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May 26, 2025

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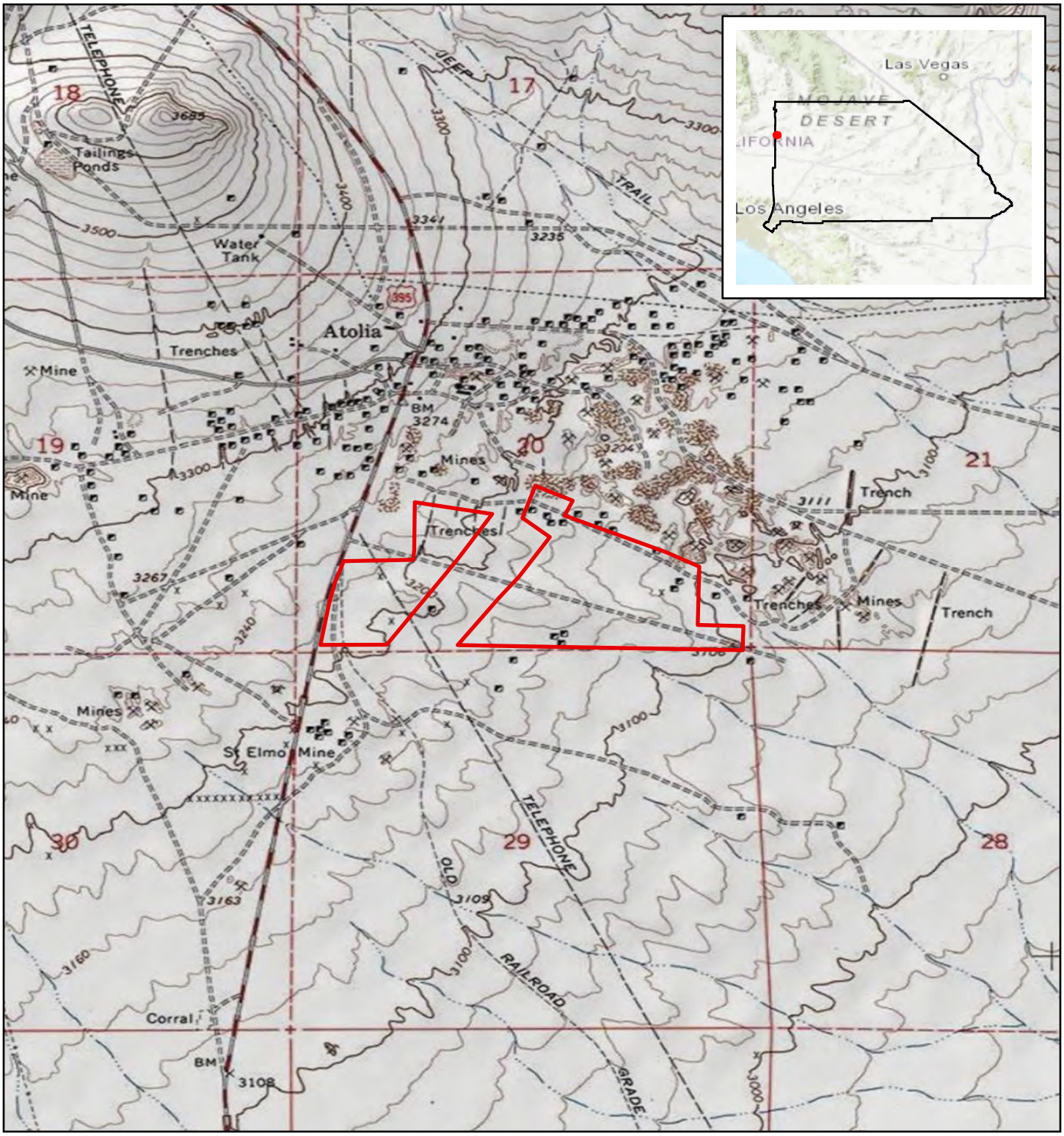
**RE: Rare, Threatened, and Endangered ("Special-Status") Plant Survey on 128-Acres Proposed Mining Project South of Red Mountain in San Bernardino County, California**

Dear Sean:

This letter includes the results of a special-status plant survey on an 128-acres proposed mining site (project site) south of the town of Atolia in San Bernardino County, California (attached Figure 1 and Figure 2). The proposed project includes surface mining for minerals throughout the project site that consists of using machines to dig into the ground, sand, soil, and rock to identify concentrations of minerals and then extract them. The main goal of the survey was to identify rare, threatened, and endangered ("special-status") species on the 128-acres proposed mining site. The survey was conducted by South Environmental biologists Matthew South, Lucas South, and Meagan Stebbings on the western survey area on April 28, 2025 and on the eastern survey area on April 29 and 30, 2025.

The survey was conducted based on federal and national criteria of government agencies including those of the U.S. Fish and Wildlife and California Department of Fish and Wildlife that evaluate the conservation status of plants in the region and their geographical natural occurrence. When applicable, standard survey methods supported by state and federal agencies were followed. The survey involved plant observation along a series of transects during which plants were identified and recorded. Plants that could not be identified in the field were collected and identified in the laboratory. A complete list of all species recorded on the site and a brief description of the plant community including dominant species and important is included in the report.




Source: ESRI USA Topo Maps and World Topo Map accessed June 2022

Gold Discovery Group Project

# Figure 1. Regional Location

Survey Area - 128-acres

0 1,000 2,000 Feet

Scale: 1:24,000

N

The Survey Area is in an unincorporated area of San Bernardino County, California on the USGS Red Mountain quadrangle map in Section 20 of Township 30 South (T30S) North and Range 41 East (R41E)

Center Coordinate (Decimal Degrees):
Latitude: 35.3063454N Longitude: -117.6013587W

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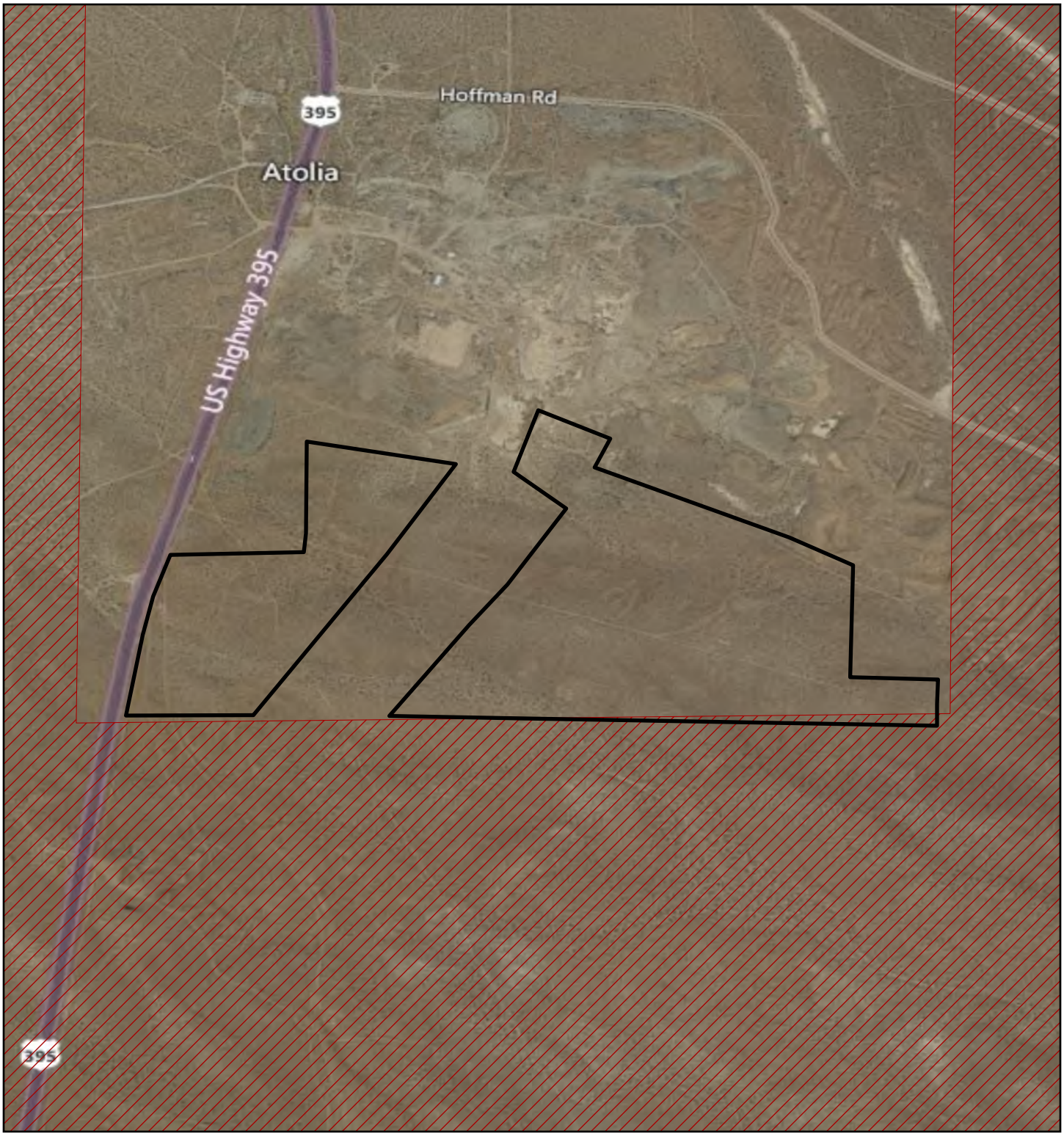


Source: BING Aerial Basemap accessed 2022

Gold Discovery Group Project

# Figure 2. Project Vicinity

0 500 1,000 Feet

N

Desert Tortoise Critical Habitat

Survey Area - 128-acres

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# Project Site Description

The survey area includes the entire 128-acres project site consisting of an eastern survey area and a western survey area that are separated by 600-feet and located immediately east of US Highway 395 and south of the abandoned mining town of Atolia in an unincorporated area of San Bernardino County. The survey area is less than a mile east of the border with Kern County within the United States Geological Service (USGS) Red Mountain 7.5 minute quad and within Section 20 of Township 30 South and Range 41 East at a center coordinate (decimal degrees) of 35.304600 North, -117.605804 West. The survey area is set within an undeveloped area immediately south of an existing mining operation that has entirely developed the areas to the north. Abandoned mineshafts and old mining pits occur frequently on the survey area but it is relatively undisturbed. Photographs of the survey area are in the attached Photograph Exhibit.

# Topography and Rainfall

The survey area has undulating hills with a gentle slope toward the east and at an elevation of 3,225 feet on the western edge of the western area and 3,090 feet on the eastern edge of the eastern area. The average annual rainfall in Atolia, California is 5.67-inches per year with the wettest months in January through May. This area of California has had below average rainfall in 2021 and in 2022 according to the National Centers for Environmental Information.

# Soils

No soils information if available for this location of San Bernardino County (USDA/NRCS 2025). However, the soils observed during the survey were sandy, friable, and suitable for burrowing species.

# Plant Communities

A creosote bush — white bursage scrub (*Larrea tridentata — Ambrosia dumosa* Scrub) as described by the Manual of California Vegetation Online (CNPS 2025a) occurs across the survey area. This is an upland desert scrub community where shrubs and annual herbs dominate with a lesser presence of perennial herbs. According to the CNPS, the community is found on "washes and rills, alluvial fans, bajadas, valleys, basins, upland slopes, mesas, and erosional highland" in areas with soils that are primarily "well-drained, alluvial, colluvial, or sandy." It is found at an elevation of 800-5250-ft amsl (CNPS 2025a). The community is classified by the CDFW with a ranking at the state level of "5" (S5) and at the global level of "5" (G5) and therefore is not considered a sensitive natural community. Only communities with a classification of 3 or less at

either the state or global level are a sensitive natural community. The community covers approximately 67% of the Mojave desert (Thomas 2004).

In this community on the survey area, creosote bush is co-dominant with white bursage. Other important shrub species include rayless goldenhead, cheesebush, silver cholla, Anderson thornbush, and catclaw acacia. The shrub canopy was between 2-5-feet in height and had an absolute cover of 10-30%. At the ground level there was a predominance of forbs including bristly fiddleneck, Arabian grass, common goldfields, redstem stork's bill, and desert woollystar. Important grasses observed were the non-native Arabian grass and brome. Forbs were 1-1.5 feet in height and had a ground cover of 20-40%.

# Methodology

## Literature Review

The California Native Plant Society (CNPS) and the California Department of Fish and Wildlife (CDFW) are the primary authorities in the State of California for recording and tracking endangered, threatened, and rare plants (i.e., special-status) in the state. The CNPS "Inventory of Rare Plants" online (CNPS 2025) and the CDFW California Natural Diversity Database (CNDDB) online (CDFW 2025a) are query tools that identify rare, endangered, and threatened plants and their occurrence based on the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles for the state. Basic information is provided for each special-status plant species including conservation status, local areas of occurrence, macro and micro habitat, elevation range, and blooming period. Plants considered by the CNPS and CDFW to be rare, threatened, and endangered species are based on specific criteria of state and federal legislation and are summarized in **Appendix B**. The geographic location of occurrences of special-status plants can also be queried directly through the Biogeographic Information and Observation System (BIOS) online (CDFW 2025b).

For the survey, both databases were queried for special-status plants that have previously been recorded in the Red Mountain 7.5" quad that the project site is located within, and the eight surrounding USGS 7.5" quads: Klinker Mountain, El Paso Peaks, Johannesburg, Boron NE, Boron NW, West of Black Hills, Cuddeback Lake, and Freemont Peak. Following the online queries, the rare, threatened, and endangered species identified in each query were combined into a comprehensive list for the region. These species were considered as potential special-status species to occur on the survey site. Next, an additional assessment was conducted to determine their potential to occur on the survey area based on specific habitat and micro-habitat requirements for the species and their occurrences in the area in relation to the survey area. Based on this assessment, the special-status species were designated a "none", "low", "medium", or "high" potential to occur on the project site (**Appendix B**).



## Field Survey

The survey of the western survey area was conducted on April 28, 2025 by biologists Matthew South, Lucas South, and Meagan Stebbings. The survey of the eastern survey area was conducted on April 29 and 30, 2025 by biologists Lucas South and Meagan Stebbings. The surveys were conducted under the following weather conditions:

- April 28, 2025. 62-77F, calm winds (5 mph), mostly sunny
- April 29, 2025. 77-82F, high winds (10-20 mph), mostly sunny
- April 30, 2025. 70-80F, calm winds (5 mph), partly sunny

Complete 100% coverage of the entire survey area was surveyed using 10-meter belt transect oriented north-south.

Surveys were conducted according to the CDFW March 20, 2018 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*, the CNPS *Botanical Survey Guidelines*, and the USFWS July 2002 *General Rare Plant Survey Guidelines*. The field portion of the survey consisted of three days of botanical exploration in mid-Spring (April 28-30, 2025) at the site. During the survey botanists traversing the survey area on foot in north-south belt transects with each surveyor separated by approximately 10-meters. During this time all plant species encountered were either identified at the time or a sample was collected in the form of photographs and plant material and the species were identified in the lab.

The survey followed the standard botanical protocol for special-status species survey of identifying all plant species encountered. Although the goal was to identify all plant species, field surveyors placed a special emphasis on discovery of the special-status species identified in the literature search with the potential to occur on the site. Species identification in the lab and to a lesser degree the field involved using digital photos and comparing them with taxonomically-related species from the area and using the botanical keys, diagrams, and descriptions in *The Jepson Desert Manual* (Baldwin et al. 2002) and *The Jepson Manual of Vascular Plants of California* (Baldwin et al. 2012).

# Results

## Literature Review

The querying of the CNPS and CDFW online databases for rare, threatened, and endangered plant species in the region resulted in the identification of 12 species with the potential to occur in the

region. Using the online BIOS, no special-status plant species have been recorded for the survey area in the past (CDFW 2022b). Further analysis of the potential for these species to occur at the site based on habitat and recorded occurrences within the immediate area identified 2 of the 12 species with a medium potential to occur: **Barstow woolly sunflower** and **red rock poppy**.

Data to assess the potential to occur on the site was lacking for three species: Mojave spineflower (*Chorizanthe spinosa*), solitary blazing star (*Mentzelia eremophila*), and Mojave fish-hook cactus (*Sclerocactus polyancistrus*). For these three species neither databases indicated microhabitat nor geographic occurrences for the species. Therefore, their assessment was characterized as "insufficient data." A brief discussion of the conservation status and potential to exist on the survey site of the Barstow woolly sunflower and red rock poppy follows:

- **Barstow wooly sunflower** (*Eriophyllum mohavense*): The species does not have an endangered or threatened classification at either the federal or state level. It has a California Rare Plant Ranking of 1B.2 indicating the species is rare throughout its entire range and is moderately threatened in California. The species inhabits chenopod scrub, Mojavean desert scrub and playas. It blooms from March to May and is found between 1640 and 3150-ft above mean sea level (amsl). The project site has Mojavean desert scrub and there here have been several occurrences in the immediate area. **Medium potential to occur**

- **Rock poppy** (*Eschscholzia minutiflora* ssp. *twisselmannii*): The species does not have an endangered or threatened classification at either the federal or state level. It has a California Rare Plant Ranking of 1B.2 indicating the species is rare throughout its entire range and is moderately threatened in California. The species inhabits Mojavean desert scrub and playas. It blooms from March to May and is found between 2230 and 4035-ft amsl. The project site has Mojavean desert scrub and there here have been several occurrences in the immediate area. **Medium potential to occur**

## Survey Results

Species identified in the field or in the laboratory for the site over three days of surveying are listed in Table 1. No special-status plants were observed on the site. A total of 40 vascular plant species most of which are species native to California were identified. Most of the species were annual herbs and shrubs with only a few perennial herbs and no trees or vines identified. No special-status species identified through the literature search and listed in Attachment B were recorded and identified either in the field or laboratory. Important genera for which more than one species are included were *Ambrosia, Chorizanthe, Ericameria, Eriogonum, Lycium, Malacothrix, Mentzelia, and Tetradymia*. Photos of the survey area and of specific common plants are in **Attachment A**.



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**Table 1. List of plant species at the Gold Discovery Group site in Atolia, California.**

| Common name | Scientific name | Habit | Native/Non-Native |
|---|---|---|---|
| white bursage | *Ambrosia dumosa* | Shrub | Native |
| cheesebush | *Ambrosia salsola* | Shrub | Native |
| bristly fiddleneck | *Amsinckia tessellata* | Annual herb | Native |
| Layne milkvetch | *Astragalus layneae* | Perennial herb | Native |
| Brome | *Bromus* sp. | Annual grass | Non-native |
| Kern suncup | *Camissonia kernensis* | Annual herb | Native |
| Fremont's pincushion | *Chaenactis fremontii* | Annual herb | Native |
| silver cholla | *Cylindropuntia echinocarpa* | Shrub | Native |
| desert suncup | *Eremothera boothii* ssp. *desertorum* | Annual herb | Native |
| Cooper's goldenbush | *Ericameria cooperii* | Shrub | Native |
| rubber rabbitbrush | *Ericameria nauseosa* | Shrub | Native |
| Desert trumpet | *Eriogonum inflatum* | Annual herb | Native |
| spotted wild buckwheat | *Eriogonum maculatum* | Annual herb | Native |
| Thomas's wild buckwheat | *Eriogonum thomasii* | Annual herb | Native |
| Little desert trumpet | *Eriogonum trichopes* | Annual herb | Native |
| Pringle's woolly sunflower | *Eriophyllum pringlei* | Annual herb | Native |
| redstem stork's-bill | *Erodium cicutarium* | Annual herb | Non-native |
| little gold poppy | *Eschscholzia minutiflora* | Annual herb | Native |
| whitemargin sandmat | *Euphorbia albomarginata* | Perennial herb | Native |
| creosote bush | *Larrea tridentata* | Shrub | Native |
| small-ray goldfields | *Lasthenia microglossa* | Annual herb | Native |
| Anderson thornbush | *Lycium andersonii* | Shrub | Native |
| peach-thorn | *Lycium cooperi* | Shrub | Native |
| desert dandelion | *Malacothrix glabrata* | Annual herb | Native |
| whitestem blazingstar | *Mentzelia albicaulis* | Annual herb | Native |
| wishbone bush | *Mirabilis laevis* | Perennial herb | Native |
| desert needlegrass | *Pappostipa speciosa* | Perennial grass | Native |
| lacy phacelia | *Phacelia tanacetifolia* | Annual herb | Native |
| Mojave indigo bush | *Psorothamnus arborescens* | Shrub | Native |
| Arabian grass | *Schismus arabicus* | Annual herb | Non-native |
| catclaw acacia | *Senegalia greggii* | Shrub | Native |
| littleleaf horsebrush | *Tetradymia glabrata* | Shrub | Native |
| Mojave cottonthorn | *Tetradymia stenolepis* | Shrub | Native |
| Mojave aster | *Xylorhiza tortifolia* | Perennial herb | Native |

# Conclusion

No special-status plants were observed during the survey. A literature review initially identified 12 special-status plant species with the potential to occur in the region. Of these 12 species, 2 — Barstow wooly sunflower and rock poppy — were assessed with a medium potential to occur on the site based on its macro and micro habitat characteristics and occurrences in the immediate area. For three other species, there was insufficient information to make a reasonable assessment of their potential to occur on the site. A field survey conducted over three days in late-April and early-May resulted in the identification of 34 plant taxon made up primarily of shrubs and annual herbs. Based on the dominance of plants observed, the community on the area was assessed as *Creosote Bush and White Bursage Scrub*, which is not considered a sensitive natural community by the CDFW. Of the 34 plants identified to genus or species none of them were assessed to be

special-status species. In sum, the botanical survey indicated the presence of a common natural community and no special-status species.

If you have any questions regarding the information in this report, please contact Matthew South by email: msouth@southenvironmental.com or by mobile phone: 303-818-3632.

Sincerely,

Matthew R. South

# List of Attachments

1. **Attachment A**. Special-Status Species Analysis

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# Appendix A:
# Special-Status Species Analysis

# Special-Status Species Analysis

Special-status plant species are those plants that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, state, or other agencies as under threat from human-associated developments. Some of these species receive specific protection that is defined by federal or state endangered species legislation. Others have been designated as special-status based on adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. Special-status species include:

- Plants or wildlife listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under the federal Endangered Species Act or the California Endangered Species Act;

- Plants or wildlife that meet the definitions of rare or endangered under CEQA Guidelines Section 15380.

- Plants or wildlife covered under an adopted NCCP/HCP;

- Plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered (List 1A, 1B and 2 plants) in California;

- Plants listed by the CNPS as plants in which there is limited information about distribution (List 3);

- Plants listed as rare under the California Native Plant Protection Act (Fish and Game Code 1900 et seq.);

## Federally-Protected Status

All references to Federally-protected species in this BRA include the most current published status or candidate category to which each species has been assigned by USFWS. For purposes of this assessment the following acronyms are used for Federal status species, as applicable:

**FE** Federally-listed as Endangered
**FT** Federally-listed as Threatened
**FPE** Federally proposed for listing as Endangered
**FPT** Federally proposed for listing as Threatened
**FPD** Federally proposed for delisting
**FC** Federal candidate species (former C1 species)

## State-Protected Status

For the purposes of this BRA, the following acronyms are used for State status species, as applicable:

**SE** State-listed as Endangered
**ST** State-listed as Threatened
**SR** State-listed as Rare
**SCE** State candidate for listing as Endangered
**SCT** State candidate for listing as Threatened
**SFP** State Fully Protected
**SSC** California Species of Special Concern

## California Rare Plant Rank

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of special-status species in California. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California (CNPS 2018). The list serves as the candidate list for listing as Threatened and Endangered by CDFW. CNPS has developed six categories of rarity known as the California Rare Plant Rank (CRPR), of which Ranks 1A, 1B, 2A, and 2B are particularly considered sensitive:

**Rank 1A** Presumed extinct in California.
**Rank 1B** Plants Rare, Threatened, or Endangered in California and elsewhere.
**Rank 2A** Presumed extinct in California, but more common elsewhere.
**Rank 2B** Plants Rare, Threatened, or Endangered in California, but more common elsewhere.
**Rank 3** Plants about which we need more information – a review list.
**Rank 4** Plants of limited distribution – a watch list.

The CNPS recently added "threat ranks" which parallel the ranks used by the CNDDB. These ranks are added as a decimal code after the CNPS List (e.g., Rank 1B.1). The threat codes are as follows:

**.1** Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat);
**.2** Moderately threatened in California (20-80% occurrences threatened);
**.3** Not very threatened in California (<20% of occurrences threatened or no current threats known).

## Potential to Occur Assessment

Special-status species that are **present** or are **high** or **medium** potential to occur within the parcel are a based on one or more of the following:

- the direct observation of the species within the parcel during any field survey;
- a record reported in the CNDDB; and
- the parcel is within known distribution of a species and contains appropriate habitat.
- present means the species is known to occur, high potential indicates the habitat is ideal and near known occurrences of the species, and medium indicates that the habitat may be less than ideal due to some lacking element but still usable by the species and within the known range.

Special-status species that are **low** potential) to occur are based on one of the following:

- the parcel has the general habitat types but lacks necessary habitat elements such as suitable microhabitat or soils; or
- the parcel is outside the known elevation range or distribution of the species, and has otherwise suitable habitats;

Special-status species that have no potential to occur on the parcel are labeled as **none** due to the absence of suitable habitat.

Special-status species with a  potential to occur on the survey area are listed below.

| Scientific Name | Common Name | Life Form | CRPR | CESA | FESA | Blooming Period | Elevation Range (ft) | Habitat | Micro Habitat | Potential to Occur on Site |
|---|---|---|---|---|---|---|---|---|---|---|
| *Camissonia kernensis* ssp. *kernensis* | Kern County evening-primrose | annual herb | 4.3 | None | None | Mar-May | 2590 - 6990 | Chaparral, Joshua tree "woodland", Pinyon and juniper woodland | Granitic, Gravelly (sometimes), Sandy (sometimes) | **None**. The survey site lacks the habitat the species requires. |
| *Canbya candida* | white pygmy-poppy | annual herb | 4.2 | None | None | Mar-Jun | 1970 - 4790 | Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland | Granitic, Gravelly, Sandy | **Low**. The survey site has Mojavean desert scrub and is sandy and gravelly; however, there is only one occurrence of the species according to the CNDDB and it is not in the immediate area. |
| *Chorizanthe spinosa* | Mojave spineflower | annual herb | 4.2 | None | None | Mar-Jul | 20 -4265 | Chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, Playas | Alkaline (sometimes) | **Insufficient Data**. The survey site has Mojavean desert scrub. No information was available through the CNDDB or CNPS regarding microhabitat or occurrences. |
| *Cryptantha clokeyi* | Clokey's cryptantha | annual herb | 1B.2 | None | None | Apr | 2380 - 4480 | Mojavean desert scrub | | **Low**: The survey site has Mojavean desert scrub; there is only one occurrence of the species according to the CNDDB in the immediate area. |
| *Cymopterus deserticola* | desert cymopterus | perennial herb | 1B.2 | None | None | Mar-May | 2065 - 4920 | Joshua tree "woodland", Mojavean desert scrub | Sandy | **Low**: The survey site has Mojavean desert scrub and is sandy; there is only one occurrence of the species according to the CNDDB in the immediate area. |

| Scientific Name | Common Name | Life Form | CRPR | CESA | FESA | Blooming Period | Elevation Range (ft) | Habitat | Micro Habitat | Potential to Occur on Site |
|---|---|---|---|---|---|---|---|---|---|---|
| *Eremothera boothii* ssp. *boothii* | Booth's evening-primrose | annual herb | 2B.3 | None | None | Apr-Sep | 2675 - 7875 | Joshua tree "woodland", Pinyon and juniper woodland | | **None**. The survey site lacks the habitat the species requires. |
| *Eriophyllum mohavense* | Barstow woolly sunflower | annual herb | 1B.2 | None | None | Mar-May | 1640 - 3150 | Chenopod scrub, Mojavean desert scrub, Playas | | **Medium**. The survey site has Mojavean desert scrub; according to the CNDDB the species has occurred in several places in the immediate area. |
| *Erythranthe rhodopetra* | Red Rock Canyon monkeyflower | annual herb | 1B.1 | None | None | Mar-Apr | 2000 - 3000 | Mojavean desert scrub | Sandy, Washes | **Low**. The survey site has Mojavean desert scrub; however, there is only one occurrence of the species according to the CNDDB in the immediate area. |
| *Eschscholzia minutiflora* ssp. *twisselmannii* | Red Rock poppy | annual herb | 1B.2 | None | None | Mar-May | 2230 - 4035 | Mojavean desert scrub | | **Medium**. The survey site has Mojavean desert scrub; according to the CNDDB the species has occurred in several places in the immediate area. |
| *Hecastocleis shockleyi* | prickle-leaf | perennial evergreen shrub | 3 | None | None | May-Jul | 3935 - 7220 | Chenopod scrub, Mojavean desert scrub | Carbonate (often), Rocky, Slopes, Washes | **None**. The survey site has Mojavean desert scrub; however, it is below the elevation range of the species. |
| *Mentzelia eremophila* | solitary blazing star | annual herb | 4.2 | None | None | Mar-May | 2295 - 4005 | Mojavean desert scrub | | **Insufficient Data**. The survey site has Mojavean desert scrub. No information was available through the CNDDB or CNPS regarding microhabitat or occurrences. |

| Scientific Name | Common Name | Life Form | CRPR | CESA | FESA | Blooming Period | Elevation Range (ft) | Habitat | Micro Habitat | Potential to Occur on Site |
|---|---|---|---|---|---|---|---|---|---|---|
| *Sclerocactus polyancistrus* | Mojave fish-hook cactus | perennial stem | 4.2 | None | None | Apr-Jul | 2100 - 7610 | Great Basin scrub, Joshua tree "woodland", Mojavean desert scrub | | **Insufficient Data**. The survey site has Mojavean desert scrub. No information was available through the CNDDB or CNPS regarding microhabitat or occurrences. |

June 18, 2024

**GOLD DISCOVERY GROUP LLC**
Sean P. Tucker, Manager
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**SUBJECT: Results of a Desert Tortoise (*Gopherus agassizii*) Presence/Absence Survey for Gold Discovery Group's Persistence Mine Project Located in Unincorporated San Bernardino County, California**

## Introduction

This report contains the findings of ELMT Consulting's (ELMT) desert tortoise presence/absence survey for Gold Discovery Group's Persistence Mine project (project site or site) located in the unincorporated area of Atolia, in San Bernardino County, California. The survey was conducted by biologists Travis J. McGill, Jacob H. Lloyd Davies, and Rachael A. Lyons on April 18, 2024, to document the presence/absence of desert tortoise within the boundaries of the survey area.

## Project Location

The project site is generally located north of State Route 58, east of United States Route 395, south of State Route 178, and west of State Route 127 in unincorporated San Bernardino County, California. The site is depicted on the Red Mountain quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map within Section 20 of Township 30 South, Range 41 East. Specifically, the project site is bounded to the west by an easement along United States Route 395 and is located west of Cuddeback Dry Lake and directly south of the former Atolia Tungsten Mine. Refer to Exhibits 1-3 in Attachment A.

## Project Description

Gold Discovery Group LLC has submitted a Plan of Operations to the Bureau of Land Management case file number: CACA10633367 for the Persistence Mine, which is a proposed 126-acre placer mining operation using only water and gravity recoverable methods to extract gold from the material on site near the former town of Atolia, California in western San Bernardino County, California. The Proposed Action also involves concurrent reclamation as Gold Discovery Group LLC advances its mining operation sequence.

## Methodology

The potential presence of Mojave desert tortoise requires that biologists conduct focused surveys/pedestrian transects covering the project's action area in order to determine the presence or absence of desert tortoise within the action area (U.S. Fish and Wildlife Service [USFWS], 2018). The action area is defined as all areas to be directly or indirectly affected by the project (50 CFR §402.02). For this project, the action area includes the limits of disturbance and all areas that have the potential to be indirectly impacted by the

proposed project. Site characteristics including topography, presence of suitable habitat, and human disturbance were utilized to determine the lateral extent of the action area beyond the project footprint. The proposed action area was determined to be confined to the 126.2 acres proposed Persistence Mine site. For consistency, the action area is hereafter referred to as the survey area. Since the development footprint is less than 200 hectares (500 acres) in size, the Small Project Field Survey Protocol was used to determine the presence/absence of desert tortoise.

*Desert Tortoise Presence/Absence Surveys*

Transects were oriented north to south across the survey area and were spaced at 10-meter (33 feet) intervals throughout all suitable habitat to provide 100 percent visual coverage and increase the likelihood of locating desert tortoise and/or sign. All transects were walked at a pace that allowed for careful/detailed observation along transect routes and the immediate vicinity.

ELMT biologists conducted a 100 percent coverage survey from 0730 to 1130 hours on April 18, 2024, which falls within the desert tortoise's most active periods (April through May and September through October). Weather conditions during the survey included clear skies, calm wind conditions, and temperatures ranging from 54 to 72 degrees Fahrenheit. If present, any live desert tortoises and/or signs of (burrows, scat, carapace, drinking depressions) were recorded on USFWS pre-project survey field data sheets and marked using a Garmin GPSMap 64 Global Positioning System (GPS).

All burrows observed were thoroughly inspected for the presence of desert tortoise or evidence of recent use using non-intrusive methods (i.e., mirror, digital camera). Burrow characteristics including class, shape, orientation, size, and evidence of deterioration were recorded on field data sheets, when observed. In addition, each burrow, when observed, was photographed and given a class rating to describe the overall status and condition of the burrow.

**Desert Tortoise**

The Mojave population of the desert tortoise was listed as Threatened on April 2, 1990 and a recovery plan was published in June 1994 (revised May 2011) to describe a strategy for recovering the Mojave population of the desert tortoise including the identification of five recovery units, recommendations for a system of Desert Wildlife Management Areas (DWMAs) within the recovery units, and development and implementation of specific recovery actions, especially within DWMAs. The establishment of recovery units and DWMAs was intended to facilitate an ecosystem approach to land management and desert tortoise recovery. Based on the 2018 Revised Recovery Plan, **the survey area** is located within the Western Mojave Recovery Unit but **is not located within any designated DWMAs**. **The project site itself is not located within designated Desert Tortoise Critical Habitat**; however, designated Critical Habitat is present immediately south of the southern boundary, and east and west of the site (refer to Exhibit 4, *Critical Habitat*). **No desert tortoise have been recorded on the project site**. It should be noted that the nearest CNDDB observation for desert tortoise is located approximately 7.6 miles to the southwest and was recorded in 2005.

The Mojave population of the desert tortoise inhabits areas north and west of the Colorado River in the Mojave Desert of California, Nevada, Arizona, and southwestern Utah, and in the Sonoran Desert in California. Throughout the majority of the Mojave Desert, desert tortoises occur most commonly on gentle

sloping soils characterized by an even mix of sand and gravel and sparsely vegetated low-growing vegetation where there is abundant inter-shrub space. Typical habitat for the Mojave desert tortoise has been characterized as creosote bush scrub below 5,500 feet in elevation with a high diversity of perennial and ephemeral plants. The dominant shrub commonly associated with desert tortoise habitat is creosote bush (*Larrea tridentata*); however, other shrubs including burrobush (*Ambrosia dumosa*), Mojave yucca (*Yucca schidigera*), cheesebush (*Ambrosia salsola*), and Mojave prickly-pear (*Opuntia mojavensis*) also provide suitable habitat. The desert tortoise spends 95 percent of its life underground and will opportunistically utilize burrows of various lengths, deep caves, rock and caliche crevices, or overhangs for cover. Therefore, a moderately friable soil is required to allow for burrow construction and ensure that burrows do not collapse.

**Site Conditions**

The project site occurs in an area dominated by natural landscapes with scattered industrial land use areas present. The dominant land use type in the vicinity of site is former materials extraction operations and associated remnant "ghost towns." Presently, the site is bounded to the north by the former Atolia Tungsten Mine, to the west by United States Route 395, and to the east and south by unoccupied open spaces. In addition, a network of unpaved access roads and remnant haul roads traverses the site and adjacent areas.

On-site topography consists of rolling hills, low valleys, and flats, and generally slopes from west to east at an approximate elevation of 3,090 to 3,235 feet above mean sea level. Further topographic relief is present in the form of discarded fill and slag piles and exploratory trenches and pits.

Based on the NRCS USDA Web Soil Survey, soils underlying the project site and immediate vicinity are not mapped to family detail, and the Web Soil Survey identifies the site as being underlain by Cajon-Arizo and Randsburg-Muroc soil complexes. The majority of soils on-site persists in relatively natural states except those areas that were previously impacted by materials extraction activities, exploratory mining, and access road installation and maintenance.

One (1) plant community, Mojavean desert scrub, was observed within the boundaries of the project site. In addition, the site also supports one (1) land cover type that would be classified as disturbed.

The Mojavean desert scrub plant community supported by the project site supports a diverse shrub layer and robust herbaceous layer, consistent with other undeveloped/undisturbed plant communities nearby. Vegetative cover is usually consistent to sometimes sparse, and often features dense patches of herbaceous annuals in depressional features. Dominant shrubs supported in this plant community include creosote, burrobush, and cheesebush, which are commonly associated with desert tortoise, in addition to hairy goldenhead (*Acamptopappus sphaerocephalus*), cattle spinach (*Atriplex polycarpa*), spinescale saltbush (*Atriplex spinifera*), black brush (*Coleogyne ramosissima*), silver cholla (*Cylindropuntia echinocarpa*), Acton encelia (*Encelia actoni*), Cooper goldenbush (*Ericameria cooperi*), turpentine brush (*Ericameria laricifolia*), common rabbitbrush (*Ericameria nauseosa*), green rabbitbrush (*Ericameria teretifolia*), California buckwheat (*Eriogonum fasciculatum*), Weston's buckwheat (*Eriogonum nudum*), starry bedstraw (*Galium stellatum*), hop sage (*Grayia spinosa*), winter fat (*Krascheninnikovia lanata*), Anderson thornbush (*Lycium andersonii*), Cooper's box thorn (*Lycium cooperi*), Mojave indigo bush (*Psorothamnus arborescens*), Mexican bladder sage (*Scutellaria mexicana*), little leaf horsebrush (*Tetradymia glabrata*), Mojave cottonthorn (*Tetradymia stenolepis*). Common herbaceous species observed in the Mojavean desert

scrub plant community include devil's lettuce (*Amsinckia tessellata*), Mojave suncup (*Camissonia campestris*), Booth's evening primrose (*Eremothera boothii*), desert woollystar (*Eriastrum eremicum*), flatcrown buckwheat (*Eriogonum deflexum*), Pringle's woolly sunflower (*Eriophyllum pringlei*), redstem filaree (*Erodium cicutarium*), whitemargin sandmat (*Euphorbia albomarginata*), snake's-head (*Malacothrix coulteri*), desert dandelion (*Malacothrix glabrata*), lacy phacelia (*Phacelia tanacetifolia*).

Disturbed portions of the site are sometimes barren to sometimes sparse according to the degree and frequency of associated anthropogenic disturbance. The limited vegetation supported by the disturbed portions of the site primarily consists of annual herbaceous, with some especially hardy perennial species present.

## Survey Results

Despite a systematic 100% visual survey of the project site, no live desert tortoises, potential desert tortoise burrows, or signs of desert tortoises were observed within the survey area. The estimated desert tortoise abundance is directly proportional to the number of tortoises observed above ground. Since no live desert tortoises were observed during the surveys, the estimated number of desert tortoises within the survey area is zero.

## Conclusion and Recommendations

Since no live desert tortoises, potential desert tortoise burrows, or signs of desert tortoises were observed during the presence/absence survey, it was determined that the desert tortoise is absent from the project site. Even though desert tortoise were not detected within the survey area during the presence/absence survey, a pre-construction clearance survey is recommended to be conducted during the other pre-construction clearance surveys to ensure desert tortoise continue to remain absent from the project site prior to the commencement of ground disturbing activities.

Please do not hesitate to contact Tom McGill at (951) 285-6014 or tmcgill@elmtconsulting.com or Travis McGill at (909) 816-1646 or travismcgill@elmtconsulting.com should you have any questions or require further information.

Sincerely,

Thomas J. McGill, Ph.D.
Managing Director

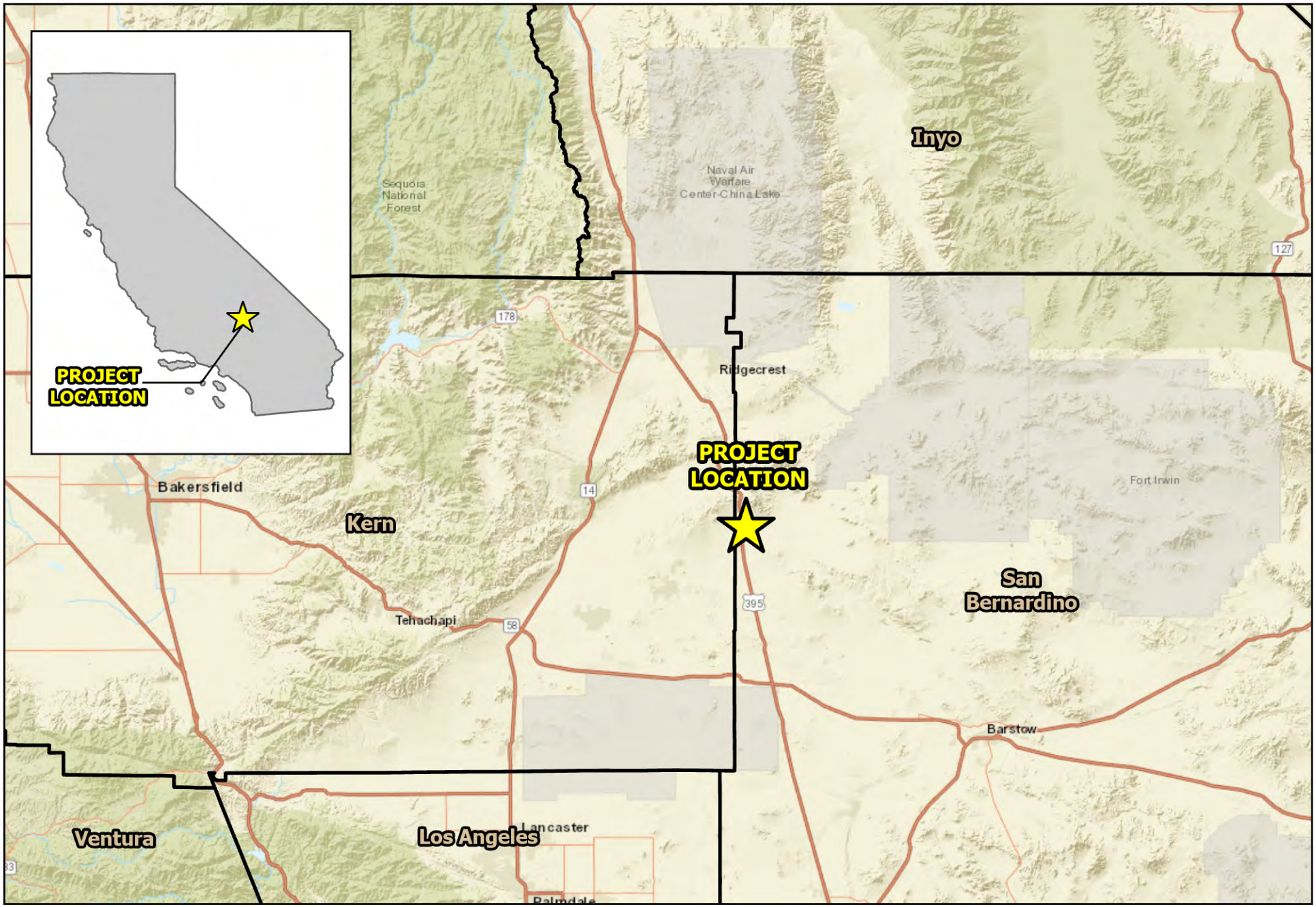
Travis J. McGill
Director

Attachments:

A. *Project Exhibits*
B. *Site Photographs*

# Attachment A

Project Exhibits




ELMT CONSULTING

N

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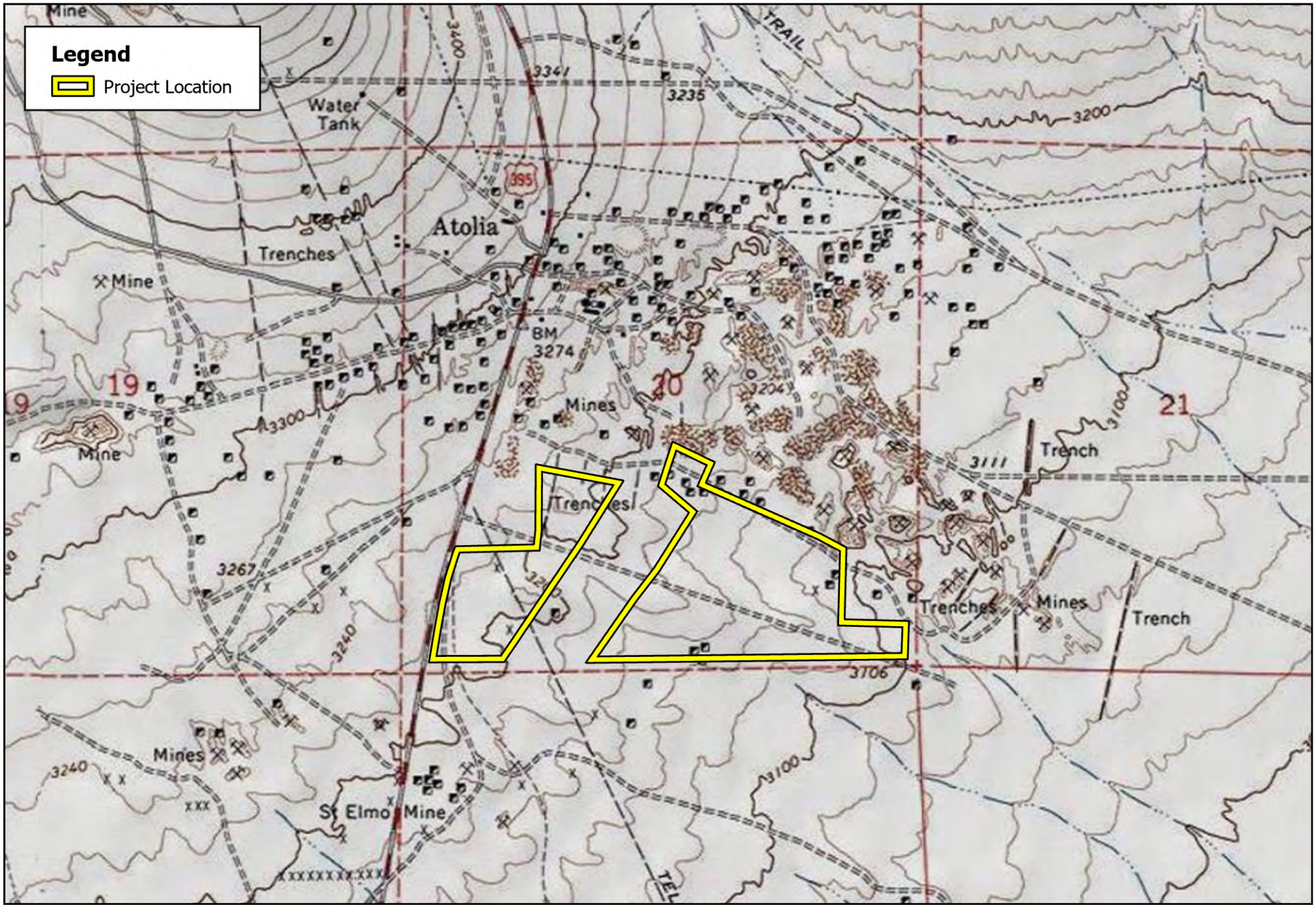
Source: Google Street Map, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

# Regional Vicinity

Exhibit 1




ELMT CONSULTING

N

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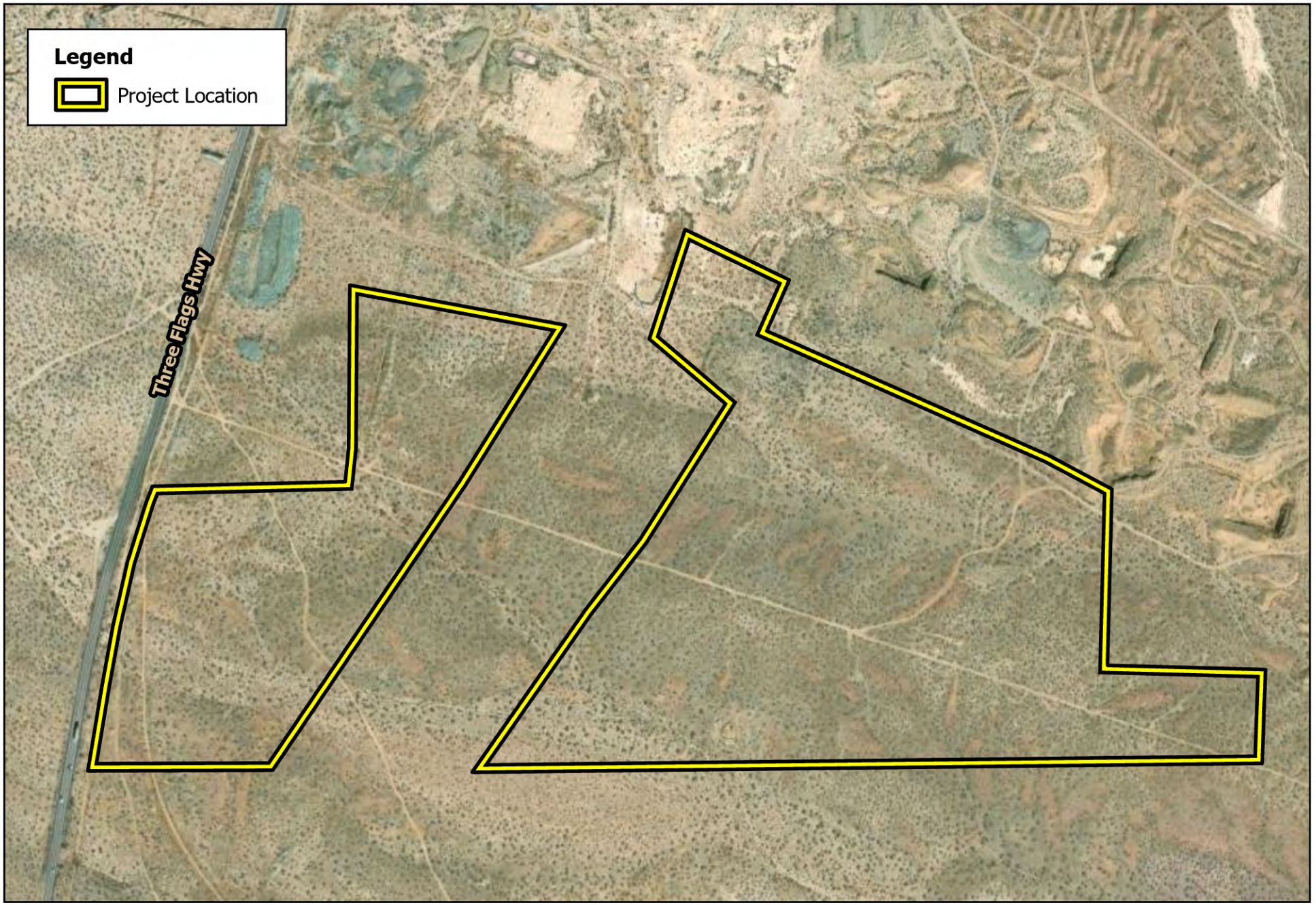
Source: USGS Topographic Map, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

# Site Vicinity

Exhibit 2




ELMT CONSULTING

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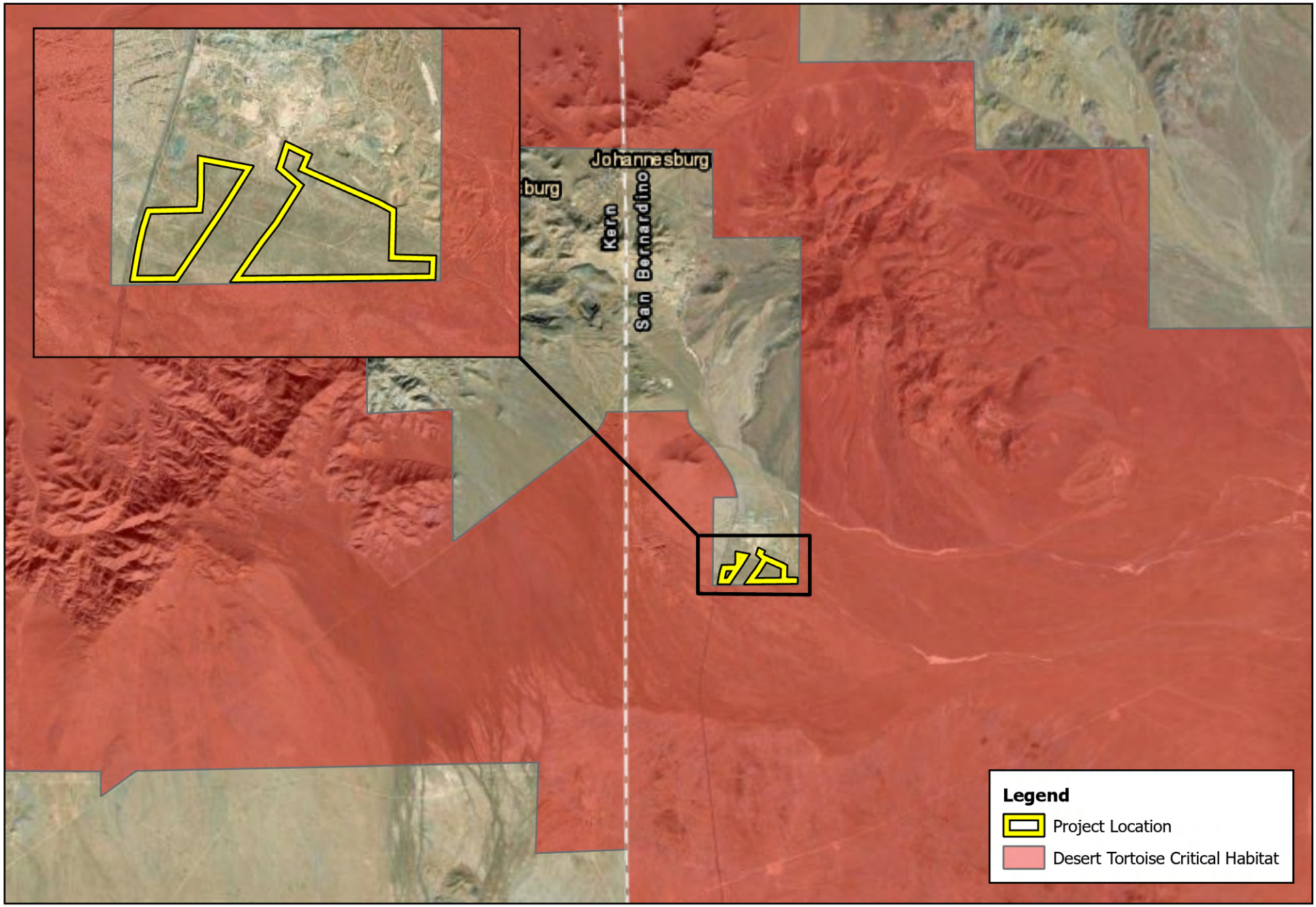
US Feet

Source: ESRI Aerial Imagery, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

# Project Site

Exhibit 3




ELMT CONSULTING

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Source: ESRI Aerial Imagery, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

# Critical Habitat

Exhibit 4

# Attachment B

Site Photographs

**Photograph 1:** From the northern boundary of the westernmost site, looking south.

**Photograph 2:** From the western boundary of the westernmost site, looking east.

**Photograph 3:** From the southwest corner of the westernmost site, looking north along the western boundary and an unnamed dirt access road.

**Photograph 4:** From the southwest corner of the westernmost site, looking east along the southern boundary.

**Photograph 5:** From the southeast corner of the westernmost site, looking north along the eastern boundary.

**Photograph 6:** From the southeast corner of the westernmost site, looking west along the southern boundary.

**Photograph 7:** From the northwest corner of the easternmost site, looking east along the northern boundary.

**Photograph 8:** From the northwest corner of the easternmost site, looking south along the western boundary.

**Photograph 9:** From the northeast corner of the easternmost site, looking south along the eastern boundary.

**Photograph 10:** From the northeast corner of the easternmost site, looking west along the northern boundary.

**Photograph 11:** From the southeast corner of the easternmost site, looking north along the eastern boundary.

**Photograph 12:** From the southeast corner of the easternmost site, looking west along the southern boundary.

**Photograph 13:** From the southwest corner of the easternmost site, looking east along the southern boundary.

**Photograph 14:** Small mammal burrow observed onsite.

**Photograph 14:** One of the remnant pits from historic mining operations, located in the northeast region of the project site.

# GOLD DISCOVERY GROUP'S PERSISTENCE MINE

## SAN BERNARDINO COUNTY, CALIFORNIA

RED MOUNTAIN USGS 7.5-MINUTE TOPOGRAPHIC QUADRANGLES
SECTION 20 OF TOWNSHIP 30 SOUTH, RANGE 41 EAST

**Burrowing Owl Focused Survey Report**

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Prepared For:

**Gold Discovery Group, LLC**
2549 Eastbluff Dirce, Suite B-499
Newport Beach, California 92660
Contact: *Sean P. Tucker*

Prepared By:

**ELMT Consulting, Inc.**
2201 N. Grand Avenue #10098
Santa Ana, California 92711
Contact: *Travis McGill*

July 2024

# GOLD DISCOVERY GROUP'S PERSISTENCE MINE

## SAN BERNARDINO COUNTY, CALIFORNIA

### Burrowing Owl Focused Survey Report

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The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.

Travis J. McGill
Director

Thomas J. McGill, Ph.D.
Managing Director

July 2024

# Table of Contents



**EXHIBITS**



**APPENDIX**

# Section 1 Introduction

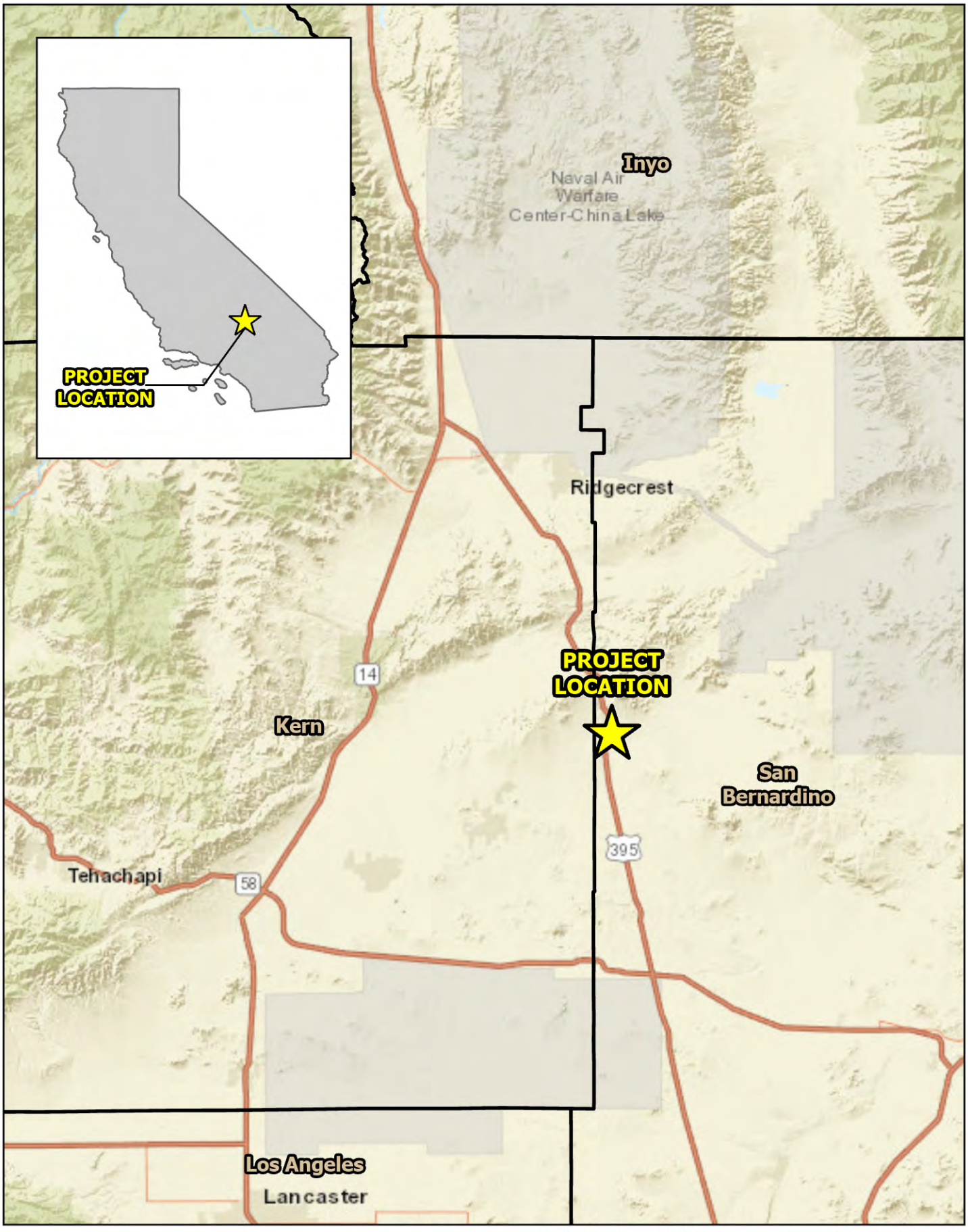
ELMT Consulting (ELMT) conducted a focused burrowing owl (*Athene cunicularia*) survey for Gold Discovery Group's proposed Persistence Mine project located in unincorporated San Bernardino County, California. Biologists Travis J. McGill, Jacob H. Lloyd Davies, Rachael A. Lyons, and Megan E. Peukert surveyed the project site in accordance with the survey protocols listed in the California Department of Fish and Wildlife (CDFW) 2012 Staff Report on Burrowing Owl Mitigation. The focused burrowing owl surveys were conducted on February 28, April 18, and May 22, June 19, 2024, within all suitable habitat. The surveys were conducted to document the presence/absence of burrowing owl on the project site.

## 1.1 PROJECT LOCATION

The project site is generally located north of State Route 58, east of United States Route 395, south of State Route 178, and west of State Route 127 in unincorporated San Bernardino County, California (Exhibit 1, *Regional Vicinity*). The site is depicted on the Red Mountain quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map within Section 20 of Township 30 South, Range 41 East (Exhibit 2, *Site Vicinity*). Specifically, the project site is bounded to the west by an easement along United States Route 395 and is located west of Cuddeback Dry Lake and directly south of the former Atolia Tungsten Mine (Exhibit 3, *Project Site*).

## 1.2 PROJECT DESCRIPTION

Gold Discovery Group LLC has submitted a Plan of Operations to the Bureau of Land Management case file number: CACA10633367 for the Persistence Mine, which is a proposed 126-acre placer mining operation using only water and gravity recoverable methods to extract gold from the material on site near the former town of Atolia, California in western San Bernardino County, California. The Proposed Action also involves concurrent reclamation as Gold Discovery Group LLC advances its mining operation sequence.




ELMT CONSULTING

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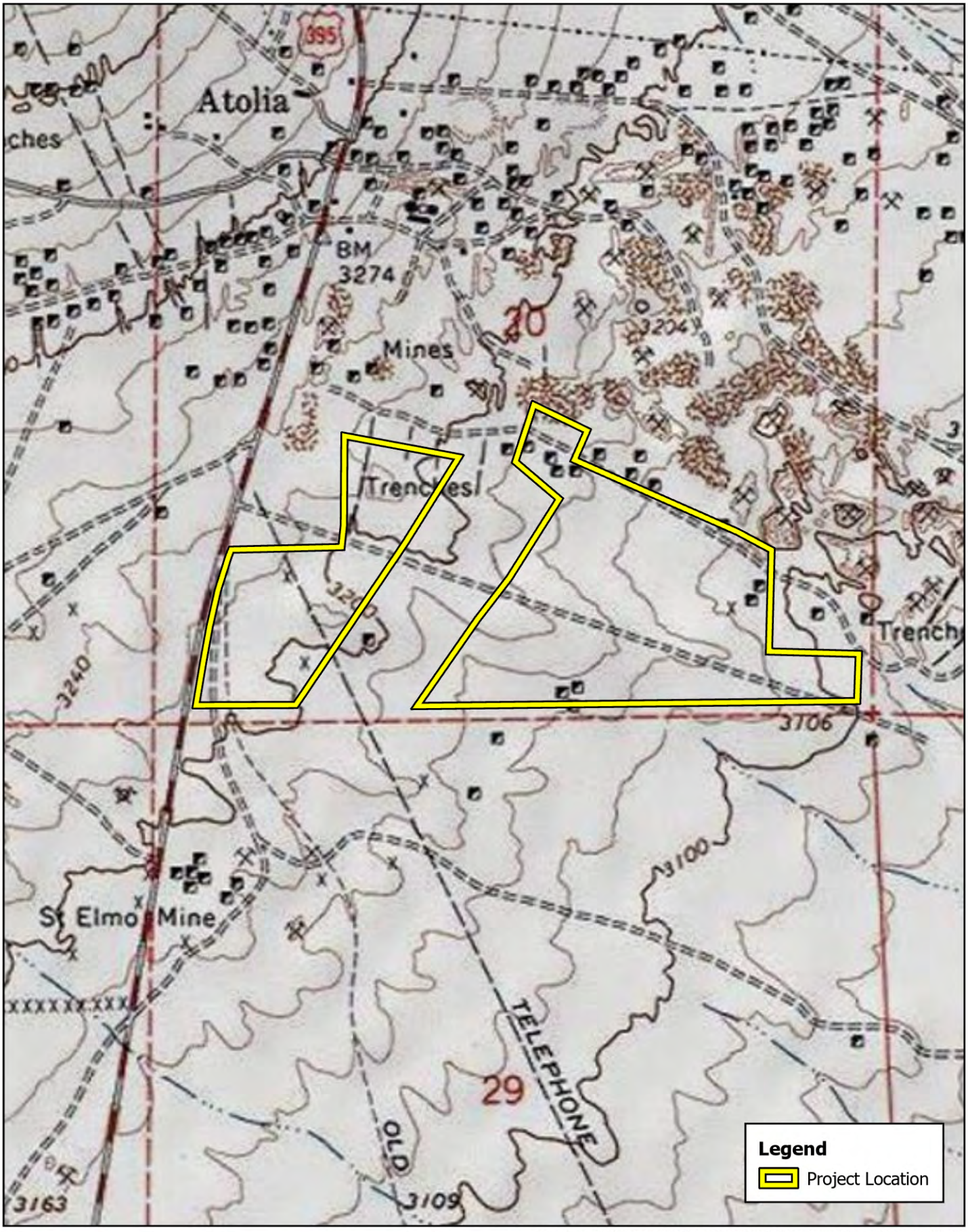
0 5 10 20 Miles

Source: Google Street Map, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

# Regional Vicinity

Exhibit 1




ELMT CONSULTING

N

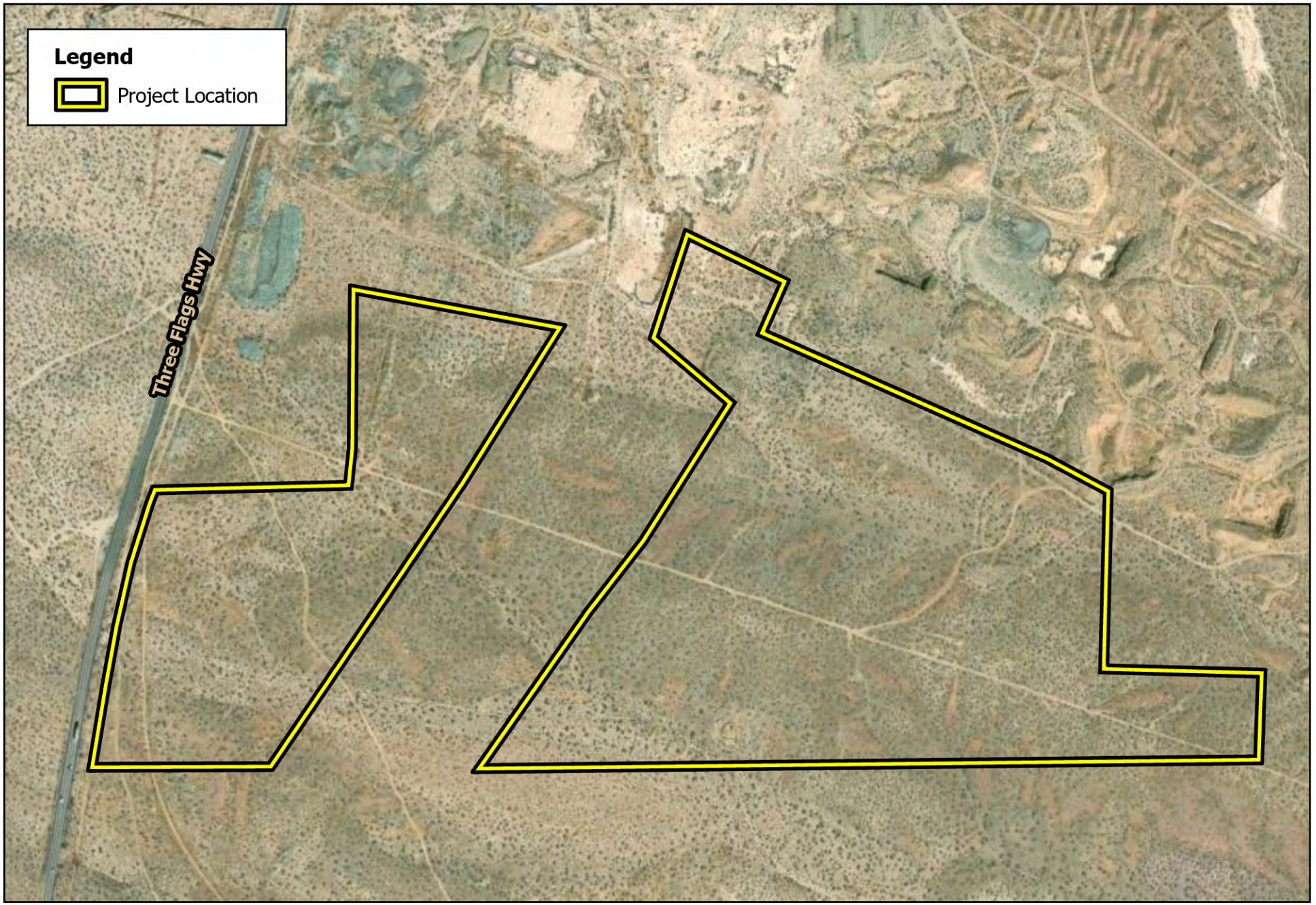
0 500 1,000 2,000 Feet

Source: USGS Topographic Map, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

# Site Vicinity

Exhibit 2




ELMT CONSULTING

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0 450 900 1,800

US Feet

Source: ESRI Aerial Imagery, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

# Project Site

Exhibit 3

# Section 2 Species Background

## 2.1 SPECIES BACKGROUND

The burrowing owl is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with well-drained, level to gently-sloping areas characterized by sparse vegetation and bare ground (Haug and Didiuk 1993; Dechant et al. 1999). Burrowing owls are dependent upon the presence of fossorial mammals, such as ground squirrels (*Otospermophilus beecheyi*), whose burrows are used for roosting and nesting (Haug and Didiuk 1993). The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. Burrowing mammals may burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. Large, hard objects at burrow entrances stabilize the entrance from collapse and may inhibit excavation by predators.

Burrowing owls have crepuscular (dawn and dusk) hunting habits but are often observed perched in or near the burrow entrance during the day. They prey upon invertebrates and small vertebrates (Thomsen 1971) through low vegetation which allows for foraging visibility. The nesting season occurs between February 1 and August 31. Burrowing owl in California may migrate southerly, but often remain in the breeding area during the non-breeding period.

The burrowing owl was once abundant and widely distributed within coastal southern California, but it has declined precipitously in counties such as Los Angeles, Orange, San Diego, Riverside, and San Bernardino. A petition was filed to list the California population of the western burrowing owl as an Endangered or Threatened species (Center for Biological Diversity 2003); however, the California Department of Fish and Wildlife (CDFW) declined to list the burrowing owl as either endangered or threatened. The CDFW currently lists the burrowing owl as a California Species of Special Concern.

## 2.2 REGULATORY FRAMEWORK

The burrowing owl is a resident and migratory bird species protected by international treaty under the Migratory Bird Treaty Act (MBTA) of 1918. The MBTA reflects agreements made between the U.S., England, Mexico, the former Soviet Union, and Japan to protect all of North America's migratory bird populations. The MBTA protects migratory bird nests from possession, sale, purchase, barter, transport, import and export, and collection. The other prohibitions of the MBTA - capture, pursue, hunt, and kill - are inapplicable to nests. The regulatory definition of take, as defined in Title 50 C.F.R. part 10.12, means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to hunt, shoot, wound, kill, trap, capture, or collect. Only the verb "collect" applies to nests. It is illegal to collect, possess, and by any means transfer possession of any migratory bird nest. The MBTA prohibits the destruction of a nest when it contains birds or eggs, and no possession shall occur during the destruction (United States Fish and Wildlife Service, Migratory Bird Permit Memorandum, April 15, 2003). Certain exceptions to this prohibition are included in 50 C.F.R. section 21. Pursuant to CDFW Code section 3513, the

Department enforces the MBTA consistent with rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act.

Additionally, burrowing owl is protected under Sections 3503, 3503.3, 3511, and 3513 of the CDFW Code which prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (March 1 - August 15, annually). CDFW Code Section 3503.5 protects birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks and owls, including burrowing owls) which makes it unlawful to take, possess, or destroy their nest or eggs.

CDFW's 2012 Staff Report on Burrowing Owl Mitigation offers long-term assurances for conservation of this species in exchange for biologically appropriate levels of incidental take and/or habitat loss as defined in the approved plan. California's NCCP Act (FGC §2800 et seq.) governs such plans at the state level, and was designed to conserve species, natural communities, ecosystems, and ecological processes across a jurisdiction or a collection of jurisdictions. Complementary federal HCPs are governed by the Endangered Species Act (7 U.S.C. § 136, 16 U.S.C.§ 1531 et seq.) (ESA). Regional conservation plans (and certain other landscape-level conservation and management plans), may provide conservation for unlisted as well as listed species. Because the geographic scope of NCCPs and HCPs may span many hundreds of thousands of acres, these planning tools have the potential to play a significant role in conservation of burrowing owls, and grasslands and other habitats.

Guidelines for the Implementation of the California Environmental Quality Act (CEQA) provide that a species be considered as endangered or "rare" regardless of appearance on a formal list for the purposes of the CEQA (Guidelines, Section 15380, subsections b and d). CEQA requires a mandatory finding of significance if impacts to threatened or endangered species are likely to occur (Sections 21001(c), 21083. Guidelines 15380, 15064, 15065). Avoidance or mitigation must be presented to reduce impacts to less than significant levels.

# Section 3 Methodology

General weather conditions during each of the surveys were suitable for detections of burrowing owls. The weather during the surveys consisted of cloudy to clear skies with minimal wind, and temperatures ranging from 60 to 89 degrees Fahrenheit ($^{o}$F). Surveys are not accepted if they are conducted during rain, high winds (> 20 mph), dense fog, or temperatures over 90$^{o}$F. The protocol survey for burrowing owl requires a systematic survey of all areas that provide suitable habitat plus a 150-meter (approximately 500 feet) zone of influence (survey area) on all sides of suitable habitat, where applicable (Exhibit 4, *Survey Area and Suitable Habitat*).

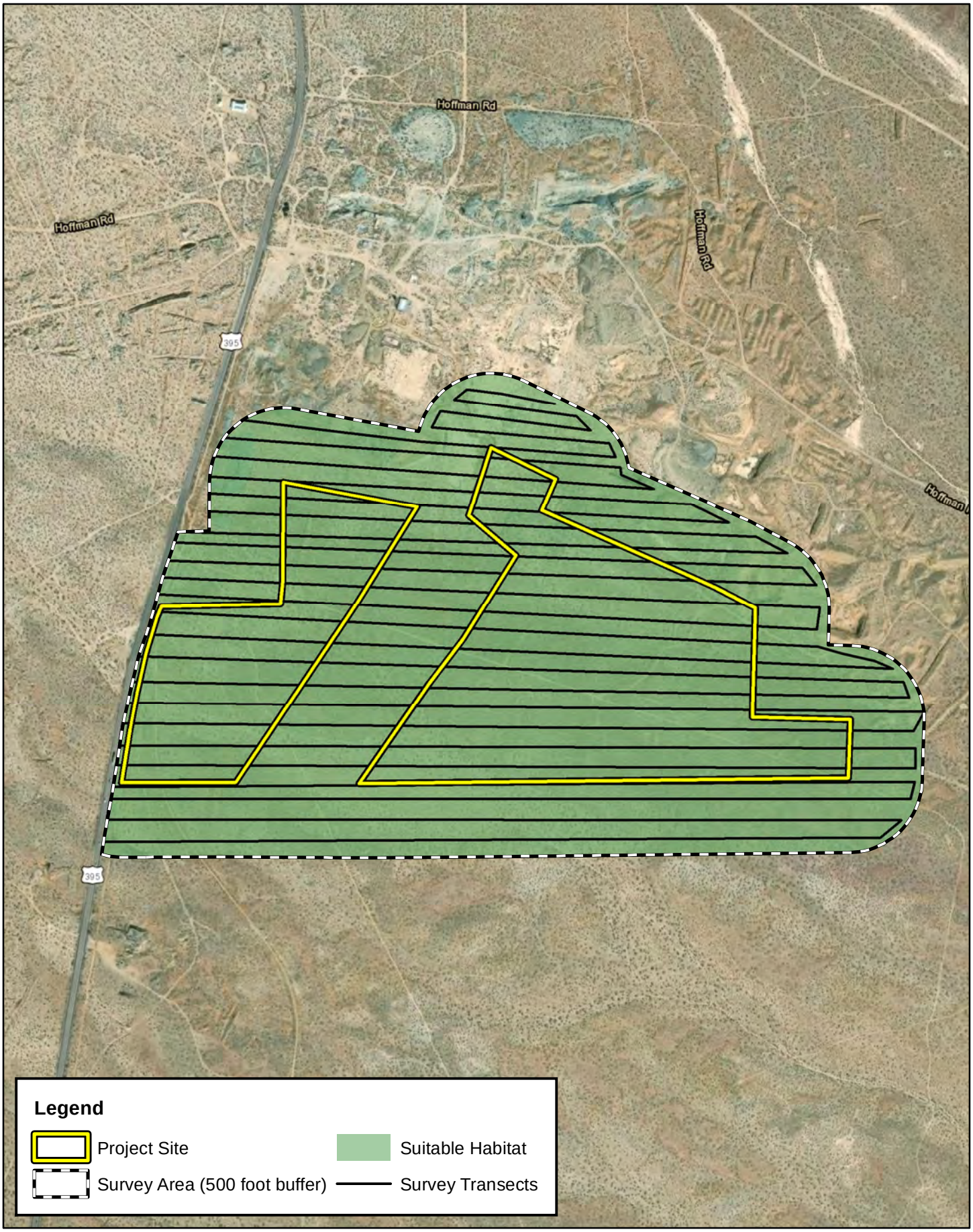
Survey transects on the project site were oriented north to south and were conducted at a maximum of 30-meter (approximately 100 feet) intervals to ensure 100% visual coverage of all areas in suitable habitat on the project site and within the survey area. The focused burrowing owl surveys were conducted during the recognized timeframe (the breeding season is typically March through August) in the morning one hour before sunrise to two hours after sunrise.

Suitable burrows/sites, including rock piles and non-natural substrates, were thoroughly examined for signs of presence. All burrows encountered were examined for shape, scat, pellets, white-wash, feathers, tracks, and prey remains. The location of all suitable burrowing owl habitat, potential owl burrows, burrowing owl sign, and any owls observed were recorded and mapped, with a hand-held GPS unit, if observed. Methods to detect presence of burrowing owls included direct observation, aural detection, and signs of presence. Binoculars were used to observe distant birds and their activity around potential nesting habitat. During the focused surveys, the survey area was assessed on foot by qualified biologists Travis J. McGill, Jacob H. Lloyd Davies, Rachael A. Lyons, and Megan E. Peukert, who are knowledgeable in the habitats and behavior of burrowing owls.

Four focused burrowing owl surveys were conducted on February 28, April 18, and May 22, June 19, 2024. All surveys were completed between 0600 and 1100. The surveys were conducted to document the presence/absence of burrowing owl on the project site. Refer to Table 1, *Survey Data*, for a summary of the survey dates and times, personnel, weather conditions, and general findings.

**Table 1: Survey Data**

| Survey No. | Survey Date | Surveyor | Time | Temperature (˚F) | Cloud Cover | Wind Speed (mph) | Burrowing Owl Detected On-Site |
|---|---|---|---|---|---|---|---|
| 1 | 2/28/24 | Jacob H. Lloyd Davies, Rachael A. Lyons and Megan E. Peukert | 0600-1000 | 60-66 | 0% | 1-5 | No |
| 2 | 4/18/24 | Travis J. McGill and Jacob H. Lloyd Davies | 0100-1100 | 70-89 | 0% | 1-5 | No |
| 3 | 5/22/24 | Travis J. McGill and Jacob H. Lloyd Davies | 0600-1030 | 68-87 | 0% | 1-5 | No |
| 4 | 6/19/24 | Rachael A. Lyons and Megan E. Peukert | 0630-1030 | 69-88 | 0% | 1-5 | No |




ELMT CONSULTING

0 250 500 1,000
Feet

Source: ESRI Aerial Imagery, Riverside County

GOLD DISCOVERY GROUPS PERSISTENCE MINE

# Survey Area and Suitable Habitat

Exhibit 4

# Section 4 Results

## 4.1 EXISTING CONDITIONS

The project site occurs in an area dominated by natural landscapes with scattered industrial land use areas present. The dominant land use type in the vicinity of site is former materials extraction operations and associated remnant "ghost towns." Presently, the site is bounded to the north by the former Atolia Tungsten Mine, to the west by United States Route 395, and to the east and south by unoccupied open spaces. In addition, a network of unpaved access roads and remnant haul roads traverses the site and adjacent areas.

On-site topography consists of rolling hills, low valleys, and flats, and generally slopes from west to east at an approximate elevation of 3,090 to 3,235 feet above mean sea level. Further topographic relief is present in the form of discarded fill and slag piles and exploratory trenches and pits.

Based on the NRCS USDA Web Soil Survey, soils underlying the project site and immediate vicinity are not mapped to family detail, and the Web Soil Survey identifies the site as being underlain by Cajon-Arizo and Randsburg-Muroc soil complexes. The majority of soils on-site persists in relatively natural states except those areas that were previously impacted by materials extraction activities, exploratory mining, and access road installation and maintenance.

One (1) plant community, Mojavean desert scrub, was observed within the boundaries of the project site. In addition, the site also supports one (1) land cover type that would be classified as disturbed.

The Mojavean desert scrub plant community supported by the project site supports a diverse shrub layer and robust herbaceous layer, consistent with other undeveloped/undisturbed plant communities nearby. Vegetative cover is usually consistent to sometimes sparse, and often features dense patches of herbaceous annuals in depressional features. Dominant shrubs supported in this plant community include creosote, burrobush, and cheesebush, which are commonly associated with desert tortoise, in addition to hairy goldenhead (*Acamptopappus sphaerocephalus*), cattle spinach (*Atriplex polycarpa*), spinescale saltbush (*Atriplex spinifera*), black brush (*Coleogyne ramosissima*), silver cholla (*Cylindropuntia echinocarpa*), Acton encelia (*Encelia actoni*), Cooper goldenbush (*Ericameria cooperi*), turpentine brush (*Ericameria laricifolia*), common rabbitbrush (*Ericameria nauseosa*), green rabbitbrush (*Ericameria teretifolia*), California buckwheat (*Eriogonum fasciculatum*), Weston's buckwheat (*Eriogonum nudum*), starry bedstraw (*Galium stellatum*), hop sage (*Grayia spinosa*), winter fat (*Krascheninnikovia lanata*), Anderson thornbush (*Lycium andersonii*), Cooper's box thorn (*Lycium cooperi*), Mojave indigo bush (*Psorothamnus arborescens*), Mexican bladder sage (*Scutellaria mexicana*), little leaf horsebrush (*Tetradymia glabrata*), Mojave cottonthorn (*Tetradymia stenolepis*). Common herbaceous species observed in the Mojavean desert scrub plant community include devil's lettuce (*Amsinckia tessellata*), Mojave suncup (*Camissonia campestris*), Booth's evening primrose (*Eremothera boothii*), desert woollystar (*Eriastrum eremicum*), flatcrown buckwheat (*Eriogonum deflexum*), Pringle's woolly sunflower (*Eriophyllum pringlei*), redstem filaree (*Erodium cicutarium*), whitemargin sandmat (*Euphorbia albomarginata*), snake's-head (*Malacothrix coulteri*), desert dandelion (*Malacothrix glabrata*), lacy phacelia (*Phacelia tanacetifolia*).

Disturbed portions of the site are sometimes barren to sometimes sparse according to the degree and frequency of associated anthropogenic disturbance. The limited vegetation supported by the disturbed portions of the site primarily consists of annual herbaceous, with some especially hardy perennial species present.

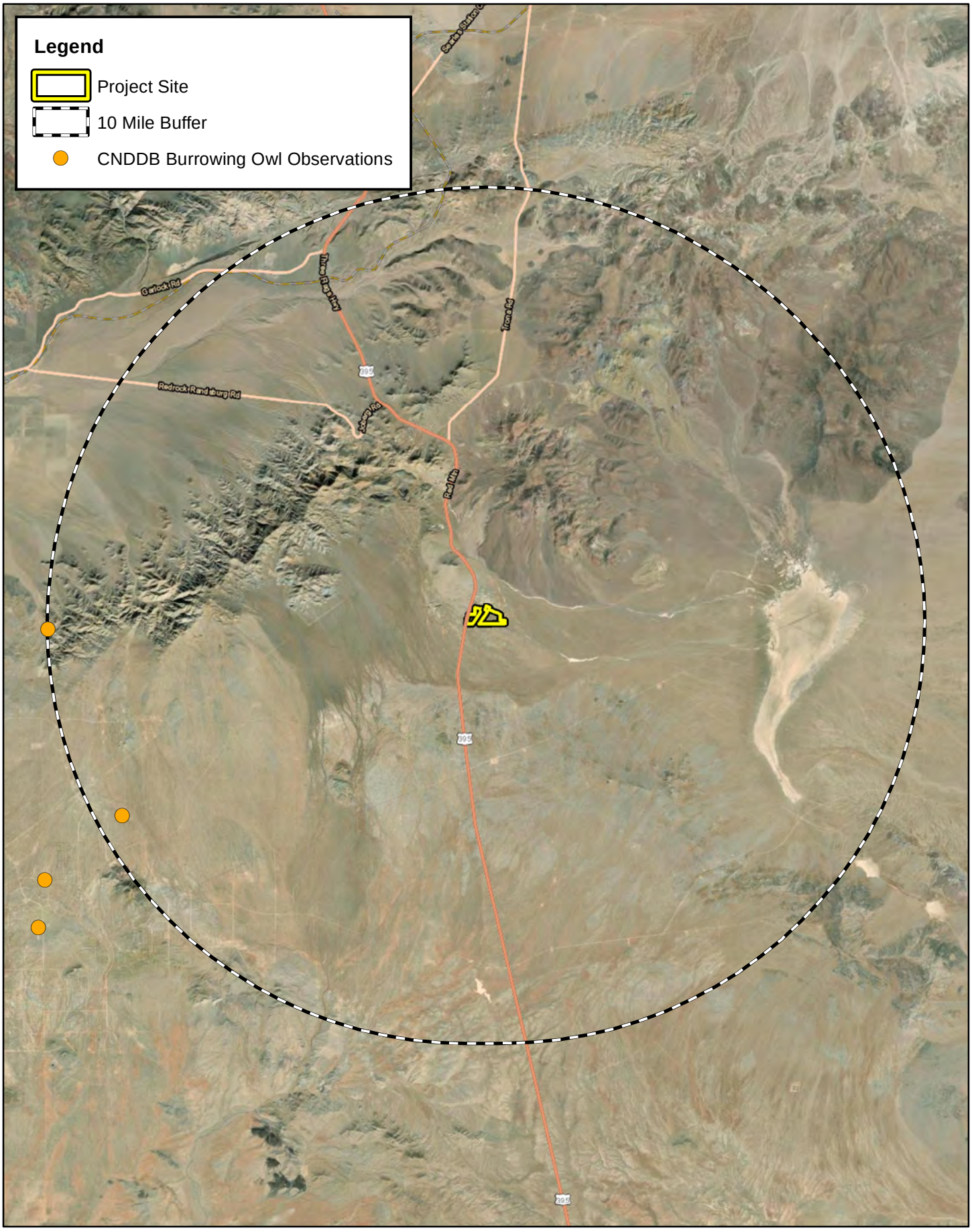
Based on a review of CDFW's California Natural Diversity Database (CNDDB) no burrowing owl observations have been recorded within 5 miles of the project site. The nearest recorded observation of burrowing owl to the site occurred approximately 9.5 miles to the southeast of the site. Refer to Exhibit 5, *CNDDB Burrowing Owl Observations.*

## 4.2 BURROWING OWL FOCUSED SURVEY

Numerous fossorial mammal burrows were observed; however, the majority were unsuitable for use by burrowing owl as they were either too small or situated directly beneath dense brush. Such burrows were observed to be associated with white-tailed antelope ground squirrel (*Ammospermophilus leucurus*) or black-tailed jackrabbit (*Lepus californicus*), and/or small mammals.

Avian species observed during the field investigation include black-throated sparrow (*Amphispiza bilineata*), bell's sparrow (*Artemisiospiza belli*), ash-throated flycatcher (*Myiarchus cinerascens*), common raven (*Corvus corax*), horned lark (*Eremophila alpestris actia*), say's phoebe (*Sayornis saya*), California towhee (*Melozone crissalis*), red-tailed hawk (*Buteo jamaicensis*), house finch (*Haemorhous mexicanus*), yellow-rumped warbler (*Setophaga coronata*), western meadowlark (*Sturnella neglecta*), mourning dove (*Zenaida macroura*), white-crowned sparrow (*Zonotrichia leucophrys*).

Despite a systematic search of the project site, no burrowing owls or sign (pellets, feathers, castings, or whitewash) were observed on or within 500 feet of the project site during the focused surveys.




ELMT CONSULTING

Source: ESRI Aerial Imagery, CDFW CNDDB, San Bernardino County

GOLD DISCOVERY GROUPS PERSISTENCE MINE

# CNDDB BUOW Observations

Exhibit 5

# Section 5 Conclusion and Recommendations

Based on the results of the 2024 burrowing owl focused surveys, no burrowing owls or evidence of recent or historic use by burrowing owls were observed on the project site. As a result, burrowing owls are presumed to be absent from the project site.

To ensure burrowing owl remain absent from the project site, it is recommended that a pre-construction clearance survey be conducted in accordance with CDFWs 2012 Staff Report on Burrowing Owl Mitigation prior to any ground disturbing activities. If burrowing owls are determined to remain absent from the project site during the pre-construction clearance survey, no further review will be needed.

However, if burrowing owls are found to occupy the project site during the pre-construction clearance survey, a burrowing owl relocation plan will need to be prepared and approval by CDFW prior to the commencement of any ground disturbing activities. The burrowing owl relocation plan shall outline recommended methods proposed to relocate the burrowing owls from the project site and provide measures that will be implemented for the maintenance, monitoring, and reporting of the relocated burrowing owls to increase chances of survivorship and better ensure compliance with CDFW guidelines. This plan should be implemented during the non-breeding season, and prior to seasonal rains to promote the best outcome for conservation of the burrowing owl.

# Section 6 References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# Appendix A Site Photographs

**Photograph 1:** From the northern boundary of the westernmost site, looking south.

**Photograph 2:** From the western boundary of the westernmost site, looking east.

**Photograph 3:** From the southwest corner of the westernmost site, looking north along the western boundary and an unnamed dirt access road.

**Photograph 4:** From the southwest corner of the westernmost site, looking east along the southern boundary.

**Photograph 5:** From the southeast corner of the westernmost site, looking north along the eastern boundary.

**Photograph 6:** From the southeast corner of the westernmost site, looking west along the southern boundary.

**Photograph 7:** From the northwest corner of the easternmost site, looking east along the northern boundary.

**Photograph 8:** From the northwest corner of the easternmost site, looking south along the western boundary.

**Photograph 9:** From the northeast corner of the easternmost site, looking south along the eastern boundary.

**Photograph 10:** From the northeast corner of the easternmost site, looking west along the northern boundary.

**Photograph 11:** From the southeast corner of the easternmost site, looking north along the eastern boundary.

**Photograph 12:** From the southeast corner of the easternmost site, looking west along the southern boundary.

**Photograph 13:** From the southwest corner of the easternmost site, looking east along the southern boundary.

**Photograph 14:** One of the remnant pits from historic mining operations, located in the northeast region of the project site. Suitable burrowing owl burrow, with not sign of use.

# Appendix B Fauna Compendium

| FAMILY/SPECIES NAME | COMMON NAME |
|---|---|
| **AVES (Birds)** | |
| *Amphispiza bilineata* | black-throated sparrow |
| *Artemisiospiza belli* | bell's sparrow |
| *Buteo jamaicensis* | red-tailed hawk |
| *Corvus corax* | common raven |
| *Eremophila alpestris actia* | horned lark |
| *Haemorhous mexicanus* | house finch |
| *Melozone crissalis* | California towhee |
| *Myiarchus cinerascens* | ash-throated flycatcher |
| *Sayornis saya* | Say's phoebe |
| *Setophaga coronate* | yellow-rumped warbler |
| *Sturnella neglecta* | western meadowlark |
| *Zenaida macroura* | mourning dove |
| *Zonotrichia leucophrys* | white-crowned sparrow |
| **MAMMALIA (MAMMALS)** | |
| *Ammospermophilus leucurus* | white-tailed antelope ground squirrel |
| *Canis latrans* | coyote |
| *Lepus californicus* | black-tailed jackrabbit |
| *Sylvilagus audubonii* | desert cottontail |
| *Otospermophilus beecheyi* | California ground squirrel |
| **REPTILIA (REPTILES)** | |
| *Sceloporus occidentalis longipes* | Great Basin fence lizard |