INITIAL STUDY

FOR THE

PHELAN PIÑON HILLS COMMUNITY SERVICES DISTRICT RESERVOIR 6A-2 PROJECT

Prepared for:

Phelan Piñon Hills Community Services District
4176 Warbler Road
Phelan, California 92371

Prepared by:

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LIST OF ABBREVIATIONS AND ACROYNMS

AAQS	Ambient Air Quality Standards
ACOE	Army Corps of Engineers
AJD	approved Jurisdictional Delineation
APE	Area of Potential Effect
APN	Assessor's Parcel Number
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
AVAA	Antelope Valley Adjudication Area
BACMs	Best Available Control Measures
BMPs	Best Management Practices
BRA/JD	Biological Resources Assessment/Jurisdictional Delineation
BUOW	Burrowing Owl
CAAA	Clean Air Act Amendment
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
CIP	Capital Improvement Project
CNEL	Community Noise Equivalent Level
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DDW	Division of Drinking Water
DOI	Department of Interior
FGC	Fish & Game Code
FTA	Federal Transit Association
GCC	Global Climate Change
GHG	Greenhouse Gas
HAS	Hydrologic Sub-Area
LSA	Lake or Streambed Alteration
LST	Localized Significance Thresholds
LUST	Leaking Underground Storage Tank
MBA	Mojave Basin Area
MBTA	Migratory Bird Treaty Act
MCL	maximum contamination level
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
MM	Mitigation Measure
NAAQS	National Ambient Air Quality Standards
NBP	Nesting Bird Area
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System

PPHCSD	Phelan Piñon Hills Community Services District (or District)
RL	Rural Living
RWQCB	Regional Water Quality Control Board
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCE	Southern California Edison
SIP	State Implementation Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration-velocity decibel
VMT	vehicle miles traveled
WEAP	Worker Environmental Awareness Program
WOTUS	Waters of the United States
WQMP	Water Quality Management Plan

ENVIRONMENTAL CHECKLIST

1. **Project Title:** Phelan Piñon Hills Community Services District Reservoir 6A-2 Project

2. **Lead Agency Name:** Phelan Piñon Hills Community Services District
   Address: 4176 Warbler Road, Phelan, California 92371

3. **Contact Person:** George Cardenas, Engineering Manager
   Phone Number: (760) 868-1212 ext. 319

4. **Project Location:** The project is located at 8300 Javelin Road, Piñon Hills, CA 92372. The Phelan Piñon Hills Community is located within the High Desert region of Unincorporated San Bernardino County. The proposed reservoir is located at southern terminus of Javelin Road, with Snow Line Drive as the nearest cross street. The project is located within the USGS Topo 7.5-minute map for Phelan, CA, and is located in Section 26, Township 4 North and Range 7 West, San Bernardino Meridian. The approximate GPS coordinates of the project site are 34.402184°, -117.572605°.

5. **Project Sponsor**: Phelan Piñon Hills Community Services District
   Address: 4176 Warbler Road, Phelan, California 92371

6. **General Plan Designation:** Rural Living (RL) PH/RL

7. **Zoning:** Phelan/Pinon Hills/Rural Living (PH/RL)

8. **Project Description**:

Project Description

Introduction

The Phelan Piñon Hills Community Services District (District or PPHCSD), formed as an independent District by voters in 2008, is located in the High Desert area of San Bernardino County between the Los Angeles/San Bernardino County Line and Victorville. The District provides the following community services: water distribution, solid waste and recycling collection, parks, and street lighting. The District operates under Domestic Well Supply Permit No. 05-13-10-P-005 issued in September 2010, and as System No. 3610120. Users within the District are largely single-family residences on large parcels. A majority of the water produced in the District is for residential customers due to the limited industrial and commercial enterprises within the District service area. The water distribution system of the District consists of 14 groundwater production wells, 35 reservoirs, 31 active pressure reducing stations, 25 booster stations, approximately 338 miles of water lines, and three emergency interties.

Project Description

The District seeks to install a 1.5 million gallon (MG) reservoir at the District's existing Reservoir 6A site. The proposed 1.5 MG Reservoir 6A-2 would be installed within Assessor's Parcel Numbers (APNs) 3037-071-06 and 3037-071-08, which are owned by the District. The size of the whole of the project site, inclusive of the existing Reservoir 6A, is 1.01 acres, but the area of

disturbance is anticipated to be less than one acre as no modifications to the existing Reservoir 6A are proposed. The purpose of the proposed project is to provide additional storage capacity for pressure zone 6. The new reservoir will also allow for the existing reservoir to be taken out of service when required for routine maintenance.

The existing Reservoir 6A facility is located within an approximately 0.57-acre site, and currently includes one 0.4 MG welded steel water storage reservoir (55 feet in diameter by 24 feet high) and supporting facilities as summarized below. The existing Reservoir 6A facility site is currently only accessible through a gated access driveway bounded by chain link fencing. Ground cover consists of compacted dirt and native desert vegetation.

The existing Reservoir 6A facility site presently contains the following facilities:

a. One 0.4 MG bolted steel storage reservoir (55 feet in diameter by 24 feet high),
b. Piping,
c. Equipment Shed,
d. 1,000 gallon Pneumatic Pressure Tank;
e. Two 15 horsepower (HP) pumps and air compressor assembly; and,
e. Electronic control equipment.

The District proposes to install the new reservoir south of the existing Reservoir 6A, which is located on a gently sloping man-made pad that was formed upon the installation of Reservoir 6A, as shown on Exhibit 1, below. The installation of Reservoir 6A-2 will require grading and fill material to form a flat surface upon which to install the proposed reservoir, as indicated on the site plan provided as Figure 3. The Reservoir 6A-2 will be accessible via the existing access road, and will be fenced through the expanded chain link fencing around the reservoir site.

Exhibit 1: EXISTING SITE CONFIGURATION.

The development of a new reservoir at this site will ultimately result in the construction of a new 1.5 MG water storage reservoir, which will be 104 feet in diameter and 24 feet high. Development will require grading for the reservoir foundation, related piping, pavement, light pole foundations. These activities are discussed in detail below and are depicted in the site plan provided as Figure 3.

Construction Scenario
Below outlines the Construction Scenario for development of the proposed reservoir.

Grading: Development of Reservoir 6A-2 will require grading to prepare a pad for the construction of the new reservoir. Grading includes any potential over-excavation, import and/or export of soil and compaction of soil beneath the new reservoir foundation for the proposed reservoir. The project will require over-excavation compaction and some grading pending the geotechnical study recommendations. The grading limits should stay within the slope of the proposed tank site and not go beyond the edge of existing road that circles the tank pad. The reservoir will be constructed on slope and result in balanced earthwork. Following construction, the slope will be restored to its natural state. The site will also be precisely graded to direct storm water runoff away from both the existing and proposed reservoirs and into efficient drainage systems. It is assumed that a maximum of five to twelve workers will be on the site during grading, which would take place for about 10 days.

Foundation Construction: Following grading, the reservoir foundation will be installed. The foundation will consist of concrete/steel/aggregate. It is assumed that a maximum of five to twelve workmen will be on the site during foundation construction for a maximum of about 25 days.

Construct 1.5 MG Reservoir and Related Piping: Development of Reservoir 6A-2 includes the construction of a second water storage reservoir supported by a concrete foundation. The new reservoir will be a ground-based welded steel storage reservoir and will operate in conjunction with the existing welded steel storage reservoir. The proposed reservoir will be constructed in order to enable the District to continue to provide additional storage capacity for pressure zone 6. The second reservoir will also allow for the existing reservoir to be taken out of service when required for routine maintenance. The proposed reservoir will be 104 feet in diameter and 24 feet in height with a usable capacity of 1.5 MG.

The new reservoir will be designed in accordance with the California Building Code (CBC), the Occupational Safety and Health Administration (OSHA), American Concrete Institute (ACI), Division of the State Architect (DSA) requirements, and American Water Works Association (AWWA)'s design standards. AWWA's design standards require that reservoirs be operated at fill levels below their maximum physical height in order to prevent roof damage which may be caused by a "sloshing wave" during a seismic event. Although the physical height of the reservoir is 24 feet, the water level will be maintained at approximately 21 feet to comply with AWWA's freeboard requirements.

The water storage reservoir will be constructed to be circular in the following fashion: floor; walls and columns; roof; prestressing; and appurtenances. It is assumed that a maximum of twelve employees will be on the site during water storage reservoir construction for a maximum of about 365 days.

Construction timing: Design and construction of the project is anticipated to be completed in approximately 12 months.

Welded Steel Reservoir: The site will be filled to create a flat area. A drainage system will be constructed to direct storm water away from reservoir and into the existing retention basin.

Operational Scenario
Once the water storage reservoir is installed, operation would not require any shifts or employees as it will be monitored and controlled remotely. Scheduled maintenance visits to the Reservoir 6A-2 site will occur in the future with one trip per maintenance event. Water storage reservoirs typically do not directly consume energy as water is pumped into water storage reservoirs directly from wells or through booster pump stations.

Environmental Setting
The proposed project is located at the southwestern edge of the Mojave Desert, where it transitions at the San Gabriel Mountain foothills overlooking the Victor Valley. The Mojave Desert is characterized by broad alluvial fans, dissected terraces, playas, and scattered mountains. The general region is seismically active and subject to potential significant regional seismic events. Runoff from the San Gabriel Mountains is the primary source of surface stream flows. The project area has a shallow slope from south to north. The low annual humidity, moderate temperature swings, very low rainfall and frequent breezy conditions are typical of California's "Upper Desert" subclimate. Most years do not see temperatures drop below about 20°F or above about 105°F. Overall air quality is fair to poor. The project site presently contains the existing District Reservoir 6A. The access road provides access to both District Reservoir 6A, and Sheep Creek Water Company's 0.912 MG Reservoir, which is 80 feet in diameter and 24 feet in width to the south of the proposed project site. The area containing and surrounding the existing Reservoir 6A is compacted dirt, while about two thirds of the project site contains native vegetation consistent with the high desert environment.

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

The proposed project, as stated above under "Environmental Setting," is located in the Phelan Piñon Hills area of San Bernardino County, which is located in the high desert just north of the San Gabriel Mountains. The site itself contains the District's existing Reservoir 6A.

Table 1
EXISTING LAND USE AND LAND USE ZONING DISTRICTS

Location	Existing Land Use	Land Use Zoning District
Project Site	Reservoir 6A site containing compacted dirt and native vegetation characteristic of the High Desert	Rural Living
North	Vacant land containing native vegetation characteristic of the High Desert and single-family residences	Rural Living
South	Sheep Creek Reservoir and vacant land containing native vegetation characteristic of the High Desert.	Rural Living
East	Various single-family residences.	Rural Living
West	Various single-family residences and vacant land containing native vegetation characteristic of the High Desert.	Rural Living

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

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

- First among these is the California State Water Resources Control Board Division of Drinking Water (State Board). The State Board ultimately approves connection of each reservoir to PPHCSD's water distribution system through an amendment to the District's domestic water supply permit from the State Division of Drinking Water.
- Santa Ana Regional Water Quality Control Board

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

Yes, AB 52 Letters were mailed to the singular tribe that requested consultation under AB 52 with the District: the Yuhaaviatam of San Manuel Nation. On January 9, the Tribe reached out to the District and requested consultation through the implementation of a few protective mitigation measures in the event that any tribal cultural resources are uncovered during the implementation of the project. These mitigation measures have been incorporated in the Cultural Resources and Tribal Cultural Resources chapters of this Initial Study.

On February 9, 2024, CRM TECH, the cultural consultant for the project, received an email from the Morongo Band of Mission Indians requesting to consult under AB 52. This tribe had not previously requested to be notified of projects under AB 52. Through a series of email conversations, the Morongo Band of Mission Indians requested to be notified of future projects requiring AB 52 notification, and the District then returned a formal AB 52 notification to the tribe on March 8, 2024. On March 28, 2024, the Tribe requested the implementation of several protective mitigation measures in the event that any tribal cultural resources are uncovered during the implementation of the project. These mitigation measures have been incorporated in the Tribal Cultural Resources chapters of this Initial Study.

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

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

DETERMINATION (To be completed by the Lead Agency)

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

☐	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☒	Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Tom Dodson & Associates
Prepared by

Date

Lead Agency (signature)

4/30/14
Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

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

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

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

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

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

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

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

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

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

9) The explanation of each issue should identify:

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
I. AESTHETICS: Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning or other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

SUBSTANTIATION

a. *Less Than Significant Impact* – Adverse impacts to scenic vistas can occur in one of two ways. First, an area itself may contain existing scenic vistas that would be altered by new development. The proposed project would develop a reservoir within the community of Piñon Hills. The Reservoir 6A-2 site is within the site that contains the existing District Reservoir 6A. The area within which the proposed Reservoir 6A-2 is partially disturbed as a result of the Reservoir 6A development; however, some native vegetation and non-native vegetation characteristic of the high desert exist within the northern and western portions of the site (refer to Figures 2 and 3). The site itself does not contain any features that would be considered scenic vistas. A scenic vista impact can also occur when a scenic vista can be viewed from the project area or immediate vicinity and a proposed development may interfere with the view to a scenic vista. The County of San Bernardino generally desires to preserve the unique environmental features and natural resources of the Desert Region, including native wildlife, vegetation, water and scenic vistas. There are no specific scenic vistas outlined in the adopted San Bernardino Countywide Plan that apply to the proposed project. The project site is located in an area that contains limited views of the San Gabriel Mountains to the south because there are foothills in the foreground limiting views of the San Gabriel Mountains (refer to Photos I-1 and I-2, below). As such, views in the project area are somewhat limited by slope and existing development. The reservoir will be located adjacent to the existing reservoir, and will be constructed at the same height as the existing reservoir. Upon a review of views from nearby roadways, the existing reservoir is not highly visible from many vantage points within the areas that have access to this viewshed, and furthermore, the viewshed in the vicinity of the reservoir itself (shown on Photo I-2), is disturbed by rural residential development in the area. Therefore, given that the second reservoir at this location would be located adjacent to and at the same elevation as the existing reservoir, the addition of a second reservoir at this location is not anticipated to substantially impact scenic vistas to residents or visitors within the project area. Construction of a second reservoir will be similar to that which exists in the vista of the foothills at present. Construction activities will be temporary and localized. Operational activities and the new enclosure will cause minor changes in views from surrounding development, but will not obstruct scenic vistas and therefore the impact as such is considered less than significant. Additionally, the associated pipeline connections will be located below ground, thus the impact to any scenic vistas would be less than significant. Therefore, implementation of the proposed new reservoir is not expected to cause any substantial effects on

any important scenic vistas. This potential impact is considered a less than significant adverse aesthetic impact. No mitigation is required.

Photo I-1: View south from Snowline Drive of Javelin Road

Photo I-2: View from Sheep Creek Road to the east/southeast where Reservoir 6A can be seen

b. *Less Than Significant Impact* – The project site is located in the rural community of Phelan; to the south of the project site is Highway 138, which is not considered to be a state scenic highway, though Highway 138 is eligible. However, Highway 138 is considered a County Scenic Route as shown on Figure I-1. no scenic highways are located in the vicinity of the proposed project. The area within which the proposed Reservoir 6A-2 is partially disturbed as a result of the Reservoir 6A development; however, some native vegetation and non-native vegetation characteristic of the high desert exists within the northern and western portions of the site (refer to Figures 2 and 3). The project does not anticipate the removal of any Joshua trees, as the site design will avoid impacting any such trees located within the project sites during either construction or operation. Therefore, the proposed project would not substantially damage scenic resources, including, trees. Furthermore, no historic buildings, rock outcroppings, or other important any scenic resources exist within the project footprint. As such, with no scenic resources within the project footprint, and no features with scenic qualities therein, the proposed project would have a less than significant potential to substantially damage scenic resources. No mitigation is required.

c. *Less Than Significant Impact* – The project area is considered to be non-urbanized, and the project site is located in areas that are part of the rural landscape that makes up the majority of the District's service area. Much of the area surrounding the site consists of vacant land, with scattered rural residences. The reservoir is located on the existing Reservoir 6A site, and therefore is partially development with a reservoir and related infrastructure, but also contains native vegetation typical of the high desert region within the County of San Bernardino. Ultimately, the development of this reservoir is not anticipated to substantially degrade the visual character of the site or public views within the area because the addition of a second reservoir at this site would conform to the existing visual setting as a result of the two adjacent reservoirs (Reservoir 6A and the Sheep Creek Water Company Reservoir) to the south of the proposed Reservoir 6A-2 site. Given this, the project would not substantially degrade or the existing visual character or quality of public views of the site and its surroundings public views surrounding the site and its surroundings. Impacts under this issue are considered less than significant. No mitigation is required.

d. *Less Than Significant With Mitigation Incorporated* – The proposed project will be located within a site that had been designated for Rural Living (RL) use, with the whole of the area surrounding these sites also designated for RL use. While much of the land adjacent to the project sites is vacant, there are scattered rural residences adjacent to the sites as well. Limited security lighting at the reservoir site exists, but additional security lighting may be installed as needed for safety. Thus, the proposed project has a potential to create a new source of lighting or glare during operations that could adversely affect nighttime views at the adjacent residences, and residences can be considered a light sensitive land use. This poses a potential to result in a substantial change to the area surrounding the project site. To protect nearby residences from direct light and glare from new lighting, the following mitigation measures will be implemented:

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

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
II. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

SUBSTANTIATION

a. *No Impact* – The proposed District reservoir site is located within a rural community. Neither the project site nor the adjacent and surrounding properties are designated for agricultural use; no agricultural activities exist in the project area, though some farmland of statewide importance exists within the District's service area. However, there is no potential for impact to any agricultural uses or values as a result of project implementation. According to the San Bernardino Countywide Plan Agricultural Resources Policy Map, no prime farmland, unique farmland, or farmland of statewide importance exists within the vicinity of the proposed project (Figure II-1). No adverse impact to any agricultural resources would occur from implementing the proposed project. No mitigation is required.

b. *No Impact* – There are no agricultural uses currently within the project site or on adjacent properties. The reservoir site is designated for Rural Living (RL) use with the zoning classification for each site being Phelan/Pinon Hills/Rural Living-5 Acre Minimum (PH/RL-5). Given that the zoning

classifications and land use designation do not support agricultural use, no potential exists for a conflict between the proposed project and agricultural zoning or Williamson Act contracts within the project area. No mitigation is required.

c. *No Impact* – Please refer to issues II(a) and II(b) above. The proposed District's Reservoir 6A-2 site is located within a rural community. Neither the project site nor the adjacent and surrounding properties support forest land or timberland uses or designations. No potential exists for a conflict between the proposed project and forest/timberland zoning. No mitigation is required.

d. *No Impact* – There are no forest lands within the project area, which is because the project area is a desert. No potential for loss of forest land would occur if the project is implemented. No mitigation is required.

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

SUBSTANTIATION: The following information utilized in this section of the Initial Study was obtained from the "Air Quality and GHG Impact Analyses for Phelan Piñon Hills Community Services District, Phelan Piñon Hills 1.5 MG Reservoir Project, Phelan, California" prepared by Gerrick Environmental dated January 8, 2024. This document is provided as Appendix 1 to this document.

Background

Climate
The climate of the Victor Valley, technically called an interior valley subclimate of Southern California's Mediterranean-type climate, is characterized by hot summers, mild winters, infrequent rainfall, moderate afternoon breezes, and generally fair weather. The clouds and fog that form along the Southern California coastline rarely extend across the mountains to Victorville and surrounding high desert communities. The most important local weather pattern is associated with the funneling of the daily onshore sea breeze through El 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 transport pattern creates both unhealthful air quality as well as destroying the scenic vistas of the mountains surrounding the Victor Valley.

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 III-1. Because the State of California had established Ambient Air Quality Standards (AAQS) several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table III-1. Sources and health effects of various pollutants are shown in Table III-2.

Currently, the NAAQS and CAAQS are exceeded in most parts of the MDAB. The NAAQS, the project region within the Mojave Desert Air Basin (MDAB) is in nonattainment for O3 (8-hour) and PM10. For the CAAQS, the project region within the MDAB is in nonattainment for O3 (1-hour and 8-hour) and PM10. In response, the MDAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality

standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

Table III-1
AMBIENT AIR QUALITY STANDARDS

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

Footnotes

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Table III-2
HEALTH EFFECTS OF MAJOR CRITERIA POLLUTANTS

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

Source: California Air Resources Board, 2002.

Baseline Air Quality

Monitoring air quality in the MDAB is the responsibility of the Mojave Desert Air Quality Management District (MDAQMD) headquartered in Victorville, California. Six monitoring stations are located at different sites throughout the District. Additionally, the MDAQMD is contracted to the Antelope Valley AQMD to maintain

an air monitoring station in Lancaster. At these stations, the MDAQMD collects information 24 hours a day, seven days a week on the ambient levels of pollutants, including ozone, particulate matter, nitrogen oxides, and carbon monoxide. The closest monitoring station to the project site is in Phelan. That station, however, only monitors ozone and nitrogen dioxide. The nearest station that monitors particulates is the Victorville Station at 14306 Park Avenue. Table 3 summarizes the last five years of monitoring data from the available data at the Phelan and Victorville monitoring stations. Findings are summarized below:

1. Photochemical smog (ozone) levels frequently exceed standards. The 1-hour state standard was violated an average of five percent of all days in the last five years at the monitoring station closest to the project site and the 8-hour state standard was violated an average of 18 percent of all days. The Mojave Desert Air Basin does not generate enough ozone precursor emissions to substantially affect ozone levels. Attainment of ozone standards is most strongly linked to air quality improvements in upwind communities.

2. PM-10 is affected by construction, by unpaved road travel, by open fires and/or by agricultural practices. These emissions can be controlled to some extent, and are, therefore, components in a respirable range (10-micron diameter) particulate matter (PM-10) attainment plan developed by the Mojave Desert AQMD.

   PM-10 days exceeding the state 24-hour standard is not available near Phelan but is available from Victorville Station. The more stringent state standards have not been available for the last five years. The three times less stringent federal 24 hour-standard has been exceeded 1-2 days per year during this period. Although the number of exceedances of the state 24-hour standard is not available, presumably they are significant given the high maximum 24-hour concentrations for each year. An attainment plan for PM-10 was adopted in July 1995 for designated federal PM-10 non-attainment areas in the MDAB. Any project-related PM-10 generation activities require an enhanced level of controls consistent with the control measures that are part of that plan.

3. A fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). The year 2021 showed the highest maximum 24-hour concentration in past years.

4. More localized pollutants such as carbon monoxide and nitrogen oxides, etc. are generally very low near the project site because background levels in the Mojave Desert area never exceed allowable levels except perhaps during wildfire events. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NOx or CO without any threat of violating applicable AAQS. CO is no longer monitored in the Mojave Desert area.

Table III-3
AIR QUALITY MONITORING SUMMARY (2018-2021)
(Number Of Days Standards Were Exceeded and Maximum Levels During Such Violations)

Pollutant/Standard	2018	2019	2020	2021	2022
Ozone					
1-Hour > 0.09 ppm (S)	25	12	19	31	13
8-Hour > 0.07 ppm (S)	87	44	63	77	51
8- Hour > 0.075 ppm (F)	55	19	44	57	25
Max. 1-Hour Conc. (ppm)	0.125	0.119	0.130	0.131	0.105
Max. 8-Hour Conc. (ppm)	0.107	0.090	0.093	0.106	0.090
Nitrogen Dioxide					
1-Hour > 0.18 ppm (S)	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.051	0.056	0.059	0.056	0.053
Inhalable Particulates (PM-10)					
24-Hour > 50 $\mu g/m^3$ (S)	na	na	na	na	na
24-Hour > 150 $\mu g/m^3$ (F)	1	2	2	1	2
Max. 24-Hr. Conc. ($\mu g/m^3$)	165.2	170.0	261.4	591.6	372.11
Ultra-Fine Particulates (PM-2.5)					
24-Hour > 35 $\mu g/m^3$ (F)	0	0	4	1	0
Max. 24-Hr. Conc. ($\mu g/m^3$)	32.7	17.8	48.4	87.1	24.6

na = not available; S=State Standard; F=Federal Standard
Source: Phelan Station: Ozone, NOx; Victorville Station: PM-10, 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

The project proposes to construct a new 1.5 MG reservoir which will be 104 feet in diameter and 24 feet high. Potential air quality impacts to the immediate project vicinity would derive almost exclusively during construction of the proposed reservoir.

Additional Indicators
In its CEQA Handbook (2020), the MDAQMD states that any project is significant if it triggers or exceeds the most appropriate evaluation criteria shown above. In general, the emissions comparison (criteria number 1), below is sufficient for the District's purposes in relation to this project:

1. Generates total emissions (direct and indirect) in excess of the MDAQMD thresholds;
2. Generates a violation of any ambient air quality standard when added to the local background;
3. Does not conform with the applicable attainment or maintenance plans;

4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) non-cancerous greater than or equal to 1.

Therefore, except in special circumstances, the CEQA Handbook notes that meeting the daily or annual emissions thresholds as shown above is normally sufficient to demonstrate a less than significant impact.

Impact Analysis

a. *Less Than Significant Impact* – Projects such as the proposed PPHCSD Reservoir 6A-2 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 propose project will be fully consistent with both the General Plan designation and Zone classification for the project site, mainly because the project involves water infrastructure, and such projects are considered land use independent, and furthermore, this particular project involves the installation of a reservoir within a site that presently contains an existing reservoir, which would ensure that the new reservoir would conform to the existing site use. 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. Impacts are therefore less than significant.

b. *Less Than Significant With Mitigation Incorporated* – Air pollution emissions associated with the proposed project would occur over both a short and long-term time period. Short-term emissions include fugitive dust from construction activities (i.e., site prep, demolition, grading, and exhaust emission) at the proposed project site. Long-term emissions generated by future operation of the proposed project primarily include energy consumption required to operate the existing booster pumps that would be utilized in support of the Reservoir.

   The District proposes installation of Reservoir 6A-2. Potential air quality impacts to the immediate project vicinity would derive almost exclusively during construction of the proposed reservoir. The total area of disturbance will be less than one acre. Development of Reservoir 6A-2 will require grading to prepare a pad for the construction of the new reservoir. Grading includes any potential over-excavation, import and/or export of soil and compaction of soil beneath the new reservoir foundation for the proposed reservoir. The project will require over-excavation, compaction and some grading pending the geotechnical study recommendations. It is anticipated that about between 5 and 12 persons will be on site at any one time to support construction. Construction is anticipated to occur over a period of one year. Construction is anticipated to begin in the first half of 2024.

   Construction Emissions
   CalEEMod was developed by the SCAQMD to provide a model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions. CalEEMod was used to analyze project impacts. Table III-4 provides the construction equipment inventory developed by CalEEMod for the project. The construction scenario modeled for the various activities that are planned for the proposed project are listed below.

Table III-4
CONSTRUCTION DURATION AND EQUIPMENT FLEET

Phase Name and Duration	Equipment
Grading 10 days	1 Grader
	1 Dozer
	1 Excavator
	1 Loader/Backhoe
Concrete Foundation 25 days	2 Mixers
	2 Pumps
	2 Loader/Backhoes
	1 Forklifts
Welded Steel Tank Construction 300 days	1 Jib Crane
	4 Generator Sets
	4 Welders
	2 Loader/Backhoes
Drainage and Piping 30 days	1 Trencher
	1 Roller
	1 Loader/Backhoe
	1 Forklift

Utilizing the indicated equipment fleets and durations shown in Table III-4 the following highest daily construction emissions are calculated by CalEEMod and are shown in Tables III-5 and III-6.

Table III-5
CONSTRUCTION ACTIVITY EMISSIONS
MAXIMUM DAILY EMISSIONS (POUNDS/DAY)

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5	CO_2
2024	1.6	13.1	14.2	<0.1	6.0	3.1	2,329.0.
2025	1.5	12.6	14.1	<0.1	0.5	0.4	2,329.0
MDAQMD Thresholds	137	137	548	137	82	82	548,000
Exceeds Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*	*No*

Table III-6
CONSTRUCTION ACTIVITY EMISSIONS
ANNUAL EMISSIONS (TONS PER YEAR)

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5	CO_2
2024	0.2	1.6	1.7	<0.1	0.1	0.1	250.0
2025	0.1	0.6	0.7	<0.1	<0.1	<0.1	98.1
MDAQMD Thresholds	25	25	100	25	15	12	100,000
Exceeds Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*	*No*

Maximum project-related air pollution emissions were compared to daily and annual MDAQMD thresholds. Even if all activities occurred in a single calendar year and overlapped daily, maximum emissions are less than their MDAQMD thresholds.

National Environmental Policy Act (NEPA) Analysis
The proposed project must also comply with NEPA as the District may utilize funding awarded from the Federal Emergency Management Agency (FEMA) California Governor's Office of Emergency Services (CalOES). Thus, conformity analysis under the EPA guidelines to demonstrate conformance with the applicable State Implementation Plan (SIP) is presented below. Based upon MDAQMD attainment status, the following emissions levels are presumed evidence of SIP conformity:

VOC/ROG	-	non-attainment severe	25 tons/year
NOx	-	attainment	100 tons/year
PM-2.5	-	unclassified/attainment	100 tons/year
PM-10	-	non-attainment moderate	100 tons/year
CO	-	attainment	100 tons/year
SO_2	-	attainment	100 tons/year
Lead	-	attainment	25 tons/year

If the project-related emissions from construction and operations are less than the specified "*de minimis*" levels, the project is considered to be in conformance with the applicable SIP.

The calculated maximum annual emissions were compared to the EPA *de minimis* emission thresholds that would allow for a federal conformity finding with Section 176c of the Clean Air Act.

Table III-7
ANNUAL EMISSIONS (TONS/YEAR)

	ROG	NOx	CO	SO_2	PM-10	PM-2.5
2024	0.2	1.6	1.7	<0.1	0.1	0.1
2025	0.1	0.6	0.7	<0.1	<0.1	<0.1
NEPA Threshold	25	100	100	100	100	100

As shown in Table III-7, and summarized below, maximum annual emissions are much less than their associated *de minimis* thresholds. A formal SIP consistency analysis is not required.

Pollutant	Threshold	Max Project Emissions
VOC/ROG	25 tons/year	0.2 tons/year
NOx	100 tons/year	1.6 tons/year
PM-2.5	100 tons/year	0.1 tons/year
PM-10	100 tons/year	0.1 tons/year
CO	100 tons/year	1.7 tons/year
SO_2	100 tons/year	<0.1 tons/year

Construction Emissions Conclusion
Short-term emissions are primarily related to the construction of the project and are recognized to be short in duration and without lasting impacts on air quality. With the enhanced dust control mitigation measures listed below, construction activity air pollution emissions are not expected to exceed MDAQMD CEQA thresholds for any pollutant. Regardless, the PM-10 non-attainment status of the Mojave Desert area requires that Best Available Control Measures (BACMs) be used as required by the Mojave AQMD Rule 403. Recommended construction activity mitigation includes:

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

- ***Apply soil stabilizers such as hay bales or aggregate cover to inactive areas.***
- ***Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.***
- ***Stabilize previously disturbed areas if subsequent construction is delayed.***

- ***Water exposed surfaces and haul roads 3 times/day.***
- ***Cover all stockpiles with tarps.***
- ***Replace ground cover in disturbed areas quickly.***
- ***Reduce speeds on unpaved roads to less than 15 mph.***
- ***Trenches shall be left exposed for as short a time as possible.***

AQ-2 ***The following signage shall be erected no 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 height text, black text on white background, on one inch A/C laminated plywood board, with the lower edge between six and seven feet above grade, identifying a responsible official for the site and 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: {six-inch text}
[Contact Name], PHONE NUMBER {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}"

AQ-3 ***During project construction a 4,000-gallon water truck shall be available on-site at all times for dust control.***

AQ-4 ***Wind breaks and/or fencing shall be developed in areas that are susceptible to high wind induced dusting.***

AQ-5 ***The District shall use a water truck to maintain moist disturbed surfaces and actively spread water during visible dusting episodes to minimize visible fugitive dust emissions. If the site contains exposed sand or fines deposits (and if the project would expose such soils through earthmoving), water application or chemical stabilization will be required to eliminate visible dust/sand from sand/fines deposits.***

AQ-6 ***The District shall formulate a high wind response plan that addresses enhanced dust control if winds are forecast to exceed 25-mph in any upcoming 24-hour period.***

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

Operational Emissions
The proposed project will not require substantial additional operational energy. The proposed reservoir operates by gravity and is fed by an off-site booster station. The existing booster will not be running more frequently to fill the new reservoir (only once for the initial filing). Further electrical consumption has no single uniquely related air pollution emissions source because power is supplied to and drawn from a regional grid. Electrical power is generated regionally by a combination of non-combustion (nuclear, hydroelectric, solar, wind, geothermal, etc.) and fossil fuel combustion sources. There is no direct nexus between consumption and the type of power source or the air basin where the source is located. Operational air pollution emissions from electrical generation are therefore not attributable on a project-specific basis.

Conclusion
With the incorporation of mitigation measures (MMs) **AQ-1** through **AQ-6**, the development of the project would have a less than significant potential to result in a cumulatively considerable net

increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

c. *Less Than Significant With Mitigation Incorporated* – The proposed project would generate minimal construction and operation related emissions. The closest sensitive use to the reservoir site is at a distance of 300 feet. Given the distance from the proposed project to nearby sensitive receptors, and the type of project proposed, the proposed project would not emit hazardous or toxic emissions that would create an excess cancer risk of more than 10 in a million or a non-cancerous health index of more than 1.0. Therefore, with the implementation of MMs **AQ-1** through **AQ-6** outlined under issue III(b) above, implementation of the District's Reservoir 6A-2 Project is anticipated to have a less than significant potential to expose sensitive receptors to substantial pollutant concentrations.

d. *Less Than Significant Impact* – Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The proposed project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. The proposed project's operations (pumping and storage) are an essentially closed system with negligible odor potential. Odors will be briefly detectable during application of the interior epoxy coating and outdoor paint application on the reservoir shell during construction. Good painting practice (low wind speeds, high efficiency sprayers, and full plastic containment) will minimize odor or overspray and paint transport. Furthermore, the proposed project would be required to comply with CARB Rule 1113, which requires the use of only "Low-Volatile Organic Compounds (VOC)" paints. Thus, through the required compliance with CARB Rule 1113, impacts under this issue are considered less than significant. No mitigation is required.

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

SUBSTANTIATION: The following information is abstracted from the *"Biological Resources Assessment and Jurisdictional Delineation Report for Phelan Piñon Hills Community Services District Reservoir 6A-2 Project"* (BRA) prepared by HDR dated February 2024 and provided as Appendix 2.

General Site Conditions

Reservoir 6A and the proposed Reservoir 6A-2 are in the western portion of the Mojave Desert, west side of the Mojave River at the base of the northern site of the transverse San Gabriel Mountain range. The Phelan-Piñon Hills area is subject to both seasonal and annual variations in temperature and precipitation. Average annual maximum temperatures peak at 98.1 degrees Fahrenheit (° F) in July and fall to an average annual minimum temperature of 29.2° F in January. Average annual precipitation is greatest from November through March and reaches a peak in February (1.05 inches). Precipitation is lowest in the month of June (0.04 inches). Annual total precipitation averages 5.52 inches.

The topography of the project area ranges from relatively flat on the eastern side to hilly on the western side. Elevation within the proposed project area is approximately 4,600 feet above mean sea level (amsl).

Hydrologically, the project area is situated within an unnamed Hydrologic Sub-Area (HSA 628.20). This HSA comprises a 556,821-acre drainage area, within the larger Mojave Watershed (HUC 18090208). The Mojave River is the major hydrogeomorphic feature within the Mojave Watershed.

Soils within the project area are solely comprised of the Bull Trail Typic Xerothents association consisting of deep, well drained soils that formed in material on alluvial fans and terraces. Bull Trail soils are gently sloping to moderately steep.

Land use within the project area and surrounding vicinity consists of residential, commercial, and open space. The project site abuts the existing Sheep Creek Water Company's reservoir, and is surrounded by large lot rural residential. Habitat types within the surrounding areas include disturbed creosote shrub alliance with scattered Joshua trees.

Habitat
The project area does not support any native habitats. The site has been cleared of vegetation, and only scattered individual of annual species occurs in the proposed construction area. As stated above, habitat types within the surrounding areas include disturbed creosote shrub alliance with scattered Joshua trees.

Wildlife
Amphibians and Reptiles: No amphibian species were observed or otherwise detected within the project site during the reconnaissance- level survey and none are expected to occur, due to the dry, upland nature of the site and absence of nearby water sources. Reptile species observed within the project site during the reconnaissance-level field survey include western side-blotched lizard (*Uta stansburiana elegans*).

Birds: Birds were the most observed wildlife group during survey and species observed or otherwise detected in the project footprint during the reconnaissance-level survey include: red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), and white-crowned sparrow (*Zonotrichia leucophrys*).

Mammals: Identification of mammals within the project site was generally determined by physical evidence rather than direct visual identification. This is because 1) many of the mammal species that potentially occur onsite are nocturnal and would not have been active during the survey and 2) no small mammal trapping was performed.

The only mammal species observed was California ground squirrel (*Otospermophilus beecheyi*).

Special Status Species and Habitats
According to the CNDDB, 6 sensitive species (2 plant species, 4 animal species) have been documented in the *Phelan,* USGS 7.5-Minute Series Quadrangle. This list of sensitive species includes any state and/or federally listed threatened or endangered species, or candidates, California Fully Protected species, CDFW designated Species of Special Concern (SSC), and otherwise Special Animals. "Special Animals" is a general term that refers to all the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special status species." The CDFW considers the taxa on this list to be those of greatest conservation need.

Only one state candidate species is documented within the Phelan quad. There are no known occurrences within 3 miles of the proposed reservoir site.

The federal IPaC report identifies the potential for 4 listed or candidate species however none are mapped within 13 miles of the site.

No state and/or federally listed threatened or endangered species, or other sensitive species were observed within the project site during the reconnaissance-level field survey. An analysis of the likelihood for occurrence of all CNDDB sensitive species documented in the Phelan quad is provided in Appendix A. This analysis considers species' range as well as documentation within the vicinity of the project site and includes the habitat requirements for each species and the potential for their occurrence on site, based on required habitat elements and range relative to the current site condition.

California Condor (Gymnogyps californianus) Endangered (Federal): The federally listed as endangered he California condor lives in rocky shrubland, coniferous forest, and oak savanna.[1] They are often found

near cliffs or large trees, which they use as nesting sites. Individual birds have a huge range and have been known to travel up to 250 km (160 mi) in search of carrion. Wild condors maintain a large home range, often traveling 250 km (160 mi) a day in search of carrion. They prefer to feast on large, terrestrial mammalian carcasses such as deer, goats, sheep, donkeys, horses, pigs, cougars, bears, or cattle.

Findings: This species has not been documented within or adjacent the project site. Furthermore, there is no suitable foraging, roosting, or nesting habitat on the site. No large carrion occurs, nor would it be left on site. Therefore, California Condor is considered absent from the project site at the time of survey and the project footprint will not impact this species.

Mojave Desert Tortoise – Threatened (Federal) Endangered (State): The Mojave desert tortoise is a State listed endangered and federally listed threatened species. The species had experienced significant population declines throughout much of its range prior to becoming listed as threatened under the federal ESA in 1990. The Mojave desert tortoise has continued to decline throughout its range due to threats that include habitat loss, degradation and fragmentation, domestic grazing, predation, collections, and increased mortality rates. The Mojave desert tortoise is primarily found in creosote bush scrub and creosote bush scrub alliances, but is also occurs in other desert scrub habitats including succulent scrub, cheesebush scrub, blackbush scrub, hop-sage scrub, shadscale scrub, microphyll woodland, Joshua tree woodland and Mojave saltbush-allscale scrub plant communities. Desert tortoise primarily forage on annual forbs, but also perennials (e.g., cacti and grasses). They prefer surfaces covered with sand and fine gravel versus course gravel, pebbles, and desert pavement. Friable soil is important for digging burrows. Desert tortoise are most often found on level or sloped ground where the substrate is firm but not too rocky. Tortoise burrows are typically found at the base of shrubs, in the sides of washes and in hillsides. Because a single tortoise may have many burrows distributed throughout its home range, it is not possible to predict exact numbers of individuals on a site based upon burrow numbers.

Findings: According to the USFWS desert tortoise Critical Habitat overlay, the project site is not within any USFWS designated desert tortoise Critical Habitat. The site is fenced and completely disturbed. The reservoir site does not support any potentially suitable and historically occupied desert tortoise habitat. Based on the lack of suitable habitat type and vegetation density, the Reservoir Site does not support any suitable Mojave desert tortoise habitat.

The result of the protocol desert tortoise survey was that no evidence of desert tortoise presence was found in the survey area. No desert tortoise individuals or sign including desert tortoise burrows, scat, carcasses or other sign were observed. Therefore, Mojave desert tortoise are considered absent from the Reservoir Site at the time of survey and the project is not likely to adversely affect this species.

Southwestern Pond Turtle (Actinemys pallida) – Proposed Threatened (Federal): The southwestern pond turtle is proposed for federal listed as threatened. This is an aquatic turtle and can be found in permanent bodies of water.

Findings: There is no aquatic habitat on or near the reservoir site. Therefore, this species is absent from the site.

Monarch Butterfly (Danaus plexippus) – Candidate (Federal): The Monarch Butterfly is a candidate for federal listing. The range of the western and eastern populations expands and contracts depending upon the season. The range differs between breeding areas, migration routes, and winter roosts. In the Americas, the monarch ranges from southern Canada through northern South America. Their wintering habitat typically provides access to streams, plenty of sunlight (enabling body temperatures that allow flight), and appropriate roosting vegetation, and is relatively free of predators. Overwintering, roosting butterflies have been seen on basswoods, elms, sumacs, locusts, oaks, osage-oranges, mulberries, pecans, willows, cottonwoods, and mesquites. Breeding monarch habitats can be found in agricultural fields, pasture land, prairie remnants, urban and suburban residential areas, gardens, trees, and roadsides – anywhere there is access to larval host plants, milkweed (*Asclepias sp).*

Findings: This species has not been documented within the project site there is no suitable roosting or overwintering habitat within the parcel. Therefore, this species is absent from the project area.

Crotch Bumble Bee (Bombus crotchii) – State Candidate Endangered: Crotch's bumblebee inhabits grassland and scrub areas, requiring a hotter and drier environment than other bumblebee species, and can only tolerate a very narrow range of climatic conditions. Crotch's bumblebee nests underground, often in abandoned rodent dens. It is a nonmigratory species of bumblebee. Its food plants include milkweeds, dusty maidens, lupines, medics, phacelias, and sages.

Findings: This species has not been documented near the project site. Further, the site is completely disturbed and there is a lack of food sources. Therefore, this species is considered absent from the project area.

Special Status Habitats: The project site does not contain any sensitive habitats, including any USFWS designated Critical Habitat for any federally listed species. The nearest Critical Habitat unit is greater than 3 miles northwest of the project site.

Findings: The project footprint will not result in any loss or adverse modification of USFWS designated Critical Habitat, or any other special status habitats.

Jurisdictional Delineation

On December 5, 2023, Ms. Patterson also evaluated the project site for the presence of riverine/riparian/wetland habitat and jurisdictional waters, i.e. Waters of the U.S. (WOTUS), as regulated by the USACE and RWQCB, and/or jurisdictional streambed and associated riparian habitat as regulated by the CDFW. Prior to the field visit, aerial photographs of the project footprint were viewed to identify drainage features within the survey area as indicated from topographic changes, blue-line features, or visible drainage patterns. Environmental Protection Agency (EPA) Water Program “Waters GeoViewer 2.0” and “Google Earth Pro” data layers were also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site, and to assess connectivity to a Traditionally Navigable Water or a Relatively Permanent Water. Similarly, the United States Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) “Web Soil Survey” was reviewed for soil types found within the project footprint to identify the soil series in the area and to check these soils to determine whether they are regionally identified as hydric soils. Downstream connectivity of waterways (if present) were reviewed on Google Earth Pro aerial photographs and topographic maps to determine jurisdictional status. The lateral extent of potential USACE jurisdiction was measured at the Ordinary High Water Mark (OHWM) in accordance with regulations set forth in 33CFR part 328 and the USACE guidance documents.

The result of the jurisdictional waters assessment is that there are channels or ponded features within the reservoir site. Therefore, no permitting with the CDFW, RWQCB, or USACOE will be required.

Conclusion

Sensitive Biological Resources

A BRA survey of the project site was conducted in December of 2023 to identify potential habitat for special status wildlife within the project footprint. No special status wildlife species, including any state and/or federally listed threatened or endangered species, were observed or otherwise detected within the project site during the reconnaissance-level assessment survey. There is no suitable habitat for desert tortoise, California Condor, southwestern pond turtle, Crotch’s bumble bee, or Monarch butterfly.

The reservoir site does not contain any sensitive habitats, including any USFWS designated Critical Habitat for any federally listed species, and the project footprint will not result in any loss or adverse modification of Critical Habitat.

Nesting Birds
There is habitat within the project area that is suitable to support nesting birds, including adjacent habitat potentially suitable to support SWFL and LBVI. Most native bird species are protected from unlawful take by the MBTA (Appendix A). In December 2017, the Department of the Interior (DOI) issued a memorandum concluding that the MBTA's prohibitions on take apply "[…] only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs." Then in April 2018, the USFWS issued a guidance memorandum that further clarified that the take of migratory birds or their active nests (i.e., with eggs or young) that is incidental to, and not the purpose of, an otherwise lawful activity does not constitute a violation of the MBTA.

However, the State of California provides additional protection for native bird species and their nests in the FGC (Appendix A). Bird nesting protections in the FGC include the following (Sections 3503, 3503.5, 3511, 3513 and 3800):

- Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.
- Section 3503.5 prohibits the take, possession, or needless destruction of any nests, eggs, or birds in the orders Falconiformes (new world vultures, hawks, eagles, ospreys, and falcons, among others), and Strigiformes (owls).
- Section 3511 prohibits the take or possession of Fully Protected birds.
- Section 3513 prohibits the take or possession of any migratory nongame bird or part thereof, as designated in the MBTA. To avoid violation of the take provisions, it is generally required that project-related disturbance at active nesting territories be reduced or eliminated during the nesting cycle.
- Section 3800 prohibits the take of any non-game bird (i.e., bird that is naturally occurring in California that is not a gamebird, migratory game bird, or fully protected bird).

In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season, which is generally February 1st through August 31st. However, if all work cannot be conducted outside of nesting season, the following is recommended:

- To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist should conduct pre-construction nesting bird surveys prior to project footprint-related disturbance to suitable nesting areas to identify any active nests. If no active nests are found, no further action would be required. If an active nest is found, the biologist should set appropriate no-work buffers around the nest which would be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nest(s) and buffer zones should be field checked weekly by a qualified biological monitor. The approved no-work buffer zone should be clearly marked in the field, within which no disturbance activity should commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.

Jurisdictional Waters
In addition to the BRA and focused botanical field survey, the Subject Parcel was also assessed for the presence of any state and/or federal jurisdictional waters. The result of the jurisdictional waters assessment is that there are no channels or ponded features withing the reservoir site. Therefore, no permitting with the CDFW, RWQCB, or USACOE will be required.

Impact Analysis

a. *Less Than Significant Impact* – It is not anticipated that the proposed project would result in a significant adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. The project site is vacant and does not contain any native habitats. The Biological Resources Assessment (BRA) provided as Appendix 2 to this Initial Study determined that there are 6 sensitive species (2 plant species, 4 animal species) that are known to occur in the vicinity of the Phelan quad, no potential for any of these species to occur within the project site was identified, as described above under General Site Conditions, above. No special status wildlife species,

including any state and/or federally listed threatened or endangered species, were observed or otherwise detected within the Project Site during the reconnaissance-level assessment survey. There is no suitable habitat for desert tortoise, California Condor, southwestern pond turtle, Crotch's bumble bee, or Monarch butterfly. Thus, based on the habitat conditions and existing disturbances within the project site and surrounding area no special status species have been identified as having a potential to exist within or be impacted by the proposed project. Thus, there is a less than significant potential for implementation of this project to have a significant adverse effect, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

b. *Less Than Significant Impact* – Implementation of the proposed project will not have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. Refer to the discussion under General Site Conditions above, no sensitive natural communities or riparian habitat is located within the project site that would be impacted by the proposed well development project. Based on the field survey conducted by HDR and the information contained in Appendix 2, no significant impacts to riparian habitat or other sensitive communities are anticipated to occur as a result of implementation of the proposed project. Impacts are less than significant under this issue.

c. *Less Than Significant Impact* – According to the data gathered by HDR in Appendix 2, no federally protected wetlands occur within the project footprint. HDR assessed the project APE for the presence of any state and/or federal jurisdictional waters. The result of the jurisdictional waters assessment is that there are no wetland or non-wetland WOTUS or waters of the State potentially subject to regulation by the USACE under Section 404 of the CWA, the RWQCB under Section 401 of the CWA and/or Porter Cologne Water Quality Control Act, or the CDFW under Section 1602 of the FGC, respectively. Therefore, the project will not impact any jurisdictional waters and no state or federal jurisdictional waters permitting will be required. Therefore, implementation of the proposed project will have no potential to impact any federally protected wetlands through direct removal, filling, hydrological interruption, or other means. No mitigation is required.

d. *Less Than Significant With Mitigation Incorporated* – Based on the field survey of the project site, the project will not substantially interfere with the movement of any native resident or migratory species or with established native or migratory wildlife corridors, or impede the use of native nursery sites. However, the State does protect all migratory and nesting native birds. Several bird species were identified as potentially occurring in the project area, and the proposed project site contains suitable habitat for nesting birds within the site. Thus, the project area may include locations that function as nesting locations for native birds. To avoid impacting nesting birds as required by the MBTA and California FGC, the following mitigation measure shall be implemented:

BIO-1 ***All Project activities on-site shall be conducted outside of the nesting bird season (generally, raptor nesting season is January 1 through September 15; and passerine bird nesting season is February 1 through September 1) to the maximum extent feasible. If Project activities begin outside of nesting season, a pre-construction survey shall be performed by a qualified biologist to verify the absence of nesting birds. A qualified biologist shall conduct the pre-activity survey within the Project footprint (including access routes) and a 300-foot buffer surrounding the Project area, no more than two hours prior to initiating Project activities.***

If Project activities begin during the nesting bird season (generally, raptor nesting season is January 1 through September 15; and passerine bird nesting season is February 1 through September 1), nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to Project initiation. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior.

The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests containing eggs or young are found during the preconstruction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground and discussed in the WEAP. buffers are species-specific and shall be at least 100 feet for passerines and 300 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.

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

e. *Less Than Significant Impact* – Development of the proposed project would have a less than significant potential to conflict with any local policies or ordinances protecting biological resources. Impacts to biological resources have been addressed above under issues IV(a-d). Therefore, the potential for the project to conflict with local policies or ordinances pertaining to biological resources would be considered less than significant.

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

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

SUBSTANTIATION: A cultural resources report has been prepared to evaluate the potential for cultural resources to occur within the project area of potential effect entitled "Historical/Archaeological Resources Survey Report, Phelan Piñon Hills Community Services District Reservoir 6A-2 Project" prepared by CRM TECH dated January 27, 2024 (Appendix 3). The following summary information has been abstracted from this report. It provides an overview and findings regarding the cultural resources found within the project area.

Background

The purpose of the study is to provide the District with the necessary information and analysis to determine whether the proposed undertaking would have an effect on any "historic properties" or "historical resources," as defined by the pertinent federal and state statutes and regulations, that may exist in or near the area of potential effect (APE). In order to accomplish this objective, CRM TECH conducted a cultural resources records search, pursued historical and geoarchaeological background research, contacted Native American representatives, and carried out a systematic field survey of the entire APE.

The study is part of the environmental review process for the proposed project, which entails primarily installation of a new 1.5-MG reservoir. PPHCSD, as the project proponent and the lead agency, initiated the study pursuant to the California Environmental Quality Act (CEQA). As the project will involve federal funds administered by the United States Department of Housing and Urban Development (HUD), it qualifies as a federal "undertaking" that also requires compliance with Section 106 of the National Historic Preservation Act. The purpose of the study is to provide HUD and PPHCSD with the necessary information and analysis to determine whether the undertaking would have an effect on any "historic properties," as defined by 36 CFR 800.16(l), or "historical resources," as defined by PRC §5020.1(j), that may exist in or near the APE.

In order to identify such resources, CRM TECH conducted a historical/archaeological resources records search, pursued historical and geoarchaeological research, contacted Native American representatives, and carried out an intensive-level field survey. Through the various avenues of research, this study did not encounter any "historic properties" or "historical resources" within or adjacent to the APE. Therefore, CRM TECH recommends to HUD and PPHCSD a conclusion that no "historic properties" or "historical resources" will be affected by the undertaking. No further cultural resources investigation is recommended for the undertaking unless construction plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are encountered during any earth-moving operations associated with the undertaking, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

Impact Analysis

a&b. *Less Than Significant With Mitigation Incorporated* – CEQA establishes that "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a

significant effect on the environment" (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

Per the above discussion and definition, no archaeological sites or isolates were recorded within the project boundaries; thus, none of them requires further consideration during this study. In light of this information and pursuant to PRC §21084.1, the following conclusions have been reached for the project:

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

However, if any ground disturbing activities are required, the following mitigation measure will ensure that impacts to any buried cultural materials that may be discovered during earth moving activities is carried are less than significant:

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

Additionally, as part of the AB 52 consultation process, PPHCSD received a response from the Yuhaaviatam of San Manuel Nation (YSMN) requesting the following additional archaeological monitoring and testing as mitigation in addition to mitigation measures **TCR-1** and **TCR-2** identified under Section XVIII, Tribal Cultural Resources below:

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

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

With the incorporation of the above mitigation measures, in addition to MMs **TCR-1** and **TCR-2** the potential for impacts to cultural resources will be reduced to a less than significant level. No additional mitigation is required.

c. *Less Than Significant With Mitigation Incorporated* – No available information suggests that human remains may occur within the Area of Potential Effect (APE) and the potential for such an occurrence is considered very low. Human remains discovered during the project will need to be treated in accordance with the provisions of HSC §7050.5 and PRC §5097.98, which is mandatory. State law (Section 7050.5 of the Health and Safety Code) as well as local laws requires that the Police Department, County Sheriff and Coroner's Office receive notification if human remains are encountered. Compliance with these laws is considered adequate mitigation for potential impacts, however, as part of the AB 52 consultation process, the following measure, which expands on the legal requirements pertaining to discovery of human remains, shall be implemented by the project:

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

With the above mitigation incorporated, the potential for impacts related to disturbance of any human remains, including those interred outside of formal cemeteries will be reduced to a less than significant level.

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

SUBSTANTIATION

a. *Less Than Significant Impact* – The proposed project would allow for additional, necessary water storage in the District's pressure zone 6, and would allow for the existing reservoir to be taken out of service when required for routine maintenance. The existing tank operates by gravity and is fed by an off-site booster station. The existing booster will not be running more frequently to fill the new reservoir, with the exception of the energy required to facilitate the initial fill of water within the reservoir once in operation. In fact, the installation of a second reservoir at this location would result in less energy use by the booster station as the expanded water storage would result in a less frequent need to fill the reservoir tanks. Therefore, the required energy to operate the proposed Project represents a net zero increase. However, energy would be required to operate construction equipment during construction of the proposed project.

As stated in Section III, Air Quality, the construction of the proposed project would require mitigation measures to minimize emissions impacts from construction equipment use (refer to MM **AQ-2**). This mitigation measure also applies to energy resources as they require equipment not in use for 5 minutes to be turned off, and for electrical construction equipment to be used where available. This measure would prevent a significant impact during construction due to wasteful, inefficient, or unnecessary consumption of energy resources, and would also conform to the CARB regulations regarding energy efficiency.

SCE is the primary provider for electricity at the site, and will continue to provide service though no expanded services are anticipated. According to SCE's website[1], SCE is committed to delivering power reliably and to meet demand; SCE is expanding and upgrading the transmission and distribution networks to meet the region's growing demand for electricity, and improve grid performance, while meeting California's ambitious renewable-power goals. As such, it is anticipated that SCE will continue to have ample power supply to serve the proposed project without the need for additional electrical capacity. As such, it is not anticipated that the proposed project would either result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operations, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts under these issues are considered less than significant.

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

[1] SCE, 2024. Reliable, Affordable Power for you. https://www.sce.com/about-us/reliability/meeting-demand (accessed 01/28/24)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VII. GEOLOGY AND SOILS: Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
(ii) Strong seismic ground shaking?	☐	☐	☒	☐
(iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
(iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite land-slide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

SUBSTANTIATION

a. Ground Rupture

No Impact – According to the San Bernardino Countywide Plan Earthquake Fault Zone Map (Figure VII-1), the proposed project site is not located in an area that has been mapped as containing geologic hazards. This is also shown on Figure VII-2, the California Department of Conservation Data Viewer Map. Figures VII-1 and VII-2 indicate that the site is not located within an Alquist-Priolo Earthquake Fault Zone or a County Fault Hazard Zone. The nearest fault zone is the San Andreas Fault located approximately 4.5 miles southwest of the site in the San Gabriel Mountains. The project site and surrounding area do not contain any known faults, active or inactive. Therefore, no potential exists for the proposed project to experience any fault rupture along a delineated active fault.

Strong Seismic Ground Shaking

Less Than Significant Impact – The proposed project site, as with most of southern California, is located in a seismically active area and will most likely be subject to substantial ground shaking during the life of the project. The San Bernardino Countywide Plan Earthquake Fault Zone Map (Figure VII1) and the California Department of Conservation Data Viewer Map (Figure VII-2), show the regionally significant San Andreas Fault is located 4.5 miles southwest of the project site. Additionally, the California Department of Conservation Data Viewer Map depicting earthquake groundshaking potential (Figure VII-3), indicates that the project area may experience moderately high to high ground shaking during major earthquake events. Reservoirs can be subject to low or even moderate damage from strong ground shaking. Thus, there is a potential for the project reservoir to be subject to relatively strong ground motion, and as such, the reservoir would undergo appropriate design-level geotechnical evaluations prior to final design and construction as required to comply with the CBC. The geotechnical engineer, as a registered professional with the State of California, is required to comply with the CBC and local codes while applying standard engineering practice and the appropriate standard of care required for projects in the San Bernardino County area. The California Professional Engineers Act (Building and Professions Code Sections 6700-6799), and the Codes of Professional Conduct, as administered by the California Board of Professional Engineers and Land Surveyors, provides the basis for regulating and enforcing engineering practice in California. In addition, the pipelines would be constructed according to industry standards using American Water Works Association (AWWA) guidelines. Compliance with these construction and building safety design standards would reduce potential impacts associated with ground shaking to a level of less than significant. Therefore, impacts in this regard are considered to be less than significant with regulatory compliance and no mitigation is required.

Seismic-related Ground Failure Including Liquefaction

Less than Significant Impact – The proposed project is located in the community of Phelan in the Pinon Hills. According to the San Bernardino Countywide Plan Liquefaction and Landslide Map (Figure VII-4), the project area is not delineated as being susceptible to liquefaction. Therefore, it is not anticipated that the proposed project would be susceptible to seismic-related ground failure, including liquefaction. No impacts are anticipated and no mitigation is required.

Landslides

No Impact – The project area consists of rolling terrain but no identified steep or unstable slopes. The project area gently slopes down to the north, away from the foothills to the south. No hills or other significant topographic features exist on the project site or in the immediate surrounding area. According to the San Bernardino Countywide Plan Liquefaction and Landslide Map (Figure VII-4), the project is not delineated as being located in an area that is susceptible to landslides. No potential events can be identified that would result in adverse effects from landslides or that would cause landslides that could expose people or structures to such an event as a result of project implementation. Therefore, no impacts are anticipated and no mitigation is required.

b. *Less Than Significant With Mitigation Incorporated* – During construction, the project sites have a potential for soil erosion. The disturbance will be associated with grading and placement of a foundation for the new reservoir within the project site to connect to the District's existing water distribution and storage system, may result in soil erosion. The project may result in exposing some soil to erosion during site grading activities. The project area has a shallow slope from south to north with very low rainfall due to its location in the San Gabriel Mountains "rain shadow". The reservoir property, including the project site, is slightly elevated above the surrounding land so runoff flows away from the site mainly to the east to a natural drainage swale then north and is eventually absorbed into the desert soil. There are two improved (paved) roads in the immediate area, Highway 138 to the west and Sheep Creek Road to the north. There are no storm drains or other runoff collection improvements present in the project area. Construction and operation of the new reservoir

will not change the overall pattern or volume of runoff in the area due to the size and nature of the project.

The proposed project grading would be managed through the preparation through implementation of best management practices to achieve concurrent water quality controls after construction is completed and the 1.5 MG reservoir is in operation. Additionally, the following mitigation measures shall also be implemented to address these issues:

GEO-1 ***Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of stored backfill material. Where covering is not possible, measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the Site for future cleanup such that erosion does not occur.***

GEO-2 ***All exposed, disturbed soil (trenches, stored backfill, etc.) shall be sprayed with water or soil binders twice a day, or more frequently if fugitive dust is observed migrating from the Site within which the 0.60 MG reservoir with associated water improvements is being constructed.***

With implementation of the above mitigation measures, as well as MM **GEO-1** and **GEO-2**, and the mandatory erosion control measures incorporated in the site design (i.e. extensive compacted fill), the project will not result in substantial soil erosion or the loss of topsoil. No further mitigation is necessary.

c. *Less Than Significant With Mitigation Incorporated* – The coarse alluvial soils located at the project sites exhibit stability. Based on a review of the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey, the soil underlying the project site is Bull Trail[2]-Typic Xerorthents Association (Map Unit 111)(refer to Appendix 4). This soil group is well drained, has medium runoff, and its permeability is moderately slow permeability. It can be used for range or pasture but is not considered an agricultural soil. Best management practices (BMPs) have been identified in the preceding discussion to manage the wind and water erosion issues.

As stated under issues VII(a[iii]) and VII(a[iv]) above, the project footprint is not located in an area that is not susceptible to landslides or liquefaction but does have moderate to high susceptibility to subsidence. The surrounding area does support two existing reservoirs, which, when combined with the data from the NRCS Web Soil Survey, indicates the underlying soil is relatively stable and there is no evidence there are unstable soils present (e.g., soils that could be affected by subsidence, lateral spreading or collapse). However, unknown soil instability may exist at the project site, and soil instability from landslides, subsidence, lateral spreading, settlement, and slope failure can cause collapse of structures. The proposed reservoir could experience damage or failure as a result. Additionally, subsidence and collapse could damage the proposed reservoir and affect the safety of onsite or visiting employees. Therefore, adverse effects involving unstable soils would be potentially significant. As such, the following mitigation is required to minimize impacts under this issue through ensuring that a site-specific geotechnical report is prepared and that the site specific design recommendations are incorporated into the reservoir design:

GEO-3 ***Prior to construction of each improvement, a design-level geotechnical investigation, including collection of site-specific subsurface data, if appropriate, shall be completed. The geotechnical evaluation shall identify all potential seismic hazards including fault rupture, and characterize the soil profiles, including liquefaction potential, expansive soil potential, subsidence, and landslide potential. The geotechnical investigation shall recommend site-specific design criteria to mitigate for seismic and non-seismic hazards, such***

[2] USDA, 2023. Bull Trail Series. https://soilseries.sc.egov.usda.gov/OSD_Docs/B/BULL_TRAIL.html (accessed 10/31/23)

as special foundations and structural setbacks, and these recommendations shall be incorporated into the design of individual proposed projects.

With implementation of the above mitigation measure, the proposed project has a less than significant potential to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse.

d. *Less Than Significant Impact* – The project site is in an area with gently rolling terrain on an alluvial fan resulting from runoff out of the San Gabriel Mountains to the south. As stated above, the USDA Web Soil Survey indicates that the majority of the project area of potential effect (APE) is underlain by Bull Trail-Typic Xerorthents Association soil which is relatively sandy and not classified as being expansive under Table 18-1-B of the Uniform Building Code (1994). The onsite soil is well drained and are not considered expansive. Expansive soils are typically in the clay soil family which are not present within the project footprint. Given the above, the proposed project would have a less than significant potential to be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property. Impacts would be less than significant and no mitigation is required.

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 and no mitigation is required.

f. *Less Than Significant With Mitigation Incorporated* – According to the San Bernardino Countywide Plan Paleontological Sensitivity - Mountain Region (Figure VII-5), the project is located in an area which has low-to-high sensitivity for paleontological resources. The potential for discovering fossils and other paleontological resources during project grading is therefore considered moderate. In addition, the project has not been surveyed at depth and these resources are located beneath the surface and can only be discovered as a result of ground disturbance activities. Therefore, the following measure shall be implemented:

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

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

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

SUBSTANTIATION: The following information utilized in this section of the Initial Study was obtained from the "Air Quality and GHG Impact Analyses for Phelan Piñon Hills Community Services District, Phelan Piñon Hills 1.5 MG Reservoir Project, Phelan, California" prepared by Gerrick Environmental dated January 8, 2024. This document is provided as Appendix 1 to this document.

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. Many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual project like the project evaluated in this GHG Impact Analysis cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the project may participate in the potential for GCC by its incremental contribution of greenhouse gasses combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC.

Significance Thresholds

The MDAQMD has published thresholds for Greenhouse Gases emissions (CO_2e). The daily threshold is 548,000 lbs/day and the annual threshold is 100,000 MT/year. Project for enhanced GHG reduction at the project level.

GHG Emissions

In response to the requirements of SB97, the state Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March, 2010.

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

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

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The

guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

The MDAQMD has developed significance guidelines for CO_2-equivalent emissions as shown in Table VIII-1. Daily and annual construction emissions are much less than their associated thresholds.

Table VIII-1
CONSTRUCTION EMISSIONS

	CO_2e Daily (pounds/day)	MT CO_2e Annual (tons/year)
2024	2,329.0	250.0
2025	2,329.0	98.1
MDAQMD Threshold	548,000	100,000

As indicated in the table above, GHG impacts from construction are considered less than significant because the emissions generated by construction of the proposed project would fall below the applicable MDAQMD thresholds. Furthermore, as discussed under issue III(b), the proposed project would not require substantial additional operational energy. The proposed reservoir operates by gravity and is fed by an off-site booster station. The existing booster will not be running more frequently to fill the new reservoir (only once for the initial filing). Thus, operational GHG emissions are anticipated to be negligible, and therefore would fall well below MDAQMD significance thresholds alone, and when combined with the above identified construction emissions. Thus, the proposed project would not generate substantial greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Impacts would be less than significant.

Consistency with GHG Plans, Programs and Policies
The 2017 Scoping Plan focuses primarily on reducing GHG emissions that result from mobile sources, land use development, and stationary industrial sources. The project would not involve a considerable increase in new vehicle trips or land use changes that would result in an increase in vehicle trips, such as urban sprawl, and it does not include substantial new stationary industrial sources of GHG emissions. The 2017 Scoping Plan also recognizes that about two percent of the total energy consumption in California is related to water conveyance, treatment, and distribution, with 12% of the total energy used in the State related to water as a whole. As a result, the 2017 Scoping Plan states "As California looks to the future, meeting new demands and sustaining prosperity requires increased water conservation and efficiency, improved coordination and management of various water supplies, greater understanding of the water-energy nexus, and deployment of new technologies in drinking water treatment, groundwater remediation and recharge, and potentially brackish and seawater desalination."[3] By managing local water supplies through the installation of a new reservoir, the project would contribute to the furtherance of this goal of the 2017 Scoping Plan. Therefore, the project would not conflict with the 2017 Scoping Plan, and no impact would occur.

Conclusion
As discussed above, the project involves construction activity and does not propose a trip-generating land use or facilities that would generate any substantive amount of on-going GHG emissions. As presented in Table VIII-1, the project's GHG emissions are below the MDAQMD's significance thresholds. As concluded in issue (a), above, the proposed project would not have the potential to generate a significant amount of GHGs emissions. As such, the proposed project will not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Impacts are therefore considered less than significant.

[3] CARB, 2017. California's 2017 Climate Change Scoping Plan. December 14, 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf (accessed 09/06/23).

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☒	☐	☐

SUBSTANTIATION

a. *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 during either construction or operation of the reservoir. It is unlikely any hazardous materials would be stored on the project site during construction. In addition, operation of the proposed PPHCSD reservoir requires no chemicals for water storage or treatment on the site as any treatment of water coming from existing PPHCSD wells would be treated at the well site if needed before connecting to the District's existing distribution system. Treatment of water that enters the PPHCSD system must meet the standards of the State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) and the District will continue to comply with State standards.

The District has developed safety standards and operational procedures for safe transport, use, and storage of its operational and maintenance materials that are potentially hazardous and that might be temporarily required at the new reservoir site in the future. 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. Compliance with established federal, state, and District regulations is considered regulatory compliance and not unique mitigation under CEQA.

Therefore, with regulatory compliance, 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 and no mitigation is required.

b. *Less Than Significant With Mitigation Incorporated* – During construction or maintenance activities in support of the proposed project, fuels, oils, solvents, and other petroleum materials classified as "hazardous" may be used to support these activities. 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 workers to health risks from accidental releases. The following mitigation measure addresses this circumstance, and with implementation of this measure, no residual contamination will remain.

HAZ-1 ***Prior to and during grading and construction, should an accidental release of a hazardous material occur, the following actions will be implemented: construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be notified; immediate actions will be implemented to limit the volume and area impacted by the contaminant; the contaminated material, primarily soil, shall be collected and removed to a location where it can be treated or disposed of in accordance with the regulations in place at the time of the event; any transport of hazardous waste from the property shall be carried out by a registered hazardous waste transporter; and testing shall be conducted to verify that any residual concentrations of the accidentally released material are below the regulatory remediation goal at the time of the event. All of the above sampling or remediation activities related to the contamination will be conducted under the oversight of San Bernardino County Certified Unified Program Agency (CUPA). All of the above actions shall be documented and made available to the appropriate regulatory agencies prior to closure (a determination of the regulatory agency that a site has been remediated to a threshold that poses no hazard to humans) of the contaminated area.***

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

Operation of the proposed reservoir will not involve potential for routine transport or use of hazardous materials or routine generation of hazardous wastes. Compliance with all federal, state and local regulations, as well as compliance with MM **HAZ-1**, above, will ensure that the project operates and is constructed in a manner that poses no substantial hazards to the public or the environment. Therefore, impacts under these issues are considered less than significant with mitigation incorporated.

c. *Less Than Significant Impact* – The proposed reservoir site is not located within one quarter mile of a school; furthermore, it is not anticipated to emit hazardous emissions or handle hazardous materials

or substances that would cause a significant impact to a local school. The nearest school is Serrano High School located 0.7-mile north of the project site on Sheep Creek Road. Given the safety measures in place for the potentially hazardous materials that may be required to construct the proposed reservoir, 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, including schools. Therefore, the impacts of the proposed project to this issue area would be considered less than significant and no mitigation is required.

d. *Less Than Significant Impact* – The proposed project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. None of the proposed actions related to the development of the new reservoir would be on or close to a site known to have hazardous materials or a site under remediation for hazardous materials or associated issues. A review of the California State Water Resources Control Board (SWRCB) "GeoTracker" governmental summary database indicates no recorded or active hazardous materials cleanup sites are located within a mile radius of the proposed reservoir site (refer to Figure IX-1). A review of the California State Water Resources Control Board GeoTracker database indicates that no open hazardous materials cleanup site is located within a 2,500 radius of the proposed reservoir site (Figure IX-1). There are no nearby open or closed Leaking Underground Storage Tank (LUST) Cleanup sites. Therefore, the proposed project is not forecast to result in a significant hazard to the public or the environment associated with this issue area. No impacts under this issue are anticipated and no mitigation is required.

e. *No Impact* – According to the San Bernardino Countywide Plan Airport Map (Figure IX-2), the closest public airport to the project site is the Hesperia Airport (located about 15 miles to the east of the project site). Additionally, the Southern California Logistics Airport is located approximately 16 miles northeast of the project site. The nearest private airports are Gray Butte Field, Krey Field, and Brian Ranch Airports are all located more than twelve miles from the project area. The project is located within the AR4 Low-Altitude/High Speed Military Airspace overlay, but this does not correspond to any nearby airports or airfields. Due to the distance of the project site from the above airports, and the lack of any habitable structures on the project site, implementation of the project will not result in an exposure to a safety hazard for the people living and/or working in the project area. No impacts are anticipated and no mitigation is required.

f. *No Impact* – The proposed reservoir is on a site accessed by a dirt cul-de-sac roadway called Javelin Road, with Snow Line Drive as the nearest cross street. It is not anticipated that that project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The installation of the reservoir will require no work within Sheep Creek Road or Highway 138, which are the only roadways identified as emergency evacuation routes (refer to San Bernardino Countywide Plan Evacuation Route Map (Figure IX-3). Due to its location and point of access, there will be no potential to interfere with an emergency response or evacuation plan will occur during construction. At no time during construction of the reservoir will any access to or along these roads be restricted. For additional information, please refer to the Transportation/Traffic Section of this document, Section XVII. Therefore, the proposed project is not forecast to Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. No impacts under this issue are anticipated and no mitigation is required.

g. *Less Than Significant With Mitigation Incorporated* – The proposed project involves the installation of a metal reservoir and would contain no occupied structures, so it would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. The proposed project area is located adjacent to the foothills of the San Gabriel Mountains. The proposed project is located near a wildland fire hazard area, but according to Section 8 – Safety of the Phelan Community Plan (p.54), fire hazard severity is very high only in limited areas south of Highway 138.

However, according to the CALFIRE Fire Hazard Severity Zone Map (Figure IX-4), the proposed project is located in a High Fire Hazard Severity Zone within a State Responsibility Area (SRA). There is limited vegetation in the vicinity of the project site that would pose a wildfire risk, particularly given that the area around the reservoir would be cleared of all vegetation. The proposed Project does not include the use of flammable or explosive materials. During construction, because the proposed Project is located in Very High and High Hazard Severity Zones, construction may exacerbate fire risk temporarily. As such, the proposed Project requires the implementation of MM **WF-1**, which would minimize fire risk during activities that would utilize electric equipment by requiring construction crews to carry fire prevention equipment during activities involving electrical equipment. Based on the type of uses proposed, the proposed Project has no other identifiable potential to expose people or property to wildland fires. Additionally, it should be noted that the proposed Project will increase the area's water supply capabilities and is viewed as a benefit to fire protection. Therefore, with the implementation of MM **WF-1** to address the potential for wildfire risk during construction, impacts are considered less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation onsite or offsite?	☐	☒	☐	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?	☐	☒	☐	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?; or,	☐	☒	☐	☐
(iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

SUBSTANTIATION:

a. *Less Than Significant With Mitigation Incorporated* – The project is within the Lahontan Regional Water Quality Control Board (RWQCB) jurisdiction. Installation of the proposed reservoir and connecting to existing pipelines onsite includes activities that have a potential to violate water quality standards or waste discharge requirements due to direct discharge of water being stored in a newly constructed reservoir. Prior to bringing the new municipal supply reservoir online, PPHCSD 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. A General Permit within the LRWQCB's jurisdiction covers the initial connection of new reservoirs to the municipal supply system and development activities necessary for their construction. This General Permit establishes specific performance requirements for initial discharges from reservoirs and the proposed project must comply with these requirements. Before connecting the new reservoir to the municipal system, discharge from the project reservoir must be sampled and tested to ensure that maximum contaminant levels (MCLs) are not exceeded. The following mitigation measure ensures that no significantly degraded water (above MCLs) will be discharged from the new reservoir. These requirements are included in MM **HYD-1** outlined below:

HYD-1 The District shall test the initial output of water from the reservoir after purging and prior to connection to the municipal supply system to assure that the output water meets the appropriate MCLs. If the discharge does not meet applicable standards, the District shall drain, inspect, and reclean the interior surfaces of the reservoir until the discharge water meets the applicable MCLs. The District shall document this process to the satisfaction of the Lahontan RWQCB.

The project would be required to comply with minimum BMPs as specified by the San Bernardino County MS4 Permit, which would implement BMPs to provide erosion control, sediment control, and waste management strategies for construction sites that are less than one acre. Without implementation of these BMPs, which would protect surface water quality during construction, a significant impact would occur. However, compliance with the San Bernardino County MS4 Permit is mandatory, and therefore, compliance thereof would be required as part of implementation of the project. Adherence to these conditions would ensure that potential water quality degradation associated with construction activities on sites less than one acre would be minimized to less than significant levels. Through compliance with the San Bernardino County MS4 Permit for projects under one acre during construction, impacts would be less than significant. Compliance with these permits during construction of all facilities would minimize potential release of pollutants via storm water runoff from construction sites and reduce the potential for violation of water quality standards to less than significant levels.

During operation, drainage management must be implemented. As such, during project design, overland flows and drainage at the project site would be assessed and drainage facilities would be designed such that no net increase in runoff would occur, in accordance with San Bernardino County MS4 Permits.

HYD-2 Prior to commencement of construction of project facilities, the District shall either:

(1) Prepare a No Net Discharge Report demonstrating that within each facility surface runoff shall be collected and retained (for use onsite) or detained and percolated into the ground on the site such that site development results in no net increase in offsite stormwater flows. Detainment shall be achieved through Low Impact Development techniques whenever possible, and shall include techniques that remove the majority of urban storm runoff pollutants, such as petroleum products and sediment. The purpose of this measure is to remove the onsite contribution to cumulative urban storm runoff and ensure the discharge from the sites is treated to reduce contributions of urban pollutants to downstream flows and to groundwater; or, where it is not possible to eliminate stormwater flows off of a site or where otherwise appropriate, the District shall;

(2) Prepare a grading and drainage plan that identifies anticipated changes in flow that would occur on site and minimizes any potential increases in discharge, erosion, or sedimentation potential in accordance with applicable regulations and requirements for the County.

As required by MM **HYD-2**, either surface runoff shall be collected and retained or a grading and drainage plan would be developed during project design and implemented to ensure no violations of water quality standards would occur. Thus, operational impacts would be less than significant with the implementation of mitigation.

b. *Less Than Significant Impact* – The proposed project would not deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a substantial lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). All water delivered by the District to its service area

comes directly from two local groundwater basins. Together, the groundwater basins contain over 600,000 acre-feet of water, or over 195 billion gallons.[4] The District pumps groundwater from the Oeste Subarea and Alto Subarea of the Mojave Basin Area (MBA) and from the Antelope Valley Adjudication Area (AVAA). The MBA was adjudicated by the Mojave Basin Area Judgment (MBA Judgment) that was settled in 1996 due to rapid growth within the area and overdraft issues. As a Producer utilizing groundwater within the adjudicated MBA, the District is subject to the MBA Judgement, and as such, if it exceeds the allotted Free Production Allowance, the Producer must pay the Mojave Water Agency (MWA)—the Watermaster of the MBA—a Replacement Water Assessment. MWA has invested in a groundwater replenishment system to manage and help sustain the groundwater resources of the MBA since the MBA Judgment. Purchased water from the State Water Project (SWP) has been discharged to the MBA via the Mojave River Pipeline since 2006.[5]

The proposed reservoir will allow the District to better balance groundwater supply storage and distribution, and allow for downtime to conduct necessary maintenance on other reservoirs. The proposed reservoir will not interfere with the production of any public or private wells in the surrounding area or affect the District's overall water supply. Thus, the operation of the new reservoir will require minimal new outside water sources to supply water to the project site. Because of the size and nature of the proposed project, there is a less than significant potential to substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin as a result of the proposed project.

c.i-iii) *Less Than Significant With Mitigation Incorporated* – The proposed project site is slightly raised relative to the surrounding properties so its installation would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite, or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The proposed project construction footprint slopes slightly; the area containing and surrounding the existing Reservoir 6A is compacted dirt, while about two thirds of the project site contains native vegetation consistent with the high desert. It is not anticipated that substantial erosion or siltation would occur on site given that the drainage will be managed within the expanded project site as it is at present. The reservoir site will require minimal grading for the reservoir to be installed, and as such would have a less than significant potential to interfere with the discharge of stormwater over the long-term as the site will remain essentially the same, with only the small area that will be disturbed for installation of the new reservoir. Therefore, construction of the new reservoir would alter the site only minimally, and the project would not increase the amount of surface runoff such that flooding on- or off-site would occur.

The District would implement 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 temporary 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 MM **HAZ-1**, and MM **HYD-3** 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 the construction site.

HYD-3 ***The District and construction contractor shall select best management practices (BMPs) most applicable to the project site and activities on the site. These BMPs are intended to prevent or minimize any release of materials detrimental to surface or groundwater quality. These BMPs will apply both***

[4] PPHCSD, 2023. District Transparency. https://www.pphcsd.org/transparency.html (accessed 11/01/23)
[5] Phelan Piñon Hills Community Services District Urban Water Management Plan 2020

during and following construction of the proposed municipal-supply water reservoir and any associated onsite improvements and once the reservoir is in operation.

At present, surface runoff flows offsite to the east and west into natural drainage swales, then flows north-northeast along these swales onto the relatively flat desert floor to the north, eventually percolating into the sandy desert soil. No substantial change to the existing drainage pattern will result from project implementation. Adequate drainage facilities exist to accommodate pre- and post-project 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 relative to these issues are considered to be less than significant and no additional mitigation is required.

c.iv *Less Than Significant Impact* – According to the San Bernardino Countywide Plan Flood Hazards Map (Figure X-1), the numerous southwest-northeast drainage swales in the Project area have a designation of "100-Year DWR Notice" classification, while the reservoir project site itself is not located within a 100-year flood zone. According to the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer Viewer (Figure X-2), the proposed project is located in Zone D, which is an area of undetermined flood hazard. Given that the proposed reservoir will be located at an elevation that is higher than the surrounding area, there is no evidence that installation of the new reservoir would redirect or impede flood flows. Furthermore, the reservoir will be located outside of any paved roadways, and drainage will be managed within the project site. The project site will be returned to its original condition post-construction, thus minimizing the potential for drainage patterns to be altered. 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* – Please refer to the discussion under c(iv) above. As stated above, the reservoir site is not located within a designated 100-year flood zone. The proposed reservoir is not anticipated to contain any pollutants that would harm the above-ground environment. Furthermore, reservoir will be self-contained with no water treatment or chemicals used or stored onsite. Therefore, the potential risk for accidental release of any materials that might contaminate surface or groundwater would be extremely low. The project site is not located near any large bodies of water, so impacts associated with seiche or tsunami are not anticipated to occur. Mudflow typically occurs on hillside slopes or within a floodplain, and while the proposed project site is located on an elevated pad, this pad already supports two reservoirs, and has not been susceptible to mudflow in the past; thus, mudflow is not anticipated to pose a flooding hazard at the project site. As previously stated, BMPs will be in place would ensure that the minimal potential for pollutants that may occur on site and would not be released in the event of project inundation. Therefore, impacts under this issue are considered less than significant.

e. *Less Than Significant Impact* – Please refer to the discussion under issue X(b) above. The Sustainable Groundwater Management Act (SGMA) "requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline."[6] The San Bernardino Countywide Plan, Figure X-3, Groundwater Basin Map, indicates that the Mojave River Basin is under very low

[6] California Department of Water Resources, 2023. Sustainable Groundwater Management Act (SGMA) https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management (accessed 11/01/23)

priority (Figure X-3). As the Mojave River Basin is under very low priority, it is currently not required to prepare a sustainable groundwater management plan and the project will not interfere with the overall water quality of the MWA as discussed above. As stated above under issue X(b), the MWA Watermaster manages transfers from the Groundwater Basin and assesses a fee commensurate with the amount of water extracted. Though the Groundwater Basin has several sub-basins that have experienced overdraft in the last 10 years, the Watermaster replaces overdrafts through fees collected from water users that is used to purchase additional water supplied through the State Water Project. As such, the proposed reservoir project is not anticipated to require PPHCSD to expand its water supply, and as such, it is not anticipated that the proposed reservoir development project would have a significant potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XI. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

SUBSTANTIATION

a. *No Impact* – According to the San Bernardino Countywide Plan Land Use Map, the Land Use designations of the project site is Rural Living (RL) PH/RL-5. The land uses surrounding the project footprint are also designated for Rural Living. The proposed reservoir will be constructed on a site that already contains a reservoir that is owned by the District. The land around the project site is native desert land with a number of rural residences approximately 400 to 700 feet from the site. There are no features of the proposed reservoir that would create a barrier or physically divide an established community, particularly given that the reservoir will be constructed on a site that already contains an existing reservoir with another reservoir maintained by the Sheep Creek Water Company just south of the project site's construction area. Thus, the project does not involve construction of new structures that would cause any physical division of communities. As the proposed project occurs within and supports existing land use designations by improving water services, no potential exists for the proposed project to physically divide an existing community. No impact will result and no mitigation is required.

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XII. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

SUBSTANTIATION

a. *Less Than Significant Impact* -- Implementation of the Project will not result in the loss of availability of any known mineral resources that would be of value to the region and the residents of the state. According to the Geologic Map of the San Bernardino Quadrangle from the California Department of Conservation (DOC), the project site is located on alluvial soils classified as "Harold Formation and Shoemaker Gravel" which contains fine-to course-grained non-marine sediments (map symbol Qh). Alluvial soils are mainly comprised of various sands, silts, clay, and gravel and is not a unique soil classification in the project vicinity, as well as in southern California. According to the San Bernardino Countywide Plan, the proposed project site is located in mineral resource zone (MRZ) 3, which indicates moderate potential or possible location for, in this case, aggregate resources (refer to the San Bernardino Countywide Plan Mineral Resources Zones Map provided as Figure XII-1). MRZ 3 represents areas containing known mineral deposits that may qualify as mineral resource. However, there is also no evidence of historic mining activities on the project site or in the surrounding area. Furthermore, the proposed project site is presently an active water infrastructure site containing an existing reservoir, with no mining activities planned or presently occurring internally. Based on this information, any impacts to mineral resources from implementing the Project will be considered less than significant and no mitigation is required.

b. *No Impact* – Please reference response XII(a) above. While the San Bernardino Countywide Plan does contain Goals and Policies that related to mineral resources (Goal NR-6.1, NR-6.2, and NR-6.3 of the San Bernardino County General Plan), the project site has not been historically mined for important mineral resources, and is not located on the San Bernardino Countywide Plan Mineral Resource Zone Map (Figure XII-1). No specific plan or other land use plan is in place that would delineate important mineral resources on the project site. Based on this information, no impacts to mineral resources from implementing the project are anticipated and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIII. NOISE: Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

SUBSTANTIATION

Background

Noise is generally described as unwanted sound. Construction of the proposed reservoir may result in short-term noise impacts on local receptors (i.e., rural residences). Once construction of the reservoir is complete, its operation will generate little if any noise since there are no new onsite pumps or other equipment that would generate noise. Infrequent maintenance of the reservoir may generate a small amount of vehicular noise. Mitigation is provided below to ensure there will be no significant noise impacts on nearby receptors.

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

Leq is a time-averaged sound level; a single-number value that expresses the time-varying sound level for the specified period as though it were a constant sound level with the same total sound energy as the time-varying level. Its unit 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.

Impact Analysis

a. *Less Than Significant With Mitigation Incorporated* – The proposed project footprint is located in a relatively low background noise environment. Local sources of noise include traffic along Highway 138 to the southwest and south, and modest traffic along Sheep Creek Road. There are also a number of dirt roads in the surrounding area with minimal traffic to nearby rural residences. Based on the limited traffic, background noise is estimated at about 45-50 dBA over a 24-hour period using the Community Noise Equivalent Level (CNEL).

Short Term Construction Noise
Implementation of the proposed project will generate noise during construction. Noise from grading and reservoir assembly activities can range from 70 to 90 dBA at a distance of 50 feet from the equipment. Stationary source noise diminishes at a rate of about 6 dB for each doubling of the distance from the source so temporary construction noise levels at the nearest receptor would be under 60 dBA. Refer to Table XIII-1, which shows construction equipment noise levels at 25, 50 and 100 feet from the noise source.

Table XIII-1
NOISE LEVELS OF CONSTRUCTION EQUIPMENT AT 25, 50 AND 100 FEET (in dBA Leq) FROM THE SOURCE

Equipment	Noise Levels at 25 feet	Noise Levels at 50 feet	Noise Levels at 100 feet
Earthmoving			
Front Loader	85	79	73
Backhoes	86	80	74
Dozers	86	80	74
Tractors	86	80	74
Scrapers	91	85	79
Trucks	91	85	79
Material Handling			
Concrete Mixer	91	85	79
Concrete Pump	88	82	76
Crane	89	83	77
Derrick	94	88	82
Stationary Sources			
Pumps	82	79	70
Generator	84	78	72
Compressors	87	81	75
Other			
Saws	84	78	72
Vibrators	82	76	70

Source: U.S. Environmental Protection Agency "Noise"

This increase in noise levels will be short term for the 12-month duration of construction and would be limited to daylight hours. This noise impact will cease upon completion of the reservoir. The short-term increase in noise levels will not be severe enough to pose a health or hearing hazard, but could be considered a short-term nuisance. However, 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:

NOI-1 ***All construction vehicles and fixed or mobile equipment shall be equipped with operating and maintained mufflers.***

NOI-2 ***All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided adequate hearing protection devices to ensure no hearing damage will result from construction activities.***

NOI-3 ***The District 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 a Ldn of 60 dBA exterior or a Ldn of 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 District will implement adequate measures to reduce noise levels to less than the applicable standard, to the greatest extent feasible, including portable noise barriers at the project site or at affected residences, , or scheduling specific construction activities to avoid conflict with adjacent sensitive receptors.***

NOI-4 ***Equipment not in use for five minutes shall be shut off.***

NOI-5 ***Equipment shall be maintained and operated such that loads are secured from rattling or banging.***

NOI-6 ***Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.***

NOI-7 ***The District will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by the District***

NOI-8 ***Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible, as determined by the District***

NOI-9 ***Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible.***

Long-Term Operational Noise

The proposed project will not cause any measurable permanent increase in ambient noise levels in the vicinity of the project above levels existing without the project, in particular because this project will construct a second reservoir at a location containing an existing reservoir. The operation of the new reservoir will not require an introduction of new noise generating equipment at this site. Additionally, reservoirs typically do not generate substantial noise because they do not require a motor to store or convey water. The loudest project activity is generally associated with operation of electric water pumps within solidly enclosed pump stations. However, the proposed project is located at an elevation that enables stored water to flow by gravity. Thus, the proposed project would not result in any substantial new stationary noise sources adjacent to sensitive receptors, or any other noise sources when excavation activities are completed.

Conclusion
Therefore, with MMs **NOI-1** through **NOI-9** the proposed project would have a less than significant potential to result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

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

The background vibration-velocity level in rural residential areas of desert communities is generally 50 VdB or less. Groundborne vibration is normally perceptible to humans at approximately 65 VdB, while 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible. Construction activity can result in varying degrees of groundborne vibration, but is generally associated with pile driving and rock blasting which are not anticipated for this reservoir project. Other construction equipment, such as air compressors, light trucks, hydraulic loaders, etc. generates little or no ground vibration. While no enforceable regulations for vibration exist within the County of San Bernardino, the Federal Transit Association (FTA) guidelines identify a level of 80 VdB for sensitive land uses. This threshold provides a basis for determining the relative significance of potential project related vibration impacts.

Due to the location and the lack of any sensitive receptors within a reasonable distance of the site (the nearest sensitive receptor is greater than 250 feet from the edge of the project site), the proposed project will not expose people to generation of excessive groundborne vibration or groundborne noise levels. During construction, certain construction activities have some potential to create vibration, but due to the size of the site and lack of proximate sensitive receptors, any impacts are considered less than significant. Additionally, because the rubber tires and suspension systems of heavy trucks and other on-road vehicles provide vibration isolation and reduced noise, it is unusual for on-road vehicles to cause noticeable groundborne noise or vibration impact. Most problems with on-road vehicle-related noise and vibration can be directly related to a pothole, bump, expansion joint, or other discontinuity in the road surface. Smoothing a bump or filling a pothole will usually solve the problem. The proposed project would be constructed with compacted dirt throughout the proposed project and would not result in significant groundborne noise or vibration impacts from vehicular traffic. Thus, any impacts under this issue are considered less than significant and no mitigation is required.

c. *No Impact* – The proposed reservoir development site is not located within an airport land use plan, within two miles of a public airport or private airstrip. According the San Bernardino Countywide Plan, the closest public airport to the project site is the Hesperia Airport, which is located about 15 miles to the east of the project site. Additionally, the Southern California Logistics Airport is located approximately 16.2 miles to the northeast of the project site. The San Bernardino Countywide Plan indicates that Gray Butte Field, Krey Field, and Brian Ranch Airports are all located more than 12 miles from the project area. Due to the distance from these private airports, as well as the distance from the Hesperia Airport and Southern California Logistics Airport, the project will have no potential to expose people residing or working in the project area to excessive noise levels generated by nearby aircraft or airport operations. No impacts are anticipated and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIV. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

SUBSTANTIATION:

a. *Less Than Significant Impact* – Implementation of the reservoir project will not induce substantial population growth in the area, either directly (e.g., by supporting the construction of new homes and businesses) or indirectly (e.g., through extension of roads or expansion of water-related or other infrastructure). This project proposes to construct a new 1.5 MG reservoir in the community of Phelan within Unincorporated San Bernardino County. This new reservoir will connect to the District's existing potable water distribution system. Construction of the new District reservoir will require a temporary work force with a maximum of 12 employees which will not induce substantial population growth. Additionally, the number of employees needed to operate the new reservoir is minimal, as it is projected that one to two employees will visit the sites on an as needed or scheduled maintenance basis. Further, it is anticipated that these employees will be drawn from the District's existing work force. The addition of this reservoir will allow for improved system efficiency within PPHCSD's service area and improved maintenance of the existing reservoir as discussed in the Project Description. The new reservoir will also store water to serve the existing population as well as projected growth within their service area. The project itself will not directly induce population growth as it does not propose any housing and any indirect impacts of increasing the amount of water available within the District's service area. Therefore, impacts are considered to be less than significant and no mitigation is required.

b. *No Impact* – The proposed reservoir will be constructed within an existing reservoir site located in the southern portion of the District's service area. No occupied residential homes are located within the project footprint. Therefore, implementation of the proposed project will not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. No impacts will occur and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XV. PUBLIC SERVICES: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

SUBSTANTIATION

a. *Less Than Significant Impact* – The San Bernardino County Fire Protection District (SBCFPD) provides fire protection and emergency medical services for the Communities of Phelan. The nearest fire station to the proposed project is San Bernardino County Fire Station #10 and is located approximately 1.5 miles northwest of the proposed project footprint at the address 9625 Beekley Rd, Phelan, CA 92371. The proposed project will not require the use or storage of chemicals on the site. Any chemicals that would be used on the site during construction would require District staff to comply with appropriate Federal, State, and local regulations pertaining to hazardous materials. This regulatory compliance would prevent a significant impact from occurring that could require response by the SBCFD. The proposed project structure and equipment would not present a substantial fire hazard because the materials used to construct them are considered fire-resistant. Thus, with compliance to Federal, State, and local standards, no new or altered fire protection facilities will be required to serve this project. Any impact to the existing fire protection system or services is considered minimal and less than significant. No mitigation is required.

b. *Less Than Significant Impact* – The Community of Phelan receives police services through the San Bernardino County Sheriff Department (SBCSD). The Department enforces local, state, and federal laws; performs investigations and makes arrests; administers emergency medical treatment; and responds to County emergencies. The sheriff station is located at 4050 Phelan Road, Phelan, CA 92371, about 1.2 miles north of the proposed project footprint. The proposed project will not include the kind of uses or activities that would likely attract criminal activity, except for random trespass and theft; however, any random trespass is unlikely because the project site will remain fenced off from public access. This will minimize the potential for any trespass from occurring during both operations and construction of the project. The potential for greater demand of police protection services or expansion of police infrastructure as a result of implementation of the proposed project is therefore considered less than significant. No mitigation is required.

c. *No Impact* – The proposed project is located within the area served by the Snowline Joint Unified School District. The nearest schools are located in Phelan just under a mile to the north of the proposed project site. The project would construct a reservoir, which would not induce population growth within the District's service area, as operation of the proposed reservoir is not anticipated to require PPHCSD to hire additional personnel. The reservoir is needed to help address the growing demand for water within the District's service area by balancing water supply and service. Thus, the

proposed project will not generate an increase in elementary, middle, or high school population. Therefore, no adverse impacts are anticipated under this issue and no mitigation is required.

d. *No Impact* – In the community of Phelan, parks are managed by the PPHCSD. These include Phelan Community Park and Pinon Hills Community Park. In addition, the County manages regional parks in the high desert portion of the County. As stated in the preceding sections, the proposed project is not anticipated to create an increase in population because the operation of the proposed reservoir will not require any additional District personnel once it has been completed, and furthermore, the reservoir would create additional storage of water for the District's service area, but would not expand the District's water resources. There are no parks within the project site or in the vicinity of the project that would be impacted by the proposed project, and with no forecast increase in population attributable to the proposed project, implementation of the proposed project would not cause a substantial adverse physical impact to any parks within the District's service area. No impacts are anticipated and no mitigation is required.

e. *No Impact* – Other public facilities include library and general municipal services. Since the project will not directly induce population growth, it is not forecast that the use of such services will increase as a result of the proposed project. No impacts under this issue are anticipated, and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVI. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

SUBSTANTIATION

a. *No Impact* – As previously discussed in Section XIV, Population and Housing and Section XV, Public Services, the proposed project would develop a reservoir and will not contribute to any increase in the population beyond that already allowed or planned for by local and regional planning documents. The proposed project will not increase the use of recreational facilities, nor will it result in the physical deterioration of other surrounding facilities. No impact is forecast and no mitigation is required.

b. *No Impact* – The proposed project would develop a 1.5 MGD reservoir to improve water service and balancing for the District's water storage facilities. It will connect to the District's existing water distribution system through existing pipelines as well as onsite piping. The reservoir will be installed and operated by the District. The project does not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. As previously stated, the proposed project will be installed within an existing reservoir site, and will add a new 1.5 MGD reservoir. This site has not been designated for recreational use nor does it contain recreational uses at present. Furthermore, the proposed project is not forecast to induce substantial population growth as the reservoir can be maintained by existing District employees on an as needed or scheduled maintenance basis. Therefore, no impacts are anticipated and no mitigation is required.

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

SUBSTANTIATION

a. *No Impact* – The proposed reservoir project site is located at 8300 Javelin Road within the communities of Phelan and Pinon Hills in unincorporated San Bernardino County. Construction of the reservoir will be limited to within the boundaries of the existing reservoir site on which it will be located. The site is located at the south end of Javelin Road (a dirt road), and the nearest intersection is Snow Line Drive (a dirt road). In the short term, construction of the new reservoir will require approximately 10-15 additional roundtrips per day on the Javelin Road and Snow Line Drive, which would connect to the community of Phelan to the north or Highway 138 to the southwest. Vehicle trips by construction personnel will involve the removal of excess graded materials and delivery of reservoir construction materials and personnel. No new roads are required to construct or operate this project. No temporary roadway closures will be required. 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.

   The operational phase of the proposed project would require minimal trips to the site for infrequent maintenance. Given that the project site is located about 1.3 miles to the north of the District's Offices, the traffic on adjacent roadways as a result of reservoir operations would be minimal. As such, operation of the proposed project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Therefore, implementation of the project would no impacts under this issue and no mitigation is required.

b. *No Impact* – The proposed project would involve the construction and operation of a 1.5 MGD steel tank reservoir on an existing reservoir property. The project access road is Javelan Road which is a rural dirt road that terminates at the reservoir site (south end of Javelan Road). The project would not result in regular long-term generation of traffic, and does not include any residential, commercial, or other types of land uses that produce new residents or employees. Therefore, it is not useful to try to calculate vehicle miles traveled (VMT) for this kind of project since it does not influence the regional movement of residents or employees. As discussed under Response XVII(a) above, construction vehicles on local roadways would be temporarily increased only during project construction due to the presence of construction vehicles and equipment. Increases in VMT from construction would be short-term, minimal, and temporary. The duration of the potential significant impacts would be limited to the period of time needed to construct the project (approximately 12 months). As such, VMT standards that are intended to monitor and address long-term transportation impacts resulting from future development do not apply to temporary impacts associated with construction activities.

Therefore, no construction impact associated with VMT per CEQA Guidelines Section 15064.3 would occur.

The proposed project would not cause substantial long-term/ongoing transportation effects, because proposed project facilities, once constructed, would only require maintenance activities similar to those that occur under existing conditions and no increase in employees due to the implementation of the proposed project is forecast to occur. The Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA (2018) states, "Projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant VMT impact." Scheduled maintenance visits would also occur in the future with one trip per maintenance event, with occasional trips also occurring when unforeseen circumstances arise that would require maintenance or repair of the reservoir. As such, the proposed project would generate less than 110 trips per day, which is the recommended screening threshold. Therefore, the proposed project would not result in a substantial addition of VMT per service population or induce additional roadway vehicle travel by increasing physical roadway capacity or adding new roadways to the network. Therefore, no operational impact associated with VMT per CEQA Guidelines Section 15064.3 would occur.

Thus, development of the proposed reservoir is not anticipated to result in significant impact related to vehicle miles travelled, and would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). There would be no VMT Impacts and no mitigation is required.

c. *No Impact* – The proposed project would not substantially increase hazards due to a design feature or incompatible uses. The construction of the proposed reservoir would occur at one location at the southern terminus of a rural desert dirt road within the District's service area. With the exception of the aforementioned trip generation during the construction phase, the proposed project will not impact any adjacent roadways. The construction would take approximately 12 months. Snow Line Drive may experience a temporary increase in traffic from construction workers given that it is a major throughway to Highway 138. As stated under issue XVII(a) above, the project will not modify or change any paved roadways so it would not increase any hazards due to design features or incompatible use in the short-term. In the long term, no impacts to any roadway hazards or incompatible uses in existing roadways are anticipated because once the reservoir is operational, roadway traffic in the area will return to its original condition. Thus, there would be no potential for an increase in hazards due to design features or incompatible use. No impacts are anticipated under this issue and no mitigation is required.

d. *No Impact* – Please refer to the discussion under issue XVII(a) above. The proposed project will not require the closure of any lanes on Sheep Creek Road or Highway 138 in the vicinity of the project site. No impacts are expected on Javelan Road since it is a rural dirt road. During construction, a potential exists for short-term hazards and constraints on both normal and emergency access within the affected area, especially during reservoir construction requires the highest number of employees. There are no evacuation routes located within the project footprint, and the installation of the proposed reservoir would not hinger emergency access to the site during either operations or construction. Adequate emergency access is available via Javelan Road (dirt) and Snow Line Drive (dirt) throughout construction. Therefore, the project will have no impacts on emergency access and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVIII. TRIBAL CULTURAL RESOURCES: Would the project cause a substantial change in the significance of tribal cultural resources, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to the California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in sub-division (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

SUBSTANTIATION

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

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

Impact Analysis

a&b. *Less Than Significant With Mitigation Incorporated* – PPHCSD has been contacted by one Tribe under Assembly Bill (AB) 52: the San Manuel Band of Mission Indians. The Tribe was contacted to initiate the AB-52 process on January 2, 2024 to notify the tribes of the proposed project through mailed letters. During the 30-day consultation period that concluded on February 1, 2024, the Yuhaaviatam of San Manuel Nation (YSMN) requested consultation, and that that the following standard mitigation be included as part of the project to prevent impacts to tribal cultural resources:

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

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

Additionally, On February 9, 2024, CRM TECH, the cultural consultant for the project, received an email from the Morongo Band of Mission Indians requesting to consult under AB 52. This tribe had not previously requested to be notified of projects under AB 52. Through a series of email conversations, the Morongo Band of Mission Indians requested to be notified of future projects requiring AB 52 notification, and the District then returned a formal AB 52 notification to the tribe on March 8, 2024. On March 28, 2024, the Tribe requested the implementation of several protective mitigation measures in the event that any tribal cultural resources are uncovered during the implementation of the project. These mitigation measures shall be incorporated as part of the project as follows:

TCR-3 ***Tribal Monitoring Services Agreement. Prior to the issuance of grading permits, the applicant shall enter into a Tribal Monitoring Services Agreement with the Morongo Band of Mission Indians (MBMI) for the Project. The Tribal Monitor shall be on-site during all ground-disturbing activities (including, but not limited to, clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all utility and irrigation lines, and landscaping phases of any kind). The Tribal Monitor shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources.***

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

TCR-5 ***Cultural Resource Management Plan. Prior to any ground-disturbing activities the project Archaeologist shall develop a Cultural Resource Management Plan***

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

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

TCR-7 ***On-site Monitoring. During all ground-disturbing activities the Qualified Archaeologist and the Tribal Monitor shall be on-site full-time. The frequency of inspections shall depend on the rate of excavation, the materials excavated, and any discoveries of Tribal Cultural Resources as defined in California Public Resources Code Section 21074. Archaeological and Tribal Monitoring will be discontinued when the depth of grading and the soil conditions no longer retain the potential to contain cultural deposits. The Qualified Archaeologist, in consultation with the Tribal Monitor, shall be responsible for determining the duration and frequency of monitoring.***

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

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

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

TCR-9 ***Inadvertent Discovery of Human Remains. The Morongo Band of Mission Indians requests the following specific conditions to be imposed in order to***

protect Native American human remains and/or cremations. No photographs are to be taken except by the coroner, with written approval by the consulting Tribe[s].

- ***A. Should human remains and/or cremations be encountered on the surface or during any and all ground- disturbing activities (i.e., clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all water supply, electrical, and irrigation lines, and landscaping phases of any kind), work in the immediate vicinity of the discovery shall immediately stop within a 100-foot perimeter of the discovery. The area shall be protected; project personnel/observers will be restricted. The County Coroner is to be contacted within 24 hours of discovery. The County Coroner has 48 hours to make his/her determination pursuant to State and Safety Code §7050.5. and Public Resources Code (PRC) § 5097.98.***
- ***B. In the event that the human remains and/or cremations are identified as Native American, the Coroner shall notify the Native American Heritage Commission within 24 hours of determination pursuant to subdivision (c) of HSC §7050.5.***
- ***C. The Native American Heritage Commission shall immediately notify the person or persons it believes to be the Most Likely Descendant (MLD). The MLD has 48 hours, upon being granted access to the Project site, to inspect the site of discovery and make his/her recommendation for final treatment and disposition, with appropriate dignity, of the remains and all associated grave goods pursuant to PRC §5097.98***
- ***D. If the Morongo Band of Mission Indians has been named the Most Likely Descendant (MLD), the Tribe may wish to rebury the human remains and/or cremation and sacred items in their place of discovery with no further disturbance where they will reside in perpetuity. The place(s) of reburial will not be disclosed by any party and is exempt from the California Public Records Act (California Government Code § 6254[r]). Reburial location of human remains and/or cremations will be determined by the Tribe's Most Likely Descendant (MLD), the landowner, and the District Planning Department.***

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

No further mitigation beyond the above measures, as well as MMs **CUL-2** through **CUL-4** are required to minimize impacts to Tribal Cultural Resources. Therefore, with implementation of the above mitigation measures, the project has a less than significant potential to cause a substantial change in the significance of tribal cultural resources, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to the California Native American tribe and that is either **a)** Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or **b)** A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☒	☐	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☒	☐	☐

SUBSTANTIATION

a. Water

Less Than Significant Impact – The proposed project would result in the construction and operation of a new 1.5 MG steel tank reservoir on an existing reservoir site within the PPHCSD service area. As discussed in the preceding sections, the development of the proposed reservoir would not have a significant impact on the environment as it relates to water supply and water quality. As discussed under Hydrology and Water Quality issue X(b), the proposed reservoir will store water within the District's existing water supply system, which consists of groundwater from the Upper Mojave River Valley Groundwater Basin. The reservoir will not increase the amount of groundwater extracted but rather would provide additional storage capacity for pressure zone 6 and allow for the existing reservoir to be taken out of service when required for routine maintenance. The amount of water the District plans to store in the reservoir is minimal compared to the overall amount of water extracted from the Groundwater Basin on an annual basis. Payment of fees to MWA by future development will ensure that impacts related to future water supplies are minimized. As such, though the project would install a new reservoir that will connect to District's existing supply within its service area, so the project actually provides a benefit and does not create any significant impacts to the water system. Therefore, impacts under this issue are considered less than significant and no mitigation is required.

Wastewater

No Impact – The proposed project would result in the construction and operation of a new 1.5 MG steel tank reservoir and would not include any septic or sewer systems within the site. The reservoir development is not anticipated to require expansion or development of new wastewater treatment facilities. This project would not require connection to wastewater treatment collection services once in operation. As such, this project is not anticipated to require or result in the relocation or construction

of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. No impacts under this issue are anticipated.

Stormwater
Less Than Significant Impact – The proposed project will manage stormwater internally. The District would implement 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 into the project design and temporarily during construction. These measures, such as temporary 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. No substantial change to the existing drainage pattern will result from project implementation. Adequate drainage facilities exist to accommodate pre- and post-project drainage flows. Therefore, the new reservoir is not anticipated to result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects. Impacts under this issue are considered to be less than significant and no mitigation is required.

Electric Power
Less Than Significant Impact – The proposed project would install a reservoir that will consume an incremental amount of electricity for its operation. The project site is already served by Southern California Edison (SCE), and is not anticipated that any new service lines, transformers, or other electrical equipment will be needed to serve the new reservoir. Given that the project will not require construction of new or relocation of existing electrical power facilities, the project is not anticipated to result in a significant impact on electricity. The proposed project would have no potential to require or result in the relocation or construction of new or expanded electric power facilities, the construction or relocation of which could cause significant environmental effects. Impacts would be less than significant and no mitigation is required.

Natural Gas
No Impact – Development of a new reservoir would not require new or modified natural gas service. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded natural gas facilities. No impacts are anticipated and no mitigation is required.

Telecommunications
No Impact – Development of the new reservoir would not require installation of significant new wireless internet service or phone service to the project site, although enhanced telemetry may be desired in the future. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded telecommunication facilities. No impacts are anticipated and no mitigation is required.

b. *Less Than Significant Impact* – Please refer to issue X(b), Hydrology and Water Quality, above. The proposed project will develop a new 1.5 MG reservoir to help manage water supply and maintenance within the District's service area. The proposed reservoir would store local groundwater extracted from the Upper Mojave River Valley Groundwater Basin. The construction and operation of the new water storage reservoir will not create a greater demand for water at this site than that which presently exists, as the new reservoir will connect to the existing water system providing service to the District's service area and would store water for future use by the District. Additionally, the District's Urban Water Management Plan (UWMP) indicates the District has sufficient water supplies available to serve reasonably foreseeable future development within its service area during normal, dry and multiple dry years. Impacts under this issue are less than significant and no mitigation is required.

c. *No Impact* – Please refer to the discussion under XIX(a) above. The reservoir construction or operation will not require installation of restroom facilities although construction will require portable toilets be provided while work is ongoing. Given that the operation of the reservoir 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 and no mitigation is required.

d&e. *Less Than Significant With Mitigation Incorporated* – The proposed Project is not anticipated to generate a large amount of waste as a result of construction or operation of the new 1.5 MG reservoir. Any construction and demolition (C&D) waste will be recycled to the maximum extent feasible and any residual materials will be delivered to one of several C&D disposal sites in the area surrounding the project site. Many of these C&D materials can be reused or recycled, thus prolonging the supply of natural resources and potentially saving money in the process.

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

While some of the existing concrete and asphalt may be removed, demolition is not anticipated to be required as part of the proposed project, construction waste reduction/diversion would be the focus of recycling/reuse. Because of increased construction recycling efforts resulting from CalGreen and other regulations, opportunities for construction recycling are becoming easier to find, as evidenced by the number of facilities listed on the San Bernardino County Construction & Demolition Waste Recycling Guide.[7] These facilities accept materials such as: appliances, cardboard, metals, wood, asphalt, concrete, soil, block rock, brick, carpet and padding, concrete with rebar, drywall, gravel, rock, roof tile, and tile.

The facilities that accept C&D materials, combined with the landfills in the surrounding area, have adequate capacity to serve the proposed project. Solid waste will be disposed of in accordance with existing regulations at an existing licensed landfill. 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 Phelan—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. Furthermore, the proposed project is not anticipated to generate a substantial amount of operational waste as the proposed project will only be visited on an as needed maintenance basis in the future. Additionally, should the proposed project require import or export of soil to accommodate developing a flat surface upon which to install the reservoir, all excavated soil would be hauled offsite by truck to an appropriately permitted solid waste facility. The daily amount of soil to be disposed per day would not exceed the maximum permitted throughput for each waste type (i.e., non-hazardous and hazardous). It is estimated that 15 CY trucks will be utilized to transport and export off site. For planning purposes, it is assumed that daily truck trips will be limited to 50 trucks per day and that a maximum of 75 miles per trip will occur. As such, the proposed project would comply with all federal, State, and local statues related to solid waste disposal.

Any hazardous materials collected on the project site during either construction or operation of the project will be transported and disposed of by a permitted and licensed hazardous materials service provider. Therefore, the proposed project is expected to comply with all regulations related to solid waste under federal, state, and local statutes. To further reduce potential impacts to solid waste facilities due to the large scale of the materials that may require disposal or recycling, the following mitigation measure will be implemented:

[7] San Bernardino County, 2021. Construction & Demolition Waste Recycling Guide https://www.sbcounty.gov/uploads/DPW/docs/RecyclingGuide-2021.pdf (accessed 11/02/23)

UTIL-1 The contract with demolition and construction contractors shall include the requirement that all materials that can be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to the District for review and approval prior to the start of demolition/construction activities to accomplish this objective.

Therefore, with the above mitigation measure, the proposed project is expected to comply with all regulations related to solid waste under federal, state, and local statutes and be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs. No further mitigation is necessary.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☒	☐	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☒	☐	☐

SUBSTANTIATION

a. *Less Than Significant With Mitigation Incorporated* – The proposed project is located near a wildland fire hazard area, but according to Section 8 – Safety of the Phelan Community Plan (p.54), fire hazard severity is very high only in limited areas south of Highway 138. However, according to the CALFIRE Fire Hazard Severity Zone Map (Figure IX-4), the proposed project is located in a High Fire Hazard Severity Zone within a State Responsibility Area (SRA). Please review the discussion of wildfire under Subchapter IX, Hazards and Hazardous Materials. There is limited vegetation in the vicinity of the project site that would pose a wildfire risk, particularly given that the area around the reservoir would be cleared of all vegetation. The proposed project does not include the use of flammable or explosive materials. However, during construction, because the proposed project is located within High Fire Hazard Severity Zone in an SRA, construction may exacerbate fire risk temporarily. As such, the proposed project requires the implementation of MM **WF-1**, which would minimize fire risk during activities that would utilize electric equipment by requiring construction crews to carry fire prevention equipment during activities involving electrical equipment. Based on the type of uses proposed, the proposed project has a less than significant potential to expose people or property to wildland fires.

   Please refer to the discussion under Subsection XVII(d), Transportation. Within the project site, the proposed facilities are not anticipated to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. According to the Countywide General Plan, no known San Bernardino County emergency access plans or emergency response or evacuation plans will be affected by the proposed project in the short- or long-term. The new reservoir would be developed in such a way that emergency response would have access in the area around the new reservoir, should access be required. Therefore, the proposed project will not substantially impair an adopted emergency response plan or emergency evacuation plan. Impacts under this issue are considered less than significant and no mitigation is required.

b. *Less Than Significant Impact* – The proposed project includes the development of a new water storage reservoir next to an existing District water storage reservoir. The proposed project does not propose any human occupancy structures or other structures that will place people on the project site for long periods of time or pose a significant threat to people or property from wildfire risk. The site is

located in an area containing native desert vegetation, of a type that would not present substantial fire risk due to the low profile of the vegetation. Because the proposed project would develop a water storage reservoir next to an existing water storage reservoir, and because the provision of water storage is considered a benefit to the prevention of the spreading of wildfire in high-risk areas, it is not anticipated that development at this site would expose occupants to pollutant concentrations from a wildfire. Therefore, given that the proposed project does not contain any human occupancy structures, it is not anticipated that the project would exacerbate fire risks thereby exposing project occupants to pollutant concentrations from a wildfire or uncontrolled spread of wildfire. Impacts under this issue are considered less than significant and no mitigation is required.

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

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

The proposed project would not result in any ongoing impacts to the environment that would exacerbate fire risk as the proposed project would be designed in accordance with fire department recommendations and design standards. Therefore, with the implementation of MM **WF-1** above, the proposed project would not have a significant potential to exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

d. *Less Than Significant With Mitigation Incorporated* – The proposed project would be installed on a site that would not require significant soil import or export to ensure that the reservoir is installed on a flat surface. The design of the project site (Figures 3 and 4) would ensure that future drainage conditions direct flows away from the reservoir. The development of the reservoir at this site will provide new drainage management to collect any sheet flow and convey it safely through the project site. The proposed project would construct recommended design measures, which would minimize downslope landslides as a result of post-fire slope instability. Furthermore, the project does not propose any habitable structures and thus the exposure of persons to such an event is minimal. As stated under the Hydrology Subchapter, flood risks at the project site are minimal, and therefore downslope flooding is not anticipated to occur as a result of post-fire slope instability or drainage changes. Additionally, with development of a geotechnical investigation and implementation of the site-specific design recommendations therein (enforced by MM **GEO-6**), downslope landslides as a result of post-fire slope instability would be minimized. Based on the discussion above, with MMs **GEO-6**, the proposed project would have a less than significant potential to expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XXI. MANDATORY FINDINGS OF SIGNIFICANCE:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

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

a. *Less Than Significant With Mitigation Incorporated* – The project has no potential to cause a significant impact on 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 would be installed within a site that is partially developed with the District's existing Reservoir 6A. Though the site contains vegetation, no sensitive natural biological habitat exists within the project site; however, mitigation is required to protect nesting birds. The cultural resources evaluation concluded that the project footprint does not contain archaeological or historic resources, and as such, 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 With Mitigation Incorporated* – The project has eleven (11) potential impacts that are individually limited, but may be cumulatively considerable. The issues of Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire require the implementation of mitigation measures to reduce impacts to a less than significant level and ensure that cumulative effects are not cumulatively considerable. The project is not considered growth-inducing as defined by *State CEQA Guidelines*, as it would not result in any new residents either directly, through the creation of housing, or indirectly, through the creation

of jobs. The above issues require the implementation of mitigation measures to reduce impacts to a less than significant level and ensure that cumulative effects from the proposed project are not cumulatively considerable. All other environmental issues were found to have no significant impacts without implementation of mitigation. The potential cumulative environmental effects of implementing the proposed project have been determined to be less than considerable and thus, the project's contribution to significant cumulative impacts would be less than significant.

c. *Less Than Significant With Mitigation Incorporated* – The project will help achieve long-term community goals by providing more reliable potable water storage and better water system management by adding the new reservoir to the overall system. 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, Hydrology and Water Quality, Noise, and Wildfire require the implementation of mitigation measures listed below 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 has been determined to be less than significant.

Conclusion

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

Based on the findings in this Initial Study, the Phelan Piñon Hills Community Services4 District proposes to adopt a Mitigated Negative Declaration (MND) for the Phelan Piñon Hills Community Service District Reservoir 6A-2 Project. A Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) will be issued for this project by the County. The Initial Study and NOI will be circulated for 30 days of public comment.

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

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

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SUMMARY OF MITIGATION MEASURES

Aesthetics

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

Air Quality

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

- Apply soil stabilizers such as hay bales or aggregate cover to inactive areas.
- Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.
- Stabilize previously disturbed areas if subsequent construction is delayed.
- Water exposed surfaces and haul roads 3 times/day.
- Cover all stockpiles with tarps.
- Replace ground cover in disturbed areas quickly.
- Reduce speeds on unpaved roads to less than 15 mph.
- Trenches shall be left exposed for as short a time as possible.

AQ-2 The following signage shall be erected no 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 height text, black text on white background, on one inch A/C laminated plywood board, with the lower edge between six and seven feet above grade, identifying a responsible official for the site and 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: {six-inch text}
[Contact Name], PHONE NUMBER {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}"

AQ-3 During project construction a 4,000-gallon water truck shall be available on-site at all times for dust control.

AQ-4 Wind breaks and/or fencing shall be developed in areas that are susceptible to high wind induced dusting.

AQ-5 The District shall use a water truck to maintain moist disturbed surfaces and actively spread water during visible dusting episodes to minimize visible fugitive dust emissions. If the site contains exposed sand or fines deposits (and if the project would expose such soils through earthmoving), water application or chemical stabilization will be required to eliminate visible dust/sand from sand/fines deposits.

AQ-6 The District shall formulate a high wind response plan that addresses enhanced dust control if winds are forecast to exceed 25-mph in any upcoming 24-hour period.

Biological Resources

BIO-1 All Project activities on-site shall be conducted outside of the nesting bird season (generally, raptor nesting season is January 1 through September 15; and passerine bird nesting season is February 1 through September 1) to the maximum extent feasible. If Project activities begin outside of nesting season, a pre-construction survey shall be performed by a qualified biologist to verify the absence of nesting birds. A qualified biologist shall conduct the pre-activity survey within the Project footprint (including access routes) and a 300-foot buffer surrounding the Project area, no more than two hours prior to initiating Project activities.

If Project activities begin during the nesting bird season (generally, raptor nesting season is January 1 through September 15; and passerine bird nesting season is February 1 through September 1), nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to Project initiation. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests containing eggs or young are found during the preconstruction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground and discussed in the WEAP. buffers are species-specific and shall be at least 100 feet for passerines and 300 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.

Cultural Resources

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

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

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

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

Geology and Soils

GEO-1 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of stored backfill material. Where covering is not possible, measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the Site for future cleanup such that erosion does not occur.

GEO-2 All exposed, disturbed soil (trenches, stored backfill, etc.) shall be sprayed with water or soil binders twice a day, or more frequently if fugitive dust is observed migrating from the Site within which the 0.60 MG reservoir with associated water improvements is being constructed.

GEO-3 Prior to construction of each improvement, a design-level geotechnical investigation, including collection of site-specific subsurface data, if appropriate, shall be completed. The geotechnical evaluation shall identify all potential seismic hazards including fault rupture, and characterize the soil profiles, including liquefaction potential, expansive soil potential, subsidence, and landslide potential. The geotechnical investigation shall recommend site-specific design criteria to mitigate for seismic and non-seismic hazards, such as special foundations and structural setbacks, and these recommendations shall be incorporated into the design of individual proposed projects.

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

Hazards and Hazardous Materials

HAZ-1 Prior to and during grading and construction, should an accidental release of a hazardous material occur, the following actions will be implemented: construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be notified; immediate actions will be implemented to limit the volume and area impacted by the contaminant; the contaminated material, primarily soil, shall be collected and removed to a location where it can be treated or disposed of in accordance with the regulations in place at the time of the event; any transport of hazardous waste from the property shall be carried out by a registered hazardous waste transporter; and testing shall be conducted to verify that any residual concentrations of the accidentally released material are below the regulatory remediation goal at the time of the event. All of the above sampling or remediation activities related to the contamination will be conducted under the oversight of San Bernardino County Certified Unified Program Agency (CUPA). All of the above actions shall be documented and made available to the appropriate regulatory agencies prior to closure (a determination of the regulatory agency that a site has been remediated to a threshold that poses no hazard to humans) of the contaminated area.

Hydrology and Water Quality

HYD-1 The District shall test the initial output of water from the reservoir after purging and prior to connection to the municipal supply system to assure that the output water meets the appropriate MCLs. If the discharge does not meet applicable standards, the District shall drain, inspect, and reclean the interior surfaces of the reservoir until the discharge water meets the applicable MCLs. The District shall document this process to the satisfaction of the Lahontan RWQCB.

HYD-2 Prior to commencement of construction of project facilities, the District shall either:
(1) Prepare a No Net Discharge Report demonstrating that within each facility surface runoff shall be collected and retained (for use onsite) or detained and percolated into the ground on

the site such that site development results in no net increase in offsite stormwater flows. Detainment shall be achieved through Low Impact Development techniques whenever possible, and shall include techniques that remove the majority of urban storm runoff pollutants, such as petroleum products and sediment. The purpose of this measure is to remove the onsite contribution to cumulative urban storm runoff and ensure the discharge from the sites is treated to reduce contributions of urban pollutants to downstream flows and to groundwater; or, where it is not possible to eliminate stormwater flows off of a site or where otherwise appropriate, the District shall:

(2) Prepare a grading and drainage plan that identifies anticipated changes in flow that would occur on site and minimizes any potential increases in discharge, erosion, or sedimentation potential in accordance with applicable regulations and requirements for the County.

HYD-3 The District and construction contractor shall select best management practices (BMPs) most applicable to the project site and activities on the site. These BMPs are intended to prevent or minimize any release of materials detrimental to surface or groundwater quality. These BMPs will apply both during and following construction of the proposed municipal-supply water reservoir and any associated onsite improvements and once the reservoir is in operation.

Noise

NOI-1 All construction vehicles and fixed or mobile equipment shall be equipped with operating and maintained mufflers.

NOI-2 All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided adequate hearing protection devices to ensure no hearing damage will result from construction activities.

NOI-3 The District 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 a Ldn of 60 dBA exterior or a Ldn of 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 District will implement adequate measures to reduce noise levels to less than the applicable standard, to the greatest extent feasible, including portable noise barriers at the project site or at affected residences, , or scheduling specific construction activities to avoid conflict with adjacent sensitive receptors.

NOI-4 Equipment not in use for five minutes shall be shut off.

NOI-5 Equipment shall be maintained and operated such that loads are secured from rattling or banging.

NOI-6 Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.

NOI-7 The District will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by the District.

NOI-8 Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible, as determined by the District.

NOI-9 Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible.

Tribal Cultural Resources

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

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

TCR-3 Tribal Monitoring Services Agreement. Prior to the issuance of grading permits, the applicant shall enter into a Tribal Monitoring Services Agreement with the Morongo Band of Mission Indians (MBMI) for the Project. The Tribal Monitor shall be on-site during all ground-disturbing activities (including, but not limited to, clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all utility and irrigation lines, and landscaping phases of any kind). The Tribal Monitor shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources.

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

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

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

TCR-7 On-site Monitoring. During all ground-disturbing activities the Qualified Archaeologist and the Tribal Monitor shall be on-site full-time. The frequency of inspections shall depend on the rate of excavation, the materials excavated, and any discoveries of Tribal Cultural Resources as defined

in California Public Resources Code Section 21074. Archaeological and Tribal Monitoring will be discontinued when the depth of grading and the soil conditions no longer retain the potential to contain cultural deposits. The Qualified Archaeologist, in consultation with the Tribal Monitor, shall be responsible for determining the duration and frequency of monitoring.

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

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

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

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

A. Should human remains and/or cremations be encountered on the surface or during any and all ground- disturbing activities (i.e., clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all water supply, electrical, and irrigation lines, and landscaping phases of any kind), work in the immediate vicinity of the discovery shall immediately stop within a 100-foot perimeter of the discovery. The area shall be protected; project personnel/observers will be restricted. The County Coroner is to be contacted within 24 hours of discovery. The County Coroner has 48 hours to make his/her determination pursuant to State and Safety Code §7050.5. and Public Resources Code (PRC) § 5097.98.
B. In the event that the human remains and/or cremations are identified as Native American, the Coroner shall notify the Native American Heritage Commission within 24 hours of determination pursuant to subdivision (c) of HSC §7050.5.
C. The Native American Heritage Commission shall immediately notify the person or persons it believes to be the Most Likely Descendant (MLD). The MLD has 48 hours, upon being granted access to the Project site, to inspect the site of discovery and make his/her recommendation for final treatment and disposition, with appropriate dignity, of the remains and all associated grave goods pursuant to PRC §5097.98
D. If the Morongo Band of Mission Indians has been named the Most Likely Descendant (MLD), the Tribe may wish to rebury the human remains and/or cremation and sacred items in their place of discovery with no further disturbance where they will reside in

perpetuity. The place(s) of reburial will not be disclosed by any party and is exempt from the California Public Records Act (California Government Code § 6254[r]). Reburial location of human remains and/or cremations will be determined by the Tribe's Most Likely Descendant (MLD), the landowner, and the District Planning Department.

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

Utilities and Service Systems

UTIL-1 The contract with demolition and construction contractors shall include the requirement that all materials that can be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to the District for review and approval prior to the start of demolition/construction activities to accomplish this objective.

Wildfire

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

REFERENCES

California Department of Water Resources, 2023. Sustainable Groundwater Management Act (SGMA) https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management (accessed 11/01/23)

CARB, 2017. California's 2017 Climate Change Scoping Plan. December 14, 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf (accessed 09/06/23)

CRM TECH, 2024. "Historical/Archaeological Resources Survey Report, Phelan Piñon Hills Community Services District, Reservoir 6A-2 Project" dated January 27, 2024

Gerrick Environmental, 2024. "Air Quality and GHG Impact Analyses, CEQA/NEAP for Phelan Piñon Hills, 1.5 MG Reservoir Project, San Bernardino County, California" dated January 8, 2024

HDR, 2024. "Biological Resources Assessment, Jurisdictional Delineation for Phelan Piñon Hills Community Services District, Reservoir 6A-2" dated February 9, 2024

PPHCSD, 2023. District Transparency. https://www.pphcsd.org/transparency.html (accessed 11/01/23)

Phelan Piñon Hills Community Services District Urban Water Management Plan 2020

San Bernardino County, 2021. Construction & Demolition Waste Recycling Guide https://www.sbcounty.gov/uploads/DPW/docs/RecyclingGuide-2021.pdf (accessed 11/02/23)

San Bernardino County, 2019. General Plan: Renewable Energy and Conservation Element. https://countywideplan.com/wp-content/uploads/sites/68/2021/02/REC-Element.pdf

SCE, 2024. Reliable, Affordable Power for you. https://www.sce.com/about-us/reliability/meeting-demand (accessed 01/28/24)

USDA, 2023. Bull Trail Series. https://soilseries.sc.egov.usda.gov/OSD_Docs/B/BULL_TRAIL.html (accessed 10/31/23)

USDA, Natural Resource Conservation Service (NRCS) Web Soil Survey

FIGURES

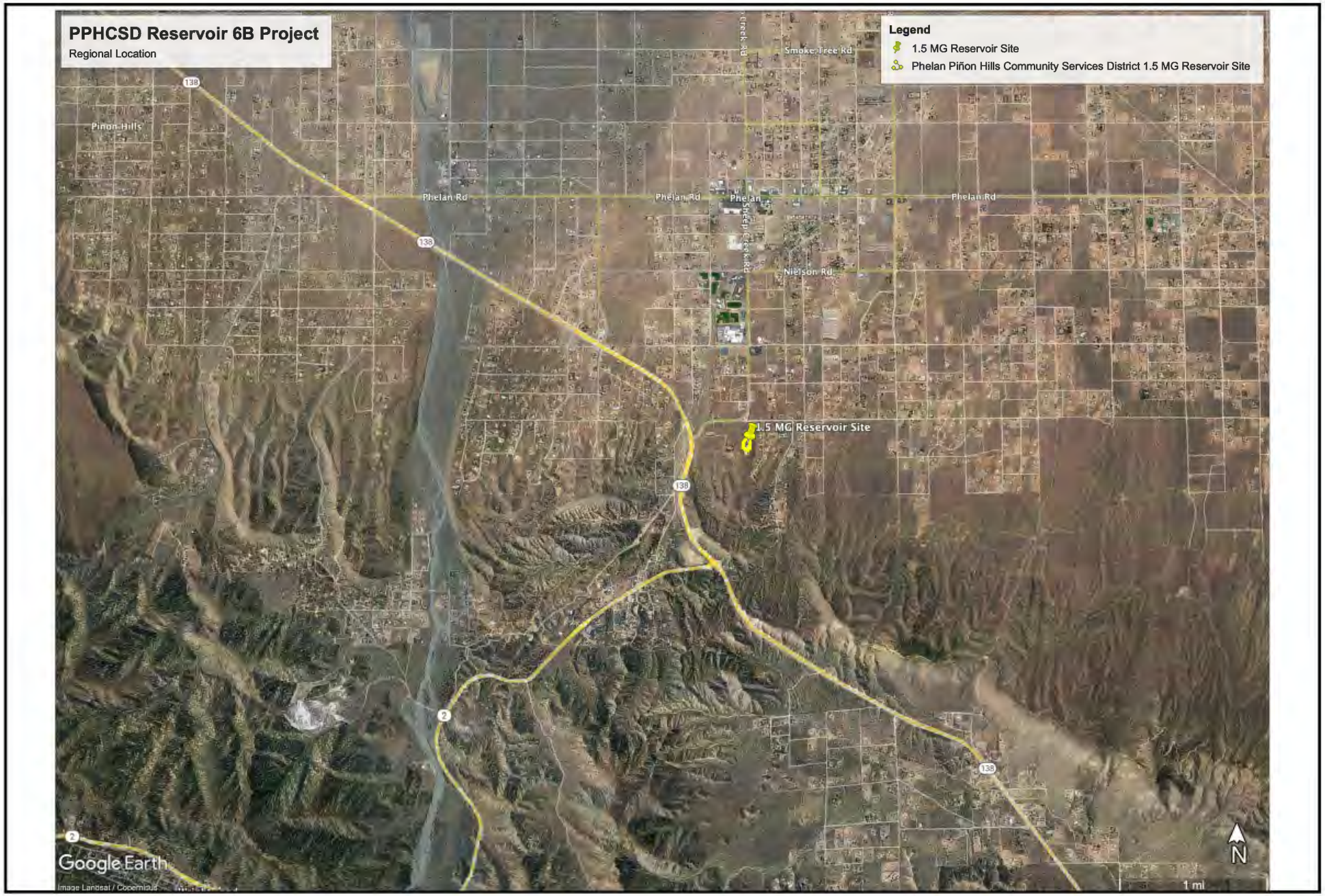

FIGURE 1

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Environmental Consultants

Regional Site Location

FIGURE 2

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Site Location

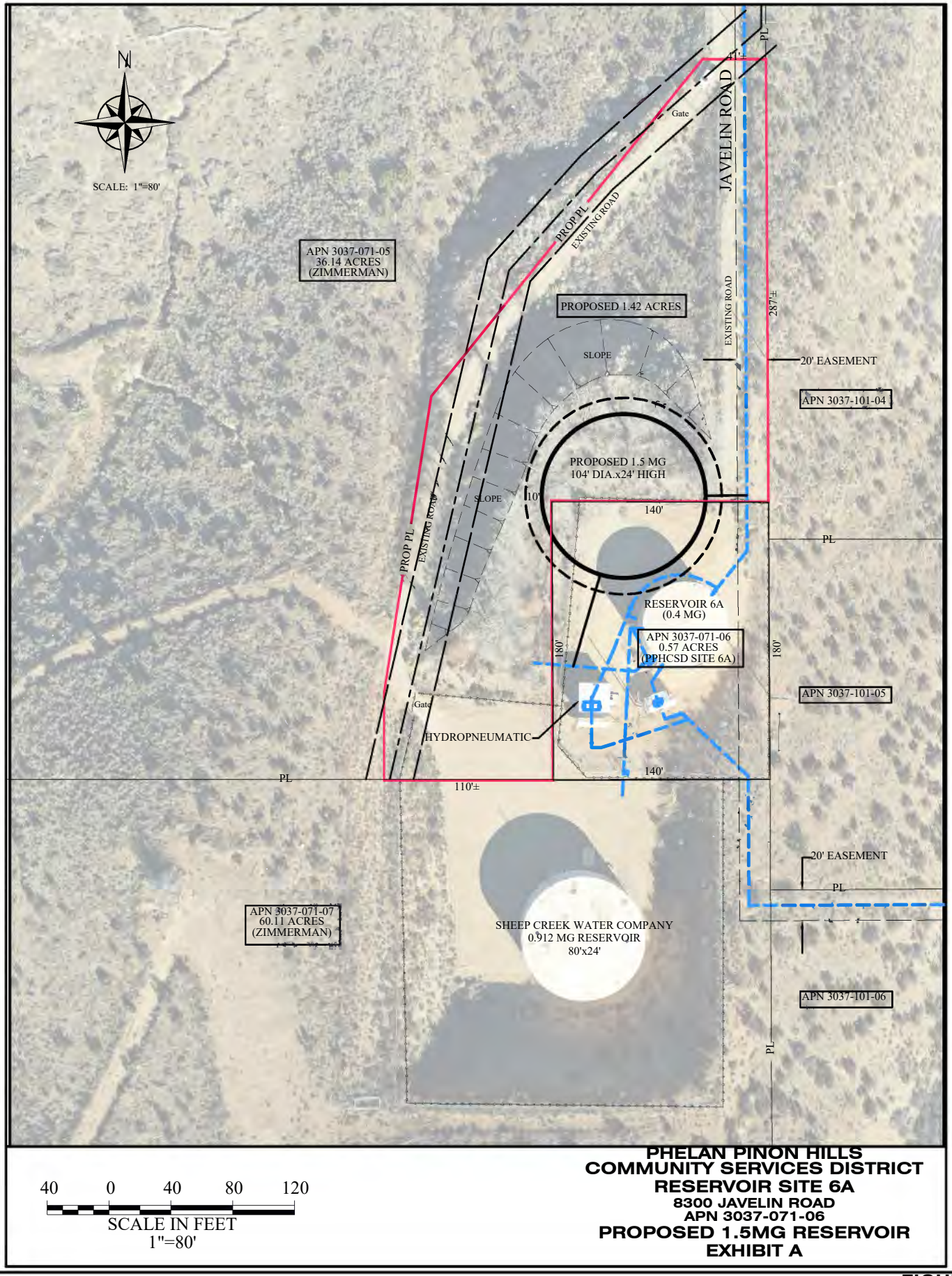

FIGURE 3

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Site Plan

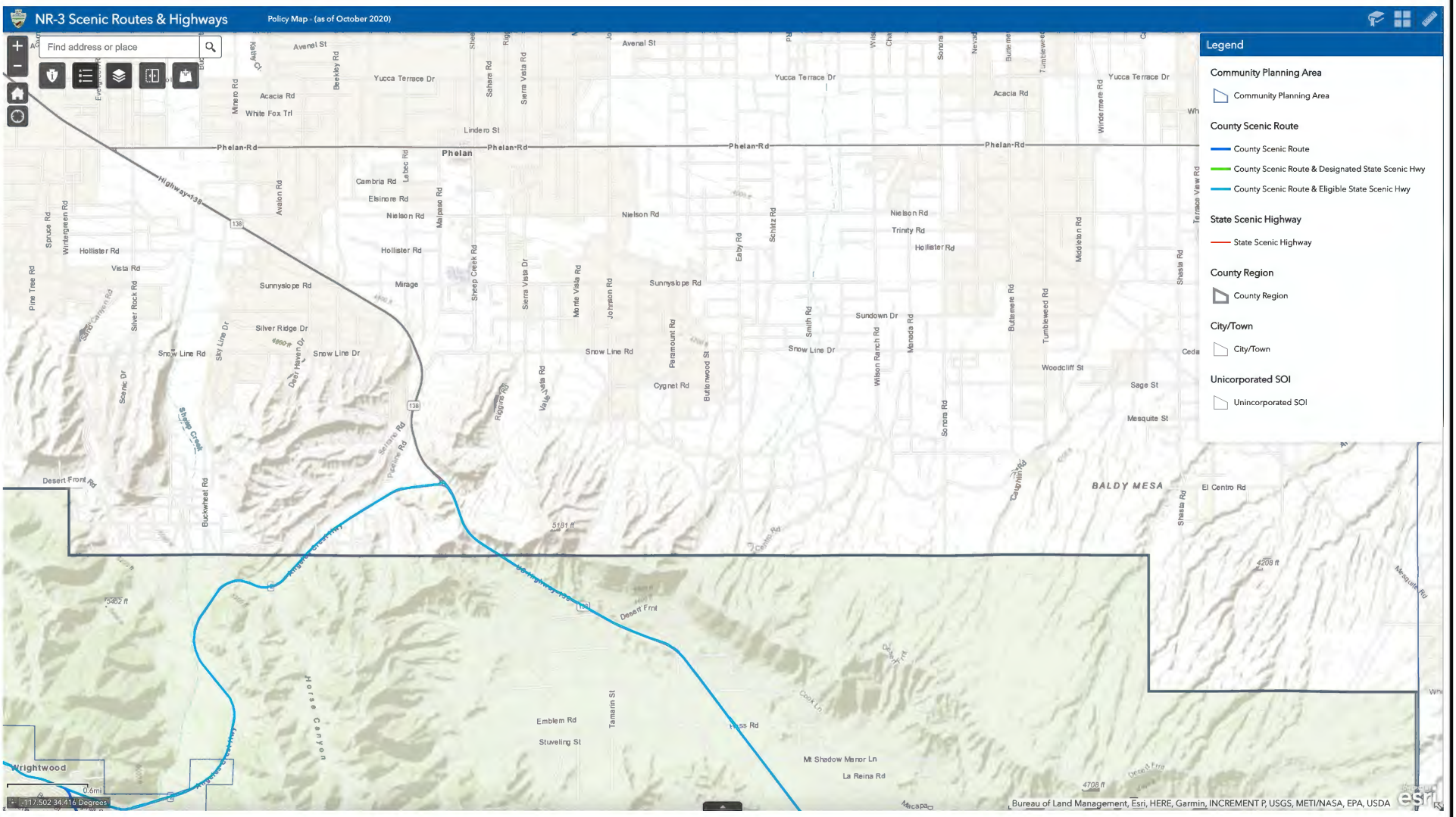

FIGURE I-1

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Scenic Routes

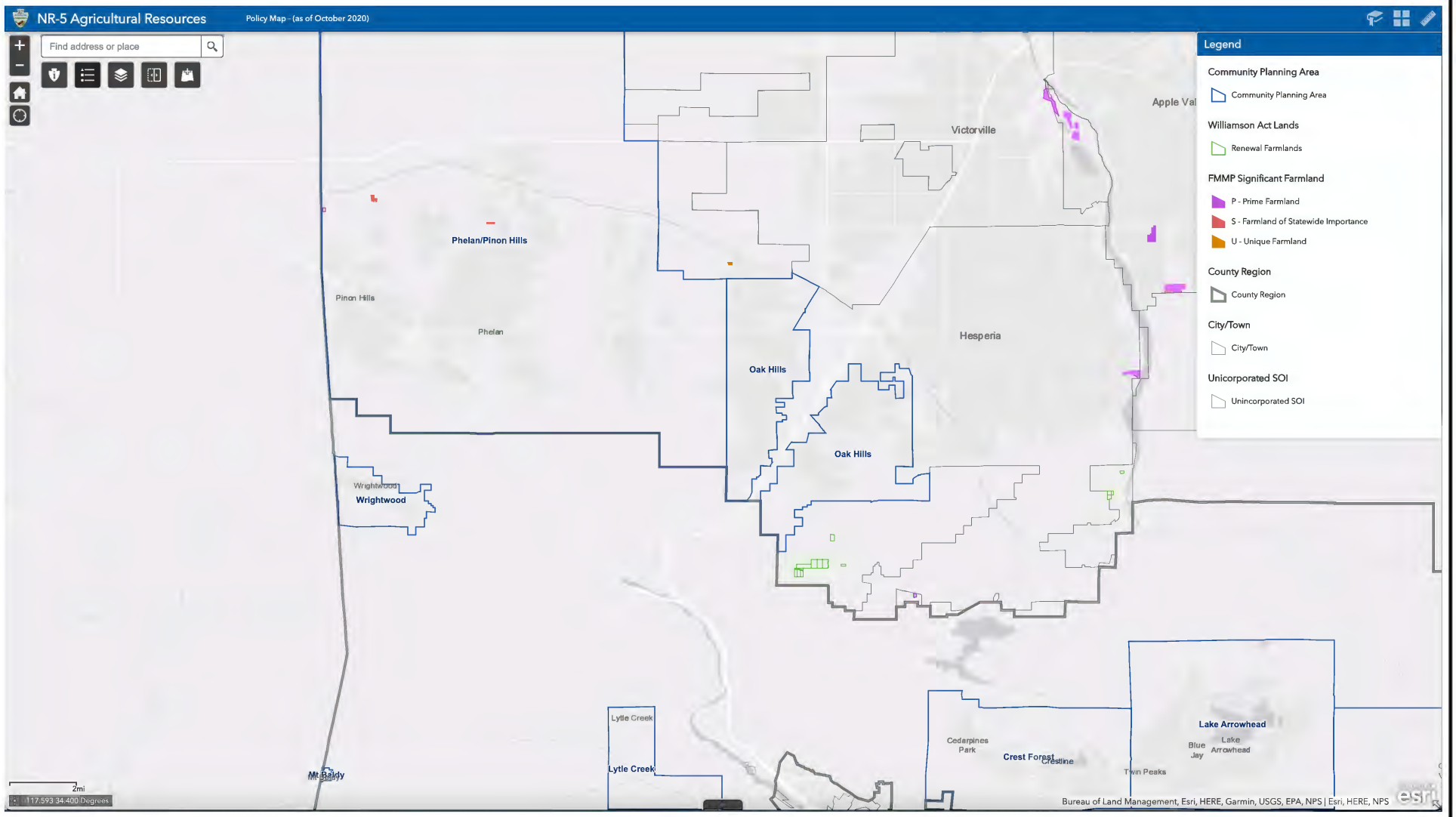

FIGURE II-1

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Agricultural Resources

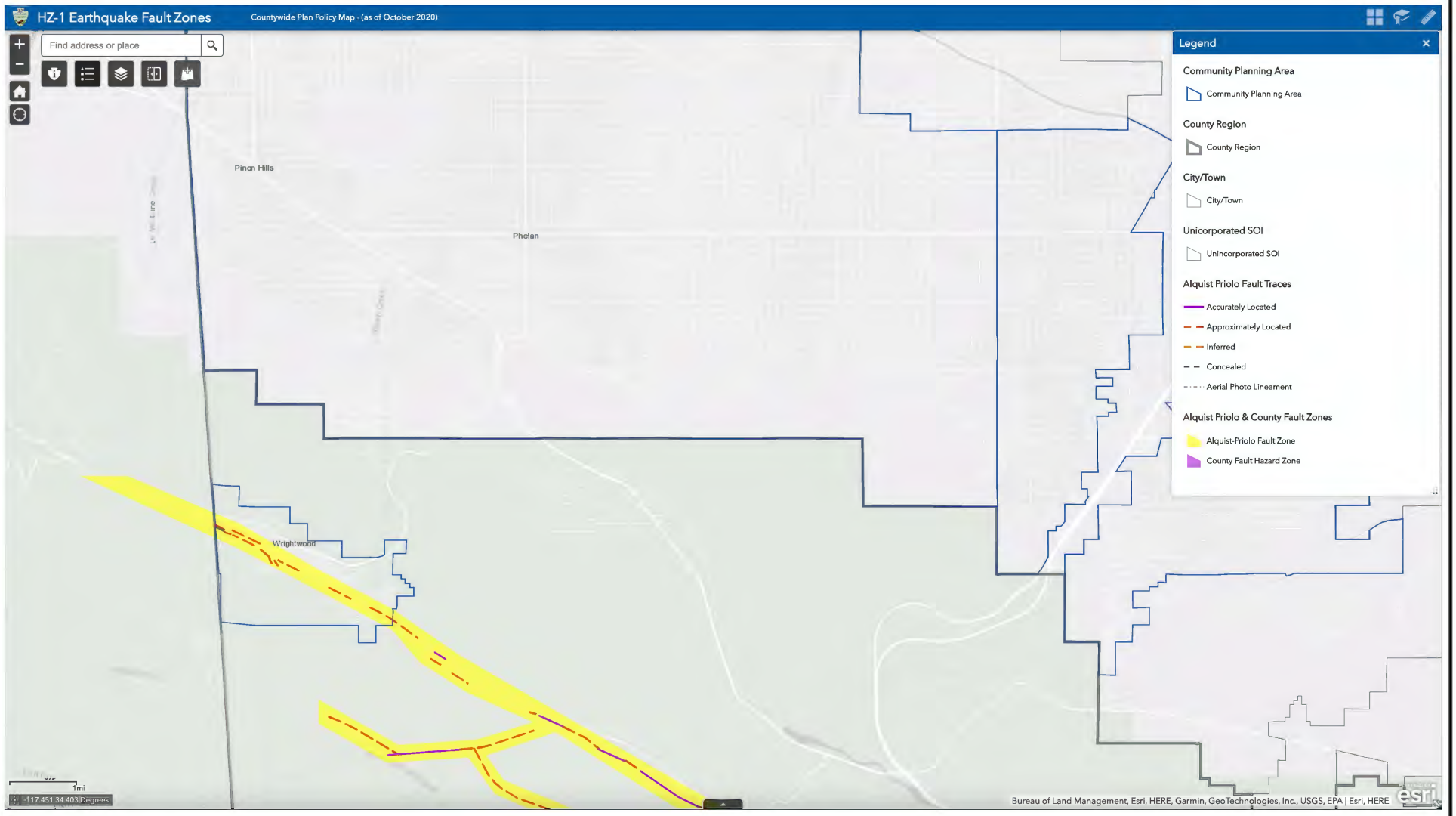

FIGURE VII-1

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Environmental Consultants

Earthquake Fault Zones

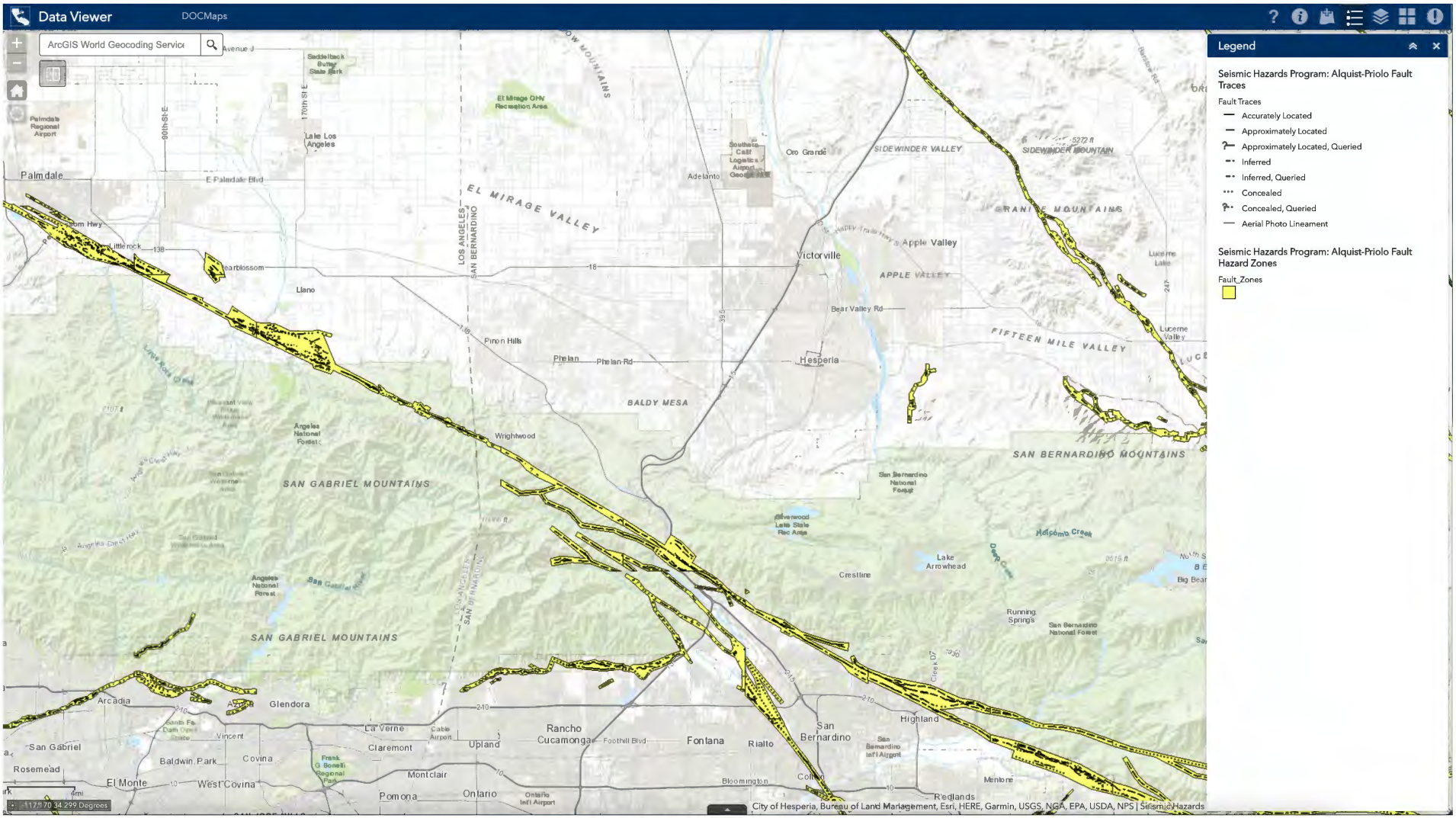

FIGURE VII-2

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Alquist Priolo Fault Zones

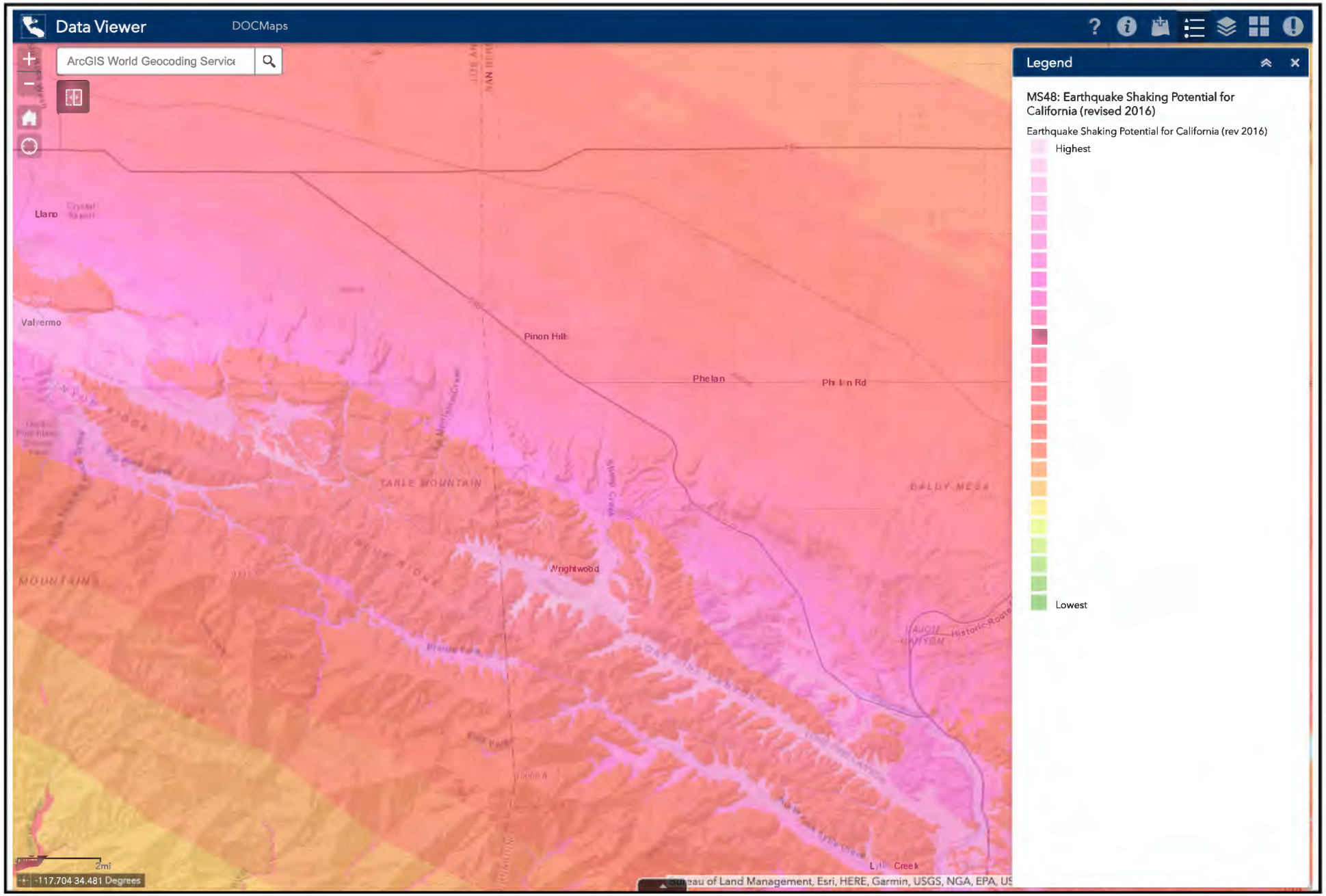

FIGURE VII-3

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Environmental Consultants

Groundshaking Potential

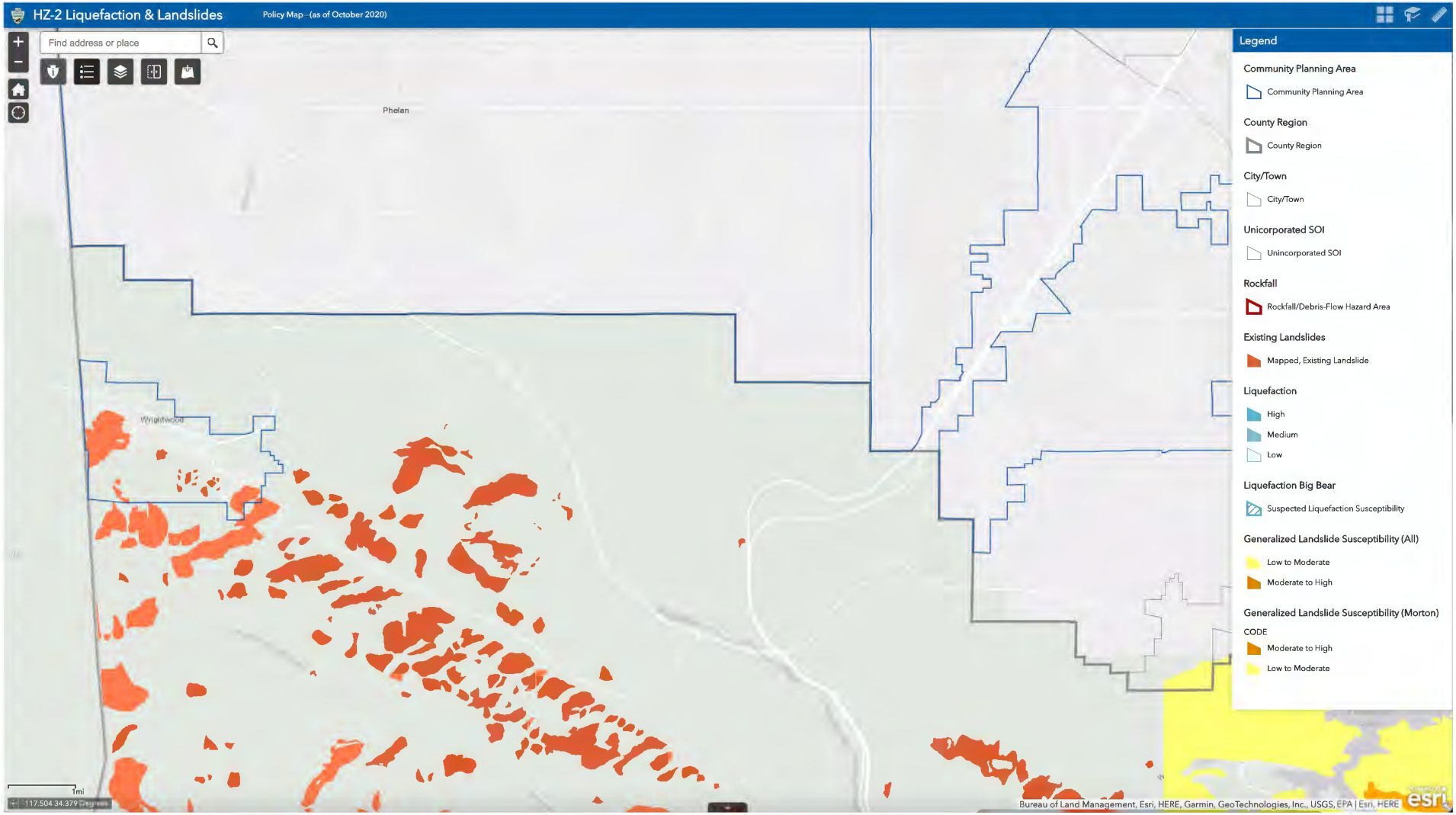

FIGURE VII-4

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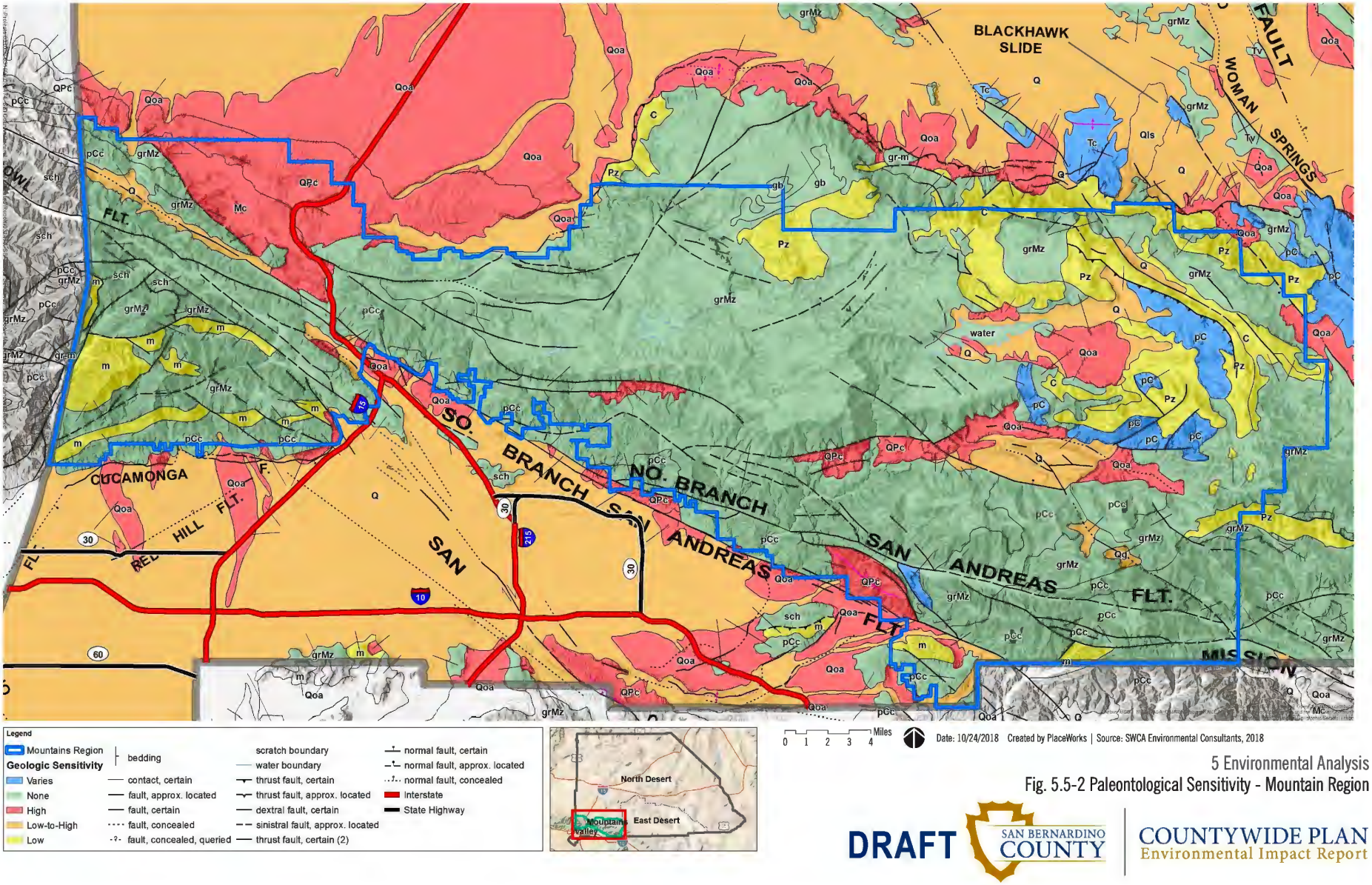
Liquefaction & Landslides



5 Environmental Analysis

Fig. 5.5-2 Paleontological Sensitivity - Mountain Region

DRAFT

SAN BERNARDINO COUNTY

COUNTYWIDE PLAN
Environmental Impact Report

FIGURE VII-5

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Paleontological Resources

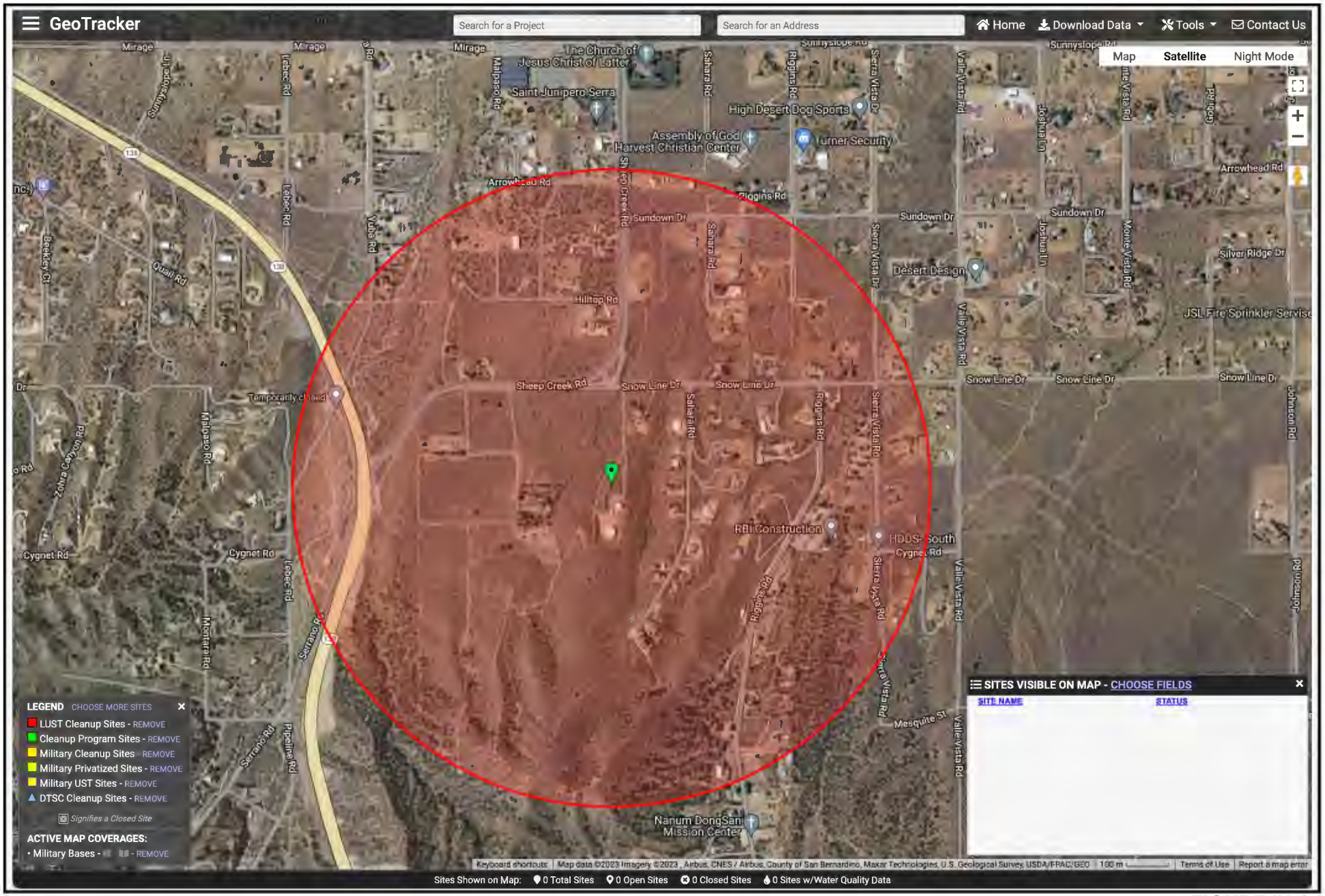

FIGURE IX-1

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GeoTracker

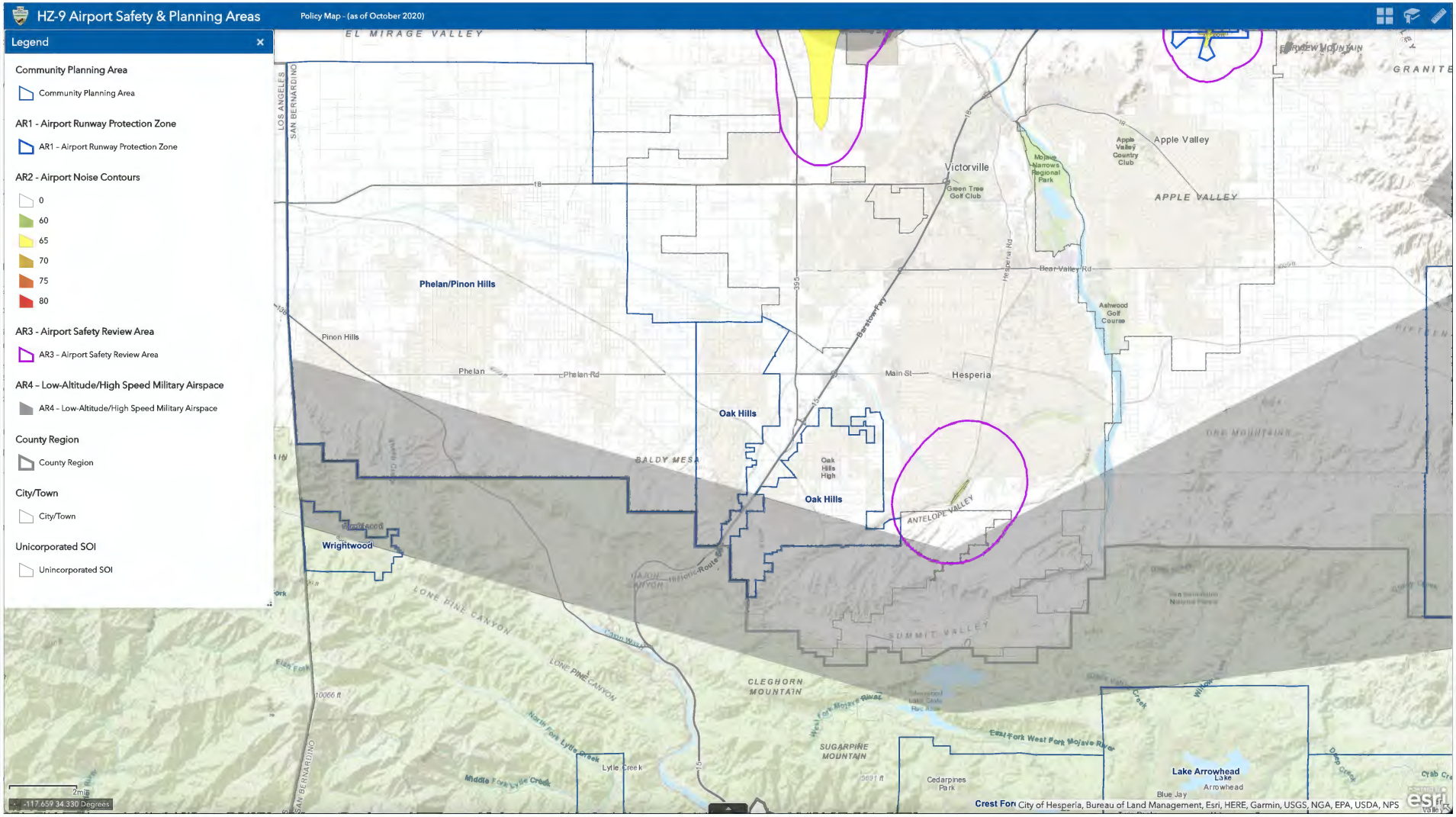

FIGURE IX-2

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Airport Safety & Planning Areas

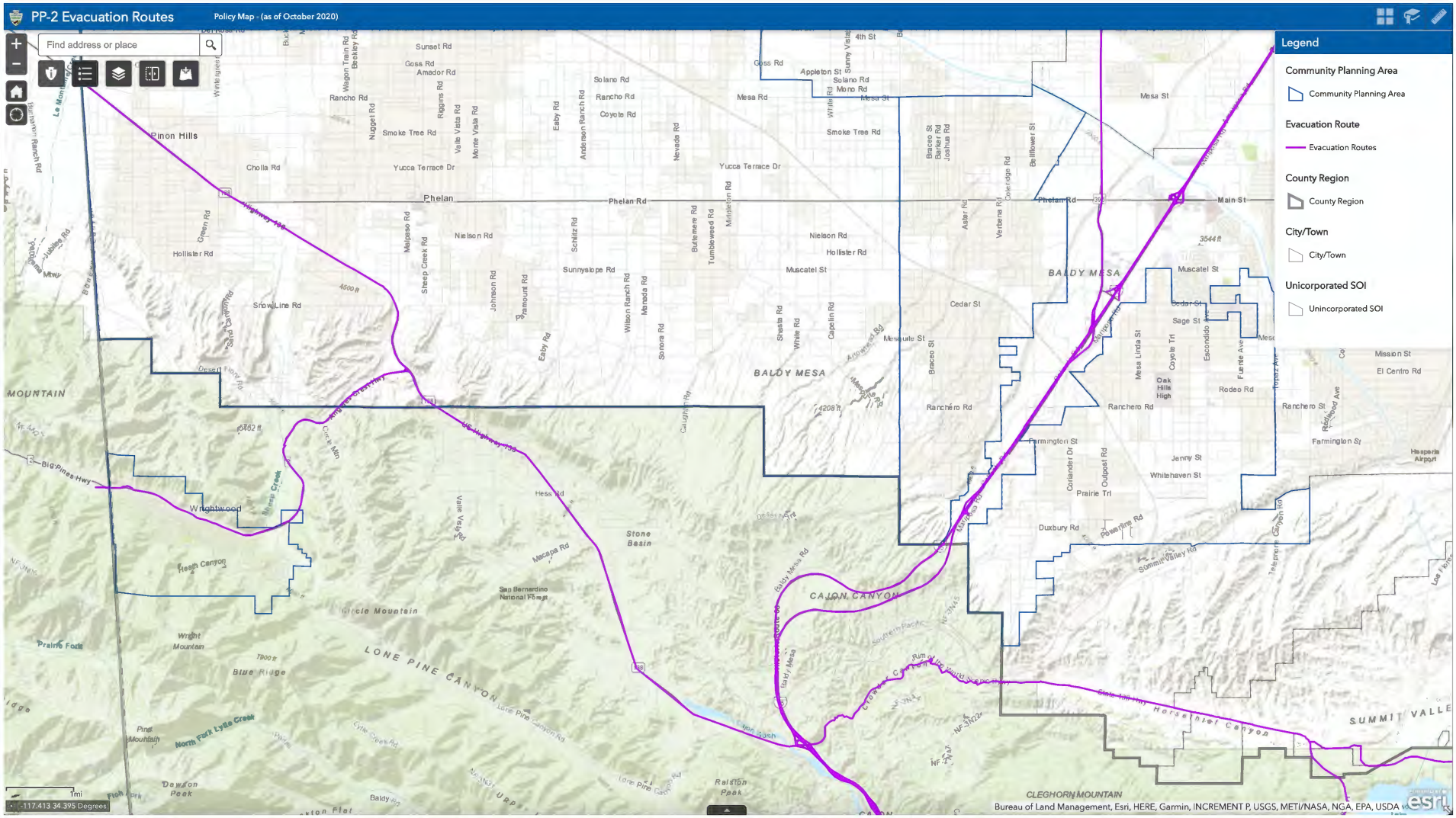

FIGURE IX-3

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Evacuation Routes

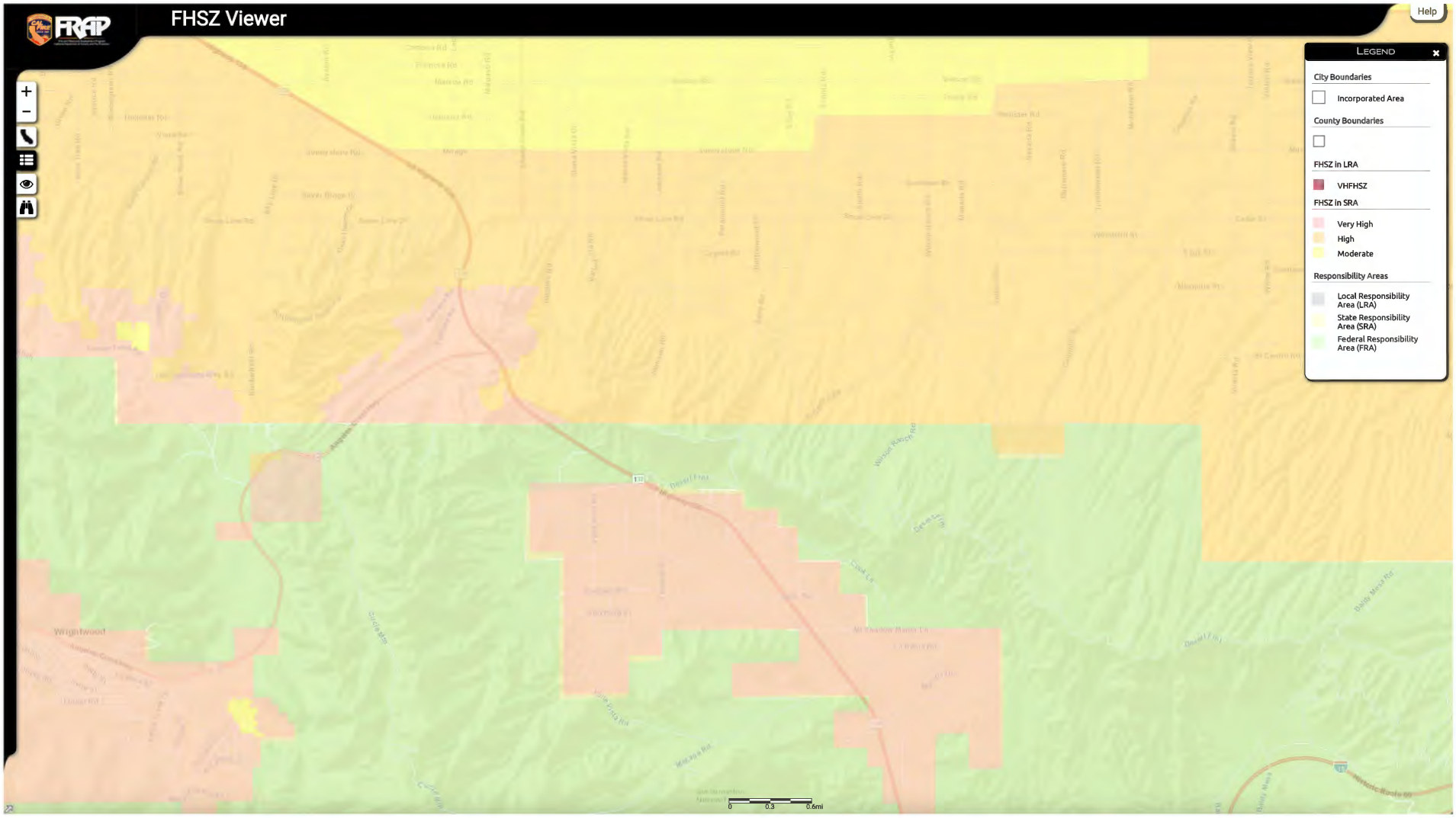

FIGURE IX-4

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Wildfire Fire Hazard Severity Zones and Responsibility Areas

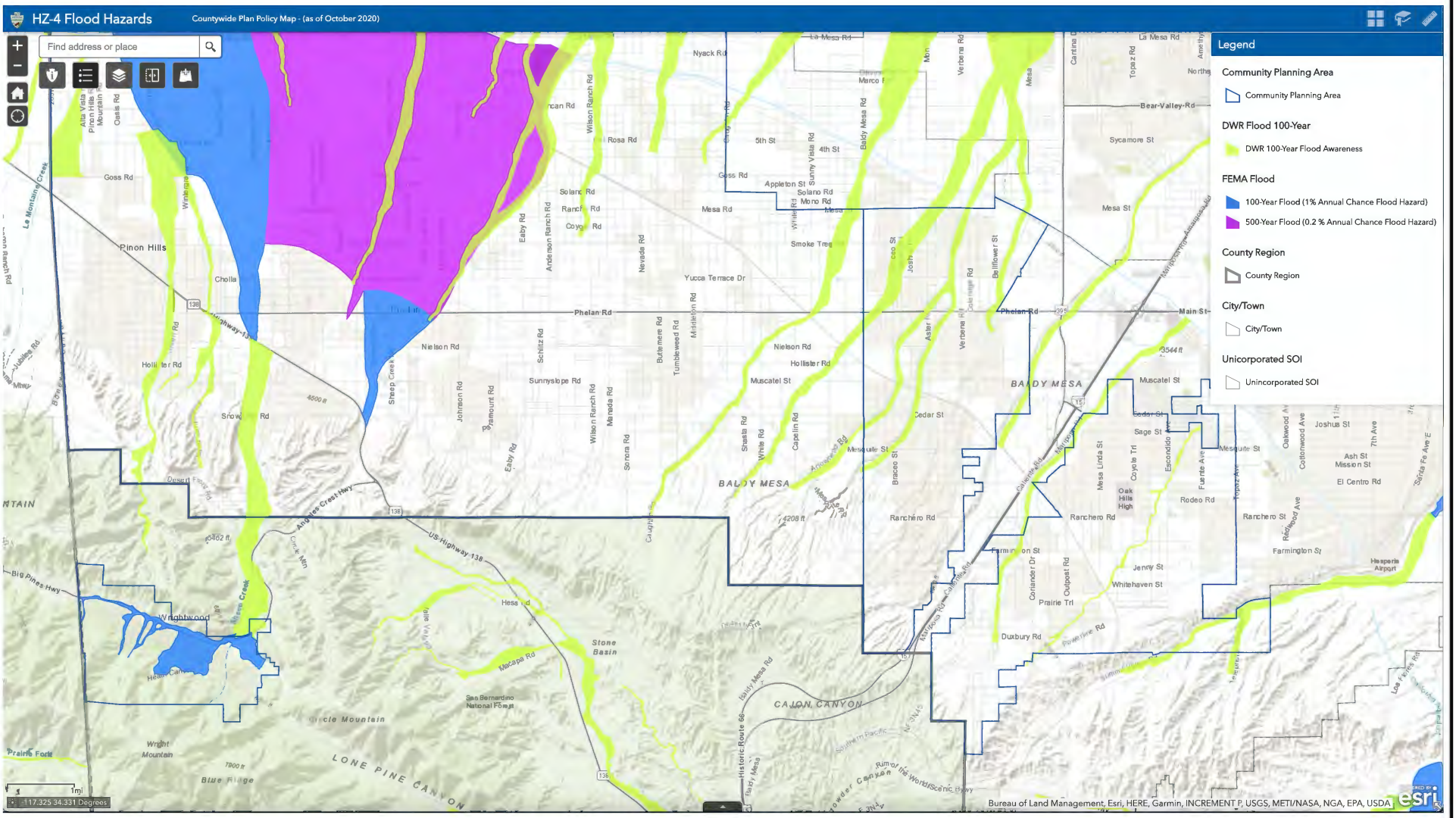

FIGURE X-1

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Flood Hazards

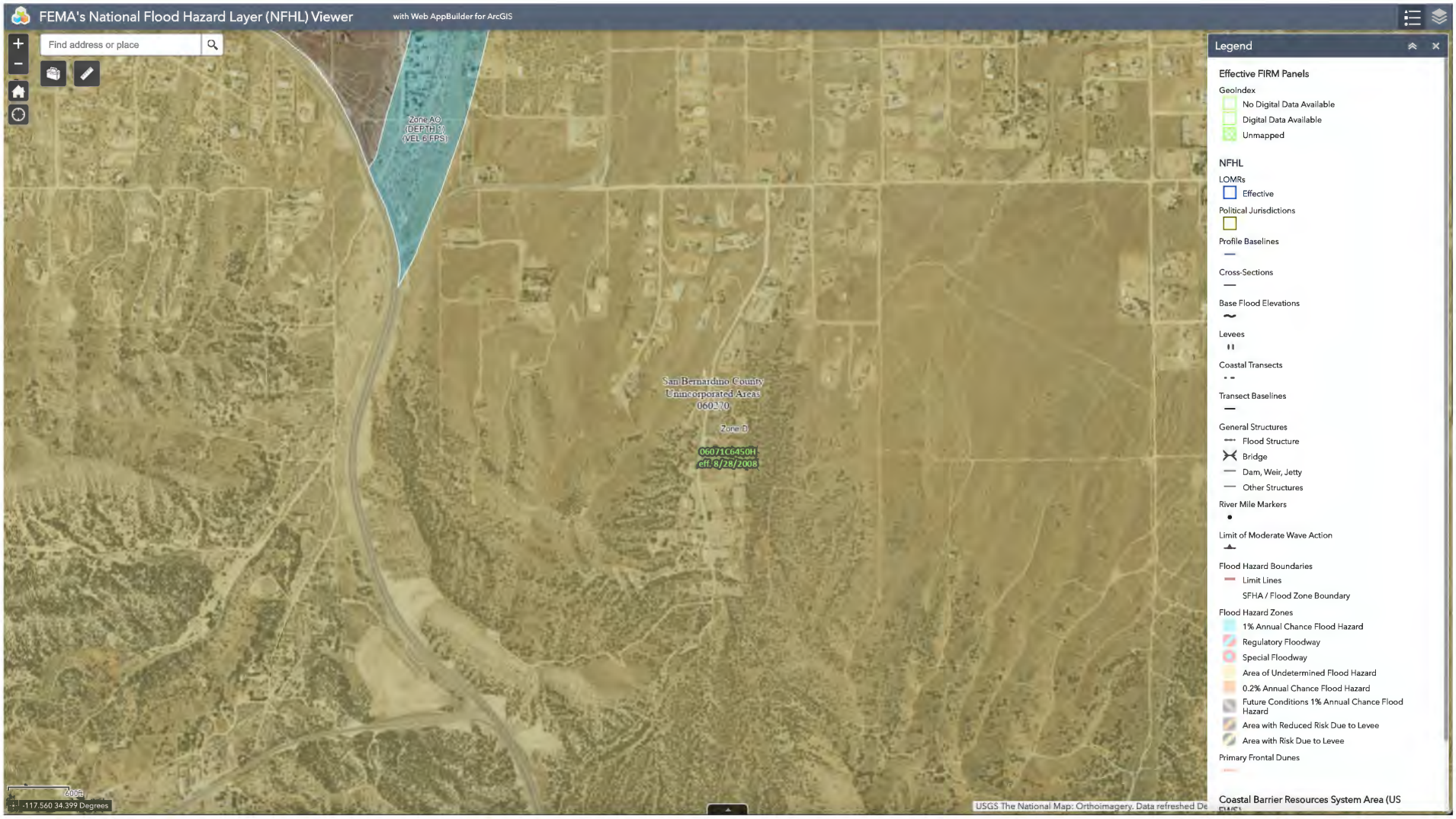

FIGURE X-2

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FEMA National Flood Hazard Layer Viewer

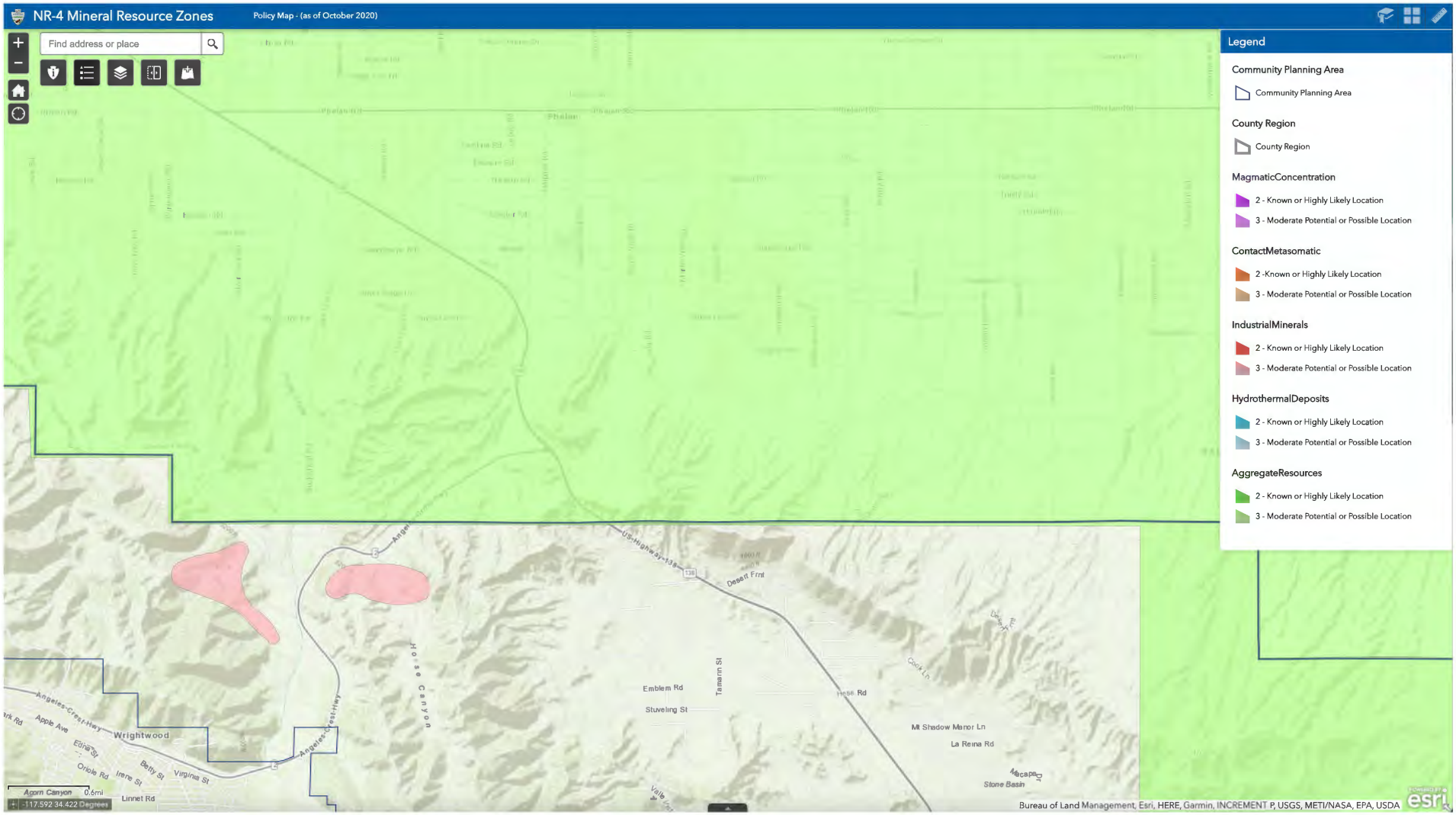

FIGURE XII-1

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Mineral Resource Zones

APPENDIX 1

AIR QUALITY AND GHG IMPACT ANALYSES
CEQA/NEPA

PHELAN PIÑON HILLS 1.5 MG RESERVOIR PROJECT

SAN BERNARDINO COUNTY, CALIFORNIA

Prepared by:

Sara Friedman-Gerrick
Gerrick Environmental

Prepared for:

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

Date:

January 8, 2024

Project No.: P23-041 AQ

ATMOSPHERIC SETTING

The climate of the Victor Valley, technically called an interior valley subclimate of Southern California's Mediterranean-type climate, is characterized by hot summers, mild winters, infrequent rainfall, moderate afternoon breezes, and generally fair weather. The clouds and fog that form along the Southern California coastline rarely extend across the mountains to Victorville and surrounding high desert communities. The most important local weather pattern is associated with the funneling of the daily onshore sea breeze through El 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 transport pattern creates both unhealthy air quality as well as destroying the scenic vistas of the mountains surrounding Victor Valley.

The low annual humidity, moderate temperature swings, very low rainfall and frequent breezy conditions are typical of California's "Upper Desert" subclimate. Most years do not see temperatures drop below about 20°F or above about 105°F. Occasionally, however, there are some very hot temperatures over 105°F with a record high of 113°F in 1995, and some colder temps down to a record low of -1°F in December 1949.

Victor Valley is located in a transition area between the semi-arid conditions of the Los Angeles Basin and the completely arid portions of the Mojave Desert. The Valley's location in the "rain shadow" of the San Gabriel Mountains further enhances its dryness. Rainfall averages around 6 inches per year. with light to moderate rain falling on only 10 days per year. Because of Southern California's location on the edge of the mid-latitude storm track, a shift in the jet stream aloft of a few hundred miles north or south can mean the difference between a year with twice the annual average rainfall and one with drought conditions where less than one-half of the normal rainfall is observed. The project area may occasionally experience a light winter snowfall (1-2 inches per year), but temperatures do not remain cold enough for the snow to stay on the ground for very long.

Winds blow primarily from south to north and from west to east in response to the regional pattern of airflow from the cool ocean to the heated interior. A large portion of the airflow across the proposed project area therefore has its origin in more developed areas of the Los Angeles Basin. Over 50 percent of all airflow derives from a narrow sector from south through west. These winds are moderately strong, averaging from 8-12 mph, but become light and variable at night with about 10 percent of all hours almost completely calm. Afternoon winds may, at times, exceed 20 mph and begin to pick up fine dust and other loose material.

The wind distribution is an important atmospheric parameter because it controls both the initial rate of pollutant dispersal near the source as well as the ultimate regional trajectory of air pollution. These prevailing winds provide a vehicle for visible smog to be transported from the South Coast Air Basin through the mountain passes to the Mojave Desert Air Basin (MDAB). The rapid daytime heating of the lower air leads to convective activity. This exchange of upper air tends to accelerate surface winds during the warm part of the day when convection is at a maximum. During the winter, the rapid cooling of the surface layers at night retards this exchange of momentum which often results in calm winds.

In addition to winds which govern the horizontal dispersion of locally generated emissions, vertical temperature structure controls the depth through which pollutants can be mixed. The strong surface heating by day in the Mojave Desert usually creates a vertical temperature distribution that decreases rapidly with height (unstable). At night, especially in winter, cool air settles in low-lying areas and forms shallow radiation-induced temperature inversions (stable) that may temporarily restrict the dispersion of low-level pollutant emissions. Such inversions "burn off" rapidly after sunrise. The elevated subsidence/marine inversions that create major air quality problems in coastal environments are rarely observed in the desert. When they do form, their bases are from 6 - 8,000 feet mean sea level and thus do not impede vertical dispersion. The low-level radiation inversions, however, play an important role in limiting the dispersive capacity of the local airshed from late evening to the next morning. Because they burn off rapidly in the morning, their importance to the dispersion of air contaminants is limited to localized effects.

AMBIENT AIR QUALITY STANDARDS (AAQS)

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

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

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

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

Table 1

Ambient Air Quality Standards

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

See footnotes on next page ...

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

California Air Resources Board (5/4/16)

Table 1 (continued)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 2
Health Effects of Major Criteria Pollutants

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

Source: California Air Resources Board, 2002.

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

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

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

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

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

BASELINE AIR QUALITY

Monitoring air quality in the MDAB is the responsibility of the Mojave Desert Air Quality Management District (MDAQMD) headquartered in Victorville, California. Six monitoring stations are located at different sites throughout the District. Additionally, the MDAQMD is contracted to the Antelope Valley AQMD to maintain an air monitoring station in Lancaster. At these stations, the MDAQMD collects information 24 hours a day, seven days a week on the ambient levels of pollutants, including ozone, particulate matter, nitrogen oxides, and carbon monoxide. The closest monitoring station to the project site is in Phelan. That station, however, only monitors ozone and nitrogen dioxide. The nearest station that monitors particulates is the Victorville Station at 14306 Park Avenue. Table 3 summarizes the last five years of monitoring data from the available data at the Phelan and Victorville monitoring stations. Findings are summarized below:

1. Photochemical smog (ozone) levels frequently exceed standards. The 1-hour state standard was violated an average of five percent of all days in the last five years at the monitoring station closest to the project site and the 8-hour state standard was violated an average of 18 percent of all days. The Mojave Desert Air Basin does not generate enough ozone precursor emissions to substantially affect ozone levels. Attainment of ozone standards is most strongly linked to air quality improvements in upwind communities.

2. PM-10 is affected by construction, by unpaved road travel, by open fires and/or by agricultural practices. These emissions can be controlled to some extent, and are, therefore, components in a respirable range (10-micron diameter) particulate matter (PM-10) attainment plan developed by the Mojave Desert AQMD.

   PM-10 days exceeding the state 24-hour standard is not available near Phelan but is available from Victorville Station. The more stringent state standards have not been available for the last five years. The three times less stringent federal 24 hour-standard has been exceeded 1-2 days per year during this period. Although the number of exceedances of the state 24-hour standard is not available, presumably they are significant given the high maximum 24-hour concentrations for each year. An attainment plan for PM-10 was adopted in July 1995 for designated federal PM-10 non-attainment areas in the MDAB. Any project-related PM-10 generation activities require an enhanced level of controls consistent with the control measures that are part of that plan.

3. A fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). The year 2021 showed the highest maximum 24-hour concentration in past years.

4. More localized pollutants such as carbon monoxide and nitrogen oxides, etc. are generally very low near the project site because background levels in the Mojave Desert area never exceed allowable levels except perhaps during wildfire events. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NOx or CO without any threat of violating applicable AAQS. CO is no longer monitored in the Mojave Desert area.

Table 3
Air Quality Monitoring Summary (2018-2021)
(Number of Days Standards Were Exceeded, and
Maximum Levels During Such Violations)

Pollutant/Standard	2018	2019	2020	2021	2022
Ozone					
1-Hour > 0.09 ppm (S)	25	12	19	31	13
8-Hour > 0.07 ppm (S)	87	44	63	77	51
8- Hour > 0.075 ppm (F)	55	19	44	57	25
Max. 1-Hour Conc. (ppm)	0.125	0.119	0.130	0.131	0.105
Max. 8-Hour Conc. (ppm)	0.107	0.090	0.093	0.106	0.090
Nitrogen Dioxide					
1-Hour > 0.18 ppm (S)	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.051	0.056	0.059	0.056	0.053
Inhalable Particulates (PM-10)					
24-Hour > 50 $\mu g/m^3$ (S)	na	na	na	na	na
24-Hour > 150 $\mu g/m^3$ (F)	1	2	2	1	2
Max. 24-Hr. Conc. ($\mu g/m^3$)	165.2	170.0	261.4	591.6	372.11
Ultra-Fine Particulates (PM-2.5)					
24-Hour > 35 $\mu g/m^3$ (F)	0	0	4	1	0
Max. 24-Hr. Conc. ($\mu g/m^3$)	32.7	17.8	48.4	87.1	24.6

na = not available
S=State Standard
F=Federal Standard

Source:
Phelan Station: Ozone, NO
Victorville Station: PM-10, PM-2.5
data: www.arb.ca.gov/adam/

data: WWW.ARB.CA.GOV/ADAM/

AIR QUALITY IMPACTS

STANDARDS OF SIGNIFICANCE

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:

Table 4
MDAQMD Significance Thresholds

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

The project proposes to construct a new 1.5 MG reservoir which will be 104 feet in diameter and 24 feet high. Potential air quality impacts to the immediate project vicinity would derive almost exclusively during construction of the proposed structure.

ADDITIONAL INDICATORS

In its CEQA Handbook (2020), the MDAQMD states that any project is significant if it triggers or exceeds the most appropriate evaluation criteria shown in Table 4. The district will clarify upon request which threshold is most appropriate for a given project; in general, the emissions comparison (criteria number 1, below is sufficient:

1. Generates total emissions (direct and indirect) in excess of the MDAQMD thresholds;

2. Generates a violation of any ambient air quality standard when added to the local background;

3. Does not conform with the applicable attainment or maintenance plans;

4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) non-cancerous greater than or equal to 1.

Therefore, except in special circumstances, the CEQA Handbook notes that meeting the daily or annual emissions thresholds as shown in Table 4 is normally sufficient to demonstrate a less-than-significant impact.

CONSTRUCTION ACTIVITY IMPACTS

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

The project consists of construction of a new 1.5 MG reservoir on a site that contains an existing reservoir which is to remain. Construction duration is slightly over a year. For simplicity, work was assumed to start in the first quarter of 2024. Minimal grading is expected.

Construction was modeled in CalEEMod2022.1 using the following construction equipment and schedules shown in Table 5.

Table 5
Building Construction Equipment Fleet

Phase Name and Duration	Equipment
Grading 10 days	1 Grader
	1 Dozer
	1 Excavator
	1 Loader/Backhoe
Concrete Foundation 25 days	2 Mixers
	2 Pumps
	2 Loader/Backhoes
	1 Forklifts
Welded Steel Tank Construction 300 days	1 Jib Crane
	4 Generator Sets
	4 Welders
	2 Loader/Backhoes
Drainage and Piping 30 days	1 Trencher
	1 Roller
	1 Loader/Backhoe
	1 Forklift

Utilizing the indicated equipment fleets and durations shown in Table 5 the following highest daily construction emissions are calculated by CalEEMod and are shown in Tables 6 and 7.

Table 6
Construction Activity Emissions
Maximum Daily Emissions (pounds/day)

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5	CO_2
2024	1.6	13.1	14.2	<0.1	6.0	3.1	2,329.0.
2025	1.5	12.6	14.1	<0.1	0.5	0.4	2,329.0
MDAQMD Thresholds	137	137	548	137	82	82	548,000
Exceeds Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*	*No*

Table 7
Construction Activity Emissions
Annual Emissions (tons per year)

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5	CO_2
2024	0.2	1.6	1.7	<0.1	0.1	0.1	250.0
2025	0.1	0.6	0.7	<0.1	<0.1	<0.1	98.1
MDAQMD Thresholds	25	25	100	25	15	12	100,000
Exceeds Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*	*No*

As shown in Tables 6 and 7, daily and annual emissions would be less than their respective significance thresholds.

NEPA CONFORMITY

Thresholds of Significance

The U.S. Environmental Protection Agency published "Determining Conformity of General Federal Actions to State or Federal Implementation Plans; Final Rule," in the November 30, 1995, Federal Register (40 CFR Parts 6, 51, and 93). The 40 CFR Part 1 51.850(a) states that no department, agency, or instrumentality of the Federal Government shall engage in, support in any way, or provide financial assistance for, license to permit, or approve any activity which does not conform to an applicable state implementation plan (SIP). It is the responsibility of the Federal agency to determine whether a federal action conforms to the applicable implementation plan, before the action is taken. If the proposed project includes any federal funding, or if the project requires any federal permits, federal participation is not allowed unless a conformity determination has been made.

Conformity analysis under EPA guidelines can be undertaken to demonstrate that the combined emissions from direct and indirect (transportation, etc.) project-related emissions have been accurately incorporated into the applicable SIP. A simpler test, as outlined in 40CFR Part 93.153, is to demonstrate that these emissions are less than the *de minimis* thresholds which depend upon the seriousness of the current level of non-attainment for federal clean air standards.

The MDAQMD is the lead agency in the project area. Based upon MDAQMD attainment status, the following emissions levels are presumed evidence of SIP conformity:

VOC/ROG	-	non-attainment severe	25 tons/year
NOx	-	attainment	100 tons/year
PM-2.5	-	unclassified/attainment	100 tons/year
PM-10	-	non-attainment moderate	100 tons/year
CO	-	attainment	100 tons/year
SO_2	-	attainment	100 tons/year
Lead	-	attainment	25 tons/year

If the project-related emissions from construction and operations are less than the specified "*de minimis*" levels, the project is considered to be in conformance with the applicable SIP.

NEPA Analysis

The calculated maximum annual emissions were compared to the EPA *de minimis* emission thresholds that would allow for a federal conformity finding with Section 176c of the Clean Air Act.

Table 8
Annual Emissions
(tons/year)

	ROG	NOx	CO	SO_2	PM-10	PM-2.5
2024	0.2	1.6	1.7	<0.1	0.1	0.1
2025	0.1	0.6	0.7	<0.1	<0.1	<0.1
NEPA Threshold	25	100	100	100	100	100

As shown in Table 8, and summarized below, maximum annual emissions are much less than their associated *de minimis* thresholds. A formal SIP consistency analysis is not required.

Pollutant	Threshold	Max Project Emissions
VOC/ROG	25 tons/year	0.2 tons/year
NOx	100 tons/year	1.6 tons/year
PM-2.5	100 tons/year	0.1 tons/year
PM-10	100 tons/year	0.1 tons/year
CO	100 tons/year	1.7 tons/year
SO_2	100 tons/year	<0.1 tons/year

OPERATIONAL IMPACTS

There are no operational emissions associated with the project. There will be occasional maintenance but not on a regular basis.

CONSTRUCTION EMISSIONS MINIMIZATION

Short-term emissions are primarily related to the construction of the project and are recognized to be short in duration and without lasting impacts on air quality. With the enhanced dust control mitigation measures listed below, construction activity air pollution emissions are not expected to exceed MDAQMD CEQA thresholds for any pollutant. Regardless, the PM-10 non-attainment status of the Mojave Desert area requires that Best Available Control Measures (BACMs) be used as required by the Mojave AQMD Rule 403. Recommended construction activity mitigation includes:

Dust Control

- Apply soil stabilizers such as hay bales or aggregate cover to inactive areas.
- Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.
- Stabilize previously disturbed areas if subsequent construction is delayed.
- Water exposed surfaces and haul roads 3 times/day.
- Cover all stockpiles with tarps.
- Replace ground cover in disturbed areas quickly.
- Reduce speeds on unpaved roads to less than 15 mph.
- Trenches shall be left exposed for as short a time as possible.

GREENHOUSE GAS EMISSIONS

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

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

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

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

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

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

THRESHOLDS OF SIGNIFICANCE

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

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

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

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

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

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

The MDAQMD has published thresholds for Greenhouse Gases emissions (CO_2e). The daily threshold is 548,000 lbs/day and the annual threshold is 100,000 MT/year. Project related GHG emissions in excess of the guideline level are presumed to trigger a requirement for enhanced GHG reduction at the project level.

PROJECT RELATED GHG EMISSIONS GENERATION

Construction Activity GHG Emissions

During project construction, the CalEEMod2022.1 computer model predicts that the construction activities will generate the daily and annual CO_2e emissions identified in Table 9.

Table 9
Construction Emissions

	CO_2e Daily (pounds/day)	MT CO_2e Annual (tons/year)
2024	2,329.0.	250.0
2025	2,329.0	98.1
MDAQMD Threshold	548,000	100,000

CalEEMod Output provided in appendix.

GHG emissions are less than applicable thresholds.

CONSISTENCY WITH GHG PLANS, PROGRAMS AND POLICIES

The 2017 Scoping Plan focuses primarily on reducing GHG emissions that result from mobile sources, land use development, and stationary industrial sources. The project would not involve a considerable increase in new vehicle trips or land use changes that would result in an increase in vehicle trips, such as urban sprawl, and it does not include substantial new stationary industrial sources of GHG emissions. The 2017 Scoping Plan also recognizes that about two percent of the total energy consumption in California is related to water conveyance, treatment, and distribution, with 12% of the total energy used in the State related to water as a whole. As a result, the 2017 Scoping Plan states "As California looks to the future, meeting new demands and sustaining prosperity requires increased water conservation and efficiency, improved coordination and management of various water supplies, greater understanding of the water-energy nexus, and deployment of new technologies in drinking water treatment, groundwater remediation and recharge, and potentially brackish and seawater desalination."[1] By managing local water supplies through the installation of a new reservoir, the project would contribute to the furtherance of this goal of the 2017 Scoping Plan. Therefore, the project would not conflict with the 2017 Scoping Plan, and no impact would occur.

[1] CARB, 2017. California's 2017 Climate Change Scoping Plan. December 14, 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf (accessed 09/06/23).

CALEEMOD2022.1 COMPUTER MODEL OUTPUT

Phelan Reservoir Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Phelan Reservoir
Construction Start Date	1/9/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	6.20
Location	8300 Javelin Rd, Pinon Hills, CA 92372, USA
County	San Bernardino-Mojave Desert
City	Unincorporated
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5107
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Industrial	1.00	User Defined Unit	1.00	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.61	13.1	14.2	0.03	0.51	0.13	0.51	0.47	0.03	0.47	2,321	0.02	2,329
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.61	13.1	14.2	0.03	0.56	5.44	6.00	0.51	2.60	3.11	2,321	0.02	2,329
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.04	8.50	9.21	0.02	0.33	0.15	0.48	0.31	0.07	0.38	1,505	0.01	1,511
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.19	1.55	1.68	< 0.005	0.06	0.03	0.09	0.06	0.01	0.07	249	< 0.005	250

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.61	13.1	14.2	0.03	0.51	0.00	0.51	0.47	0.00	0.47	2,321	0.02	2,329
2025	1.53	12.6	14.1	0.03	0.45	0.13	0.45	0.42	0.03	0.42	2,321	0.02	2,329

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.61	13.1	14.2	0.03	0.56	5.44	6.00	0.51	2.60	3.11	2,321	0.02	2,329
2025	1.53	12.6	14.1	0.03	0.45	0.00	0.45	0.42	0.00	0.42	2,321	0.02	2,329
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.04	8.50	9.21	0.02	0.33	0.15	0.48	0.31	0.07	0.38	1,505	0.01	1,511
2025	0.38	3.08	3.60	0.01	0.11	0.01	0.12	0.10	< 0.005	0.10	590	0.01	592
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.19	1.55	1.68	< 0.005	0.06	0.03	0.09	0.06	0.01	0.07	249	< 0.005	250
2025	0.07	0.56	0.66	< 0.005	0.02	< 0.005	0.02	0.02	< 0.005	0.02	97.7	< 0.005	98.1

3. Construction Emissions Details

3.1. Grading (2024) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26	12.0	11.5	0.02	0.56	—	0.56	0.51	—	0.51	1,819	0.01	1,826
Dust From Material Movement	—	—	—	—	—	5.31	5.31	—	2.57	2.57	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.33	0.31	< 0.005	0.02	—	0.02	0.01	—	0.01	49.8	< 0.005	50.0
Dust From Material Movement	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.25	< 0.005	8.28
Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	132	< 0.005	133
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.72	< 0.005	3.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.62	< 0.005	0.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Foundation (2024) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	4.56	5.75	0.01	0.20	—	0.20	0.19	—	0.19	902	0.01	905
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.31	0.39	< 0.005	0.01	—	0.01	0.01	—	0.01	61.8	< 0.005	62.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.2	< 0.005	10.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Welded Tank Install (2024) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.61	13.1	14.2	0.03	0.51	—	0.51	0.47	—	0.47	2,321	0.02	2,329
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.61	13.1	14.2	0.03	0.51	—	0.51	0.47	—	0.47	2,321	0.02	2,329
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	7.86	8.49	0.02	0.31	—	0.31	0.28	—	0.28	1,390	0.01	1,395

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.43	1.55	< 0.005	0.06	—	0.06	0.05	—	0.05	230	< 0.005	231
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Welded Tank Install (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.53	12.6	14.1	0.03	0.45	—	0.45	0.42	—	0.42	2,321	0.02	2,329
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.53	12.6	14.1	0.03	0.45	—	0.45	0.42	—	0.42	2,321	0.02	2,329
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	2.81	3.14	0.01	0.10	—	0.10	0.09	—	0.09	518	< 0.005	520
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.51	0.57	< 0.005	0.02	—	0.02	0.02	—	0.02	85.7	< 0.005	86.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Drainage and Piping (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	3.32	4.90	0.01	0.12	—	0.12	0.11	—	0.11	748	0.01	751
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.40	< 0.005	0.01	—	0.01	0.01	—	0.01	61.5	< 0.005	61.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	10.2	< 0.005	10.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.83	0.00	0.00	0.13	0.13	0.00	0.03	0.03	146	< 0.005	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.9	< 0.005	11.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.81	< 0.005	1.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/10/2024	1/23/2024	5.00	10.0	Grading
Foundation	Building Construction	1/24/2024	2/27/2024	5.00	25.0	Foundation
Welded Tank Install	Building Construction	3/1/2024	4/24/2025	5.00	300	Install Welded Tank
Drainage and Piping	Trenching	5/1/2025	6/11/2025	5.00	30.0	Drainage and Piping

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Foundation	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Foundation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Foundation	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Foundation	Pumps	Diesel	Average	2.00	6.00	11.0	0.74
Welded Tank Install	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Welded Tank Install	Cranes	Diesel	Average	1.00	4.00	367	0.29
Welded Tank Install	Generator Sets	Diesel	Average	4.00	8.00	14.0	0.74
Welded Tank Install	Welders	Diesel	Average	4.00	8.00	46.0	0.45
Drainage and Piping	Trenchers	Diesel	Average	1.00	6.00	40.0	0.50

Drainage and Piping	Rollers	Diesel	Average	1.00	6.00	36.0	0.38
Drainage and Piping	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Drainage and Piping	Rough Terrain Forklifts	Diesel	Average	1.00	6.00	96.0	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Foundation	—	—	—	—
Foundation	Worker	0.00	18.5	LDA,LDT1,LDT2
Foundation	Vendor	0.00	10.2	HHDT,MHDT
Foundation	Hauling	0.00	20.0	HHDT
Foundation	Onsite truck	—	—	HHDT
Welded Tank Install	—	—	—	—
Welded Tank Install	Worker	0.00	18.5	LDA,LDT1,LDT2
Welded Tank Install	Vendor	0.00	10.2	HHDT,MHDT
Welded Tank Install	Hauling	0.00	20.0	HHDT
Welded Tank Install	Onsite truck	—	—	HHDT
Drainage and Piping	—	—	—	—
Drainage and Piping	Worker	10.0	18.5	LDA,LDT1,LDT2
Drainage and Piping	Vendor	—	10.2	HHDT,MHDT
Drainage and Piping	Hauling	0.00	20.0	HHDT

Drainage and Piping	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

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

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	7.50	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

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

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

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

2025	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	31.3	annual days of extreme heat
Extreme Precipitation	7.25	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth

Wildfire	50.5	annual hectares burned

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

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

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

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3

Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	95.3
AQ-PM	48.4
AQ-DPM	3.98
Drinking Water	37.3
Lead Risk Housing	19.6
Pesticides	0.00
Toxic Releases	24.9
Traffic	25.2

Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	35.6
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	55.0
Cardio-vascular	65.1
Low Birth Weights	63.0
Socioeconomic Factor Indicators	—
Education	43.8
Housing	32.3
Linguistic	18.1
Poverty	77.1
Unemployment	77.8

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	49.33915052
Employed	7.955857821
Median HI	40.42089054
Education	—
Bachelor's or higher	8.995252149
High school enrollment	1.488515334

Preschool enrollment	89.5547286
Transportation	—
Auto Access	69.12613884
Active commuting	1.039394328
Social	—
2-parent households	91.53086103
Voting	56.16578981
Neighborhood	—
Alcohol availability	92.23662261
Park access	4.555370204
Retail density	14.16655973
Supermarket access	19.64583601
Tree canopy	0.603105351
Housing	—
Homeownership	72.37264211
Housing habitability	86.56486591
Low-inc homeowner severe housing cost burden	57.590145
Low-inc renter severe housing cost burden	81.98383164
Uncrowded housing	73.51469267
Health Outcomes	—
Insured adults	58.50121904
Arthritis	0.0
Asthma ER Admissions	39.5
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0

Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	23.4
Cognitively Disabled	26.7
Physically Disabled	9.2
Heart Attack ER Admissions	32.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	65.8
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.2
SLR Inundation Area	0.0
Children	61.0
Elderly	40.3
English Speaking	82.1
Foreign-born	5.0
Outdoor Workers	16.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	98.2
Traffic Density	31.8

Traffic Access	23.0
Other Indices	—
Hardship	47.9
Other Decision Support	—
2016 Voting	72.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	29.0
Healthy Places Index Score for Project Location (b)	31.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	reservoir project, no operational emissions
Construction: Construction Phases	unusual use

Construction: Off-Road Equipment	unique use and supporting equipment fleet composition

APPENDIX 2

Biological Resources Assessment, Jurisdictional Delineation

For

Phelan Piñon Hills Community Services District Reservoir 6A-2 *Enter Project Location*

April 30, 2024

Contents

Executive Summary

HDR, Inc. was retained by Tom Dodson and Associates to conduct a Biological Resources Assessment, Jurisdictional Delineation for a proposed 1.5-million-gallon (MG) reservoir at the District's existing Reservoir 6A site. The proposed 1.5 MG Reservoir 6A-2 is located at southern terminus of Javelin Road, with Snow Line Drive as the nearest cross street (Assessor's Parcel Numbers 3037-071-06 and 3037-071-08 and is mapped on the USGS 7.5-minute quadrangle "Phelan" in Section 26, Township 3 North and Range 7 West, San Bernardino Meridian. The approximate GPS coordinates of the project site are 34.402184°, -117.572605°. See Figures 1 and 2 for Regional and Site Location Maps.

In December 2023, HDR's biologists conducted a Biological Resources Assessment survey to address potential effects of the proposed reservoir construction on designated Critical Habitats and/or special status species. The results of the Biological Resources Assessment are intended to provide sufficient baseline information to the District and, if required, to City and/or County planning officials as well as any potentially interested federal and state regulatory agencies to determine if the proposed project is likely to result in any adverse effects to sensitive biological resources and, if necessary, to identify mitigation measures to offset those effects.

Data regarding biological resources in the Development Area vicinity were obtained through literature review and field investigation. Available databases and documentation relevant to the Development Area were reviewed for documented occurrences of sensitive species that could potentially occur in the Development Area vicinity, including the U.S. Fish and Wildlife Service designated Critical Habitat online mapper and Information for Planning and Consultation System, as well as the most recent versions of the California Natural Diversity Database (CNDDB) and California Native Plant Society Electronic Inventory.

The result of the field survey was that no state or federally listed species were identified within the Development Area and the Development Area is not within or adjacent any federal Critical Habitat. The entire reservoir site is approximately 2.26 acres and is completely fenced. The entire work area occurs within this fenced area and encompasses approximately 1.42 acres. No modifications to the existing Reservoir 6A are proposed. The fenced area is predominantly unvegetated and disturbed. Small area with sparse native plant species occurs on the sloped area and along the fence line. See Figure 3 for Areal Site View, and Site photographs.

The database searches identified Crotch bumble bee (State Candidate Endangered); Desert tortoise (Federal Threatened, and State Endangered), Southwestern Pond Turtle (Federal Candidate Threatened), and Monarch butterfly (Federal Candidate). There is no suitable habitat within the project site for any of these species. Further the site does not occur with Designated Critical Habitat. Therefore, "take" authorization for Proposed project area will not be required.

The Site was also assessed for the presence of state and/or federal jurisdictional waters that may potentially be impacted by the Development Area. The jurisdictional waters assessment was conducted in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual, Jurisdictional Determination using the Instructional Guidebook, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region and the Environmental Protection Agency and the Department of the Army's "2023 Amended Rule: Definition of 'Waters of the United States,'" effective September 8,2023. The result of the jurisdictional waters assessment is that there are no wetland or non-wetland jurisdictional waters within the Subject Parcel. Therefore, the proposed project will not impact any jurisdictional waters of the United States or State Waters. No state or federal jurisdictional waters permitting will be required under current regulations.

This report describes biological resources, identifies state and/or federally listed species with potential to occur on site, presents representative site photographs. According to protocol and standard practices, the results of the Biological Resource Assessment will remain valid for the period of one year (February 2025), after which time, if the site has not been disturbed in the interim, another survey may be required to determine the persisting absence of special status species and to verify environmental conditions on site. Regardless of survey results and conclusions given herein, if any state or federally listed species are found on site during Development Area-related work activities, all activities likely to affect the animal(s) should cease immediately and regulatory agencies should be contacted to determine appropriate management actions.

1. Introduction

The Proposed 1.5-million-gallon (MG) reservoir at the existing Reservoir 6A site. Therefore, on behalf of Tom Dodson and Associates (TDA) HDR, Inc. (HDR) has prepared this Biological Resources Assessment (BRA) report for the proposed reservoir construction. The BRA fieldwork was conducted by biologist Lisa Patterson in December 2023. The purpose of the BRA survey was to address potential effects of the proposed reservoir construction on designated Critical Habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA), as well as any species otherwise designated as sensitive by the California Department of Fish and Wildlife (CDFW [formerly California Department of Fish and Game]) and/or the California Native Plant Society (CNPS).

In December 2023, HDR's biologists conducted a Biological Resources Assessment survey to address potential effects of the proposed reservoir construction on designated Critical Habitats and/or special status species. The results of the Biological Resources Assessment are intended to provide sufficient baseline information to the District and, if required, to City and/or County planning officials as well as any potentially interested federal and state regulatory agencies to determine if the proposed project is likely to result in any adverse effects to sensitive biological resources and, if necessary, to identify mitigation measures to offset those effects.

The reservoir construction area was assessed for sensitive species known to occur locally. Attention was focused on those state and/or federally listed as threatened or endangered species and California Fully Protected species that have been documented in the vicinity of the existing reservoir site, whose habitat requirements are present within or adjacent to the Development Area. Results of the Biological Resource Assessment are intended to provide sufficient baseline information to the Development Area Proponent and, if required, to City, County or other local government planning officials and federal and state regulatory agencies, including the U.S. Fish and Wildlife Service (USFWS) and CDFW, respectively, to determine if the Development Area is likely to result in any adverse effects on sensitive biological resources and to identify mitigation measures to offset those effects.

In addition to the BRA survey, the Development Area was assessed for the presence of state and/or federal jurisdictional waters potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, and CDFW under Section 1600 of the California Fish and Game Code (FGC), respectively.

Data regarding biological resources in the Development Area vicinity were obtained through literature review and field investigation. Available databases and documentation relevant to the Development Area were reviewed for documented occurrences of sensitive species that could potentially occur in the Development Area vicinity, including the U.S. Fish and Wildlife Service designated Critical Habitat online mapper and Information for Planning and Consultation System, as well as the most recent versions of the California Natural Diversity Database (CNDDB).

1.1 Development Area Description

The District proposes to install the new reservoir south of the existing Reservoir 6A. The entire District's site, approximately 2.26 acres if fenced and is encircled by access roads. The site entire site has been maintained and is predominantly free of vegetation. Several areas are utilized for materials storage and staging. There is another large reservoir owned by Sheep Creek Water Company directly to the south which is also graded and fenced. All

material and equipment for the Reservoir 6A-2 will be accessed along the existing access road, and all construction activities will be confined to the fenced areas.

1.2 Environmental Setting

Reservoir 6A and the proposed Reservoir 6A-2 are in the western portion of the Mojave Desert, west side of the Mojave River at the base of the northern site of the transverse San Gabriel Mountain range. The Phelan-Piñon Hills area is subject to both seasonal and annual variations in temperature and precipitation. Average annual maximum temperatures peak at 98.1 degrees Fahrenheit (° F) in July and fall to an average annual minimum temperature of 29.2° F in January. Average annual precipitation is greatest from November through March and reaches a peak in February (1.05 inches). Precipitation is lowest in the month of June (0.04 inches). Annual total precipitation averages 5.52 inches.

The topography of the Project Area ranges from relatively flat on the eastern side to hilly on the western side. Elevation within the proposed Project Area is approximately 4,600 feet above mean sea level (amsl).

Hydrologically, the Project Area is situated within an unnamed Hydrologic Sub-Area (HSA 628.20). This HSA comprises a 556,821-acre drainage area, within the larger Mojave Watershed (HUC 18090208). The Mojave River is the major hydrogeomorphic feature within the Mojave Watershed.

Soils within the Project Area are solely comprised of The Bull Trail Typic Xerothents association consisting of deep, well drained soils that formed in material on alluvial fans and terraces. Bull Trail soils are gently sloping to moderately steep.

Land use within the Project Area and surrounding vicinity consists of residential, commercial, and open space. The Project site abuts the existing Sheep Creek Water Company's reservoir, and is surrounded by large lot rural residential. Habitat types within the surrounding areas include disturbed creosote shrub alliance with scattered Joshua trees. Please refer to the attached Site Photographs at the end of this document for representative photos of the existing conditions within the Project Area at the time of survey.

2. Assessment Methodology

2.1 Biological Resources Assessment

Data regarding biological resources in the Development Area vicinity were obtained through literature review, desktop evaluation and field investigation. Prior to performing the field survey, available databases, and documentation relevant to the Development Area were reviewed for documented occurrences of sensitive species that could potentially occur in the Development Area vicinity. The USFWS designated Critical Habitat online mapper, USFWS threatened and endangered species occurrence data overlay, and the most recent versions of the California Natural Diversity Database (CNDDB) and California Native Plant Society Electronic Inventory (CNPSEI) databases were searched for sensitive species data in the *Phelan,* USGS 7.5-Minute Series Quadrangle. These databases contain records of reported occurrences of state and federally listed species or otherwise sensitive species and habitats that may occur within the vicinity of the Development Area site (approximately 3 miles). Other available technical information on the biological resources of the area was also reviewed including previous surveys and recent findings.

2.1.1 Biological Resources Assessment Field Survey

Biologist Lisa Patterson conducted a biological resources assessment of the Development Area on December 5, 2023. The field survey and floristic botanical field survey consisted of a pedestrian survey that encompassed the entire Subject Parcel and immediate surrounding area where feasible and appropriate. Wildlife species were detected during field surveys by sight, calls, tracks, scat, and/or other sign. In addition to species observed, expected wildlife usage of the site was determined based on known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of the faunal species survey was to identify potential habitat for special status wildlife that may occur within the Development Area vicinity.

2.2 Jurisdictional Delineation

On December 5, 2023, Ms. Patterson also evaluated the Subject Parcel for the presence of riverine/riparian/wetland habitat and jurisdictional waters, i.e. Waters of the U.S. (WOTUS), as regulated by the USACE and RWQCB, and/or jurisdictional streambed and associated riparian habitat as regulated by the CDFW. Prior to the field visit, aerial photographs of the Development Area were viewed to identify drainage features within the survey area as indicated from topographic changes, blue-line features, or visible drainage patterns. Environmental Protection Agency (EPA) Water Program “Waters GeoViewer 2.0” and “Google Earth Pro” data layers were also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site, and to assess connectivity to a Traditionally Navigable Water or a Relatively Permanent Water. Similarly, the United States Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) “Web Soil Survey” was reviewed for soil types found within the Development Area to identify the soil series in the area and to check these soils to determine whether they are regionally identified as hydric soils. Downstream connectivity of waterways (if present) were reviewed on Google Earth Pro aerial photographs and topographic maps to determine jurisdictional status. The lateral extent of potential USACE jurisdiction was measured at the Ordinary High Water Mark (OHWM) in accordance with regulations set forth in 33CFR part 328 and the USACE guidance documents listed below:

2.2.1 *USACE – Corps of Engineers Wetlands Delineation Manual, Wetlands Research Program Technical Report Y-87-1 (on-line edition), January 1987 - Final Report.*

2.2.2 *USACE – Jurisdictional Determination Form Instructional Guidebook (JD Form Guidebook), May 30, 2007.*

2.2.3 *USACE – A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (A Delineation Manual), August 2008.*

2.2.4 *USACE – Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), September 2008.*

2.2.5 *USACE – Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (Minimum Standards), January 2016.*

2.2.6 *The Environmental Protection Agency (EPA) and the Department of the Army's "Amended 2023 WOTUS Rule: Definition of 'Waters of the United States,'" September 1, 2020 effective September 8, 2023.*

2.3 *Jurisdictional Waters of the US: Waters and Wetlands*

To be considered a jurisdictional Waters of the United State under the CWA, Section 404 a feature must fall within one of the Categories below:

(a)(1) Traditionally Navigable Waters

(i) Traditional Navigable Waters: Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
(ii) Territorial Seas
(iii) Interstate Waters

(a)(2) Impoundments of Jurisdictional Waters

(a)(3) Tributaries: Tributaries of waters identified in paragraph (a)(1) or (2) that are relatively permanent, standing, or continuously flowing bodies of water.

(a)(4) Adjacent Wetlands: Wetlands adjacent to the following waters:

(i) Waters identified in Paragraphs (a)(1), (a)(2), or (a)(3) WOTUS and have a continuous surface connection to those waters.

(a)(5) Additional Waters: Intrastate Lakes and ponds not identified in (a)(1) through (4).that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to waters identified in (a)(1) or (a)(3).

To be considered a *jurisdictional wetland* under the federal CWA, Section 404, an area must possess three (3) wetland characteristics: hydrophytic *vegetation*, hydric *soils*, and wetland *hydrology, and be adjacent to an (a)(1), (2), or(3) Water as defined in the Amended Waters Rule*.

► *Hydrophytic vegetation*: Hydrophytic vegetation is plant life that grows, and is typically adapted for life, in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, and herb layers) is considered hydrophytic. Hydrophytic species are those included on the 2018 National Wetland Plant Lists for the Arid West Region (USACE 2018). Each

species on the lists is rated with a wetland indicator category, as shown in Table 1. To be considered hydrophytic, the species must have *wetland indicator status*, i.e., be rated as OBL, FACW or FAC.

Table 1. Wetland Indicator Vegetation Categories

Category	Probability
Obligate Wetland (OBL)	Almost always occur in wetlands (estimated probability >99%)
Facultative Wetland (FACW)	Usually occur in wetlands (estimated probability 67 to 99%)
Facultative (FAC)	Equally likely to occur in wetlands and non-wetlands (estimated probability 34 to 66%)
Facultative Upland (FACU)	Usually occur in non-wetlands (estimated probability 67 to 99%)
Obligate Upland (UPL)	Almost always occur in non-wetlands (estimated probability >99%)

► *Hydric Soil*: Soil maps from the USDA-NRCS Web Soil Survey (USDA 2023) were reviewed for soil types found within the Development Area. Hydric soils are saturated or inundated long enough during the growing season to develop anaerobic conditions that favor growth and regeneration of hydrophytic vegetation. There are several indirect indicators that may signify the presence of hydric soils including hydrogen sulfide generation, the presence of iron and manganese concretions, certain soil colors, gleying, and the presence of mottling. Generally, hydric soils are dark in color or may be gleyed (bluish, greenish, or grayish), resulting from soil development under anoxic (without oxygen) conditions. Bright mottles within an otherwise dark soil matrix indicate periodic saturation with intervening periods of soil aeration. Hydric indicators are particularly difficult to observe in sandy soils, which are often recently deposited soils of flood plains (entisols) and usually lack sufficient fines (clay and silt) and organic material to allow use of soil color as a reliable indicator of hydric conditions. Hydric soil indicators in sandy soils include accumulations of organic matter in the surface horizon, vertical streaking of subsurface horizons by organic matter, and organic pans.

The hydric soil criterion is satisfied at a location if soils in the area can be inferred or observed to have a high groundwater table, if there is evidence of prolonged soil saturation, or if there are any indicators suggesting a long-term reducing environment in the upper part of the soil profile. Reducing conditions

are most easily assessed using soil color. Soil colors were evaluated using the Munsell Soil Color Charts (Munsell 2000). Soil pits are dug (when necessary) to an approximate depth of 16-20 inches to evaluate soil profiles for indications of anaerobic and redoximorphic (hydric) conditions in the subsurface.

► *Wetland Hydrology*: The wetland hydrology criterion is satisfied at a location based upon conclusions inferred from field observations that indicate an area has a high probability of being inundated or saturated (flooded, ponded, or tidally influenced) long enough during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE 1987 and USACE 2008).

Evaluation of CDFW jurisdiction followed guidance in the Fish and Game Code and *A Review of Stream Processes and Forms in Dryland Watersheds* (CDFW, 2010). Specifically, CDFW jurisdiction would occur where a stream has a definite course showing evidence of where waters rise to their highest level and to the extent of associated riparian vegetation.

3. Results

3.1 Existing Biological and Physical Conditions

The Project survey site is disturbed land completely fenced and developed with access roads, existing reservoir, and operation/maintenance facilities and equipment. There is no extant native habitat occurring on the site. The surrounding areas support a mixed shrub community typical of the area and generally characterized by native shrub vegetation with some disturbance from off-highway vehicles and the dumping of trash, and transient encampments. Dominant species are creosote bush (Larrea tridentata), burrobush (Franseria dumosa), rabbit brush (Chrysothamnus depressus), indian rice grass (Oryzopsis hymenoides) and Russian thistle (Salsola sp.). Annuals observed during the survey included fiddleneck (Amsinckia sp.), brome (Bromus sp.), filaree Storksbill (Erodium sp.), and schismus (Schismus barbatus). Human disturbances associated with the surrounding developments.

3.1.1 Habitat

The project area does not support any native habitats. The site has been cleared of vegetation, and only scattered individual of annual species occurs in the proposed construction area.

3.1.2 Wildlife

Amphibians and Reptiles

No amphibian species were observed or otherwise detected within the Subject Parcel during the reconnaissance- level survey and none are expected to occur, due to the dry, upland nature of the site and absence of nearby water sources. Reptile species observed within the Subject Parcel during the reconnaissance-level field survey include western side-blotched lizard (*Uta stansburiana elegans*).

Birds

Birds were the most observed wildlife group during survey and species observed or otherwise detected in the Development Area during the reconnaissance-level survey include: red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), and white-crowned sparrow (*Zonotrichia leucophrys*).

Mammals

Identification of mammals within the Subject Parcel was generally determined by physical evidence rather than direct visual identification. This is because 1) many of the mammal species that potentially occur onsite are nocturnal and would not have been active during the survey and 2) no small mammal trapping was performed.

The only mammal species observed was California ground squirrel (*Otospermophilus beecheyi*).

Special Status Species and Habitats

According to the CNDDB, 6 sensitive species (2 plant species, 4 animal species) have been documented in the *Phelan,* USGS 7.5-Minute Series Quadrangle. This list of sensitive species includes any state and/or federally listed threatened or endangered species, or candidates, California Fully Protected species,

CDFW designated Species of Special Concern (SSC), and otherwise Special Animals. “Special Animals” is a general term that refers to all the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of “species at risk” or “special status species.” The CDFW considers the taxa on this list to be those of greatest conservation need.

Only one state candidate species documented within the *Phelan* quad. There are no known occurrences within 3 miles of the proposed reservoir site.

The federal iPAC report identifies the potential for 4 listed or candidate species however non-are mapped within 13 miles of the site.

3.1.3 Special Status Species

No state and/or federally listed threatened or endangered species, or other sensitive species were observed within the Development Area during the reconnaissance-level field survey. An analysis of the likelihood for occurrence of all CNDDB sensitive species documented in the *Murrieta,* quad is provided in Appendix A. This analysis considers species’ range as well as documentation within the vicinity of the Subject Parcel and includes the habitat requirements for each species and the potential for their occurrence on site, based on required habitat elements and range relative to the current site condition.

California Condor (Gymnogyps californianus) Endangered (Federal)

The federally listed as endangered he California condor lives in rocky shrubland, coniferous forest, and oak savanna.[1] They are often found near cliffs or large trees, which they use as nesting sites. Individual birds have a huge range and have been known to travel up to 250 km (160 mi) in search of carrion. Wild condors maintain a large home range, often traveling 250 km (160 mi) a day in search of carrion. They prefer to feast on large, terrestrial mammalian carcasses such as deer, goats, sheep, donkeys, horses, pigs, cougars, bears, or cattle.

> *Findings*: This species has not been documented within or adjacent the Subject Parcel. Furthermore, there is no suitable foraging, roosting, or nesting habitat on the site. No large carrion occurs, nor would it be left on site. Therefore, California Condor is considered absent from the Subject Parcel at the time of survey and the Development Area will not impact this species.

Mojave Desert Tortoise – Endangered (State), Threatened (Federal)

The Mojave desert tortoise is a State listed Endangered and federally listed threatened species. The species had experienced significant population declines throughout much of its range prior to becoming listed as threatened under the federal ESA in 1990. The Mojave desert tortoise has continued to decline throughout its range due to threats that include habitat loss, degradation and fragmentation, domestic grazing, predation, collections, and increased mortality rates. The Mojave desert tortoise was uplisted under the California Endangered Species Act from threatened to endangered in April 2024.

The Mojave desert tortoise is primarily found in creosote bush scrub and creosote bush scrub alliances, but is also occurs in other desert scrub habitats including succulent scrub, cheesebush scrub, blackbush scrub, hop-sage scrub, shadscale scrub, microphyll woodland, Joshua tree woodland and Mojave

saltbush-allscale scrub plant communities. Desert tortoise primarily forage on annual forbs, but also perennials (e.g., cacti and grasses). They prefer surfaces covered with sand and fine gravel versus course gravel, pebbles, and desert pavement. Friable soil is important for digging burrows. Desert tortoise are most often found on level or sloped ground where the substrate is firm but not too rocky. Tortoise burrows are typically found at the base of shrubs, in the sides of washes and in hillsides. Because a single tortoise may have many burrows distributed throughout its home range, it is not possible to predict exact numbers of individuals on a site based upon burrow numbers.

> Findings: According to the USFWS desert tortoise Critical Habitat overlay, the Project site is not within any USFWS designated desert tortoise Critical Habitat. The site is fenced and completely disturbed. The reservoir site does not support any potentially suitable and historically occupied desert tortoise habitat. Based on the lack of suitable habitat type and vegetation density, the Reservoir Site does not support any suitable Mojave desert tortoise habitat.
>
> The result of the protocol desert tortoise survey was that no evidence of desert tortoise presence was found in the survey area. No desert tortoise individuals or sign including desert tortoise burrows, scat, carcasses or other sign were observed. Therefore, Mojave desert tortoise are considered absent from the Reservoir Site at the time of survey and the Project is not likely to adversely affect this species.

Southwestern Pond Turtle (Actinemys pallida) – Proposed Threatened (Federal)

The southwestern pond turtle is proposed for federal listed as threatened. This is an aquatic turtle and can be found in permanent bodies of water.

> *Findings*: There is no aquatic habitat on or near the reservoir site. Therefore this species is absent from the site.

Monarch Butterfly (Danaus plexippus) – Candidate (Federal)

The Monarch Butterfly is a candidate for federal listing. The range of the western and eastern populations expands and contracts depending upon the season. The range differs between breeding areas, migration routes, and winter roosts. In the Americas, the monarch ranges from southern Canada through northern South America. Their wintering habitat typically provides access to streams, plenty of sunlight (enabling body temperatures that allow flight), and appropriate roosting vegetation, and is relatively free of predators. Overwintering, roosting butterflies have been seen on basswoods, elms, sumacs, locusts, oaks, osage-oranges, mulberries, pecans, willows, cottonwoods, and mesquites. Breeding monarch habitats can be found in agricultural fields, pasture land, prairie remnants, urban and suburban residential areas, gardens, trees, and roadsides – anywhere there is access to larval host plants, milkweed (*Asclepias sp*

> *Findings*: This species has not been documented within the Subject Parcel there is no suitable roosting or overwintering habitat within the parcel. Therefore, this species is absent from the project area.

Crotch Bumble Bee (Bombus crotchii) – State Candidate Endangered

Crotch's bumblebee inhabits grassland and scrub areas, requiring a hotter and drier environment than other bumblebee species, and can only tolerate a very narrow range of climatic conditions. Crotch's bumblebee nests underground, often in abandoned rodent dens. It is a nonmigratory species of bumblebee. Its food plants include milkweeds, dustymaidens, lupines, medics, phacelias, and sages

> *Findings*: This species has not been documented near the project site. Further, the site is completely disturbed and there is a lack of food sources. Therefore, this species is considered absent from the project area.

Special Status Habitats

The Subject Parcel does not contain any sensitive habitats, including any USFWS designated Critical Habitat for any federally listed species. The nearest Critical Habitat unit is greater than 3 miles northwest of the Subject Parcel.

> *Findings:* The Development Area will not result in any loss or adverse modification of USFWS designated Critical Habitat, or any other special status habitats.

3.2 Jurisdictional Delineation

The Subject Parcel is within the French Hydrologic Sub-Area (HSA 902.33). The French HSA comprises a 20,685-acre drainage area, within the larger Santa Margarita Watershed (HUC 18070302). The Santa Margarita Watershed is bound on the north by the San Jacinto and Whitewater River Watersheds, on the east by the San Felipe Creek Watershed, on the south by the San Luis Rey-Escondido Watershed, and on the west by the Aliso-San Onofre Watershed. The Santa Margarita Watershed encompasses a portion of the Santa Ana Mountains to the west and the northernmost portion of the Peninsular Range to the east, and is approximately 741 square miles in area. The Santa Margarita River is the major hydrogeomorphic feature within the Santa Margarita Watershed. The nearest tributary to the Santa Margarita River is Murrieta Creek, which flows southward through the Murrieta and Temecula Valleys, approximately 4.15 miles southwest of the Subject Parcel at its closest point.

Waters of the U.S.

The USACE has authority to permit the discharge of dredged or fill material in WOTUS under Section 404 of the CWA. WOTUS are defined as:

“All waters used in interstate or foreign commerce; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent and ephemeral streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, where the use, degradation, or destruction of which could affect interstate commerce; impoundments of these waters; tributaries of these waters; or wetlands adjacent to these waters” (Section 404 of the CWA; 33 CFR 328.3 (a).

Therefore, CWA jurisdiction exists over the following Categories:

(a)(1) Traditionally Navigable Waters

(i) Traditional Navigable Waters: Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

(ii) Territorial Seas

(iii) Interstate Waters

(a)(2) Impoundments of Jurisdictional Waters

(a)(3) Tributaries: Tributaries of waters identified in paragraph (a)(1) or (2) that are relatively permanent, standing, or continuously flowing bodies of water.

(a)(4) Adjacent Wetlands: Wetlands are areas meeting all three wetland parameters that are adjacent to jurisdictional (a)(1), (a)(2), or (a)(3) WOTUS and have a continuous surface connection to those waters.

(a)(5) Additional Waters: Intrastate Lakes and ponds not identified in (a)(1) through (4).that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to waters identified in (a)(1) or (a)(3).

There are no wetland or non-wetland WOTUS within site.

State Lake/Streambed

There are waters of the State within site.

4. Conclusions and Recommendations

4.1 Sensitive Biological Resources

A BRA survey of the Subject Parcel was conducted in December of 2023 to identify potential habitat for special status wildlife within the Development Area. No special status wildlife species, including any state and/or federally listed threatened or endangered species, were observed or otherwise detected within the Project Site during the reconnaissance-level assessment survey. There is no suitable habitat for desert tortoise, California Condor, southwestern pond turtle, Crotch's bumble bee, or Monarch butterfly.

The reservoir site does not contain any sensitive habitats, including any USFWS designated Critical Habitat for any federally listed species, and the Development Area will not result in any loss or adverse modification of Critical Habitat.

Nesting Birds

The habitat within the Development Area is suitable to support nesting birds. Most native bird species are protected from unlawful take by the MBTA (Appendix D). In December 2017, the Department of the Interior (DOI) issued a memorandum concluding that the MBTA's prohibitions on take apply "[…] only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs" (DOI 2017).

The State of California provides additional protection for native bird species and their nests in the FGC (Appendix D). Bird nesting protections in the FGC include the following (Sections 3503, 3503.5, 3511, 3513 and 3800):

- Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.
- Section 3503.5 prohibits the take, possession, or needless destruction of any nests, eggs, or birds in the orders Falconiformes (new world vultures, hawks, eagles, ospreys, and falcons, among others), and Strigiformes (owls).
- Section 3511 prohibits the take or possession of Fully Protected birds.
- Section 3513 prohibits the take or possession of any migratory nongame bird or part thereof, as designated in the MBTA. To avoid violation of the take provisions, it is generally required that Development Area- related disturbance at active nesting territories be reduced or eliminated during the nesting cycle.
- Section 3800 prohibits the take of any non-game bird (i.e., bird that is naturally occurring in California that is not a gamebird, migratory game bird, or fully protected bird).

In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season, which is generally February 1st through August 31st. However, if all work cannot be conducted outside of nesting season, the following is recommended:

- To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist should conduct pre-construction nesting bird surveys prior to Development Area-related disturbance to suitable nesting areas to identify any active nests. If no active nests are found, no further action would be required. If an active nest is found, the biologist should set appropriate no-work buffers around the nest which would be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nest(s) and buffer zones should be field checked weekly by a qualified biological monitor. The approved no-work buffer zone should be clearly marked in the field, within which no disturbance activity should commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.

4.2 Jurisdictional Waters

In addition to the BRA and focused botanical field survey, the Subject Parcel was also assessed for the presence of any state and/or federal jurisdictional waters. The result of the jurisdictional waters assessment is that there are channels or ponded features withing the reservoir site. Therefore, no permitting with the CDFW, RWQCB, or USACOE will be required.

5. References

Calflora: Information on California plants for education, research and conservation. [web application]. 2023.

Berkeley, California: The Calflora Database [a non-profit organization]. Available at: http://www.calflora.org/; accessed 2 June 2023.

California Burrowing Owl Consortium. 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. California Department of Fish and Game. 1995. Staff report on burrowing owl mitigation. Memo from C.F.

Raysbrook, Interim Director to Biologist, Environmental Services Division, Department of Fish and Game.Sacramento, CA.

California Department of Fish and Game (CDFG). 2010. A Review of Stream Processes and Forms in Dryland Watersheds. Prepared by Kris Vyverberg, Senior Engineering Geologist, Conservation Engineering. December 2010.

California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency. March 7, 2012.

California Native Plant Society, Rare Plant Program. 2023. Inventory of Rare and Endangered Plants of California [online edition, v8-03 0.45]. Available at: http://www.rareplants.cnps.org; accessed 2 June 2023.

California Natural Diversity Database (CNDDB). 2023. *RareFind 5* [Internet]. California Department of Fish and Wildlife, Version 5.2.14. Available at: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data; accessed 2 June 2023.

County of Riverside, Environmental Programs Department. Revised August 17, 2006. Burrowing Owl Survey Instructions for Western Riverside Multiple Species Habitat Conservation Plan Area, March 29, 2006.

County of Riverside, Land Information System. APN 900-030-036 search for site-specific information and maps. Dudek & Associates, Inc. June 17, 2003. Riverside County Integrated Development Area. Final Western Riverside County

Multiple Species Habitat Conservation Plan. Volume I, The Plan, and II.

Dudek & Associates, Inc. June 17, 2003. Riverside County Integrated Development Area. Final Western Riverside County Multiple Species Habitat Conservation Plan. Volumes II-A through E, The Reference Document.

Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1,

U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.

Griffith, G.E., Omernik, J.M., Smith, D.W., Cook, T.D., Tallyn, E., Moseley, K., and Johnson, C.B., 2016, Ecoregions of California (poster): U.S. Geological Survey Open-File Report 2016–1021, with map, scale 1:1,100,000, http://dx.doi.org/10.3133/ofr20161021; accessed 2 June 2023.

Goldwasser, S. 1981. Habitat requirements of the Least Bell's Vireo. Calif. Dept. Fish & Game, Nongame Wildlife Investigations Rep. 81.09, Proj. E-W4, Job IV-38.1. Nongame Bird and Mammal Sec. Rep. 81.09.

Jepson Flora Development Area (eds.) 2023, Jepson eFlora, http://ucjeps.berkeley.edu/eflora/; accessed 2 June 2023.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

National Wetlands Inventory (NWI). 2023. U.S. Fish and Wildlife Service Wetlands Mapper. Available online at: https://www.fws.gov/wetlands/data/mapper.html; accessed 2 June 2023.

Natural Resources Conservation Service (NRCS). 2023. Web Soil Survey. Map Unit Descriptions. Riverside County Area, California. Available at: http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm; accessed 2 June 2023.

Sawyer, John O., Keeler-Wolf, Todd, and Evens, Julie M. 2009. A manual of California vegetation. Second Edition.

California Native Plant Society, Sacramento, California, USA. 1,300 pages.

U.S. Army Corps of Engineers (USACE). 2001. USACE Minimum Standards for Acceptance of Preliminary Wetlands Delineations, November 30, 2001 (Minimum Standards).

U.S. Army Corps of Engineers (USACE). 2007. Jurisdictional Determination Form Instructional Guidebook (JD Form Guidebook). May 30.

U.S. Army Corps of Engineers (USACE). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Army Corps of Engineers (USACE). 2014. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (A Delineation Manual). August 2008.

U.S. Fish and Wildlife Service (USFWS). 1994. Final Determination of Critical Habitat for the Least Bell's Vireo (*Vireo bellii pusillus*); Final Rule. 59 FR 4845.

U.S. Fish and Wildlife Service (USFWS). 1997. DRAFT Recovery Plan for the Stephen's Kangaroo Rat, April 1997.

U.S. Fish and Wildlife Service, Region 1.

U.S. Fish and Wildlife Service (USFWS). 1998. Draft recovery plan for the least Bell's vireo. U.S. Fish and Wildlife Office. April 8, 3 pp.

U.S. Fish and Wildlife Service (USFWS). 1999. Least Bell's Vireo Survey Guidelines. Issued by the Carlsbad Fish and Wildlife Office. April 8, 3 pp.

U.S. Fish and Wildlife Service (USFWS). 2003. Recovery Plan for the Quino Checkerspot Butterfly (*Euphydryas editha quino*). Portland, Oregon. x + 179 pp.

U.S. Fish and Wildlife Service (USFWS). 2013. *Allium munzii* (Munz's Onion) 5-Year Review: Summary and valuation. U.S. Fish and Wildlife Service Carlsbad Fish and Wildlife Office Carlsbad, CA.

Western Regional Climate Center. Period of Record Monthly Climate Summary for Beaumont #2, California (040609). Available at: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca0609; accessed 2 June 2023.

85 FR 22250. 2020. The Environmental Protection Agency (EPA) and the Department of the Army's "Navigable Waters Protection Rule: Definition of 'Waters of the United States,'" April 21, 2020 (effective June 22, 2020

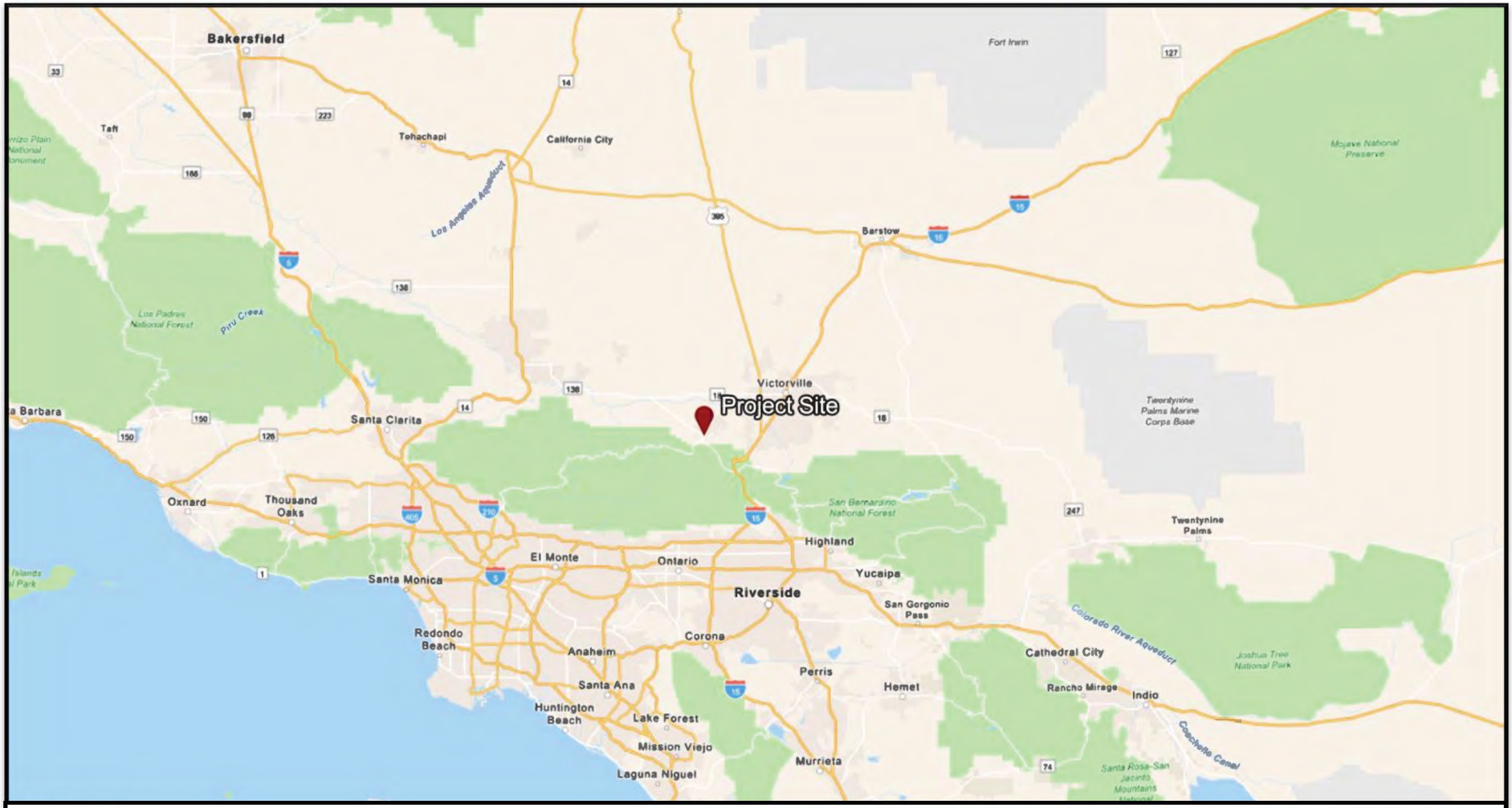

Figure 1

Phelan-Piñon Hills Reservoir 6A-2

Regional Location Map

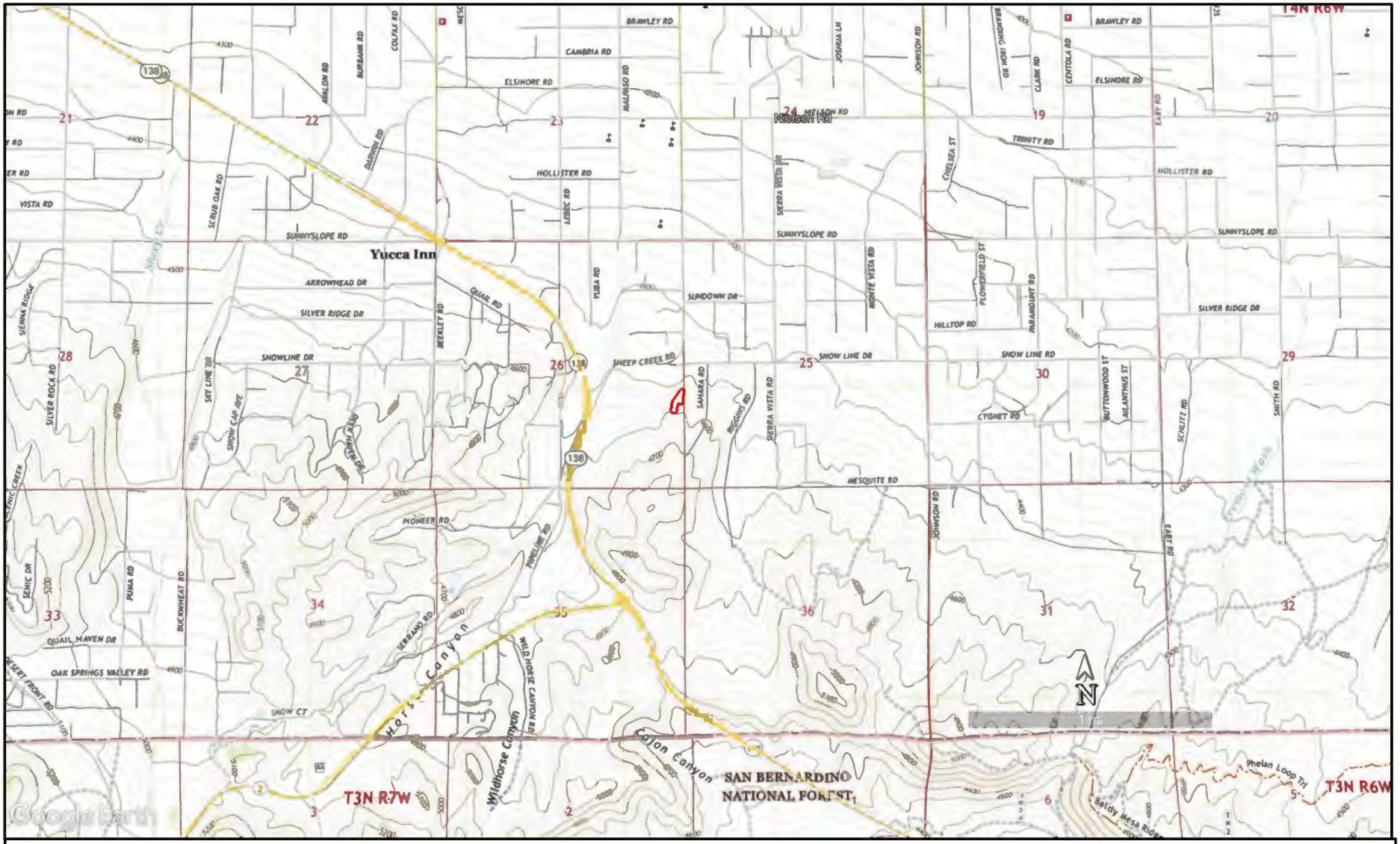

Figure 2

Phelan-Piñon Hills Reservoir 6A-2

Site Location Map

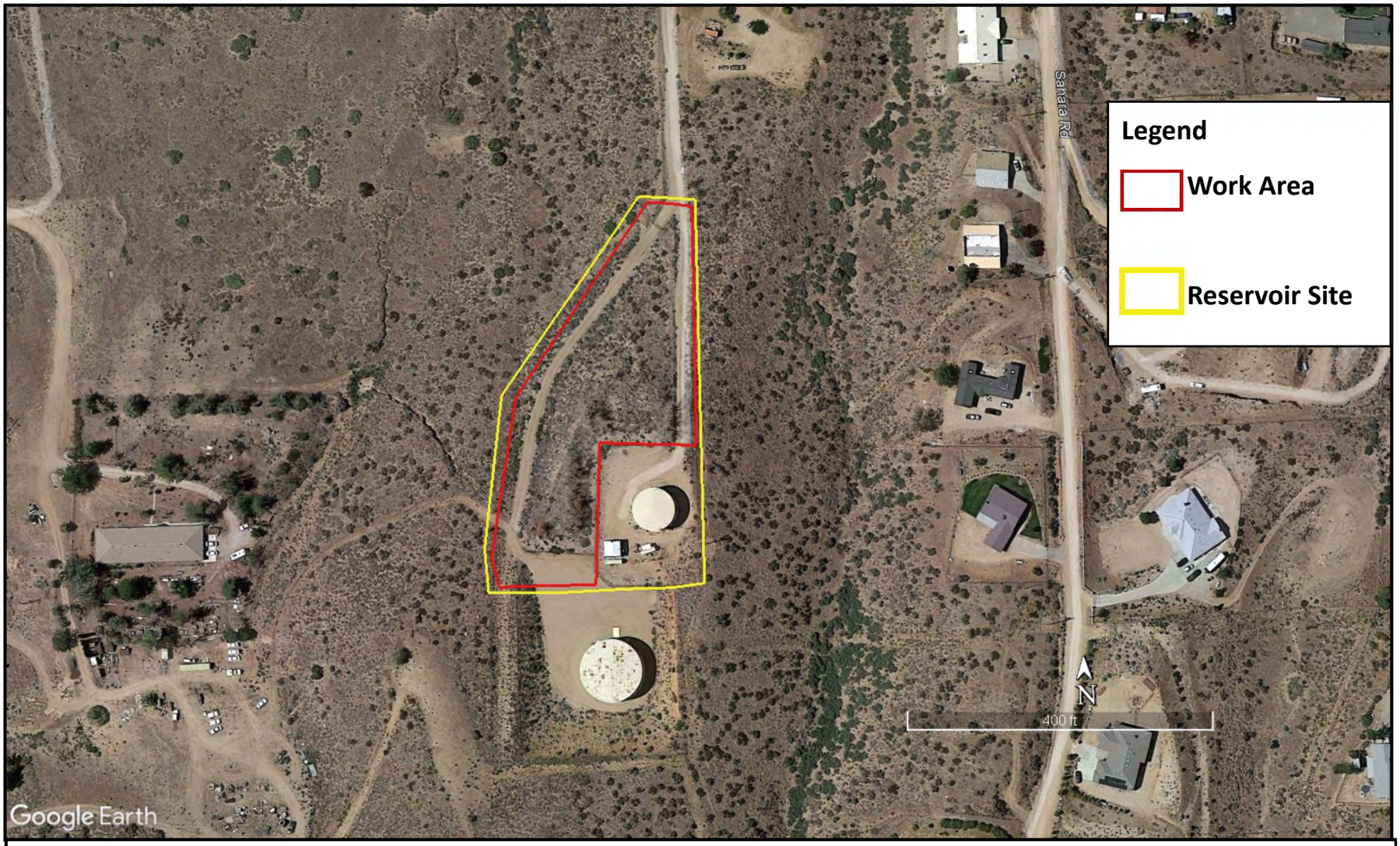

Figure 3

Phelan-Piñon Hills Reservoir 6A-2

Areal Map

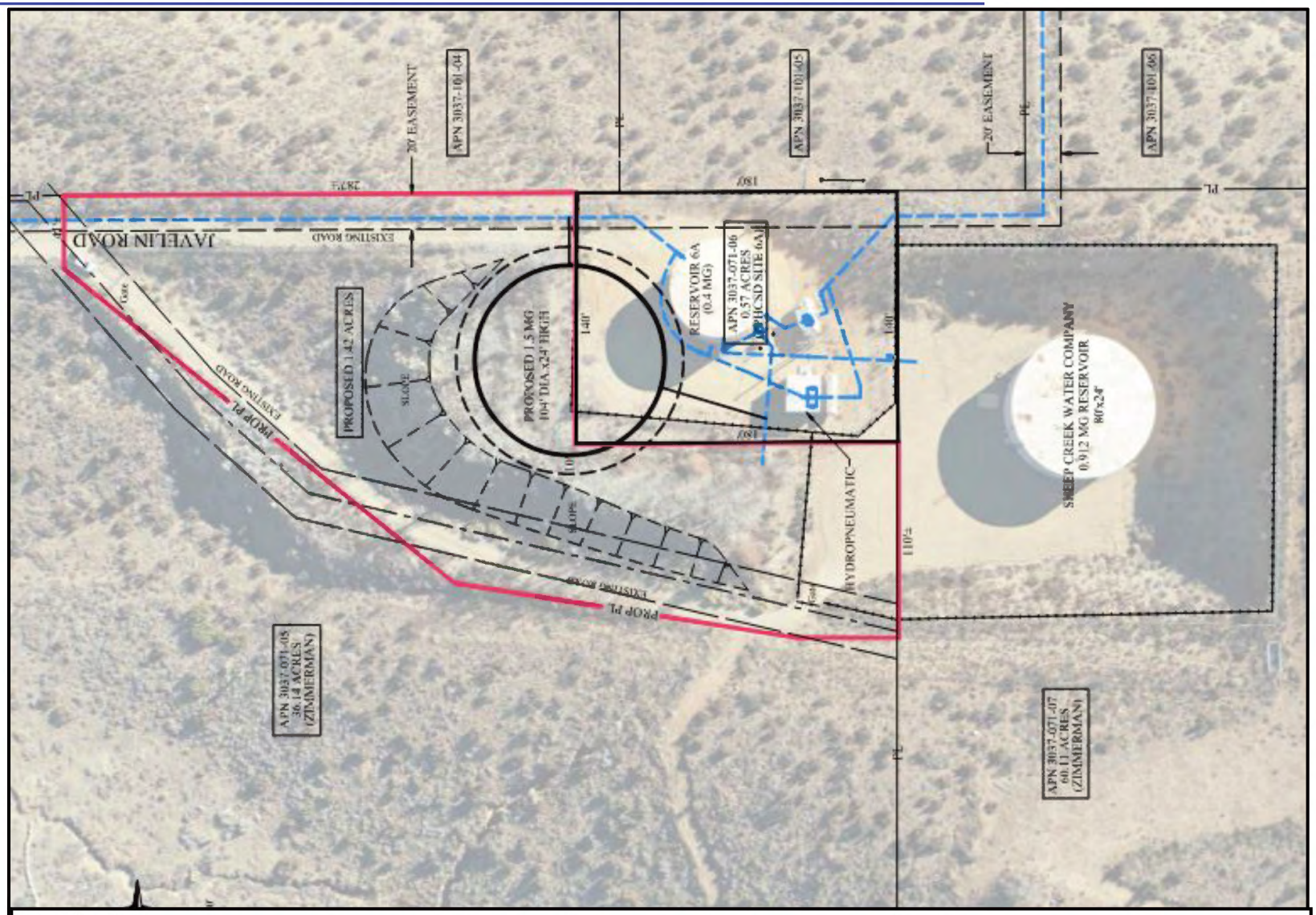

Figure 4

Phelan-Piñon Hills Reservoir 6A-2 Development Plan

Appendix A. CNDDB Species and Habitats Documented Within the *Phelan,* USGS 7.5-Minute Quadrangle

CNDDB Element Occurrences for USGS 7.5 min Quadrangle "Phelan"				
Scientific Name	**Commmon Name**	**Fed/CA List**	**Habitat**	**Probability of Occurrence**
Actinemys pallida	Southwestern pond turtle	Proposed Threatened/ None	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms	There is no suitable habitat within the project site. Therefore, the probability of occurrence is zero
Bombus crotchii	Crotch bumble bee	None/ Candidate Endangered	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum*.	The site is disturbed by active reservoir maintenance, and is predominantly unvegetated. Typical food plants are absent from the site. Therefore the occurrence probability is very low.
Canby candida	white pygmy-poppy	None/None	Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland. Gravelly, sandy, granitic places. 600-1460 m. Blooms March - June	There are no records of this species in the vicinity of the project site. Further the site has been previously graded and disturbed. Therefore, the probability of occurrence is very low.
Danaus plexippus	Monarch Butterfly	Candidate/ None	Their wintering habitat typically provides access to streams, sunlight, and appropriate roosting vegetation, Overwintering, roosting butterflies requires large trees or shrubs. Breeding monarch habitats include agricultural fields, pasture, urban and suburban residential areas, gardens, trees, and roadsides The require larval host plants which are milkweed (Asclepias sp.)	There is no suitable habitat within the project site. Therefore, the probability of occurrence is zero

CNDDB Element Occurrences for USGS 7.5 min Quadrangle "Phelan"				
Scientific Name	**Commmon Name**	**Fed/CA List**	**Habitat**	**Probability of Occurrence**
Gopherus agassizii	Desert tortoise	Threatened/ Threatened	Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	There are no records of this species in the vicinity of the project site. Further the site has been previously graded and disturbed. Finaly, 100% of the site was surveyed, and no evidence of desert tortoise was observed. Therefore, the species is considered absent from the site. probability of occurrence is very low. Additional focused protocol surveys are not recommended.
Gymnogyps Californianus	California Condor	Endangered/ Endangered	California condor lives in rocky shrubland, coniferous forest, and oak savanna.[1] They are often found near cliffs or large trees, which they use as nesting sites. Individual birds have a huge range and have been known to travel up to 250 km (160 mi) in search of carrion. Wild condors maintain a large home range, often traveling 250 km (160 mi) a day in search of carrion. They require large, terrestrial mammalian carcasses such as deer, goats, sheep, donkeys, horses, pigs, cougars, bears,cattle, whales, or seals.	There is no suitable habitat within the project site. Therefore, the probability of occurrence is zero
Juniperella marabilis	Juniper metallic wood-boring beetle	None/None	The type locality for this species occurres in the Santa Rosa Mountains. This species is exclusive to California juniper (Juniperus californica, Cupressaceae)	There is no suitable habitat within the project site. Therefore, the probability of occurrence is zero

CNDDB Element Occurrences for USGS 7.5 min Quadrangle "Phelan"				
Scientific Name	**Commmon Name**	**Fed/CA List**	**Habitat**	**Probability of Occurrence**
Opuntia basilaris var brachyclada	Short-joint beavertail	None/None	California endemic, entirely restricted to the Transverse Ranges, occurring in San Diego and San Bernardino counties, and known from only about 200 populations. It occurs along the boundary of the Mojave Desert and Southern California	This species was not observed within the project area, and is absent from the site.
Phrynosoma blainvillii	Coast horned lizard	None/None	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	There is marginally suitable habitat for this specie withing the project site. However, the site is highly disturbed, and impacted by the facility uses and maintenance. Therefore, the probability of occurrence is low.
Toxostoma lecontei	Le Conte's thrasher	None/None	Occurs in desert flats with sparse growth of saltbush. Lives in more open habitats than other thrashers, on dry flats with only scattered low shrubs. Found especially in areas of sparse saltbush, also on creosote bush flats in some areas; mainly where there are a few slightly larger mesquites or cholla cactus.	There is no suitable habitat within the project area, Therefore, the probability of occurrence is low.

E = Endangered T = Threatened C = Candidate FP = Fully Protected SSC = Species of Special Concern R = Rare

State Species of Special Concern: An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: "It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird."
State Fully Protected: The classification of Fully Protected was the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Appendix B - SITE PHOTOGRAPHS

Photo. View of existing Reservoir 6A
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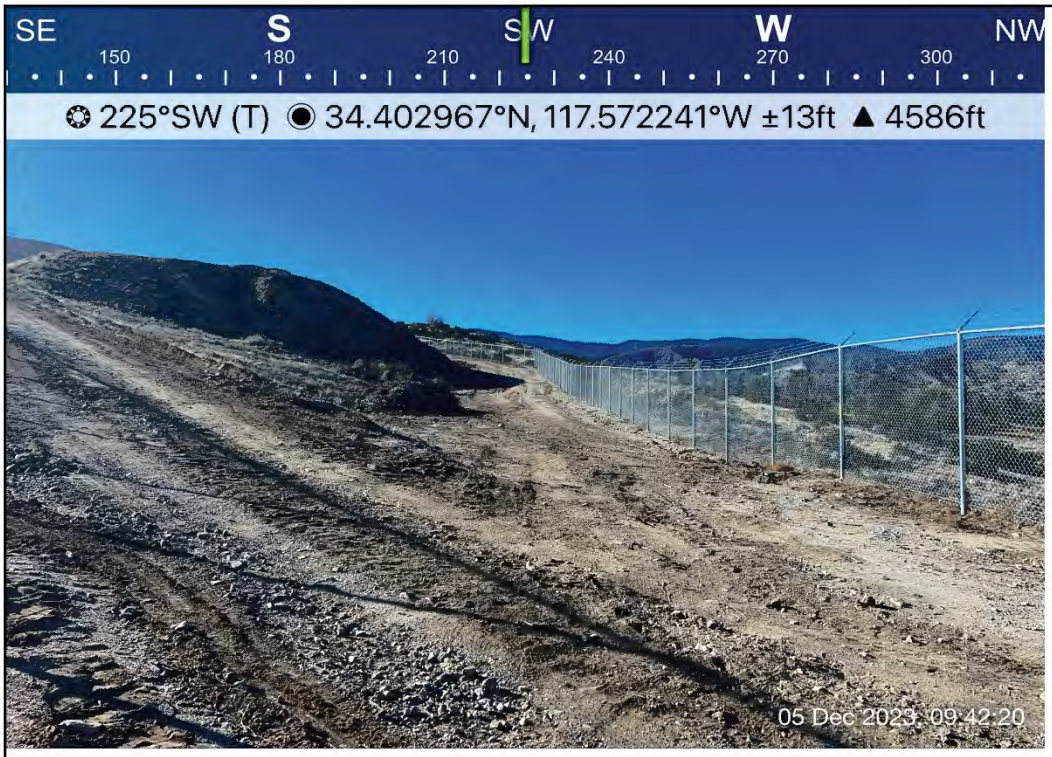
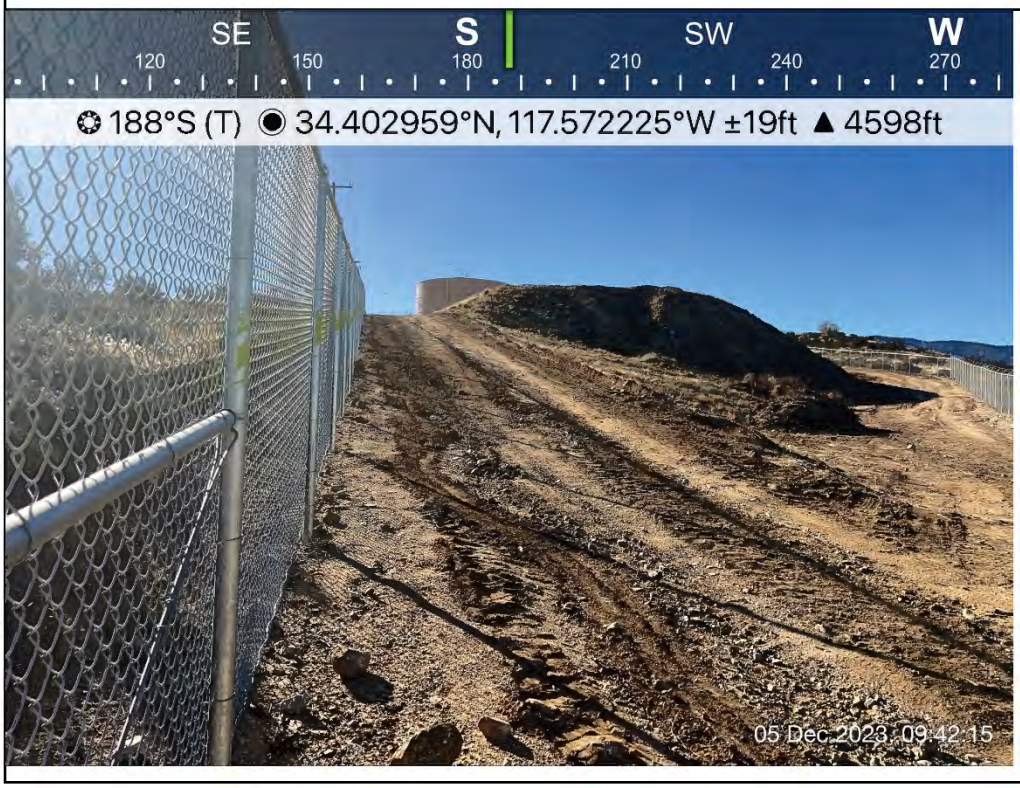
Photo 2. View existing Conditions in proposed construction areas.

	Photo #3 Typical view of west access road.
	Photo #4 Typical view of south access road.

Appendix C. Plant List

Rubber Rabbit brush	*Ericameri nauseosa*
California Buckwheat	*Eriogonum fasciculatum*
Desert Needle Grass	*Pappostipa speciosa*
Bursage	*Ambrosia acanthicarpa*
Smooth desert dandelion	*Malacothrix glabrata*
Schott's Pygmycedar	*Peucephyllum schottii*
Cheatgrass	*Bromus tectorum*
Desert Woollystar	*Eriastrum eremicum*

Appendix D. Regulatory Framework

Federal Regulations

Clean Water Act

The purpose of the Clean Water Act (CWA) of 1977 is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into "waters of the United States" (WOTUS) without a permit from the United States Army Corps of Engineers (USACE). The definition of waters of the United States includes rivers, streams, estuaries, territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 Code of Federal Regulations [CFR] 328.3 7b). The U.S. Environmental Protection Agency (EPA) also has authority over wetlands and may override a USACE permit. Substantial impacts to wetlands may require an individual permit. Development Areas that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; in California this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

Amended 2023 Water of the US Definition:

The USACE has authority to permit the discharge of dredged or fill material in WOTUS under Section 404 of the CWA. According to the EPA and the Department of the Army's January, 2023 was amended September 2023 following the Sackett Supreme Court Decision (effective May 25, 2023). The Definition of 'Waters of the United States,'" WOTUS are defined under 5 catatories: (a)(1) i Traditional navigable waters, ii The territorial seas, iii Interstate waters; (a)(2) Impoundments of Jurisdictional Waters; (a)(3) Relatively Permanent Waters that are tributaries to and (a)(1) or (a)(2) Water; (a)(4) Wetlands with a continuous surface connection to (a)(1), (a)(2), or (a)(3) Water; and (a)(5) Water not identified in (a)(1)-(4) that are Relatively permanent, standing or continuously flowing with a continuous surface connect to waters identified in (a)(1) or (a)(3) (85 FR 22250).

The 2023 Amended Rule specifically excludes from the definition of WOTUS:

- b)(1) Waste treatment systems
- (b)(2) Prior converted cropland
- (b)(3) Certain ditches
- (b)(4) Artificially irrigated areas that would revert to dry land if irrigation ceased
- (b)(5) Certain artificial lakes and ponds
- (b)(6) Artificial reflecting or swimming pools or other small ornamental bodies of water
- (b)(7) Certain waterfilled depressions

- (b)(8) Swales and erosional features;

Federal Endangered Species Act (ESA)

The federal Endangered Species Act (ESA) of 1973 protects plants and wildlife that are listed by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) as endangered or threatened. Section 9 of the ESA (USA) prohibits the taking of endangered wildlife, where taking is defined as any effort to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 CFR 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 United States Code [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided the action will not jeopardize the continued existence of the species. The ESA specifies that the USFWS designate habitat for a species at the time of its listing in which are found the physical or biological features "essential to the conservation of the species," or which may require "special Management consideration or protection..." (16 USC § 1533[a][3].2; 16 USC § 1532[a]). This designated Critical Habitat is then afforded the same protection under the ESA as individuals of the species itself, requiring issuance of an Incidental Take Permit prior to any activity that results in "the destruction or adverse modification of habitat determined to be critical" (16 USC § 1536[a][2]).

Interagency Consultation and Biological Assessments

Section 7 of ESA provides a means for authorizing the "take" of threatened or endangered species by federal agencies, and applies to actions that are conducted, permitted, or funded by a federal agency. The statute requires federal agencies to consult with the USFWS or National Marine Fisheries Service (NMFS), as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. If a Proposed Development Area "may affect" a listed species or destroy or modify critical habitat, the lead agency is required to prepare a biological assessment evaluating the nature and severity of the potential effect.

Habitat Conservation Plans

Section 10 of the federal ESA requires the acquisition of an Incidental Take Permit (ITP) from the USFWS by non- federal landowners for activities that might incidentally harm (or "take") endangered or threatened wildlife on their land. To obtain a permit, an applicant must develop a Habitat Conservation Plan that is designed to offset any harmful impacts the proposed activity might have on the species.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 U.S.C. Sections 661 to 667e et seq.) applies to any federal Development Area where any body of water is impounded, diverted, deepened, or otherwise modified.

Development Area proponents are required to consult with the USFWS and the appropriate state wildlife agency.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (The Eagle Act) (1940), amended in 1962, was originally implemented for the protection of bald eagles (*Haliaeetus leucocephalus*). In 1962, Congress amended the Eagle Act to cover golden eagles (*Aquila chrysaetos*), a move that was partially an attempt to strengthen protection of bald eagles, since the latter were often killed by people mistaking them for golden eagles. This act makes it illegal to import, export, take (molest or disturb), sell, purchase, or barter any bald eagle or golden eagle or part thereof. The golden eagle, however, is accorded somewhat lighter protection under the Eagle Act than that of the bald eagle.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 implements international treaties between the United States and other nations created to protect migratory birds, any of their parts, eggs, and nests from activities, such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code (CFGC).

However, on December 22, 2017 the U.S. Department of the Interior (DOI) issued a memorandum concluding that MBTA's prohibitions on take apply "[…] only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs" (DOI 2017). Therefore, take of migratory birds or their active nests (i.e., with eggs or young) that is incidental to, and not the purpose of, an otherwise lawful activity does not constitute a violation of the MBTA.

Executive Orders (EO)

Invasive Species – EO 13112 (1999): Issued on February 3, 1999, promotes the prevention and introduction of invasive species and provides for their control and minimizes the economic, ecological, and human health impacts that invasive species cause through the creation of the Invasive Species Council and Invasive Species Management Plan.

Migratory Bird – EO 13186 (2001): Issued on January 10, 2001, promotes the conservation of migratory birds and their habitats and directs federal agencies to implement the Migratory Bird Treaty Act. Protection and Enhancement of Environmental Quality—EO 11514 (1970a), issued on March 5, 1970, supports the purpose and policies of the National Environmental Policy Act (NEPA) and directs federal agencies to take measures to meet national environmental goals.

Migratory Bird Treaty Reform Act

The Migratory Bird Treaty Reform Act (Division E, Title I, Section 143 of the Consolidated Appropriations Act, 2005, PL 108–447) amends the Migratory Bird Treaty Act (16 U.S.C. Sections 703 to 712) such that

nonnative birds or birds that have been introduced by humans to the United States or its territories are excluded from protection under the Act. It defines a native migratory bird as a species present in the United States and its territories as a result of natural biological or ecological processes. This list excluded two additional species commonly observed in the United States, the rock pigeon (*Columba livia*) and domestic goose (*Anser domesticus*).

Birds of Conservation Concern

Birds of Conservation Concern (BCC) is a USFWS list of bird species identified to have the highest conservation priority, and with the potential for becoming candidates for listing as federally threatened or endangered. The chief legal authority for BCC is the Fish and Wildlife Conservation Act of 1980 (FWCA). Other authorities include the FESA, the Fish and Wildlife Act of 1956, and the Department of the Interior U.S Code (16 U.S.C. § 701). The 1988 amendment to the FWCA (Public Law 100-653, Title VIII) requires the Secretary of the Interior, through the USFWS, to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973" (USFWS, 2008a).

State Regulations

California Fish and Game Code Sections 1600 through 1606 of the CFGC

This section requires that a Streambed Alteration Application be submitted to the CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the Department and the applicant is the Streambed Alteration Agreement. Often, Development Areas that require a Streambed Alteration Agreement also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

California Endangered Species Act

The California Endangered Species Act (CESA) (Sections 2050 to 2085) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats by protecting "all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation." Animal species are listed by the CDFW as threatened or endangered, and plants are listed as rare, threatened, or endangered. However, only those plant species listed as threatened or endangered receive protection under the California ESA.

CESA mandates that state agencies do not approve a Development Area that would jeopardize the continued existence of these species if reasonable and prudent alternatives are available that would avoid a jeopardy finding. There are no state agency consultation procedures under the California ESA. For Development Areas that would affect a species that is federally and State listed, compliance with ESA satisfies the California ESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is consistent with the California ESA under Section 2080.1. For Development Areas that would result in take of a species that is state listed only, the Development Area sponsor must apply for a take permit, in accordance with Section 2081(b).

Fully Protected Species

Four sections of the California Fish and Game Code (CFGC) list 37 fully protected species (CFGC Sections 3511, 4700, 5050, and 5515). These sections prohibit take or possession "at any time" of the species listed, with few exceptions, and state that "no provision of this code or any other law will be construed to authorize the issuance of permits or licenses to 'take' the species," and that no previously issued permits or licenses for take of the species "shall have any force or effect" for authorizing take or possession.

Bird Nesting Protections

Bird nesting protections (Sections 3503, 3503.5, 3511, 3513 and 3800) in the CFGC include the following:

- Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.
- Section 3503.5 prohibits the take, possession, or needless destruction of any nests, eggs, or birds in the orders Falconiformes (new world vultures, hawks, eagles, ospreys, and falcons, among others), and Strigiformes (owls).
- Section 3511 prohibits the take or possession of Fully protected birds.
- Section 3513 prohibits the take or possession of any migratory nongame bird or part thereof, as designated in the MBTA. To avoid violation of the take provisions, it is generally required that Development Area- related disturbance at active nesting territories be reduced or eliminated during the nesting cycle.

Section 3800 prohibits the take of any non-game bird (i.e., bird that is naturally occurring in California that is not a gamebird, migratory game bird, or fully protected bird).

Native Plant Protection Act

The Native Plant Protect Act (NPPA) (1977) (CFGC Sections 1900-1913) was created with the intent to "preserve, protect, and enhance rare and endangered plants in this State." The NPPA is administered by CDFW. The Fish and Game Commission has the authority to designate native plants as endangered or rare and to protect endangered and rare plants from take. CESA (CFGC 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the Fish and Game Code.

Appendex D

CNDDB LIST

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Phelan (3411745))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Canbya candida white pygmy-poppy	PDPAP05020	None	None	G3G4	S3S4	4.2
Juniperella mirabilis juniper metallic wood-boring beetle	IICOLX9010	None	None	G2	S1	
Opuntia basilaris var. brachyclada short-joint beavertail	PDCAC0D053	None	None	G5T3	S3	1B.2
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G4	S4	SSC
Toxostoma lecontei Le Conte's thrasher	ABPBK06100	None	None	G4	S3	SSC

Record Count: 6

Appendix E

iPAC List

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Bernardino County, California

Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
California Condor Gymnogyps californianus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered

Reptiles

NAME	STATUS
Desert Tortoise Gopherus agassizii There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4481	Threatened
Southwestern Pond Turtle Actinemys pallida Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4768	Proposed Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

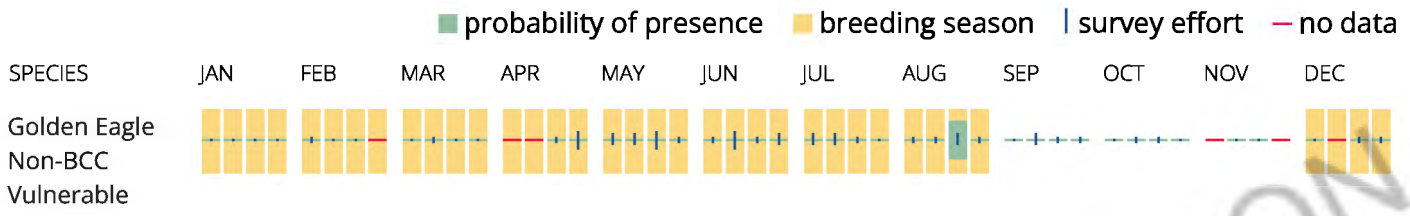
Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON

Black-chinned Sparrow Spizella atrogularis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447	Breeds Apr 15 to Jul 31
California Thrasher Toxostoma redivivum This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Costa's Hummingbird Calypte costae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470	Breeds Jan 15 to Jun 10
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31
Lawrence's Goldfinch Carduelis lawrencei This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence ( )

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

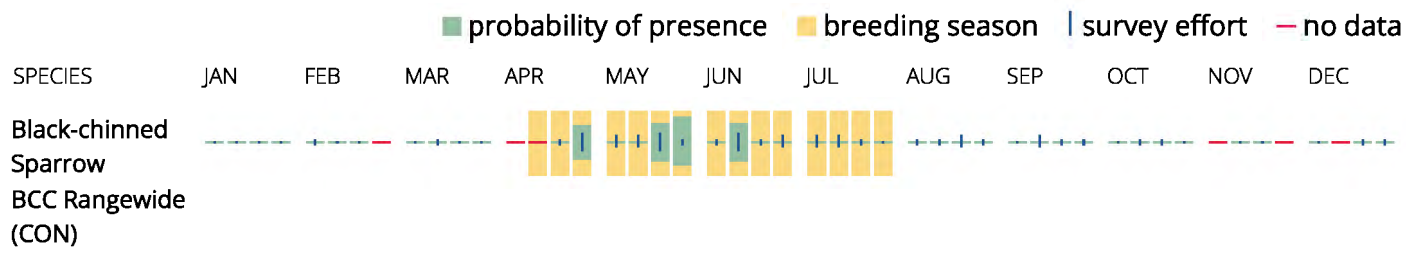
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

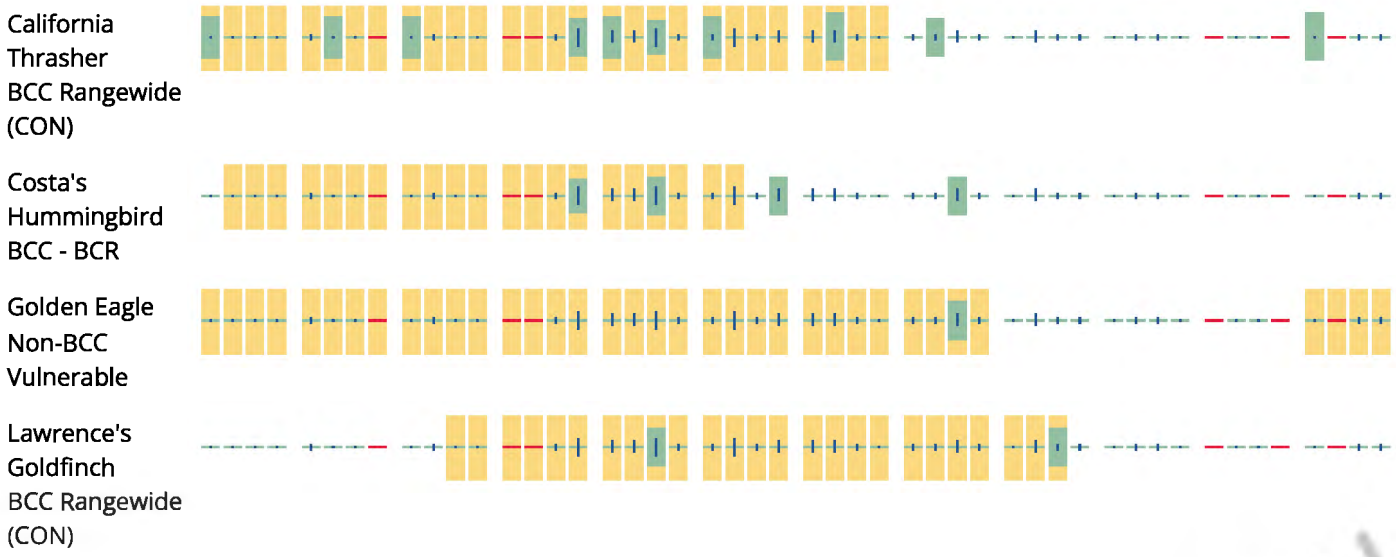
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies.

Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

APPENDIX 3

HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT

PHELAN PIÑON HILLS COMMUNITY SERVICES DISTRICT RESERVOIR 6A-2 PROJECT

Assessor's Parcel Nos. 3037-071-06 and -08
Phelan Area, San Bernardino County, California

For Submittal to:

Phelan Piñon Hills Community Services District
4176 Warbler Road
Phelan, CA 92371
and
Federal Emergency Management Agency
P.O. Box 10055
Hyattsville, MD 20782-8055

Prepared for:

Tom Dodson & Associates
2150 North Arrowhead Avenue
San Bernardino, CA 92405

Prepared by:

CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324

Bai "Tom" Tang, Principal Investigator
Michael Hogan, Principal Investigator

January 27, 2024
CRM TECH Contract No. 4038

Title: Historical/Archaeological Resources Survey Report: Phelan Piñon Hills Community Services District Reservoir 6A-2 Project, Assessor's Parcel Nos. 3037-071-06 and -08, Phelan Area, San Bernardino County, California

Author(s): Bai "Tom" Tang, Principal Investigator/Historian
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1016 East Cooley Drive, Suite A/B
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Date: January 27, 2024

For Submittal to: Phelan Piñon Hills Community Services District
4176 Warbler Road
Phelan, CA 92371
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and
Federal Emergency Management Agency
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Hyattsville, MD 20782-8055
(510) 627-7100

Prepared for: Kaitlyn Dodson-Hamilton, Vice President
Tom Dodson and Associates
2150 N. Arrowhead Avenue
San Bernardino, CA 92405
(909) 882-3612

USGS Quadrangle: Phelan, Calif., 7.5' quadrangle (Section 26, Township 4 North, Range 7 West, San Bernardino Baseline and Meridian)

Project Size: Approximately two acres

Keywords: Southern Mojave Desert; Phase I historical/archaeological resources survey; no "historic properties" or "historical resources" affected

EXECUTIVE SUMMARY

Between July 2023 and January 2024, at the request of Tom Dodson & Associates, CRM TECH performed a cultural resources study on the Area of Potential Effects (APE) for the proposed Phelan Piñon Hills Community Service District (PPHCSD) Reservoir 6A-2 Project near the unincorporated community of Phelan, San Bernardino County, California. The APE consists of Assessor's Parcel Numbers 3037-071-06 and -08, approximately two acres of partially developed land located within the existing PPHCSD Reservoir 6A facility at 8300 Javelin Road, in the southeast quarter of Section 26, Township 4 North, Range 7 West, San Bernardino Baseline and Meridian.

The study is part of the environmental review process for the proposed project, which entails primarily the installation of a new 1.5-MG reservoir. PPHCSD, as the project proponent and the lead agency, initiated the study pursuant to the California Environmental Quality Act (CEQA). As the project will involve federal funds administered by the Federal Emergency Management Agency (HUD), it qualifies as a federal "undertaking" that also requires compliance with Section 106 of the National Historic Preservation Act. The purpose of the study is to provide HUD and PPHCSD with the necessary information and analysis to determine whether the undertaking would have an effect on any "historic properties," as defined by 36 CFR 800.16(l), or "historical resources," as defined by PRC §5020.1(j), that may exist in or near the APE.

In order to identify such resources, CRM TECH conducted a historical/archaeological resources records search, pursued historical and geoarchaeological research, contacted Native American representatives, and carried out an intensive-level field survey. Through the various avenues of research, this study did not encounter any "historic properties" or "historical resources" within or adjacent to the APE. Therefore, CRM TECH recommends to HUD and PPHCSD a conclusion that no "historic properties" or "historical resources" will be affected by the undertaking. No further cultural resources investigation is recommended for the undertaking unless construction plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are encountered during any earth-moving operations associated with the undertaking, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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INTRODUCTION

Between July 2023 and January 2024, at the request of Tom Dodson & Associates, CRM TECH performed a cultural resources study on the Area of Potential Effects (APE) for the proposed Phelan Piñon Hills Community Service District (PPHCSD) Reservoir 6A-2 Project near the unincorporated community of Phelan, San Bernardino County, California (Fig. 1). The APE consists of Assessor's Parcel Numbers 3037-071-06 and -08, approximately two acres of partially developed land located within the existing PPHCSD Reservoir 6A facility at 8300 Javelin Road, in the southeast quarter of Section 26, Township 4 North, Range 7 West, San Bernardino Baseline and Meridian (Figs. 2, 3).

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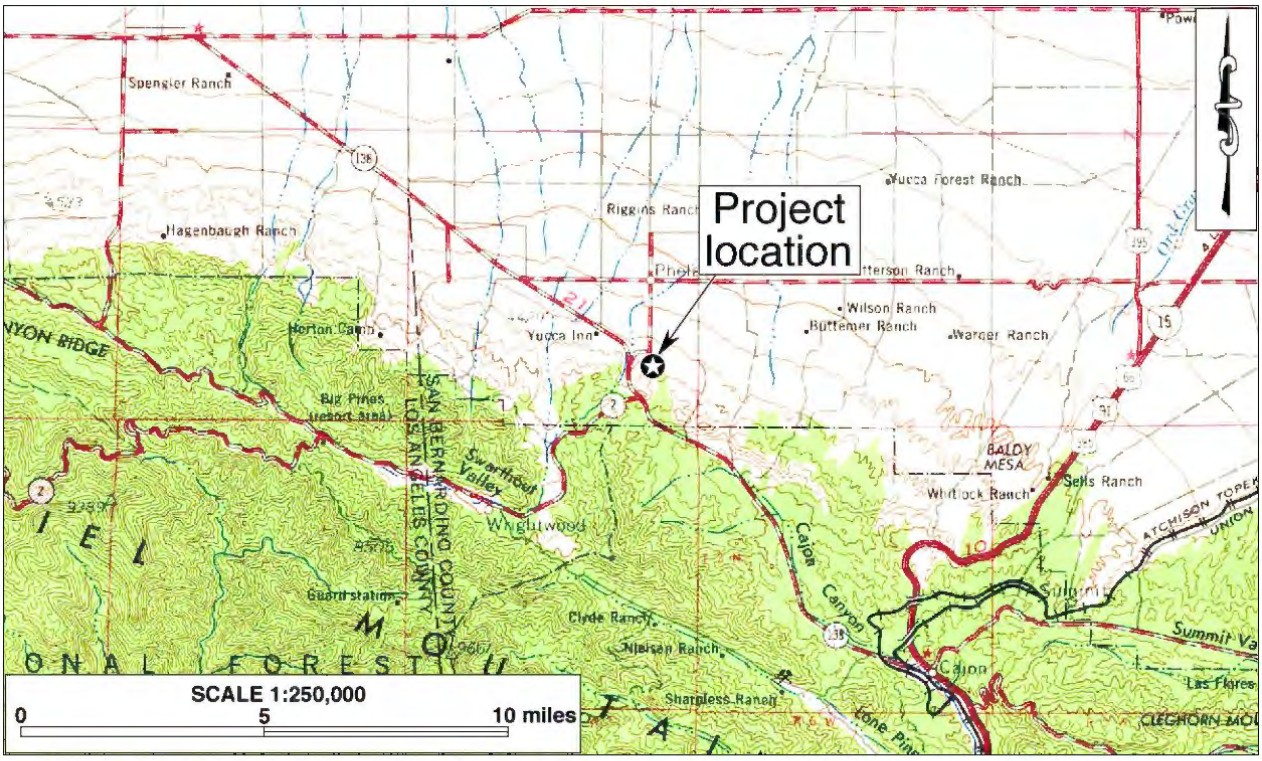

Figure 1. Project vicinity. (Based on USGS San Bernardino, Calif., 120'x60' quadrangle [USGS 1969])

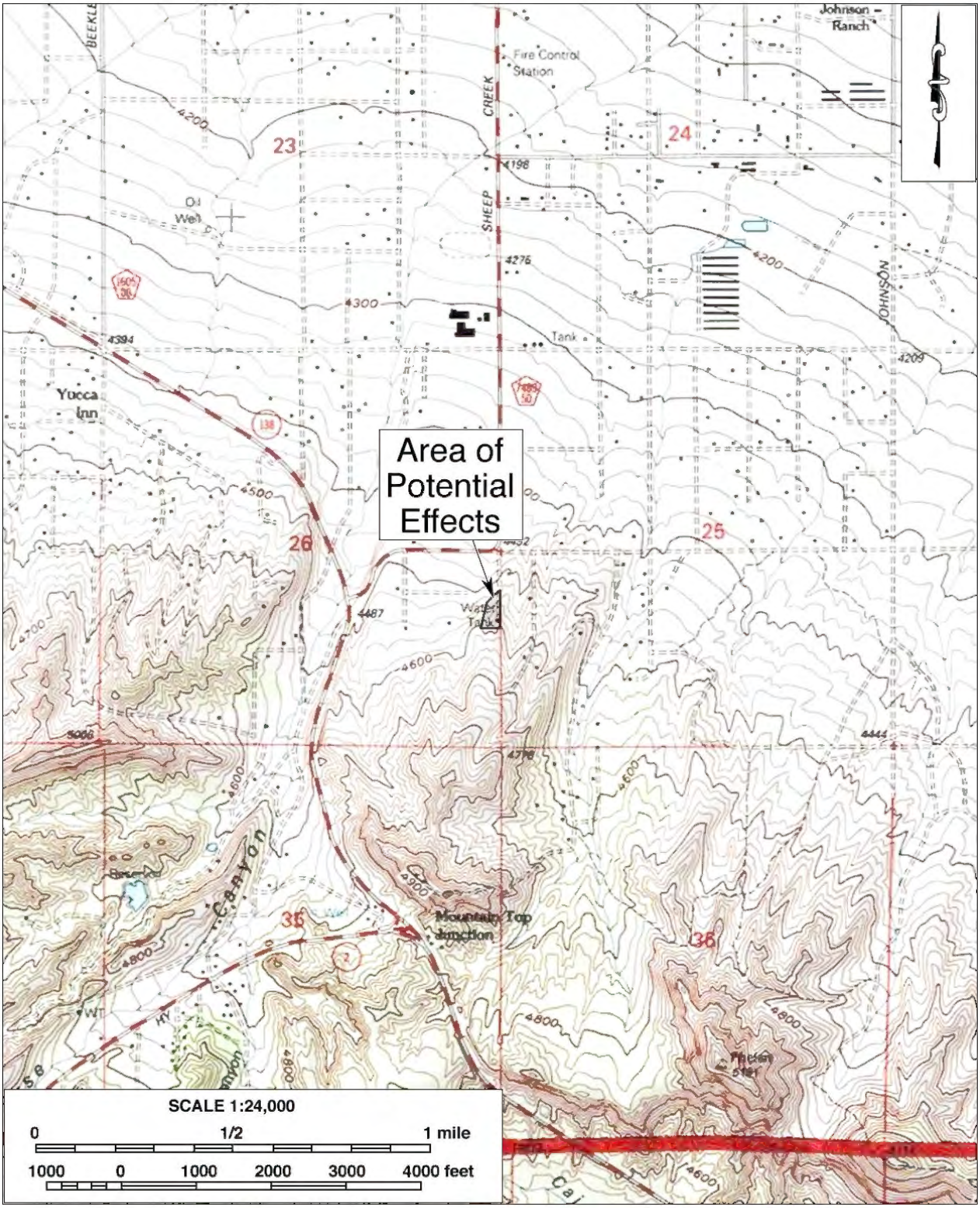

Figure 2. Area of Potential Effects. (Based on USGS Phelan, Calif., 7.5' quadrangle [USGS 1996])

Figure 3. Recent satellite image of the APE. (Based on Google Earth imagery)

and carried out an intensive-level field survey. The following report is a complete account of the methods, results, and conclusion of the study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

SETTING

CURRENT NATURAL SETTING

The small, rural community of Phelan is located in the northern foothills of the San Gabriel Mountains and on the western edge of the Victor Valley. The San Gabriel Mountains comprise the portion of the Transverse Range that extends from Newhall Pass on the west to the Cajon Pass on the east, dividing the Los Angeles Basin and the San Bernardino Valley from the western Mojave Desert. The climate and environment of the area are typical of southern California "high desert" country, so-called because of its higher elevation than the Colorado Desert to the southeast, and are marked by extremes in temperature and aridity. Summer highs reach well over 110ºF and winter lows dip below freezing. Average annual precipitation is less than five inches.

Situated in a sparsely settled area to the south of Phelan and east of State Route 138, the APE is surrounded by another water reservoir to the south, scattered rural residences to the east, and vacant land to the west (Fig. 3). The ground surface in the APE has been moderately disturbed by past construction activities associated with the existing 0.4-MG reservoir in the southeastern portion and two graded roadways along the eastern and western sides (Fig. 4). Elevations in the APE range roughly from 4,530 feet to 4,600 feet above mean sea level, and the terrain is relatively level with a moderate slope towards the east. Soils in the vicinity are composed primarily of grayish brown sandy loam, and the vegetation on the property consists mostly of patches of ruderal grasses and small shrubs.

Figure 4. Current natural setting of the APE. (Photograph taken on September 22, 2023; view to the northeast)

CULTURAL SETTING

Prehistoric Context

The earliest evidence of human occupation in inland southern California was discovered below the surface of an alluvial fan in the northern portion of the Lakeview Mountains, overlooking the San Jacinto Valley, with radiocarbon dates clustering around 9,500 B.P. (Horne and McDougall 2008). Another site found near the shoreline of Lake Elsinore, close to the confluence of Temescal Wash and the San Jacinto River, yielded radiocarbon dates between 8,000 and 9,000 B.P. (Grenda 1997). Additional sites with isolated Archaic dart points, bifaces, and other associated lithic artifacts from the same age range have been found in the nearby Cajon Pass area, typically atop knolls with good viewsheds (Basgall and True 1985; Goodman and McDonald 2001; Goodman 2002; Milburn et al. 2008).

The cultural history of southern California has been summarized into numerous chronologies, including the works of Chartkoff and Chartkoff (1984), Warren (1984), and others. The prehistory of the inland region specifically has been addressed by O'Connell et al. (1974), McDonald et al. (1987), Keller and McCarthy (1989), Grenda (1993), Goldberg (2001), and Horne and McDougall (2008). Although the beginning and ending dates of different cultural horizons vary in different parts of the region, the general framework of the prehistory of inland southern California can be divided into three primary periods:

- Paleoindian Period (ca. 18,000-9,000 B.P.): Native peoples of this period created fluted spearhead bases designed to be hafted to wooden shafts. The distinctive method of thinning bifaces and spearhead preforms by removing long, linear flakes leaves diagnostic Paleoindian markers at tool-making sites. Other artifacts associated with the Paleoindian toolkit include choppers, cutting tools, retouched flakes, and perforators. Sites from this period are very sparse across the landscape and most are deeply buried.
- Archaic Period (ca. 9,000-1,500 B.P.): Archaic sites are characterized by abundant lithic scatters of considerable size with many biface thinning flakes, bifacial preforms broken during manufacture, and well-made groundstone bowls and basin metates. As a consequence of making dart points, many biface thinning waste flakes were generated at individual production stations, which is a diagnostic feature of Archaic sites.
- Late Prehistoric Period (ca. 1,500 B.P.-contact): Sites from this period typically contain small lithic scatters from the manufacture of small arrow points, expedient groundstone tools such as tabular metates and unshaped manos, wooden mortars with stone pestles, acorn or mesquite bean granaries, ceramic vessels, shell beads suggestive of extensive trading networks, and steatite implements such as pipes and arrow shaft straighteners.

Ethnohistoric Context

The Victor Valley area is a part of the homeland of the Serrano people, which is centered in the San Bernardino Mountains but also includes part of the San Gabriel Mountains, much of the San Bernardino Valley, and the southern portion of the Mojave Desert, reaching as far as the Cady, Bullion, Sheep Hole, and Coxcomb Mountains to the east, the Twentynine Palms area to the north, and possibly the southern edge of Kern County to the west. The name "Serrano" was derived from a

Spanish term meaning "mountaineer" or "highlander." The basic written sources on Serrano culture are Kroeber (1925), Strong (1929), and Bean and Smith (1978). The following ethnographic discussion of the Serrano people is based mainly on these sources.

Prior to European contact, Serrano subsistence was defined by the surrounding landscape and primarily based on the gathering of wild and cultivated foods and hunting, exploiting nearly all of the resources available. Their long-term settlements were located mostly on elevated terraces, hills, and finger ridges near reliable sources of water, especially in foothills and along major rivers. Loosely organized into exogamous clans led by hereditary heads, the clans were in turn affiliated with one of two exogamous moieties, the Wildcat (*Tukutam*) or the Coyote (*Wahiiam*). The exact nature of the clans, their structure, function, and number are not known, except that each clan was the largest autonomous political and landholding unit. The core of the unit was the patrilineage, although women retained their own lineage names after marriage. There was no pan-tribal political union among the clans.

The Serrano had a variety of technological skills that they used to acquire food, shelter, and clothing as well as to create ornaments and decorations. Common tools included manos and metates, mortars and pestles, hammerstones, fire drills, awls, arrow straighteners, and stone knives and scrapers. These lithic tools were made from locally sourced material as well as materials procured through trade or travel. They also used wood, horn, and bone spoons and stirrers; baskets for winnowing, leaching, grinding, transporting, parching, storing, and cooking; and pottery vessels for carrying water, storage, cooking, and serving food and drink. Much of this material cultural, elaborately decorated, does not survive in the archaeological record. As usual, the main items found archaeologically relate to subsistence activities.

Although contact with Europeans may have occurred as early as 1771 or 1772, Spanish influence on Serrano lifeways was minimal until the 1810s, when a mission *asistencia* was established on the southern edge of Serrano territory. Between then and the end of the mission era in 1834, most of the Serrano in the western portion of their traditional territory were removed to the nearby missions. In the eastern portion, a series of punitive expeditions in 1866-1870 resulted in the death or displacement of almost all remaining Serrano population in the San Bernardino Mountains. Today, most Serrano descendants are affiliated with the Yuhaaviatam of San Manuel Nation (also recognized as the San Manuel Band of Mission Indians), the Morongo Band of Mission Indians, or the Serrano Nation of Indians.

Historic Context

The Victor Valley region received its first European visitor, the famed Spanish missionary and explorer Francisco Garcés, in 1776, and the first Euroamerican settlements appeared in the valley as early as 1860 (Peirson 1970:128). Despite these "early starts," due to its harsh environment, development in the arid high desert country of southern California was slow and limited for much of the historic period, and the Victor Valley remained only sparsely populated until the second half of the 20th century.

Garcés traveled through the Victor Valley along an ancient Indian trading route known today as the Mojave Trail (Beck and Haase 1974:15). In 1829, most of this trail was incorporated into an

important pack-train road known as the Old Spanish Trail, which extended between southern California and Santa Fe, New Mexico (Warren 2004). Some 20 years later, when the historic wagon road known as the Mormon Trail or Salt Lake Trail was established between Utah and southern California, it followed essentially the same route across the Mojave Desert (NPS 2001:5). Since then, the Victor Valley has always served as a crucial link on a succession of major transportation arteries, where the heritage of the ancient Mojave Trail was carried on by the Santa Fe Railway, by the legendary U.S. Route 66, and finally by today's Interstate Highway 15.

Thanks to the availability of fertile lands and the abundance of ground water, agriculture played a dominant role in the early development of the Victor Valley area (McGinnis 1988). During the late 19th and early 20th centuries, settlers in the valley attempted several money-making pursuits, such as alfalfa, deciduous fruits, and poultry, with only limited success. In the vicinity of present-day Phelan, settlement activities began in the early 20th century, when a number of ranches came into being along the foothills of the San Gabriel Mountains. The Phelan post office was established in 1916 and named after Senator James D. Phelan, whose political influence brought about its establishment (Gudde 1998:288).

Around the turn of the century, large deposits of limestone and granite were discovered, prompting cement manufacturing to become the leading industry in the valley (City of Victorville n.d.). During and after WWII, George Air Force Base, established in 1941, added a new driving force in the local economy with its 6,000 military and civilian employees. After being deactivated in 1992, the former base was converted for civilian use as the Southern California Logistics Airport. Since the 1980s, development in the Victor Valley has been characterized by the emergence of its leading suburban enclaves as "bedroom communities" in support of the industrial and commercial centers in the Greater Los Angeles area. Spearheaded by the City of Victorville, the Town of Apple Valley, and the City of Hesperia on Interstate Highway 15, the desert valley has been one of the fastest growing regions in California over the last few decades. The Phelan area in the western Victor Valley, in contrast, has largely remained outside the influence of recent suburban expansion, and to this day retains much of its rural character.

RESEARCH METHODS

RECORDS SEARCH

On August 30, 2023, CRM TECH archaeologist Nina Gallardo conducted the historical/ archaeological resources records search at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System. Located on the campus of California State University, Fullerton, the SCCIC is the State's California's official cultural resource records repository for the County of San Bernardino. During the records search, Gallardo examined maps and records on file at the SCCIC for previously identified cultural resources and existing cultural resources reports within a one-mile radius of the APE. Previously identified cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or San Bernardino County Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

HISTORICAL RESEARCH

Historical background research for this study was conducted by CRM TECH archaeologist Breidy Q. Vilcahuaman on the basis of published literature in local and regional history, historical maps of the Phelan area, and aerial/satellite photographs of the APE vicinity. Among the maps consulted for this study were the U.S. General Land Office's (GLO) land survey plat maps dated 1856-1885 and the U.S. Geological Survey's (USGS) topographic maps dated 1903-1996, which are available at the websites of the U.S. Bureau of Land Management and the USGS. The aerial and satellite photographs, taken in 1938-2023, are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software.

NATIVE AMERICAN PARTICIPATION

On July 13, 2023, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File. Following NAHC's recommendations and previously established consultation protocol, CRM TECH further contacted a total of 14 Native American representatives for information and comments, both in writing and by telephone, between December 8, 2023, and January 5, 2024. The correspondence between CRM TECH and the Native American representatives is summarized in the sections below, and a complete record is attached to this report in Appendix 2.

FIELD SURVEY

On September 22, 2023, CRM TECH archaeologist Salvadore Z. Boites carried out the field survey of the APE. The survey was completed at an intensive level by walking a series of parallel west-east and north-south transects spaced 10 meters (approximately 33 feet) apart. In this way, the ground surface in the entire APE was systematically and carefully examined for any evidence of human activities dating to the prehistoric or historic period (i.e., 50 years or older). Ground visibility was excellent (90%) due to the sparse growth of small vegetation over the majority of the APE.

GEOARCHAEOLOGICAL ANALYSIS

As part of the research procedures, CRM TECH archaeologist Deirdre Encarnación assessed the APE's potential for the deposition and preservation of subsurface cultural deposits from the prehistoric period, which cannot be detected through a standard surface archaeological survey. The geoarchaeological research sources consulted for this purpose included primarily topographic and geologic maps and reports pertaining to the APE and the surrounding area. Findings from these sources were used to develop a geomorphologic history of the APE and address geoarchaeological sensitivity of the vertical APE.

RESULTS AND FINDINGS

RECORDS SEARCH

According to SCCIC records, the APE had not been surveyed for cultural resources prior to this study, and no historical/archaeological resources had been recorded on or adjacent to the property.

Within the one-mile scope of the records search, SCCIC records identified 16 previous studies completed between 1974 and 2014 on various tracts of land and linear features, including two studies located adjacent to the northern and eastern sides of the APE (Fig. 5). As a result of these and other similar studies in the vicinity, two historic-period sites were previously identified within the one-mile radius and recorded into the California Historical Resources Inventory. The sites consisted of segments of Lebec Road (36-024759) and Pipeline Road (36-024760), both of them located roughly 0.5 mile west of the APE. Given their distance from the APE, neither of these two sites requires further consideration during this study.

HISTORICAL RESEARCH

Historical sources consulted for this study yielded no evidence of any settlement or development activities in the APE throughout the 1850s-1950s era (Figs. 6-9; NETR Online 1938-1959). Throughout the historic period, various roads and a few widely scattered buildings, probably farmsteads, were the only human-made features noted in the surrounding area (Figs. 6-9). By the 1980s, the existing water reservoir had become the first notable human-made feature to appear within the APE (NETR Online 1968; 1984). According to PPHCSD records, the reservoir was installed in 1978. During the ensuing decade, another reservoir was installed on the adjacent property to the south, but no major changes have occurred within the APE itself since the 1970s (NETR Online 1984-2020; Google Earth 1994-2023).

NATIVE AMERICAN PARTICIPATION

In response to CRM TECH's inquiry, NAHC reported in a letter August 14, 2023, that the Sacred Lands File search identified no Native American cultural resources in the project vicinity. However, noting that the absence of specific information would not necessarily preclude the presence of such resources, NAHC recommended that local Native American groups be consulted for further information and provided a referral list of 24 individuals associated with 14 tribal organizations in the region (see App. 2).

Upon receiving NAHC's reply, on December 8, 2023, CRM TECH sent written requests for pertinent information and comments to all 14 tribes on NAHC's referral list (see App. 2). Follow-up telephone solicitations were then carried out between December 29, 2023, and January 5, 2024. In some cases, CRM TECH contacted the designated tribal spokespersons on cultural resources issues in lieu of the individuals on the list, as recommended in the past by the appropriate tribal government staff. The 14 Native American representatives contacted during this study are listed below:

- Patricia Garcia-Plotkin, Tribal Historic Preservation Officer, Agua Caliente Band of Cahuilla Indians;
- Andrew Salas, Chairperson, Gabrieleno Band of Mission Indians-Kizh Nation;
- Anthony Morales, Chairperson, Gabrieleno/Tongva San Gabriel Band of Mission Indians;
- Sandonne Goad, Chairperson, Gabrielino /Tongva Nation;
- Christina Conley, Cultural Resource Administrator, Gabrielino Tongva Indians of California Tribal Council;
- Sam Dunlap, Cultural Resource Director, Gabrielino-Tongva Tribe;
- Robert Robinson, Chairperson, Kern Valley Indian Community;

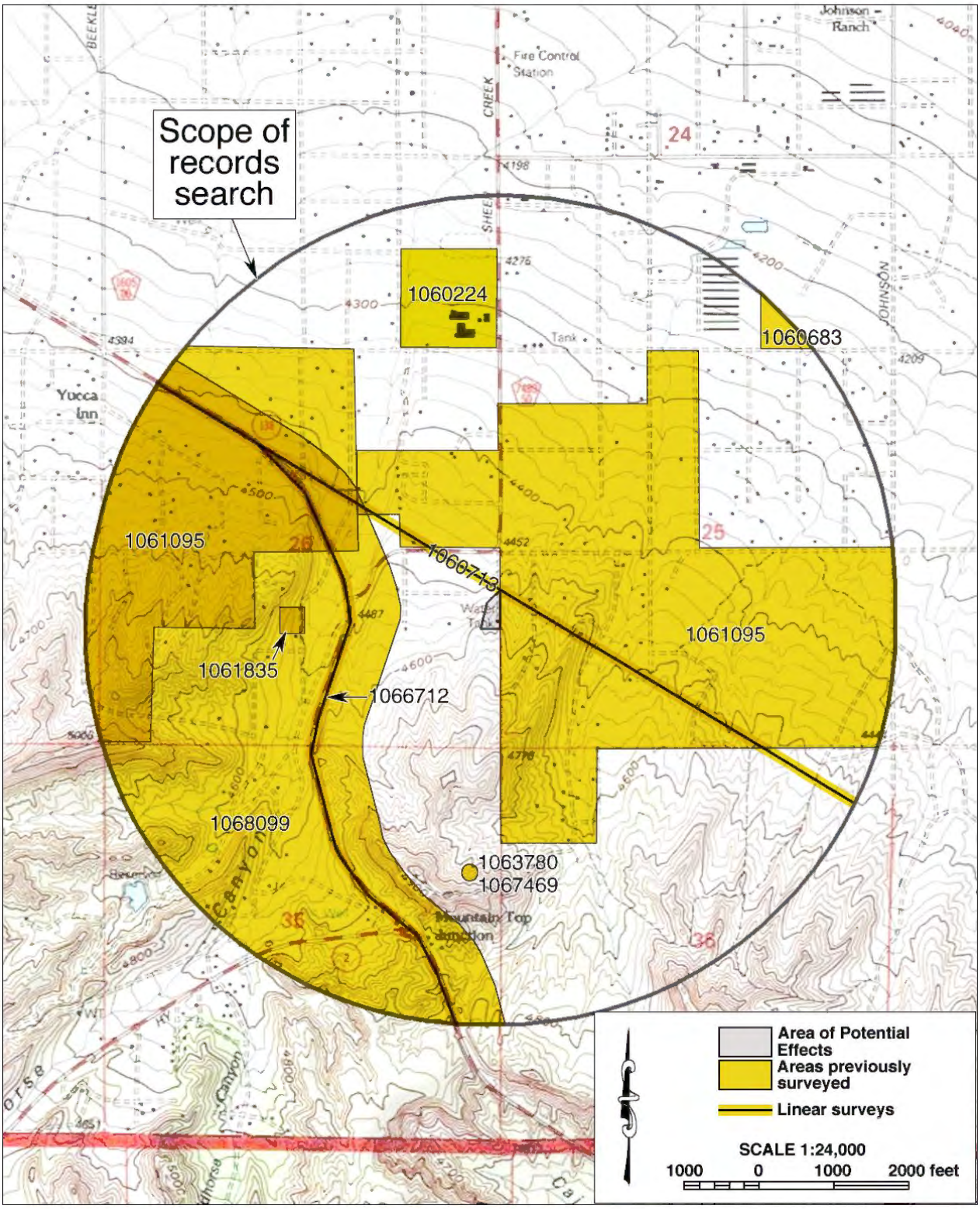

Figure 5. Previous cultural resources studies in the vicinity of the APE, listed by SCCIC file number. Locations of known historical/archaeological resources are not shown as a protective measure.

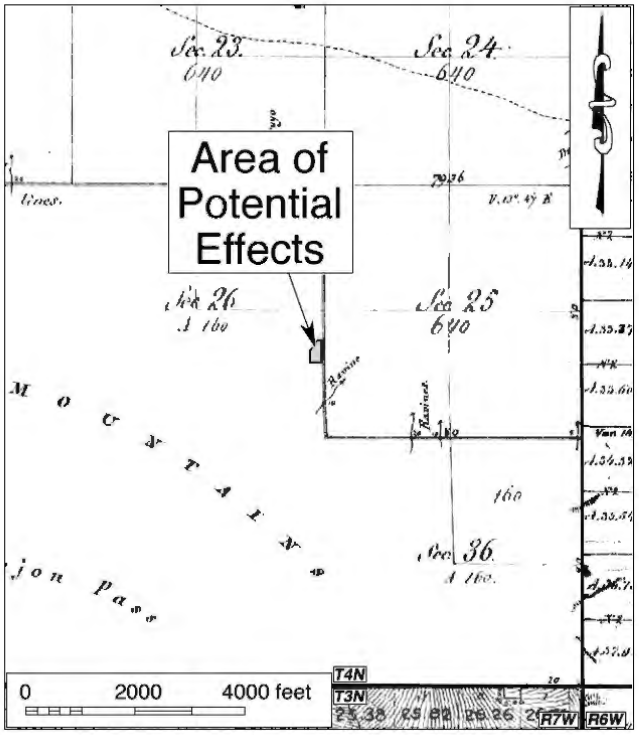

Figure 6. The APE and vicinity in 1855-1885. (Source: GLO 1856a-c; 1885)

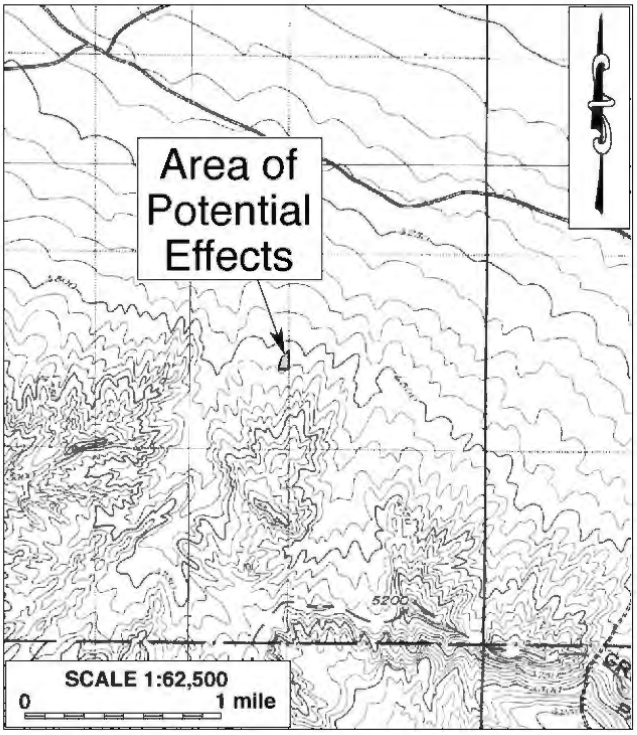

Figure 7. The APE and vicinity in 1899-1900. (Source: USGS 1903)

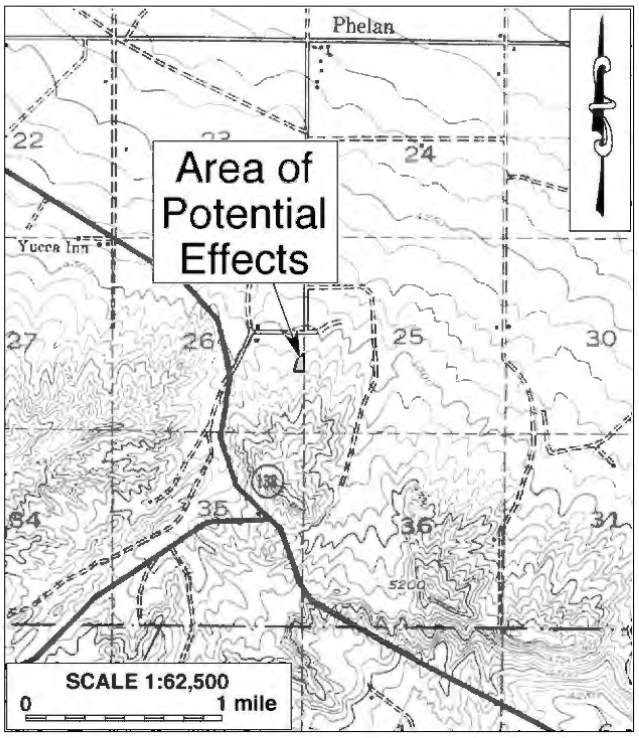

Figure 8. The APE and vicinity in 1941-1942. (Source: USGS 1942)

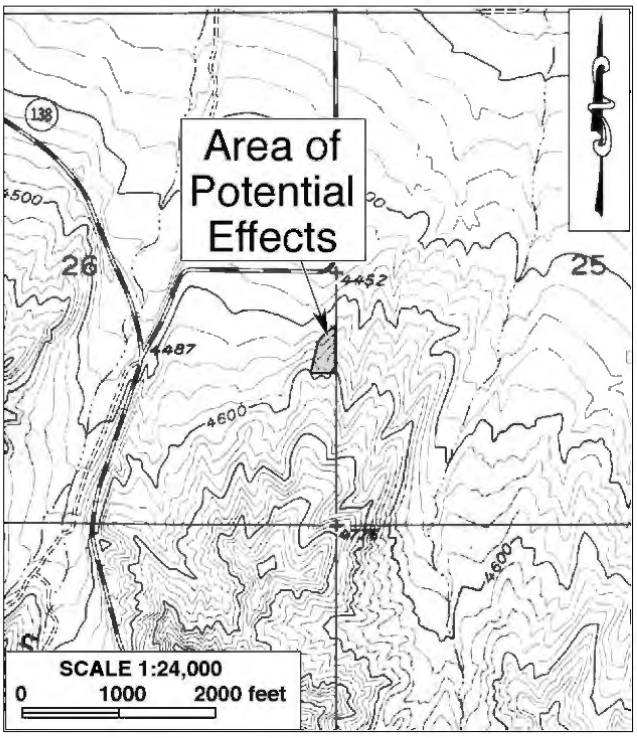

Figure 9. The APE and vicinity in 1952-1956. (Source: USGS 1956)

- Ann Brierty, Tribal Historic Preservation Officer, Morongo Band of Mission Indians;
- Jill McCormick, Tribal Historic Preservation Officer, Quechan Tribe of the Fort Yuma Reservation;
- Donna Yocum, Chairperson, San Fernando Band of Mission Indians;
- Vanessa Minott, Tribal Administrator, Santa Rosa Band of Cahuilla Indians;
- Mark Cochrane, Co-Chairperson, Serrano Nation of Mission Indians;
- Christopher Nicosia, Tribal Historic Preservation Officer Twenty,-Nine Palms Band of Mission Indians;
- Alexandra McCleary, Cultural Lands Manager, Yuhaaviatam of San Manuel Nation (also known as the San Manuel Band of Mission Indians).

As of this time, seven of the tribes have responded to the inquiry, and none of them identified any Native American cultural resources in the project vicinity (see App. 2). Among them, the Agua Caliente Band and the Santa Rosa Band deferred to other tribes located in closer proximity to the APE. The Gabrieleno Tongva Indians of California Tribal Council deferred specifically to the Gabrielino Tongva Nation, while the Gabrieleno Band-Kizh Nation deferred to the Yuhaaviatam. The Gabrieleno/Tongva San Gabriel Band requested to be notified of the discovery of any Native American cultural remains during the project. The Yuhaaviatam and the Kern Valley Indian Community found the project location to be sensitive for cultural resources, and both requested to participate in government-to-government consultation over this undertaking. In addition, the Kern Valley Indian Community requested a site visit before the commencement of any ground-disturbing activities associated with the undertaking.

FIELD SURVEY

The field survey encountered no potential "historic properties" or "historical resources" within or adjacent to the APE boundaries. As mentioned above, the existing reservoir in the APE was installed in 1978, which was confirmed by date stamps found on the surface of several pipe fittings and valves. Less than 50 years of age and a product of standard design and construction, the reservoir demonstrates little potential for historic significance. Therefore, it is not considered a potential "historic property" or "historical resource" and requires no further study. It was further observed during the survey that the ground surface in most of the APE has been extensively disturbed by past construction activities and operations of the existing facility.

GEOARCHAEOLOGICAL ANALYSIS

The sediments in the APE were mapped by Rogers (1967) as *Qc*, namely Pleistocene nonmarine sediments. More recently, Dibblee and Minch (2003) mapped the soils in the APE as *Qof*, or alluvial fan of Pleistocene age. Dibblee and Minch (*ibid*.) further described *Qof* as "alluvial gravel, gray-brown, vaguely bedded, deposited by northeast flowing streams, composed of subrounded cobbles and pebbles of mostly granitic and gneissic rocks."

The nearby level valley floor would have provided favorable resource procurement localities for much of the Holocene Epoch, while the finger ridges of the foothills would have been better suited for long-term habitation. No prehistoric sites were previously recorded in the vicinity, and there is currently no year-round water source, although the nonmarine alluvial soils imply water may have

been available during the Holocene. More importantly, though, the ground surface within the APE exhibits clear evidence of extensive disturbance from past construction activities, as noted above. As a result, the subsurface sediments in the APE appear to be relatively low in sensitivity for intact, potentially significant archaeological deposits of prehistoric or early historic origin.

MANAGEMENT CONSIDERATIONS

The purpose of this study is to identify any "historic properties" or "historical resources" that may exist within the APE. "Historic properties," as defined by the Advisory Council on Historic Preservation, include "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior" (36 CFR 800.16(l)). The eligibility for inclusion in the National Register is determined by applying the following criteria, developed by the National Park Service as per provision of the National Historic Preservation Act:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and
> (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
> (b) that are associated with the lives of persons significant in our past; or
> (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
> (d) that have yielded, or may be likely to yield, information important in prehistory or history. (36 CFR 60.4)

For CEQA-compliance considerations, the State of California's Public Resources Code (PRC) establishes the definitions and criteria for "historical resources," which require similar protection to what NHPA Section 106 mandates for "historic properties." "Historical resources," according to PRC §5020.1(j), "includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the lead agency (Title 14 CCR §15064.5(a)(1)-(3)). Regarding the proper criteria of historical significance, CEQA guidelines mandate that "generally a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

> (1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
> (2) Is associated with the lives of persons important in our past.

(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
(4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

As discussed above, no potential "historic properties" or "historical resources" were previously recorded within or adjacent to the APE, and none were found during the present survey. In addition, the Native American Sacred Lands File search by NAHC identified no properties of traditional cultural value in the project vicinity, and no notable cultural features were known to be present in the APE throughout the historic period. The existing water reservoir in the APE, as a standard infrastructure feature that is less than 50 years old, is not considered a potential "historic property"/"historical resource" for statutory compliance purposes. Based on these findings, and in light of the criteria listed above, the present report concludes that *no "historic properties" or "historical resources" exist within or adjacent to the APE*.

CONCLUSION AND RECOMMENDATIONS

Section 106 of the National Historic Preservation Act mandates that federal agencies consider the effects of their undertakings on historic properties and seek ways to avoid, minimize, or mitigate any adverse effects on such properties (36 CFR 800.1(a)). Similarly, CEQA establishes that a project that may cause a substantial adverse change in the significance of a "historical resource" is a project that may have a significant effect on the environment (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired."

In summary of the research results presented above, no "historic properties" or "historical resources" are known to be present within or adjacent to the APE. Therefore, CRM TECH presents the following recommendations to HUD and PPHCSD:

- The proposed undertaking will not cause a substantial adverse change to any known "historic properties" or "historical resources."
- No other cultural resources investigation will be necessary for the undertaking unless construction plans undergo such changes as to include areas not covered by this study.
- If any buried cultural materials are encountered during earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

REFERENCES

Basgall, Mark E., and D.L. True
1985 Archaeological Investigations in Crowder Canyon, 1973-1984: Excavations at Sites SBR-421B, SBR-421C, SBR-421D, and SBR-713, San Bernardino County, California. On file, South Central Coastal Information Center, California State University, Fullerton.
Beck, Warren A., and Ynez D. Haase
1974 *Historical Atlas of California*. University of Oklahoma Press, Norman.

Bean, Lowell John, and Charles R. Smith
1978 Serrano. In Robert F. Heizer (ed.): *Handbook of North American Indians*, Vol. 8, *California*; pp. 570-574. Smithsonian Institution, Washington, D.C.
Chartkoff, Joseph L., and Kerry Kona Chartkoff
1984 *The Archaeology of California*. Stanford University Press, Stanford, California.
City of Victorville
n.d. City History. http://www.ci.victorville.ca.us/Site/AboutVictorville.aspx?id=64.
Dibblee, Thomas, Jr.
2008 Geologic Map of the Telegraph Peak and Phelan Quadrangles, San Bernardino County, California. Dibblee Foundation Map DF-107, Santa Barara Museum of Natural History.
GLO (General Land Office, U.S. Department of the Interior)
1856a Plat Map: Township No. 3 North Range No. 6 West, SBBM; surveyed in 1855-1856.
1856b Plat Map: Township No. 4 North Range No. 6 West, SBBM; surveyed in 1855-1856.
1856c Plat Map: Township No. 4 North Range No. 7 West, SBBM; surveyed in 1855-1856.
1885 Plat Map: Township No. 3 North Range No. 7 West, SBBM; surveyed in 1885.
Goldberg, Susan K. (ed.)
2001 Metropolitan Water District of Southern California Eastside Reservoir Project: Final Report of Archaeological Investigations. Report on file, Eastern information Center, University of California, Riverside.
Goodman, John D., II
2002 Archaeological Survey of the Charter Communications Cable Project, Mountaintop Ranger District, San Bernardino National Forest, California. San Bernardino National Forest Technical Report 05-12-BB-102. San Bernardino, California.
Goodman, John D., II, and Meg McDonald
2001 Archaeological Survey of the Southern California Trials Association Event Area, Little Pine Flats, Mountaintop Ranger District, San Bernardino National Forest, California. San Bernardino National Forest Technical Report 05-12-BB-106. San Bernardino, California.
Google Earth
1994-2023 Aerial photographs of the project vicinity; taken in 1994, 2002, 2003, 2005, 2006, 2009, 2013, 2015-2018, 2020, 2022, and 2023. Available through the Google Earth software.
Grenda, Donn
1993 Archaeological Treatment Plan for CA-RIV-2798/H, Lake Elsinore, Riverside County, California. On file, Eastern Information Center, University of California, Riverside.
1997 Continuity and Change: 8,500 Years of Lacustrine Adaptation on the Shores of Lake Elsinore. Statistical Research Technical Series 59. Statistical Research, Inc., Tucson, Arizona.
Gudde, Erwin G.
1998 *California Place Names: The Origin and Etymology of Current Geographical Names*; fourth edition, revised and enlarged by William Bright. University of California Press, Berkeley.
Horne, Melinda C., and Dennis P. McDougall
2008 CA-RIV-6069: Early Archaic Settlement and Subsistence in the San Jacinto Valley, Western Riverside County, California. On file, Eastern Information Center, University of California, Riverside.
Keller, Jean S., and Daniel F. McCarthy
1989 Data Recovery at the Cole Canyon Site (CA-RIV-1139), Riverside County, California. *Pacific Coast Archeological Society Quarterly* 25.

Kroeber, Alfred L.
1925 Handbook of the Indians of California. Bureau of American Ethnology Bulletin 78. Government Printing Office, Washington, D.C.
McDonald, Meg, Philip J. Wilke, and Andrea Kauss
1987 McCue: An Elko Site in Riverside County. *Journal of California and Great Basin Anthropology* 9(1):46-73.
McGinnis, Myra
1988 The Hesperia story: Indian Territory to Cityhood. Myra McGinnis, Hesperia, California.
Milburn, Doug, U.K. Doan, and John D. Goodman, II
2008 Archaeological Investigation at Baldy Mesa-Cajon Divide for the Baldy Mesa Off-Highway-Vehicle Recreation Trails Project San Bernardino National Forest, San Bernardino County, California. On file, San Bernardino National Forest (ARR #05-12-53-091), San Bernardino.
NETR (Nationwide Environmental Title Research) Online
1938-2020 Aerial photographs of the APE and vicinity; taken in 1938, 1952, 1968, 1994, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, AND 2020. http://www.historicaerials.com.
NPS (National Park Service, U.S. Department of the Interior)
2001 National Historic Trail Feasibility Study and Environmental Assessment: Old Spanish Trail, New Mexico, Colorado, Utah, Arizona, Nevada, California. National Park Service, U.S. Department of the Interior, Washington, D.C.
O'Connell, James F., Philip J. Wilke, Thomas F. King, and Carol L. Mix (eds.)
1974 Perris Reservoir Archaeology: Late Prehistoric Demographic Change in Southeastern California. On file, Eastern Information Center, University of California, Riverside.
Peirson, Erma
1970 The Mojave River and Its Valley. The Arthur H. Clarke Company, Glendale.
Strong, William Duncan
1929 *Aboriginal Society in Southern California*. University of California Publications in American Archaeology and Ethnology, Vol. 26. Reprinted by Malki Museum Press, Banning, California, 1972.
USGS (United States Geological Survey, U.S. Department of the Interior)
1903 Map: San Antonio, Calif. (15', 1:62,500); surveyed in 1899-1900.
1942 Map: San Antonio, Calif. (15', 1:62,500); aerial photographs taken in 1941, field-checked in 1942.
1956 Map: Phelan, Calif. (7.5', 1:24,000); aerial photographs taken in 1952, field checked in 1956.
1969 Map: San Bernardino, Calif. (120'x60', 1:250,000); 1958 edition revised.
1996 Map: Phelan, Calif. (7.5', 1:24,000); aerial photographs taken in 1994.
Warren, Claude N.
1984 The Desert Region. In Michael J. Moratto (ed.): *California Archaeology*; pp. 339-430. Academic Press, Orlando, Florida.
Warren, Elizabeth von Till
2004 The Old Spanish National Historic Trail. http://oldspanishtrail.org/our-history.

APPENDIX 1:
PERSONNEL QUALIFICATIONS

PRINCIPAL INVESTIGATOR, HISTORY/ARCHITECTURAL HISTORY
Bai "Tom" Tang, M.A.

Education

1988-1993	Graduate Program in Public History/Historic Preservation, University of California, Riverside.
1987	M.A., American History, Yale University, New Haven, Connecticut.
1982	B.A., History, Northwestern University, Xi'an, China.
2000	"Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.
1994	"Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1993-2002	Project Historian/Architectural Historian, CRM TECH, Riverside, California.
1993-1997	Project Historian, Greenwood and Associates, Pacific Palisades, California.
1991-1993	Project Historian, Archaeological Research Unit, University of California, Riverside.
1990	Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992	Teaching Assistant, History of Modern World, University of California, Riverside.
1988-1993	Research Assistant, American Social History, University of California, Riverside.
1985-1988	Research Assistant, Modern Chinese History, Yale University.
1985-1986	Teaching Assistant, Modern Chinese History, Yale University.
1982-1985	Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China.

Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

PRINCIPAL INVESTIGATOR, ARCHAEOLOGY
Michael Hogan, Ph.D., RPA (Registered Professional Archaeologist)

Education

1991	Ph.D., Anthropology, University of California, Riverside.
1981	B.S., Anthropology, University of California, Riverside; with honors.
1980-1981	Education Abroad Program, Lima, Peru.
2002	"Section 106—National Historic Preservation Act: Federal Law at the Local Level," UCLA Extension Course #888.
2002	"Recognizing Historic Artifacts," workshop presented by Richard Norwood, Historical Archaeologist.
2002	"Wending Your Way through the Regulatory Maze," symposium presented by the Association of Environmental Professionals.
1992	"Southern California Ceramics Workshop," presented by Jerry Schaefer.
1992	"Historic Artifact Workshop," presented by Anne Duffield-Stoll.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1999-2002	Project Archaeologist/Field Director, CRM TECH, Riverside, California.
1996-1998	Project Director and Ethnographer, Statistical Research, Inc., Redlands, California.
1992-1998	Assistant Research Anthropologist, University of California, Riverside.
1992-1995	Project Director, Archaeological Research Unit, U.C. Riverside.
1993-1994	Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C. Riverside, Chapman University, and San Bernardino Valley College.
1991-1992	Crew Chief, Archaeological Research Unit, U.C. Riverside.
1984-1998	Project Director, Field Director, Crew Chief, and Archaeological Technician for various southern California cultural resources management firms.

Research Interests

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

Cultural Resources Management Reports

Principal investigator for, author or co-author of, and contributor to numerous cultural resources management study reports since 1986.

Memberships

Society for American Archaeology; Society for California Archaeology; Pacific Coast Archaeological Society; Coachella Valley Archaeological Society.

PROJECT ARCHAEOLOGIST/REPORT WRITER
Deirdre Encarnación, M.A.

Education

2003	M.A., Anthropology, San Diego State University, California.
2000	B.A., Anthropology, minor in Biology, San Diego State University, California; with honors.
2021	Certificate of Specialization, Kumeyaay Studies, Cuyamaca College, California.
2001	Archaeological Field School, San Diego State University.
2000	Archaeological Field School, San Diego State University.

Professional Experience

2016-	Archaeological Consultant, Friends of Maha'ulepu, Koloa, Hawai'i.
2004-	Project Archaeologist/Report Writer, CRM TECH, Riverside/Colton, California.
2001-2003	Part-time Lecturer, San Diego State University, California.
2001	Research Assistant for Dr. Lynn Gamble, San Diego State University.
2001	Archaeological Collection Catalog, San Diego State University Foundation.

Memberships

Society for California Archaeology; Society for Hawaiian Archaeology; California Native Plant Society.

PROJECT ARCHAEOLOGIST
Breidy Q. Vilcahuaman, M.A., RPA (Registered Professional Archaeologist)

Education

2018	M.A., Anthropology, Georgia State University, Atlanta, GA.
2005	B.A., Anthropology, University Nacional del Centro del Peru

Professional Experience

2022-	Project Archaeologist, CRM TECH, Colton, California
2021-2022	Archaeologist technician, Applied Earthwork, Inc.
2021	Crew Chief Archaeologist, Historical Research Associates, Inc.
2020-2021	Archaeologist technician, Cogstone Resource Management
2020	Archaeologist technician, McKenna et al.

PROJECT ARCHAEOLOGIST/NATIVE AMERICAN LIAISON
Nina Gallardo, B.A.

Education

2004 B.A., Anthropology/Law and Society, University of California, Riverside.

Professional Experience

2004- Project Archaeologist, CRM TECH, Riverside/Colton, California.

Cultural Resources Management Reports

Co-author of and contributor to numerous cultural resources management reports since 2004.

PROJECT ARCHAEOLOGIST
Salvadore Z. Boites, M.A.

Education

2013 M.A., Applied Anthropology, California State University, Long Beach.
2003 B.A., Anthropology/Sociology, University of California, Riverside.
1996-1998 Archaeological Field School, Fullerton Community College, Fullerton, California.

Professional Experience

2014- Project Archaeologist, CRM TECH, Colton, California.
2010-2011 Adjunct Instructor, Anthropology, Everest College, Anaheim, California.
2003-2008 Project Archaeologist, CRM TECH, Riverside/Colton, California.
2001-2002 Teaching Assistant, Moreno Elementary School, Moreno Valley, California.
1999-2003 Research Assistant, Anthropology Department, University of California, Riverside.

Research Interests

Cultural Resource Management, Applied Archaeology/Anthropology, Indigenous Cultural Identity, Poly-culturalism.

APPENDIX 2

CORRESPONDENCE WITH NATIVE AMERICAN REPRESENTATIVES*

* Fourteen local Native American tribes were contacted; a sample letter is included in this appendix.

SACRED LANDS FILE & NATIVE AMERICAN CONTACTS LIST REQUEST

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916)373-3710
(916)373-5471 (Fax)
nahc@nahc.ca.gov

Project: Phelan Piñon Hills Community Services District 1.5-MG Reservoir Project (CRM TECH No. 4038)

County: San Bernardino

USGS Quadrangle Name: Phelan, Calif.

Township 4 North **Range** 7 West SB **BM; Section(s)**: 26

Company/Firm/Agency: CRM TECH

Contact Person: Nina Gallardo

Street Address: 1016 E. Cooley Drive, Suite A/B

City: Colton, CA **Zip:** 92324

Phone: (909) 824-6400 **Fax:** (909) 824-6405

Email: ngallardo@crmtech.us

Project Description: The primary component of the project is to install a new 1.5-MG reservoir on approximately two acres of land in Assessor's Parcel Number 3037-071-06 and -08, within the Phelan Piñon Hills Community Service District's existing Reservoir 6A facility at 8300 Javelin Road, near the unincorporated community of Phelan, San Bernardino County, California.

July 13, 2023

Native American Heritage Commission
Native American Contact List
San Bernardino County
8/14/2023

Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties
Agua Caliente Band of Cahuilla Indians	F	Patricia Garcia, Director of Historic Preservation	5401 Dinah Shore Drive Palm Springs, CA, 92264	(760) 699-6907	(760) 699-6919	pagarcia@aguacaliente.net	Cahuilla	Imperial,Riverside,San Bernardino,San Diego
Gabrieleno Band of Mission Indians - Kizh Nation	N	Andrew Salas, Chairperson	P.O. Box 393 Covina, CA, 91723	(626) 926-4131		chairman@gabrielenoindians.org	Gabrieleno	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura
Gabrieleno Band of Mission Indians - Kizh Nation	N	Christina Swindall Martinez, Secretary	P.O. Box 393 Covina, CA, 91723	(626) 926-4131		admin@gabrielenoindians.org	Gabrieleno	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura
Gabrieleno/Tongva San Gabriel Band of Mission Indians	N	Anthony Morales, Chairperson	P.O. Box 693 San Gabriel, CA, 91778	(626) 483-3564	(626) 286-1262	GTTribalcouncil@aol.com	Gabrieleno	Los Angeles,Orange,Riverside,San Bernardino,Ventura
Gabrielino /Tongva Nation	N	Sandonne Goad, Chairperson	106 1/2 Judge John Aiso St., #231 Los Angeles, CA, 90012	(951) 807-0479		sgoad@gabrielino-tongva.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Ventura
Gabrielino Tongva Indians of California Tribal Council	N	Christina Conley, Cultural Resource Administrator	P.O. Box 941078 Simi Valley, CA, 93094	(626) 407-8761		christina.marsden@alumni.usc.edu	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura
Gabrielino Tongva Indians of California Tribal Council	N	Robert Dorame, Chairperson	P.O. Box 490 Bellflower, CA, 90707	(562) 761-6417	(562) 761-6417	gtongva@gmail.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura
Gabrielino-Tongva Tribe	N	Sam Dunlap, Cultural Resource Director	P.O. Box 3919 Seal Beach, CA, 90740	(909) 262-9351		tongvatcr@gmail.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Ventura
Gabrielino-Tongva Tribe	N	Charles Alvarez, Chairperson	23454 Vanowen Street West Hills, CA, 91307	(310) 403-6048		Chavez1956metro@gmail.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Ventura
Kern Valley Indian Community	N	Robert Robinson, Chairperson	P.O. Box 1010 Lake Isabella, CA, 93240	(760) 378-2915		bbutterbredt@gmail.com	Kawaiisu Tubatulabal Koso	Inyo,Kern,Los Angeles,San Bernardino,Tulare
Kern Valley Indian Community	N	Julie Turner, Secretary	P.O. Box 1010 Lake Isabella, CA, 93240	Phone: (661) 340-0032			Kawaiisu Tubatulabal Koso	Inyo,Kern,Los Angeles,San Bernardino,Tulare
Kern Valley Indian Community	N	Brandy Kendricks,	30741 Foxridge Court Tehachapi, CA, 93561	(661) 821-1733		krazykendricks@hotmail.com	Kawaiisu Tubatulabal Koso	Inyo,Kern,Los Angeles,San Bernardino,Tulare
Morongo Band of Mission Indians	F	Robert Martin, Chairperson	12700 Pumarra Road Banning, CA, 92220	(951) 755-5110	(951) 755-5177	abrierty@morongo-nsn.gov	Cahuilla Serrano	Imperial,Los Angeles,Riverside,San Bernardino,San Diego
Morongo Band of Mission Indians	F	Ann Brierty, THPO	12700 Pumarra Road Banning, CA, 92220	(951) 755-5259	(951) 572-6004	abrierty@morongo-nsn.gov	Cahuilla Serrano	Imperial,Los Angeles,Riverside,San Bernardino,San Diego
Quechan Tribe of the Fort Yuma Reservation	F	Jill McCormick, Historic Preservation Officer	P.O. Box 1899 Yuma, AZ, 85366	(928) 261-0254		historicpreservation@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego
Quechan Tribe of the Fort Yuma Reservation	F	Manfred Scott, Acting Chairman - Kw'ts'an Cultural Committee	P.O. Box 1899 Yuma, AZ, 85366	(928) 210-8739		culturalcommittee@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego
Quechan Tribe of the Fort Yuma Reservation	F	Jordan Joaquin, President, Quechan Tribal Council	P.O.Box 1899 Yuma, AZ, 85366	(760) 919-3600		executivesecretary@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego
San Fernando Band of Mission Indians	N	Donna Yocum, Chairperson	P.O. Box 221838 Newhall, CA, 91322	(503) 539-0933	(503) 574-3308	dyocum@sfbmi.org	Kitanemuk Vanyume Tataviam	Kern,Los Angeles,San Bernardino,Ventura
San Manuel Band of Mission Indians	F	Alexandra McCleary, Cultural Lands Manager	26569 Community Center Drive Highland, CA, 92346	(909) 633-0054		alexandra.mccleary@sanmanuel-nsn.gov	Serrano	Kern,Los Angeles,Riverside,San Bernardino

Santa Rosa Band of Cahuilla Indians	F	Lovina Redner, Tribal Chair	P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	(951) 659-2228	lsaul@santarosa-nsn.gov	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego
Serrano Nation of Mission Indians	N	Mark Cochrane, Co-Chairperson	P. O. Box 343 Patton, CA, 92369	(909) 528-9032		serranonation1@gmail.com	Serrano	Los Angeles,Riverside,San Bernardino
Serrano Nation of Mission Indians	N	Wayne Walker, Co-Chairperson	P. O. Box 343 Patton, CA, 92369	(253) 370-0167		serranonation1@gmail.com	Serrano	Los Angeles,Riverside,San Bernardino
Twenty-Nine Palms Band of Mission Indians	F	Anthony Madrigal, Tribal Historic Preservation Officer	46-200 Harrison Place Coachella, CA, 92236	(760) 775-3259		amadrigal@29palmsbomi-nsn.gov	Chemehuevi	Imperial,Inyo,Riverside,San Bernardino
Twenty-Nine Palms Band of Mission Indians	F	Darrell Mike, Chairperson	46-200 Harrison Place Coachella, CA, 92236	(760) 863-2444	(760) 863-2449	29chairman@29palmsbomi-nsn.gov	Chemehuevi	Imperial,Inyo,Riverside,San Bernardino

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 Phelan Piñon Hills Community Services District's New 1.5 MG Reservoir Project (CRM TECH No. 4038), San Bernardino County.

Record: PROJ-2023-004061
Report Type: List of Tribes
Counties: San Bernardino
NAHC Group: All

December 8, 2023

RE: Phelan Piñon Hills Community Services District
Proposed New 1.5-MG Reservoir Project
Near the Unincorporated Community of Phelan
San Bernardino County, California
CRM TECH Contract #4038

Dear Tribal Representative:

I am writing to bring your attention to an ongoing CEQA- and Section 106-compliance study for the project referenced above. The undertaking primarily proposes to construct a new 1.5-MG Reservoir within the Phelan Piñon Hills Community Service District's (PPHCSD) existing Reservoir 6A facility at 8300 Javelin Road, near the unincorporated community of Phelan, San Bernardino County, California. The Area of Potential Effects (APE) for the project includes approximately two acres of land in Assessor's Parcel Numbers 3037-071-06 and -08. The accompanying map, based on the USGS Phelan, Calif., 7.5' quadrangle, depicts the APE in Section 26, T4N R7W, SBBM.

The Native American Heritage Commission reports in a letter dated August 14, 2023, that the Sacred Lands File search result was negative for tribal cultural resources in the vicinity but recommends contacting local Native American groups for any additional information (see attached). Therefore, as part of the cultural resources study for this project, I am writing to request your input on potential Native American cultural resources in or near the APE, and/or any other information to consider during the cultural resources investigations. Any information or concerns may be forwarded to CRM TECH by telephone, e-mail, facsimile, or standard mail. Requests for documentation or information we cannot provide will be forwarded to our client and/or the lead agencies for the project, namely the PPHCSD.

We would also like to clarify that, as the cultural resources consultant for the project, CRM TECH is not involved in the AB 52-compliance process or in government-to-government consultations. The purpose of this letter is to seek any information that you may have to help us determine if there are cultural resources in or near the project area that we should be aware of and to help us assess the sensitivity of the APE. Thank you for your time and effort in addressing this important matter.

Respectfully,

Nina Gallardo
Project Archaeologist/Native American Liaison
Email: ngallardo@crmtech.us

Encl.: NAHC response letter and project location map

From: THPO Consulting <ACBCI-THPO@aguacaliente.net>
Sent: Friday, December 8, 2023 4:40 PM
To: 'ngallardo@crmtech.us'
Subject: RE: NA Scoping Letter for the PPHCSD 1.5-MG Reservoir Project near the Unincorporated Community of Phelan, San Bernardino County (CRM TECH # 4038)

Greetings,

A records check of the Tribal Historic Preservation Office's cultural registry revealed that this project is not located within the Tribe's Traditional Use Area. Therefore, we defer to the other tribes in the area. This letter shall conclude our consultation efforts.

Thank you,

Xitlaly Madrigal
Cultural Resources Analyst
xmadrigal@aguacaliente.net
C: (760) 423-3485 | D: (760) 883-6829
5401 Dinah Shore Drive, Palm Springs, CA 92264

From: Christina Marsden Conley <christina.marsden@alumni.usc.edu>
Sent: Monday, December 11, 2023 10:26 AM
To: ngallardo@crmtech.us
Cc: sgoad gabrielino-tongva.com
Subject: Re: NA Scoping Letter for the PPHCSD 1.5-MG Reservoir Project near the Unincorporated Community of Phelan, San Bernardino County (CRM TECH # 4038)

We will defer our comment to Gabrielino Tongva Nation under Sandonne Goad.

Christina

tehoovet taamet
C H R I S T I N A C O N L E Y
•Native American Monitor - Caretaker of our Ancestral Land and Water
•Cultural Resource Administrator Under Tribal Chair, Robert Dorame (Most Likely Descendant) of Pimugna (Catalina Island), Carson, Huntington Beach, Long Beach, Marina del Rey, Playa Vista, Studio
City
•Native American Heritage Commission Contact
•Fully qualified as a California State Recognized Native American Tribe fulfilling SB18, AB52 Compliance
Regulations
•HAZWOPER Certified
•626.407.8761

From: Eunice Ambriz <Eunice.Ambriz@sanmanuel-nsn.gov>
Sent: Wednesday, December 13, 2023 12:35 PM
To: ngallardo@crmtech.us
Cc: Cultural Resources Management
Subject: Response to Information Request - Proposed New 1.5 MG Reservoir Project

Dear Nina,

Thank you for contacting the San Manuel Band of Mission Indians concerning the proposed project area. San Manuel appreciates the opportunity to review the project documentation received by the Cultural Resources Management Department on December 11, 2023. The proposed project is located within Serrano Ancestral Territory and is therefore of interest to the Tribe. Due to the nearby presence of previously recorded archaeological sites, the proposed project area may be sensitive for cultural resources. As such, the Tribe will wish to engage in government-to-government consultation pursuant to AB 52, should this project be subject to CEQA review.

Thank you again for your correspondence. If you have any additional questions or comments, please reach out to me at your earliest convenience.

Regards,
Eunice

Eunice Ambriz
Cultural Resources Technician
Eunice.Ambriz@sanmanuel-nsn.gov
O:(909) 864-8933 x 50-2033
26569 Community Center Dr Highland, California 92346

From: Vanessa Minott <vminott@santarosa-nsn.gov>
Sent: Monday, January 8, 2024 3:48 PM
To: ngallardo@crmtech.us
Subject: Philin Pinion Hills Project

Acha'i Tamit,

I have received your voice mail and I do apologize on the delay in response, but I was on vacation. Santa Rosa does not have any comments on the Philin Pinion Hills Project at this time and defere any response for a Federally Recognized tribe closer to the project.

Respectfully,
Vanessa Minott, Tribal Administrator

Santa Rosa Band of Cahuilla Indians
P.O. Box 391820
Anza, CA 92539
951-659-2700 ext. 102
760-668-0460 work cell

TELEPHONE LOG

Name	Tribe/Affiliation	Telephone/Email	Note
Patricia Garcia-Plotkin, Tribal Historic Preservation Officer	Agua Caliente Band of Cahuilla Indians	None	Xitlaly Madrigal, Cultural Resources Analyst, responded on behalf of the tribe by e-mail on December 8, 2023 (copy attached).
Christina Swindall Martinez, Secretary	Gabrieleno Band of Mission Indians-Kizh Nation	1:46 pm, December 29, 2023;	Mr. Salas stated that the tribe would defer to the Yuhaaviatam of San Manuel Nation since the APE is outside of Gabrieleno ancestral territory.
Anthony Morales, Chairperson	Gabrieleno/Tongva San Gabriel Band of Mission Indians	1:57 pm, December 29, 2023	Mr. Morales requested to be notified if any Native American cultural remains were to be discovered during ground-disturbing activities in the APE.
Sandonne Goad, Chairperson	Gabrielino/Tongva Nation	2:04 pm, December 29, 2023; 10:30 am, January 5, 2024	No answer; voice-mail box was full. No response to date.
Christina Conley, Tribal Consultant and Administrator	Gabrieleno Tongva Indians of California Tribal Council	None	Ms. Conley responded by e-mail on December 11, 2023 (copy attached).
Sam Dunlap, Cultural Resource Director	Gabrielino-Tongva Tribe	2:06 pm, December 29, 2023; 10:33 am, January 5, 2024	Left voice messages. No response to date.
Robert Robinson, Chairperson	Kern Valley Indian Community	2:10 pm, December 29, 2023; 4:16 pm, December 29, 2023; 11:40 am, January 5, 2024	Mr. Robinson stated that the tribe would like to participate in AB 52 consultation with the lead agencies due to the cultural sensitivity of the general area and its proximity to the natural waterways. The tribe would also like a site visit to the APE before any ground-disturbing activities associated with the proposed undertaking take place.
Ann Brierty, Tribal Historic Preservation Officer	Morongo Band of Mission Indians	2:13 pm, December 29, 2023; 10:44 am, January 5, 2024	Left voice messages. No response to date.
H. Jill McCormick, Tribal Historic Preservation Officer	Quechan Indian Tribe of the Fort Yuma Reservation	2:17 pm, December 29, 2023; 10:47 am, January 5, 2024	No answer; voice-mail box was full. No response to date.
Donna Yocum, Chairperson	San Fernando Band of Mission Indian	2:21 pm, December 29, 2023; 10:52 am, January 5, 2024	Left voice messages. No response to date.
Vanessa Minott, Tribal Administrator	Santa Rosa Band of Cahuilla Indians	2:26 pm, December 29, 2023; 11:03 am, January 5, 2024	Ms. Minott responded by e-mail on January 8, 2024 (copy attached).

Mark Cochrane, Co-Chairperson	Serrano Nation of Mission Indians	2:28 pm, December 29, 2023; 11:28 am, January 5, 2024	No answer; voice-mail box was not set up. No response to date.
Christopher Nicosia, Tribal Historic Preservation Officer	Twenty-Nine Palms Band of Mission Indians	2:36 pm, December 29, 2023; 11:32 am, January 5, 2024	Mr. Nicosia stated that the tribe would try to respond in writing as soon as possible, but that the department was “swamped” with similar correspondence. No further response since then.
Alexandra McCleary, Cultural Lands Manager	Yuhaaviatam of San Manuel Nation	None	Eunice Ambriz, Cultural Resources Technician, responded on behalf of the tribe by e-mail on December 13, 2023(copy attached).

APPENDIX 4

Soil Map—San Bernardino County, California, Mojave River Area
(PPH-127)

Map Scale: 1:824 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 10 20 40 60

Feet
0 40 80 160 240

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County, California, Mojave River Area
Survey Area Data: Version 15, Aug 30, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 17, 2022—Jun 12, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
111	BULL TRAIL-TYPIC XERORTHENTS ASSOCIATION, MODERATELY STEEP*	1.8	100.0%
Totals for Area of Interest		**1.8**	**100.0%**