000152669**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06L003S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1954 | Well Depth: | 108 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-12 |
| Feet below surface: | 11 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**F22**
**East**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000152659**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06L002S | Type: | Well |

| | | | |
|---|---|---|---|
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1945 | Well Depth: | 40 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-12 |
| Feet below surface: | 10 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**G23**
**ENE**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000152713**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06F004S | Type: | Well |
| Description: | WELL B-1. Depth measured 25.91 ft in 2003 | | |
| HUC: | 18090208 | Drainage Area: | Not Reported |
| Drainage Area Units: | Not Reported | Contrib Drainage Area: | Not Reported |
| Contrib Drainage Area Unts: | Not Reported | Aquifer: | Basin and Range basin-fill aquifers |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19970619 | Well Depth: | 25.91 |
| Well Depth Units: | ft | Well Hole Depth: | 51 |
| Well Hole Depth Units: | ft | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 36 | Level reading date: | 2004-11-04 |
| Feet below surface: | 5.79 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |
| Level reading date: | 2004-10-11 | Feet below surface: | 13.92 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-09-09 | Feet below surface: | 12.93 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-08-02 | Feet below surface: | 11.21 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-07-12 | Feet below surface: | 10.07 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-06-10 | Feet below surface: | 8.40 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-05-10 | Feet below surface: | 6.74 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-04-16 | Feet below surface: | 1.88 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-03-29 | Feet below surface: | 0.34 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-02-19 | Feet below surface: | 0.57 |

| | | | |
|---|---|---|---|
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2004-01-15 | Feet below surface: | 6.97 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-12-10 | Feet below surface: | 11.20 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-11-14 | Feet below surface: | 10.88 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-10-16 | Feet below surface: | 12.95 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-09-03 | Feet below surface: | 11.40 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-08-05 | Feet below surface: | 10.08 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-07-14 | Feet below surface: | 8.96 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-06-16 | Feet below surface: | 7.39 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-05-13 | Feet below surface: | 5.57 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2003-04-18 | Feet below surface: | 4.41 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-07-19 | Feet below surface: | 7.50 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-06-15 | Feet below surface: | 6.14 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-05-15 | Feet below surface: | 4.75 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-04-17 | Feet below surface: | 3.94 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-03-15 | Feet below surface: | 4.11 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-02-23 | Feet below surface: | 4.48 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2001-01-18 | Feet below surface: | 11.00 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2000-05-17 | Feet below surface: | 7.87 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2000-04-19 | Feet below surface: | 3.95 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2000-03-15 | Feet below surface: | 3.96 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 2000-02-17 | Feet below surface: | 4.60 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 2000-01-19 | Feet below surface: | 10.01 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1999-12-16 | Feet below surface: | 9.69 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1999-11-15 | Feet below surface: | 9.49 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1998-10-27 | Feet below surface: | 10.60 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1997-08-06 | Feet below surface: | 7.53 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

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**G24**
**ENE**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR8000012109**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06F002S | Station ID: | 5443 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

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**25**
**SW**
**1/4 - 1/2 Mile**
**Higher**

**FED USGS** **USGS40000152574**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N005W01R001S | Type: | Well |
| Description: | COMPUTER GENERATED LAT/LONG +/- 500FT | | |
| HUC: | 18090208 | Drainage Area: | Not Reported |
| Drainage Area Units: | Not Reported | Contrib Drainage Area: | Not Reported |
| Contrib Drainage Area Unts: | Not Reported | Aquifer: | Basin and Range basin-fill aquifers |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 428 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 2 | Level reading date: | 1958-02-27 |
| Feet below surface: | 105 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |
| Level reading date: | 1932-12-08 | Feet below surface: | 27.2 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**H26**
**SE**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR8000012052**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06P001S | Station ID: | 5992 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**F27**
**East**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000152658**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06L004S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1951 | Well Depth: | 107 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-12 |
| Feet below surface: | 11 | Feet to sea level: | Not Reported |
| Note: | The site was being pumped. | | |

---

**H28**
**SE**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000152582**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06P002S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 19580606 | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**G29**
**ENE**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR8000012105**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06F007S | Station ID: | 50191 |
| Well Name: | BPF well | Well Use: | Observation |
| Well Type: | Single Well | Well Depth: | 30 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | E0104718 |

---

**30**
**NE**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000152783**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06F001S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**H31**
**SE**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000152568**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06P001S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1946 | Well Depth: | 80 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-06 |
| Feet below surface: | 17.51 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**32**
**ENE** **FED USGS** **USGS40000152700**
**1/4 - 1/2 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06F007S | Type: | Well |
| Description: | Not Reported | HUC: | Not Reported |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 200903 | Well Depth: | 30 |
| Well Depth Units: | ft | Well Hole Depth: | 33 |
| Well Hole Depth Units: | ft | | |

---

**33**
**ESE** **FED USGS** **USGS40000152619**
**1/4 - 1/2 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06L005S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 120 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**34**
**SSW** **CA WELLS** **CADWR8000012054**
**1/4 - 1/2 Mile**
**Lower**

| | | | |
|---|---|---|---|
| State Well #: | 07N05W01R001S | Station ID: | 6856 |
| Well Name: | Palisades River Well | Well Use: | Unknown |
| Well Type: | Single Well | Well Depth: | 428 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**I35**
**ENE** **CA WELLS** **CADWR8000012140**
**1/4 - 1/2 Mile**
**Lower**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06G001S | Station ID: | 29316 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**I36**
**ENE**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR8000012131**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06G004S | Station ID: | 29317 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**J37**
**North**
**1/4 - 1/2 Mile**
**Lower**

**CA WELLS** **CADWR8000012190**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06D002S | Station ID: | 5442 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**J38**
**North**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000152889**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06D001S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-05 |
| Feet below surface: | Not Reported | Feet to sea level: | Not Reported |
| Note: | The site was being pumped. | | |

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**J39**
**North**
**1/4 - 1/2 Mile**
**Lower**

**FED USGS** **USGS40000152890**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06D003S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |

| | | | |
|---|---|---|---|
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**I40**
**ENE** **FED USGS** **USGS40000152741**
**1/4 - 1/2 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06G005S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**J41**
**North** **FED USGS** **USGS40000152888**
**1/4 - 1/2 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06D002S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-05 |
| Feet below surface: | Not Reported | Feet to sea level: | Not Reported |
| Note: | The site was being pumped. | | |

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**J42**
**North** **CA WELLS** **CADWR8000012191**
**1/4 - 1/2 Mile**
**Lower**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06D001S | Station ID: | 29314 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**I43**
**ENE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000012139**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06G003S | Station ID: | 5445 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**K44**
**ENE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152740**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06G006S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 100 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**L45**
**ESE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000012051**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06Q001S | Station ID: | 5993 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**K46**
**ENE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152765**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06G001S | Type: | Well |
| Description: | Not Reported | HUC: | 18090207 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Unconfined single aquifer |
| Construction Date: | Not Reported | Well Depth: | 30 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1987-04-22 |
| Feet below surface: | 11.49 | Feet to sea level: | Not Reported |
| Note: | The site had been pumped recently. | | |

---

**K47**
**ENE** **FED USGS** **USGS40000152764**
**1/2 - 1 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06G003S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 50.6 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-12 |
| Feet below surface: | 9.84 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**M48**
**SSE** **CA WELLS** **CADWR8000011975**
**1/2 - 1 Mile**
**Lower**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W07C001S | Station ID: | 6004 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**K49**
**ENE** **FED USGS** **USGS40000152748**
**1/2 - 1 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06G004S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-12 |
| Feet below surface: | 12.19 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**50**
**NNE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152887**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N005W5D001S | Type: | Well |
| Description: | COMPUTER GENERATED LAT/LONG +/- 500FT | | |
| HUC: | 18090208 | Drainage Area: | Not Reported |
| Drainage Area Units: | Not Reported | Contrib Drainage Area: | Not Reported |
| Contrib Drainage Area Unts: | Not Reported | Aquifer: | Basin and Range basin-fill aquifers |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 54.5 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**L51**
**ESE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000012050**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06Q002S | Station ID: | 5994 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**M52**
**SSE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152407**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W07C001S | Type: | Well |
| Description: | COMPUTER GENERATED LAT/LONG +/- 500 FT | | |
| HUC: | 18090208 | Drainage Area: | Not Reported |
| Drainage Area Units: | Not Reported | Contrib Drainage Area: | Not Reported |
| Contrib Drainage Area Unts: | Not Reported | Aquifer: | Basin and Range basin-fill aquifers |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1938 | Well Depth: | 5 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-06 |
| Feet below surface: | Not Reported | Feet to sea level: | Not Reported |
| Note: | The site was dry (no water level recorded). | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**K53**
**ENE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152782**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06G002S | Type: | Well |
| Description: | COMPUTER GENERATED LAT/LONG ACCURATE +- 500 FT | | |
| HUC: | 18090208 | Drainage Area: | Not Reported |
| Drainage Area Units: | Not Reported | Contrib Drainage Area: | Not Reported |
| Contrib Drainage Area Unts: | Not Reported | Aquifer: | Basin and Range basin-fill aquifers |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**L54**
**ESE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152567**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06Q001S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1908 | Well Depth: | 50 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-12 |
| Feet below surface: | 14 | Feet to sea level: | Not Reported |
| Note: | The site was being pumped. | | |

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**55**
**ESE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152566**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06Q002S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1956 | Well Depth: | 150 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-12 |
| Feet below surface: | 14 | Feet to sea level: | Not Reported |
| Note: | The site was being pumped. | | |

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**N56**
**East**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000012086**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06J002S | Station ID: | 5446 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**O57**
**SE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000011974**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W07B002S | Station ID: | 28029 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**N58**
**East**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152668**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06J002S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 79 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-11 |
| Feet below surface: | 20 | Feet to sea level: | Not Reported |
| Note: | The site had been pumped recently. | | |

---

**O59**
**SE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000011970**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W07B003S | Station ID: | 6003 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**P60**
**ESE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000012023**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06R006S | Station ID: | 5999 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**61**
**ENE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000012121**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06J003S | Station ID: | 5447 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**O62**
**SE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000011963**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W07B001S | Station ID: | 6002 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**O63**
**SE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152406**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W07B002S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1954 | Well Depth: | 30 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-04 |
| Feet below surface: | 18 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**O64**
**SE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152397**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W07B003S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 23 | Level reading date: | 2002-04-24 |
| Feet below surface: | 21.04 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

| | | | |
|---|---|---|---|
| Level reading date: | 2001-11-19 | Feet below surface: | 22.69 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 2001-03-21 | Feet below surface: | 23.86 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 2000-10-17 | Feet below surface: | 21.68 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 2000-03-22 | Feet below surface: | 22.66 |
| Feet to sea level: | Not Reported | | |
| Note: | A nearby site that taps the same aquifer was being pumped. | | |

| | | | |
|---|---|---|---|
| Level reading date: | 1999-10-12 | Feet below surface: | 19.12 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1999-03-24 | Feet below surface: | 17.22 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1998-10-07 | Feet below surface: | 18.72 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1998-04-07 | Feet below surface: | 18.18 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1997-10-09 | Feet below surface: | 20.78 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1997-03-18 | Feet below surface: | 17.21 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1996-10-07 | Feet below surface: | 20.35 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1996-03-28 | Feet below surface: | 19.01 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

| | | | |
|---|---|---|---|
| Level reading date: | 1995-11-09 | Feet below surface: | 20.42 |

| | | | |
|---|---|---|---|
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1995-03-21 | Feet below surface: | 19.53 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1994-11-16 | Feet below surface: | 23.31 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1994-03-24 | Feet below surface: | 19.42 |
| Feet to sea level: | Not Reported | Note: | The site had been pumped recently. |
| Level reading date: | 1993-11-16 | Feet below surface: | 22.65 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1993-03-24 | Feet below surface: | 19.30 |
| Feet to sea level: | Not Reported | Note: | The site was being pumped. |
| Level reading date: | 1992-11-17 | Feet below surface: | 26.63 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1992-03-09 | Feet below surface: | 26.70 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1991-11-19 | Feet below surface: | 28.10 |
| Feet to sea level: | Not Reported | Note: | Not Reported |
| Level reading date: | 1967-03-02 | Feet below surface: | 18.73 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

---

**P65**
**ESE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000012034**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06R002S | Station ID: | 5995 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**O66**
**SE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152386**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W07B001S | Type: | Well |
| Description: | COMPUTER GENERATED LAT/LONG +/- 500 FT | | |
| HUC: | 18090208 | Drainage Area: | Not Reported |
| Drainage Area Units: | Not Reported | Contrib Drainage Area: | Not Reported |
| Contrib Drainage Area Unts: | Not Reported | Aquifer: | Basin and Range basin-fill aquifers |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 195202 | Well Depth: | 60 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-04 |
| Feet below surface: | 23 | Feet to sea level: | Not Reported |

Note: Not Reported

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**P67**
**ESE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000012021**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06R004S | Station ID: | 5997 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**P68**
**ESE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000012022**

| | | | |
|---|---|---|---|
| State Well #: | 07N04W06R005S | Station ID: | 5998 |
| Well Name: | Not Reported | Well Use: | Unknown |
| Well Type: | Unknown | Well Depth: | 0 |
| Basin Name: | Upper Mojave River Valley | Well Completion Rpt #: | Not Reported |

---

**P69**
**ESE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152504**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06R007S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

---

**Q70**
**East**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152667**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06J001S | Type: | Well |
| Description: | LAT/LONG, ETC. | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**P71**
**ESE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152503**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06R006S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-11 |
| Feet below surface: | 26.88 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

---

**72**
**North**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000153020**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 008N004W31N001S | Type: | Well |
| Description: | COMPUTER GENERATED LAT/LONG +/- 500FT | | |
| HUC: | 18090208 | Drainage Area: | Not Reported |
| Drainage Area Units: | Not Reported | Contrib Drainage Area: | Not Reported |
| Contrib Drainage Area Unts: | Not Reported | Aquifer: | Basin and Range basin-fill aquifers |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**R73**
**ESE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152502**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06R005S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1954 | Well Depth: | 36 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-11 |
| Feet below surface: | 18 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**S74**
**ENE** **FED USGS** **USGS40000152732**
**1/2 - 1 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06J003S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 20.5 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-11 |
| Feet below surface: | Not Reported | Feet to sea level: | Not Reported |
| Note: | The site was dry (no water level recorded). | | |

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**75**
**ENE** **FED USGS** **USGS40000152796**
**1/2 - 1 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06H002S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**R76**
**ESE** **FED USGS** **USGS40000152501**
**1/2 - 1 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06R004S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1927 | Well Depth: | 48.1 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |

Well Hole Depth Units: Not Reported

Ground water levels,Number of Measurements: 1 Level reading date: 1958-06-11
Feet below surface: 25.02 Feet to sea level: Not Reported
Note: Not Reported

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**Q77**
**East**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152657**

Organization ID: USGS-CA
Organization Name: USGS California Water Science Center
Monitor Location: 007N004W06J004S Type: Well
Description: Not Reported HUC: 18090208
Drainage Area: Not Reported Drainage Area Units: Not Reported
Contrib Drainage Area: Not Reported Contrib Drainage Area Unts: Not Reported
Aquifer: Basin and Range basin-fill aquifers
Formation Type: Not Reported Aquifer Type: Not Reported
Construction Date: Not Reported Well Depth: Not Reported
Well Depth Units: Not Reported Well Hole Depth: Not Reported
Well Hole Depth Units: Not Reported

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**R78**
**ESE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000012020**

State Well #: 07N04W06R003S Station ID: 5996
Well Name: Not Reported Well Use: Unknown
Well Type: Unknown Well Depth: 0
Basin Name: Upper Mojave River Valley Well Completion Rpt #: Not Reported

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**R79**
**ESE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152529**

Organization ID: USGS-CA
Organization Name: USGS California Water Science Center
Monitor Location: 007N004W06R002S Type: Well
Description: Not Reported HUC: 18090208
Drainage Area: Not Reported Drainage Area Units: Not Reported
Contrib Drainage Area: Not Reported Contrib Drainage Area Unts: Not Reported
Aquifer: Basin and Range basin-fill aquifers
Formation Type: Not Reported Aquifer Type: Not Reported
Construction Date: Not Reported Well Depth: 49.3
Well Depth Units: ft Well Hole Depth: Not Reported
Well Hole Depth Units: Not Reported

Ground water levels,Number of Measurements: 1 Level reading date: 1958-06-11
Feet below surface: 21.96 Feet to sea level: Not Reported
Note: Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

**S80**
**ENE** **FED USGS** **USGS40000152781**
**1/2 - 1 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06H001S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1947 | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**81**
**ESE** **FED USGS** **USGS40000152565**
**1/2 - 1 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06R001S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1947 | Well Depth: | 65 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 2 | Level reading date: | 1958-06-11 |
| Feet below surface: | 44.06 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

| | | | |
|---|---|---|---|
| Level reading date: | 1947-11-21 | Feet below surface: | 35 |
| Feet to sea level: | Not Reported | Note: | Not Reported |

---

**R82**
**ESE** **FED USGS** **USGS40000152500**
**1/2 - 1 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W06R003S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | 1954 | Well Depth: | 66 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |

Well Hole Depth Units: Not Reported

Ground water levels,Number of Measurements: 1 Level reading date: 1958-06-11
Feet below surface: 50 Feet to sea level: Not Reported
Note: Not Reported

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**83**
**NE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000012189**

State Well #: 07N04W06A001S Station ID: 5441
Well Name: Not Reported Well Use: Unknown
Well Type: Unknown Well Depth: 0
Basin Name: Upper Mojave River Valley Well Completion Rpt #: Not Reported

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**84**
**SE**
**1/2 - 1 Mile**
**Higher**

**CA WELLS** **CADWR8000011973**

State Well #: 07N04W07A001S Station ID: 6000
Well Name: Not Reported Well Use: Unknown
Well Type: Unknown Well Depth: 0
Basin Name: Upper Mojave River Valley Well Completion Rpt #: Not Reported

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**T85**
**SSE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS** **CADWR8000011943**

State Well #: 07N04W07G002S Station ID: 6005
Well Name: Not Reported Well Use: Unknown
Well Type: Unknown Well Depth: 0
Basin Name: Upper Mojave River Valley Well Completion Rpt #: Not Reported

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**86**
**ENE**
**1/2 - 1 Mile**
**Lower**

**FED USGS** **USGS40000152886**

Organization ID: USGS-CA
Organization Name: USGS California Water Science Center
Monitor Location: 007N004W06A001S Type: Well
Description: Not Reported HUC: 18090208
Drainage Area: Not Reported Drainage Area Units: Not Reported
Contrib Drainage Area: Not Reported Contrib Drainage Area Unts: Not Reported
Aquifer: Basin and Range basin-fill aquifers
Formation Type: Not Reported Aquifer Type: Not Reported
Construction Date: Not Reported Well Depth: Not Reported
Well Depth Units: Not Reported Well Hole Depth: Not Reported
Well Hole Depth Units: Not Reported

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-05 |
| Feet below surface: | Not Reported | Feet to sea level: | Not Reported |
| Note: | The site was being pumped. | | |

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**87**
**ESE** **FED USGS** **USGS40000152405**
**1/2 - 1 Mile**
**Higher**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W07A001S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

| | | | |
|---|---|---|---|
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-04 |
| Feet below surface: | 41.76 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**T88**
**SSE** **FED USGS** **USGS40000152327**
**1/2 - 1 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W07G001S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | Not Reported |
| Well Depth Units: | Not Reported | Well Hole Depth: | Not Reported |
| Well Hole Depth Units: | Not Reported | | |

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**T89**
**SSE** **FED USGS** **USGS40000152328**
**1/2 - 1 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Organization ID: | USGS-CA | | |
| Organization Name: | USGS California Water Science Center | | |
| Monitor Location: | 007N004W07G002S | Type: | Well |
| Description: | Not Reported | HUC: | 18090208 |
| Drainage Area: | Not Reported | Drainage Area Units: | Not Reported |
| Contrib Drainage Area: | Not Reported | Contrib Drainage Area Unts: | Not Reported |
| Aquifer: | Basin and Range basin-fill aquifers | | |
| Formation Type: | Not Reported | Aquifer Type: | Not Reported |
| Construction Date: | Not Reported | Well Depth: | 73.5 |
| Well Depth Units: | ft | Well Hole Depth: | Not Reported |

| | | | |
|---|---|---|---|
| Well Hole Depth Units: | Not Reported | | |
| Ground water levels,Number of Measurements: | 1 | Level reading date: | 1958-06-11 |
| Feet below surface: | 15.79 | Feet to sea level: | Not Reported |
| Note: | Not Reported | | |

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**90**
**NE**
**1/2 - 1 Mile**
**Lower**

**CA WELLS 8248**

| | | | |
|---|---|---|---|
| Seq: | 8248 | Prim sta c: | 08N/04W-31P01 S |
| Frds no: | 3610112001 | County: | 36 |
| District: | 13 | User id: | TAN |
| System no: | 3610112 | Water type: | G |
| Source nam: | WELL 01 | Station ty: | WELL/AMBNT/MUN/INTAKE/SUPPLY |
| Latitude: | 344400.0 | Longitude: | 1172000.0 |
| Precision: | 8 | Status: | AR |
| Comment 1: | Not Reported | Comment 2: | Not Reported |
| Comment 3: | Not Reported | Comment 4: | Not Reported |
| Comment 5: | Not Reported | Comment 6: | Not Reported |
| Comment 7: | Not Reported | | |

| | | | |
|---|---|---|---|
| System no: | 3610112 | System nam: | Sbdno County Serv. Area 70c |
| Hqname: | SAN BERNARDINO CSA 70-C | Address: | P.O. BOX 1658 |
| City: | VICTORVILLE | State: | CA |
| Zip: | 92393 | Zip ext: | Not Reported |
| Pop serv: | 5433 | Connection: | 1839 |
| Area serve: | HELENDALE, CSA 70C | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
# RADON

**AREA RADON INFORMATION**

State Database: CA Radon

Radon Test Results

| Zipcode | Num Tests | > 4 pCi/L |
|---|---|---|
| 92342 | 4 | 0 |

Federal EPA Radon Zone for SAN BERNARDINO County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

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Federal Area Radon Information for SAN BERNARDINO COUNTY, CA

Number of sites tested: 18

| Area | Average Activity | % <4 pCi/L | % 4-20 pCi/L | % >20 pCi/L |
|---|---|---|---|---|
| Living Area - 1st Floor | 0.678 pCi/L | 100% | 0% | 0% |
| Living Area - 2nd Floor | Not Reported | Not Reported | Not Reported | Not Reported |
| Basement | Not Reported | Not Reported | Not Reported | Not Reported |

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

## HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

## HYDROGEOLOGIC INFORMATION

AQUIFLOW$^{R}$ Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

## OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

**STREET AND ADDRESS INFORMATION**