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

Prepared For:

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July 2024

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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

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EXHIBITS

APPENDIX

Section 1 Introduction

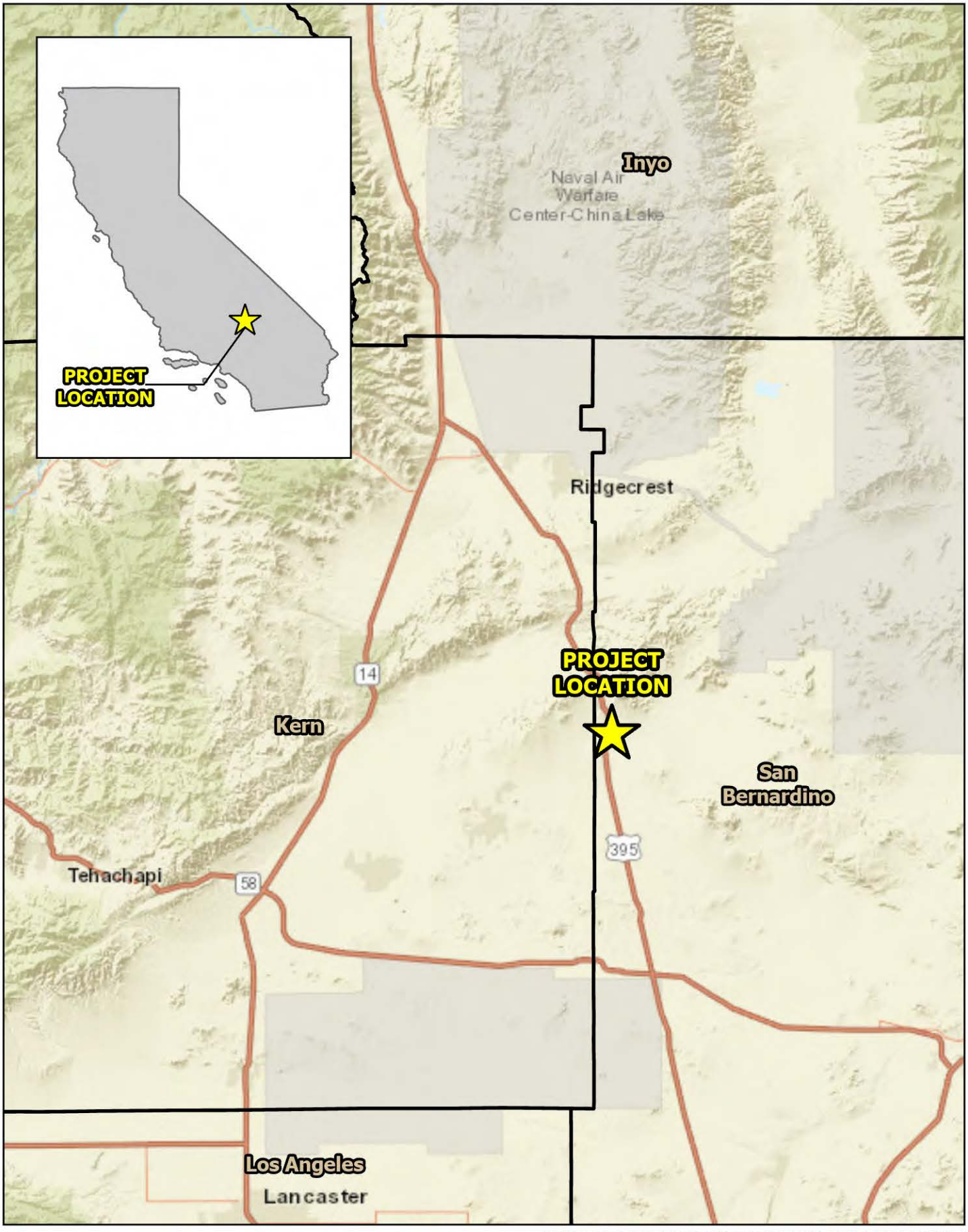
ELMT Consulting (ELMT) conducted a focused burrowing owl (*Athene cunicularia*) survey for Gold Discovery Group's proposed Persistence Mine project located in unincorporated San Bernardino County, California. Biologists Travis J. McGill, Jacob H. Lloyd Davies, Rachael A. Lyons, and Megan E. Peukert surveyed 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

N

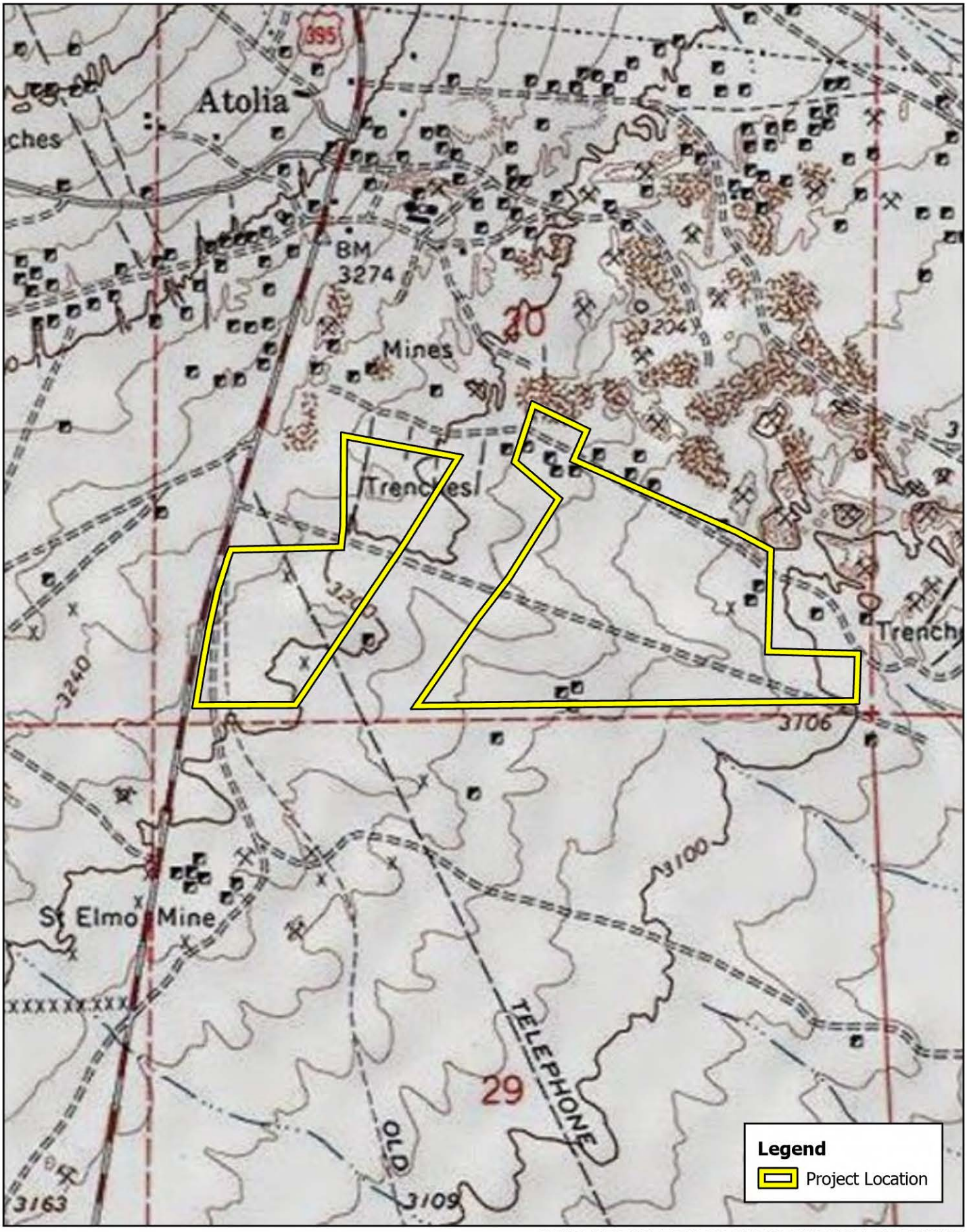
0 5 10 20 Miles

Source: Google Street Map, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

Regional Vicinity

Exhibit 1



ELMT CONSULTING

N

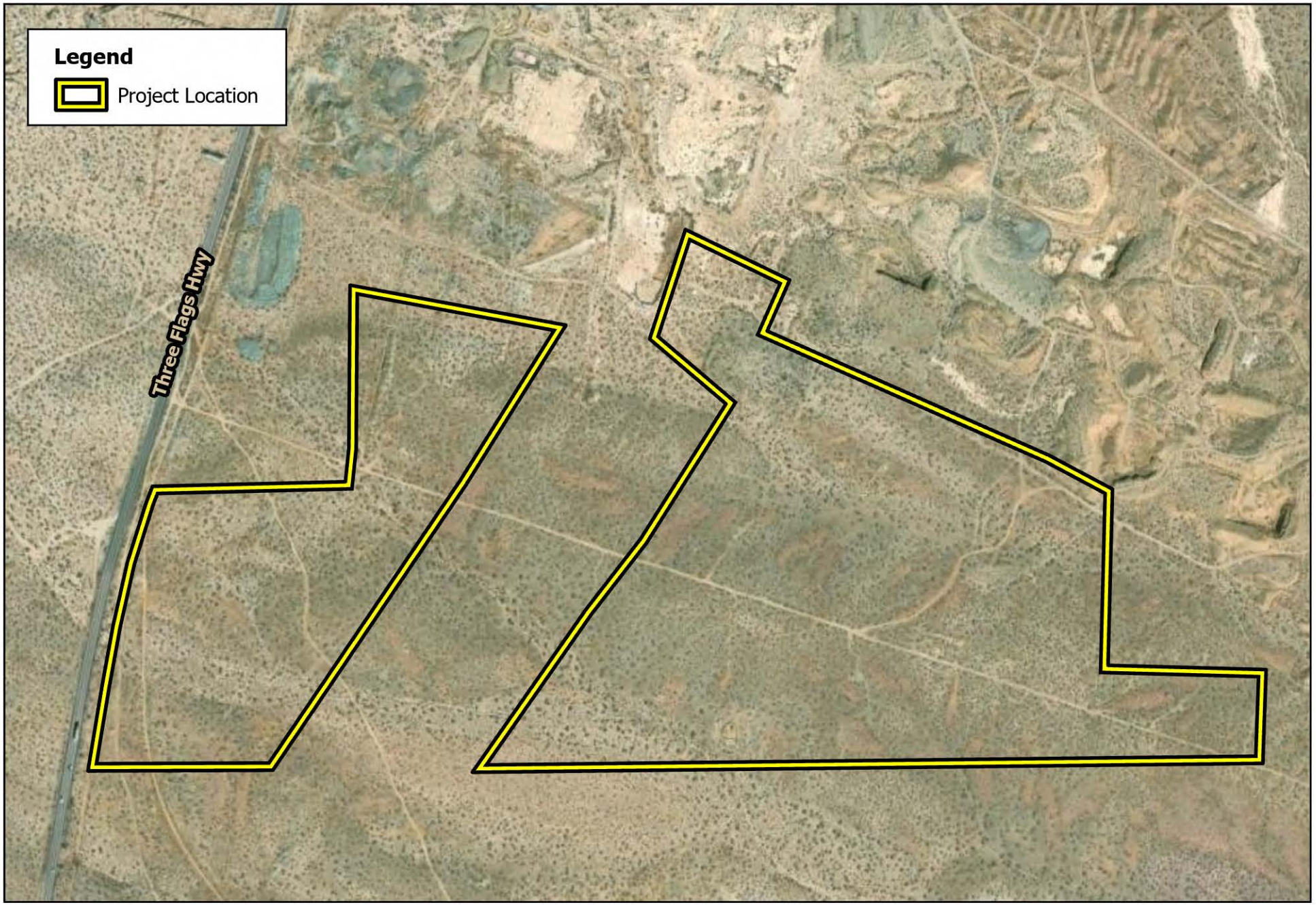
0 500 1,000 2,000 Feet

Source: USGS Topographic Map, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

Site Vicinity

Exhibit 2



ELMT CONSULTING

N

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*).

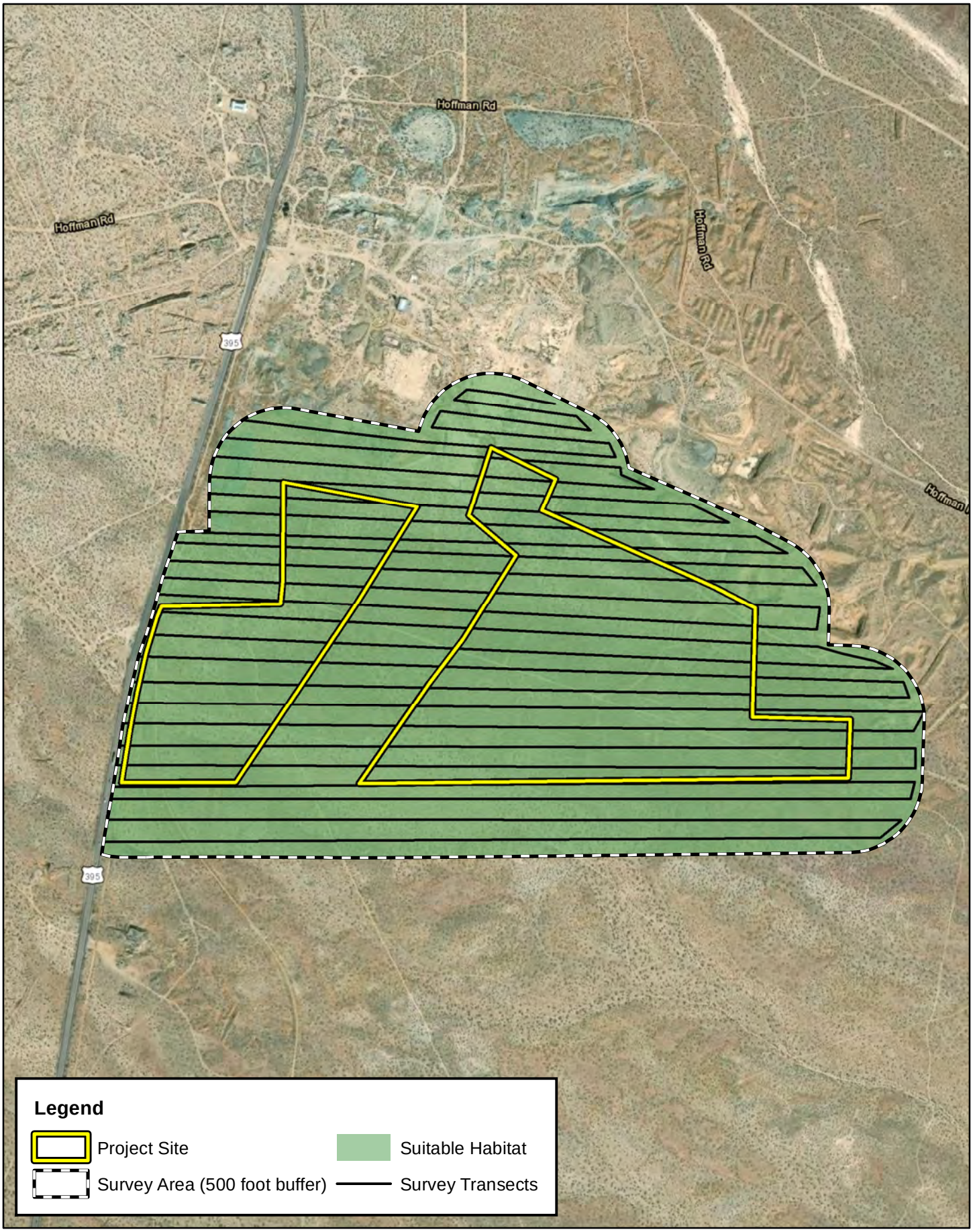
Survey transects on the project site were oriented north to south and were conducted at a maximum of 30-meter (approximately 100 feet) intervals to ensure 100% visual coverage of all areas in suitable habitat on the project site and within the survey area. The focused burrowing owl surveys were conducted 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.

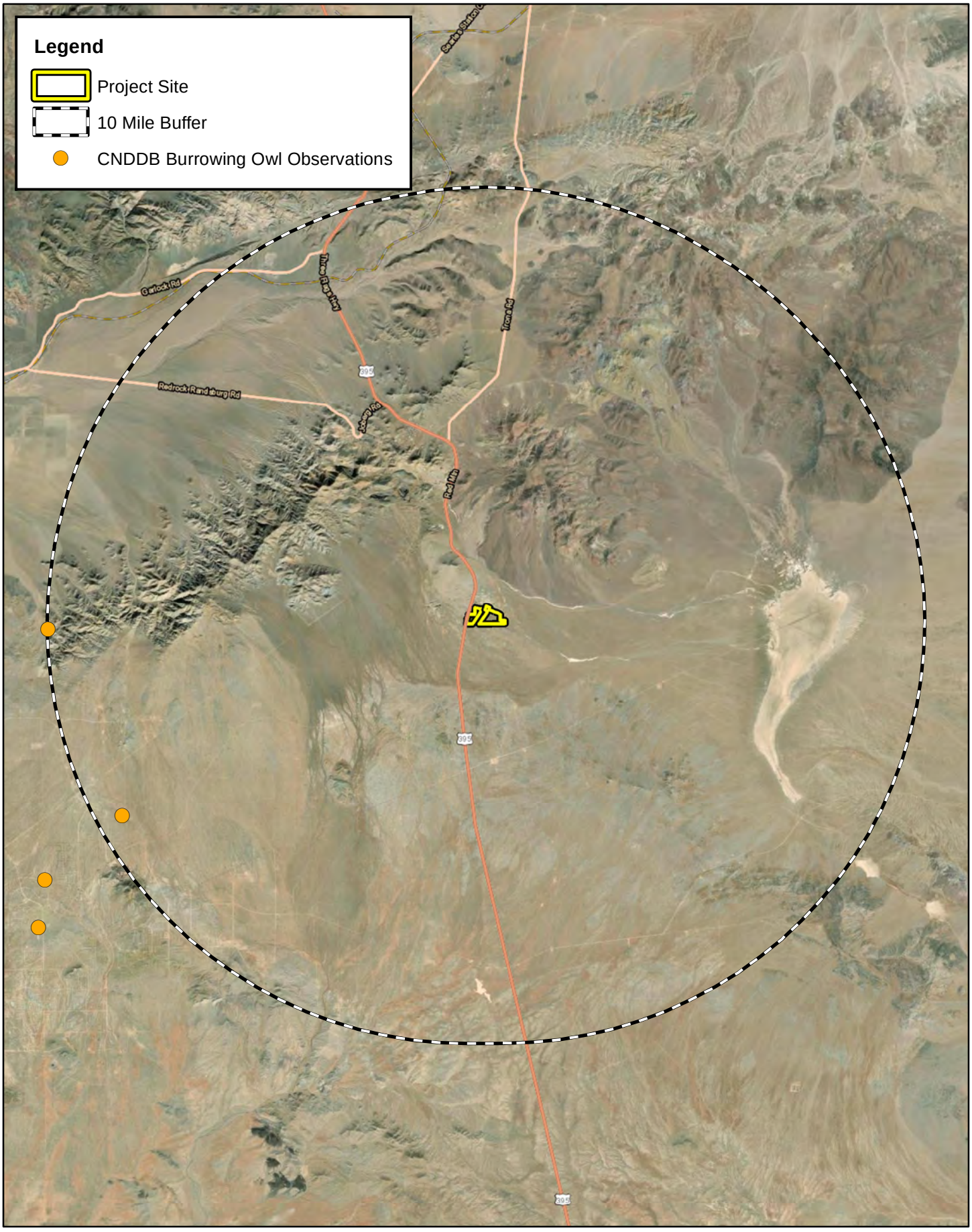
Based on a review of CDFW's California Natural Diversity Database (CNDDB) no burrowing owl observations have been recorded within 5 miles of the project site. The nearest recorded observation of burrowing owl to the site occurred approximately 9.5 miles to the southeast of the site. Refer to Exhibit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

0 1.25 2.5 5 Miles

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

California Burrowing Owl Consortium, 1993. *Burrowing Owl Survey Protocol and Mitigation Guidelines.* Accessed on the internet at: www.dfg.ca.gov/wildlife/nongame/docs/boconsortium.pdf

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Ramsen, Jr., J.V. 1978. *Bird Species of Special Concern in California*. Non-game Wildlife Investigations. Wildlife Management Branch Administrative Report No78-1. Report prepared for California Department of Fish and Game

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