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BIOLOGICAL RESOURCES REPORT

631 RUBY LANE, CHARLESTON VIEW, CA

INYO COUNTY APN: 048-364-070
LEON7FARM LLC. PROJECT

DECEMBER 2023

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LIST OF ABBREVIATIONS AND ACRONYMS

°F	Fahrenheit
APN	Assessor's Parcel Number
BLM	Bureau of Land Management
CAL-IPC	California Invasive Plant Council
CDFW	California Department of Fish & Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	Clean Water Act
EONDX	Element Occurrence Index
FESA	Federal Endangered Species Act
ft	Feet
HUC	Hydrologic Unit Code
km	Kilometer
NRCS	Natural Resources Conservation Service
REC	Resort/Recreational
RWQCB	Regional Water Quality Control Board (Lahontan)
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WEAT	Worker Environmental Awareness Training

EXECUTIVE SUMMARY

This Biological Resources Report has been prepared to support the California Environmental Quality Act (CEQA) Initial Study to be prepared by Inyo County, as it relates to biological resources for the 631 Ruby Lane, Charleston View, CA, Project (project).

The project is located at 631 Ruby Lane, Charleston View, CA, on a 2.5-acre parcel in unincorporated Inyo County (APN 048-364-070). The project site is surrounded by undeveloped land to the south and west, a dirt road to the north and a developed parcel to the east. Pahrump, NV is the nearest town, located approximately 30 miles to the north. The latitude and longitude for the center of the project site is 35.975047, -115.924610.

Two vegetation communities/land covers are present on the project site: Nevada joint fir (*Ephedra nevadensis)* - Anderson's boxthorn (*Lycium andersonii*) scrubland association and disturbed habitat. The majority of the project site is covered with Nevada joint fir - Anderson's boxthorn shrubland. There are no sensitive natural communities or critical habitat in the project site.

There are no surface waters, wetlands, or riparian habitat in the project site. The nearest surface water is an ephemeral stream that is approximately 150 feet outside of the project site.

In addition to a general biological resource assessment, this report includes a discussion of a botanical survey completed in the project site in 2023. This survey covered 100% of the site.

Results of the survey:

- No federally listed or state listed species were observed.
- One plant species observed was ranked by the California Native Plant Society (CNPS) as 2B.1 but was not protected under the CESA or FESA: Torrey's Mormon-Tea (*Ephedra torreyana*).
- Five invasive plant species were observed: red brome (*Bromus rubens*), herb sophia (*Descuraina sophia*), red stemmed filaree (*Erodium cicutarium*), Mediterranean grass (*Schismus arabicus*) and London rocket (*Sisymbrium irio*).
- Seven common wildlife species and 35 common plant species were observed.

No special-status species were identified during the pedestrian surveys. According to the California Department of Fish & Wildlife's California Natural Diversity Database (CNDDB) search performed, there are 30 special-status species (5 animal species and 25 plant species) that have the potential to be onsite. Key species from that list include the following:

- Federally Threatened and State Threatened Desert Tortoise (*Gopherus agassizii*). Habitat onsite may be used by dispersing individuals.

Permits:

No permits are anticipated at this time. Changes in the project plans or detection of special-status species during pre construction surveys may result in the need for a United States Fish and Wildlife Service or California Department of Fish and Wildlife incidental take permit.

A list of proposed avoidance and minimization measures is included in Section 4.

1 | INTRODUCTION

Purpose & Need for Study

This Biological Resources Report has been prepared to support the California Environmental Quality Act (CEQA) Initial Study, as it relates to biological resources for the 631 Ruby Lane, Charleston View, CA, Project (project). The project site was assessed with respect to the following biological resources: existing environmental setting, special-status species, and habitat connectivity. In addition to a review of relevant literature, a botanical survey that was floristic in nature, per the 2018 *California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018), was completed to determine the types and sensitivities of habitats present onsite and the presence of special-status plant species. This information serves as a basis to assess potential impacts associated with the proposed development. Results of the literature review and survey are intended to provide sufficient baseline information to guide the CEQA lead, responsible, and trustee agencies in their determinations regarding significant impacts, and to identify best management practices and avoidance, minimization, and mitigation measures to offset those impacts.

Location

The project is located at 631 Ruby Lane, Charleston View, CA, on a 2.5-acre parcel in the unincorporated area of Inyo County (APN 048-364-070). The project site is north of Old Spanish Highway and east of N. Garnet Street. Ruby Lane runs along the project's northern edge. The nearest town is Pahrump, NV, approximately 30 miles away. Figure 1 and 2 show the regional and vicinity location of the project site.

Assessor's Parcel Number (APN): 048-364-070
United States Geological Survey (USGS) 7.5 Minute Quadrangle: Calvada Springs. Section 29. Township 22 North. Range 10 East.
Latitude and Longitude for the Center of the Project Site: 35.975047, -115.924610

Project Description

The project proposes to construct and operate a commercial cannabis facility. Table 1 lists the proposed structures, their dimensions and the intended use for each structure. Additionally, there will be a 15,000 gallon water tank, a driveway, a parking area supporting up to 10 vehicles, and a gated fence along the perimeter of the project site. Development will be focused on the southern half of the project site. Vegetation

removal and grading will occur across 75 - 100% of the site. The parking area and the driveway surfaces will be gravel. Concrete slab foundations will be poured for the buildings. Portable toilets and showers with mobile septic tanks will be brought onsite. A tank for recycling water from the cannabis plants will be installed. Water for a 15,000 gallon tank will be trucked in from offsite.

TABLE 1 | Proposed Structures

Type of Structure	Number of Structures	Dimensions	Use
Building	2	30'x100'x12'	Plant Cultivation
Shipping Container	1	40'x 8'x 8'	Drying & Trimming
Shipping Container	1	20'x 8'x 8'	Clones
Shipping Container	1	20'x 8'x 8'	Break Room
Shipping Container	1	20'x 8'x 8'	Storage

FIGURE 1 | REGIONAL LOCATION MAP

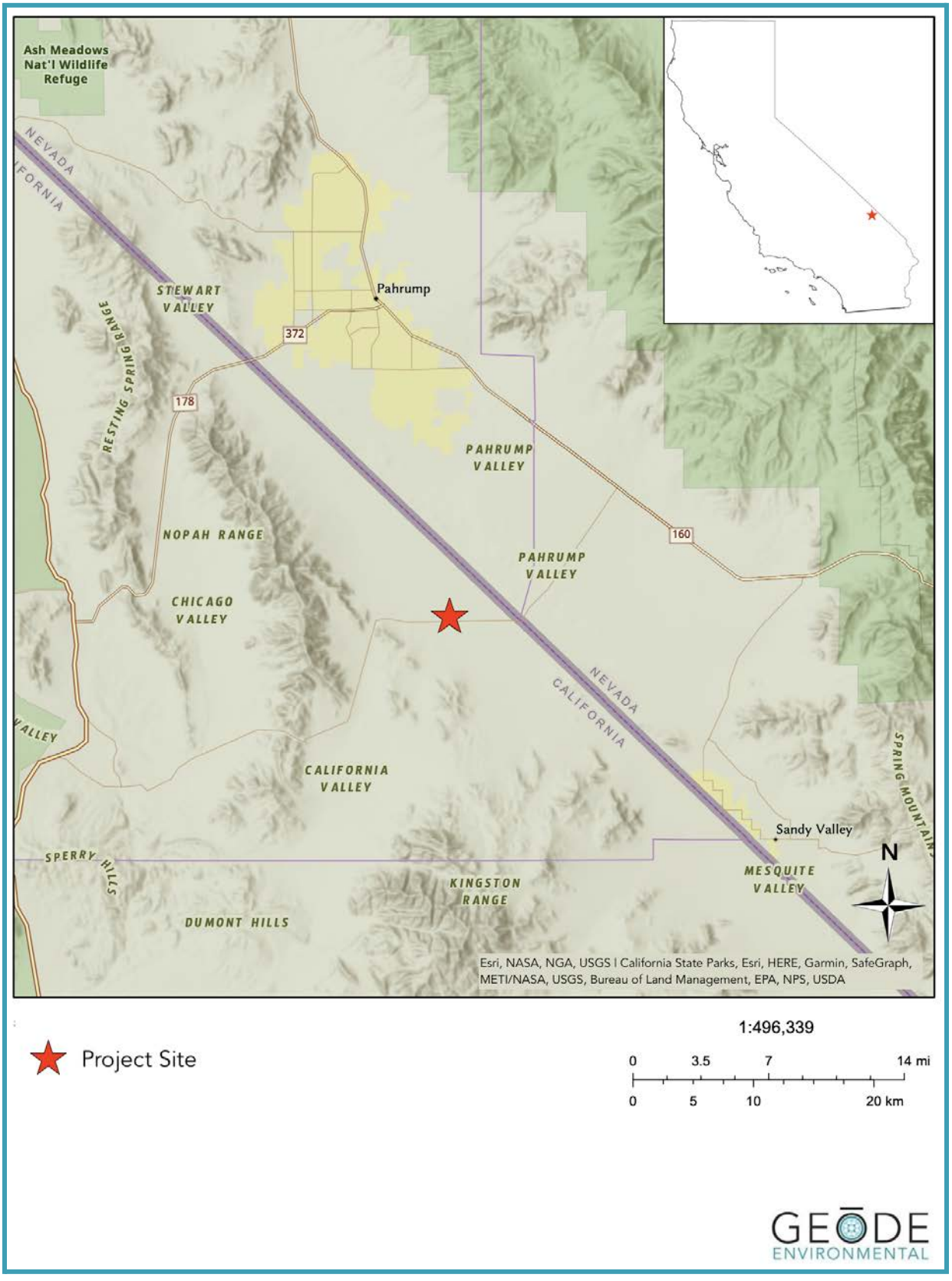
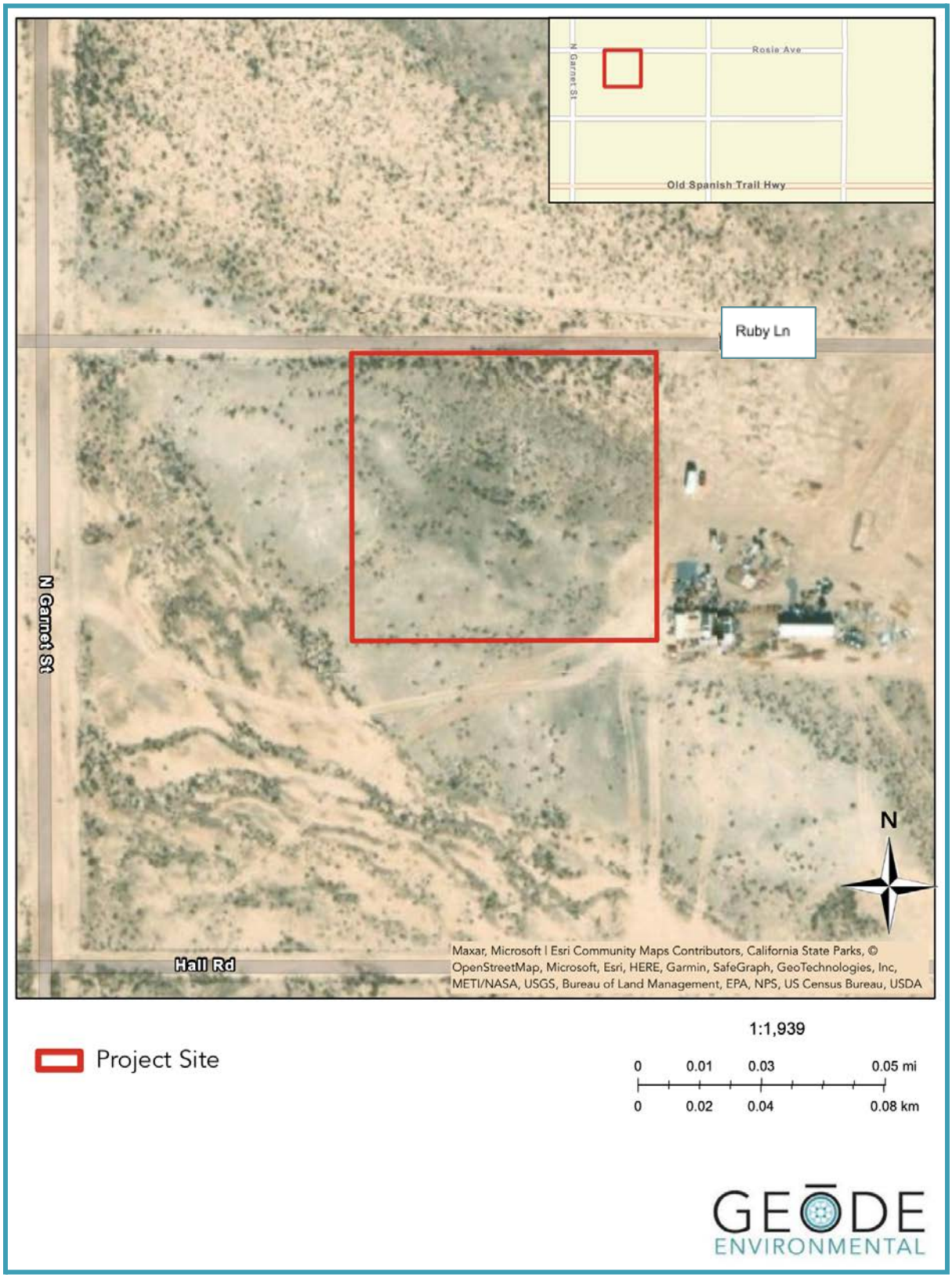


FIGURE 2 | PROJECT SITE MAP



2 | METHODOLOGY

Regulatory Climate

The following laws, orders, and guidelines pertain to the regulation of biological resources that may occur within the project site.

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS), which has jurisdiction over federally listed (i.e., threatened and endangered) plants, wildlife, and resident fish, implements the Federal Endangered Species Act (FESA). The FESA prohibits the "take" of any fish or wildlife species listed as threatened or endangered, including the destruction of habitat that could hinder species recovery. Take, as defined under the FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Section 10 of the FESA provides a means whereby a non-federal action, with a potential to result in the take of a listed species, could be allowed under an incidental take permit. Application procedures are found at 50 CFR Parts 13 and 17 for species under the jurisdiction of USFWS. Specifically, section 10(a)(1)(B) permits the incidental take of a federally listed species by private interests and non-federal government agencies if the take is incidental to, and not the purpose of, an otherwise lawful activity and is accompanied by a Habitat Conservation Plan.

California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. The CESA prohibits the "take" of State endangered and threatened species; however, habitat destruction is not included in the State's definition of take. Section 2080 of the Act states that no person shall take or attempt to take any species listed as endangered or threatened. CDFW administers the CESA and, with the exception of "Fully Protected Species," authorizes incidental take of listed species through Section 2081 incidental take permits.

Migratory Bird Treaty Act

This treaty with Canada, Mexico, Japan, and Russia, makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season. California Fish and Game Code Sections 3503 and 3503.5 (protection of birds' nests) and 3513 (taking Migratory Bird Treaty Act birds) also prohibit the destruction of any nest, egg, or nestling.

Clean Water Act and Porter-Cologne Water Quality Control Act

The U.S. Army Corps of Engineers (USACE) has the primary federal responsibility for administering regulations that concern "waters of the United States" within the project area. The USACE acts under the Clean Water Act (CWA) (Section 404), which governs specified activities in "other waters of the United States," including wetlands. The USACE requires that a permit be obtained if a project proposes discharging dredged or fill material into waters of the United States below the ordinary high water mark in non-tidal waters.

The State of California's authority to regulate activities, in wetlands and waters at the project site, resides primarily with the Regional Water Quality Control Board (RWQCB), which regulates fill-in and discharges to waters of the State, including activities in wetlands, under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. The RWQCB issues Section 401 Certification permits for discharges to water bodies. The RWQCB may impose mitigation requirements even if the USACE does not.

Fish and Game Code Section 1600-1603

The CDFW is authorized under the California Fish and Game Code, Sections 1600-1603, to enter into a Streambed Alteration Agreement with applicants and develop mitigation measures when a proposed project will obstruct the flow or alter the bed, channel, or bank of a river or stream in which there is a fish or wildlife resource, including intermittent and ephemeral streams.

Section 15380(b) of the CEQA Guidelines

Section 15380(b) of the CEQA Guidelines states that a species not federally listed or state-listed as endangered, threatened, or rare may still be considered rare if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in the FESA and CESA and the section of the state Fish and Game Code dealing with rare or endangered plants or animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a substantial effect on a species that has not yet been listed by either the USFWS or the CDFW, or species that are locally or regionally rare.

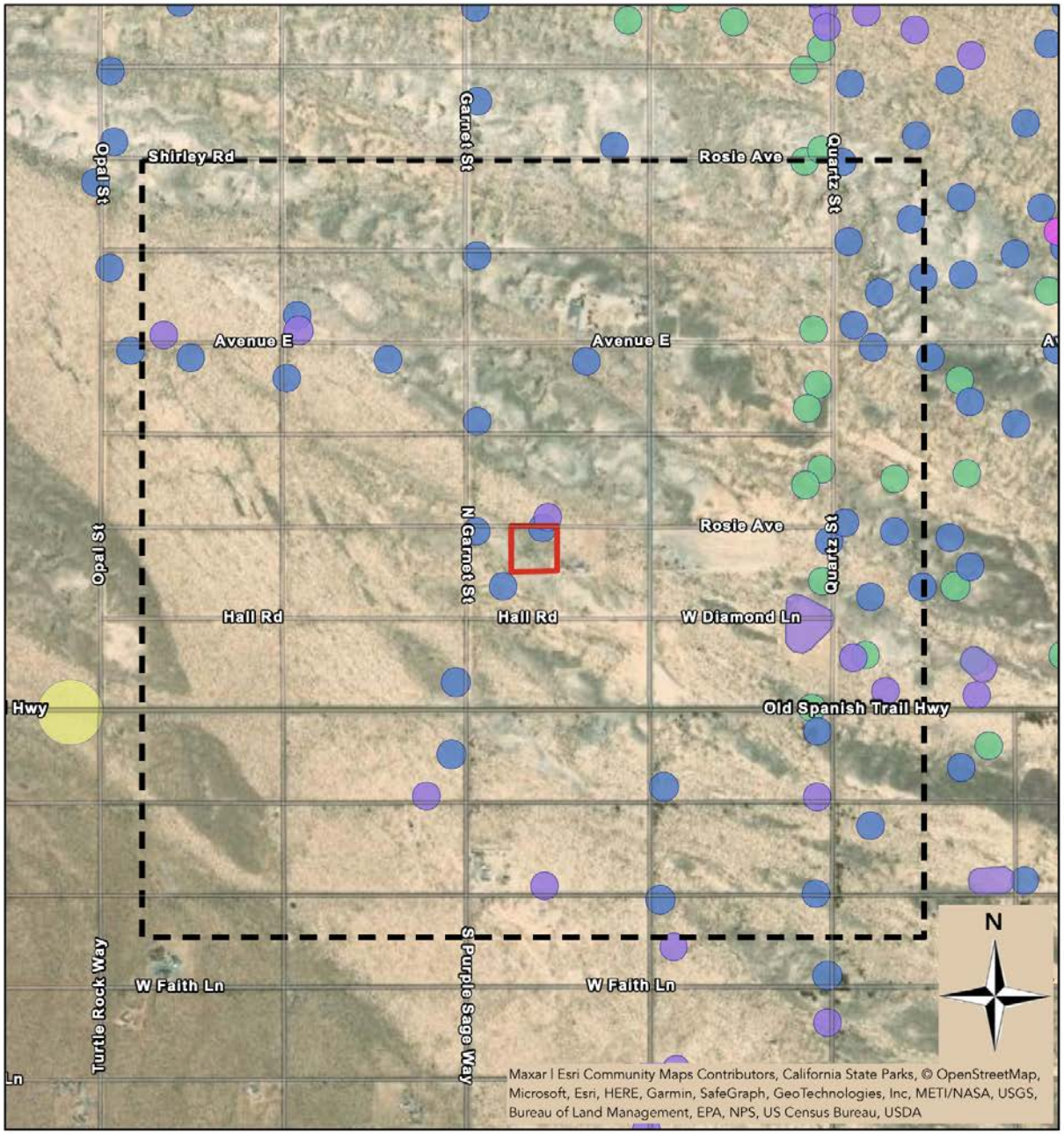
CDFW has produced three lists (amphibians/reptiles, birds, and mammals) of "species of special concern" that serve as "watch lists." The watch lists include species that are either of limited distribution or exist in habitats that have been substantially reduced, such that threat to their populations may be imminent. Thus, these populations should

be monitored. These species may receive special attention during environmental review as potential rare species, but do not have specific statutory protection.

Literature Review

Before conducting field work, biological data repositories including CDFW's California Natural Diversity Database (CNDDB, 2023), the California Native Plant Society (CNPS) Inventory of Rare Plants (CNPS, Rare Plant Program 2023), and the USFWS's Information for Planning and Consultation (USFWS, 2023a) were queried to create a list of special-status species that have historically been reported in the project vicinity. Animals and/or plants considered rare, threatened, or endangered, are herein collectively referred to as "special-status species." Records were requested for special-status species observed in the USGS 7.5-minute quadrangle that includes the project site, the Calvada Springs quadrangle, and the surrounding eight quadrangles: Blackwater Mine, Hidden Hills Ranch, Horse Thief Springs, Mound Spring, Nopah Peak, North of Tecopa Pass, Tecopa Pass, and Stump Spring. Figure 3 is a map of the special-status species that have at least one CNDDB occurrence within 0.5 mile of the project site. Special-status species mentioned in the Charleston View Specific Plan Existing Conditions Report (Inyo County 2016) were also added to the list. Literature review and professional judgment were used to determine the types of field surveys required.

FIGURE 3 | CDFW CNDDB DATABASE SEARCH - 0.5 MILE BUFFER



*CNDDB version 04/2023. Please Note: The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

1:15,000

0 0.1 0.2 0.4 mi

0 0.15 0.3 0.6 km

- Project Boundary
- 0.5 Mile Buffer
- Torrey's Mormon-Tea
- Goodding's Phacelia
- Forked Buckwheat
- Desert Wing-Fruit
- Wing-Seed Blazing Star

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Survey Methods

Based on the results of the literature review, a field survey was required to collect the following information: the types and quality of habitats onsite and the presence of rare plants. A survey was completed using the 2018 *California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018) to properly identify and document any sensitive natural communities or special-status plant species onsite.

Prior to starting surveys, a list of special-status plant species with potential to occur in the project site was created from the results of the database queries (Table 2). Surveys were conducted during the peak blooming periods for all of these species except one, Clokey's cryptantha (*Cryptantha clokeyi*). No reference sites were visited prior to starting surveys.

TABLE 2 | Special-Status Plant Species with Potential to be in the Project Site

Scientific Name	Common Name	CRPR Rating	Blooming Period
Acleisanthes nevadensis	desert wing-fruit	2B.1	Apr-Sep
Aliciella ripleyi	Ripley's aliciella	2B.3	May-Jul
Androstephium breviflorum	small-flowered androstephium	2B.2	Mar-Apr
Arctomecon merriamii	white bear poppy	2B.2	(Mar) Apr-May
Astragalus nutans	Providence Mountains milk-vetch	4.3	Mar-Jun (Oct)
Astragalus nyensis	Nye milk-vetch	1B.1	Apr-May
Astragalus preussii var. preussii	Preuss' milk-vetch	2B.1	Apr-Jun
Astragalus sabulonum	gravel milk-vetch	2B.2	Feb-Jun
Astragalus tidestromii	Tidestrom's milk-vetch	2B.2	(Jan) Apr-Jul
Atriplex argentea var. longitrichoma	Pahrump orache	1B.1	Apr-May
Bouteloua trifida	three-awned grama	2B.3	(Apr)May-Sep
Chaetadelpha wheeleri	Wheeler's dune-broom	2B.2	Apr-Sep
Coryphantha chlorantha	desert pincushion	2B.1	Apr-Sep
Cryptantha clokeyi	Clokey's cryptantha	1B.2	Apr
Cymopterus multinervatus	purple-nerve cymopterus	2B.2	Mar-Apr
Ephedra torreyana	Torrey's Mormon-tea	2B.1	May

Scientific Name	Common Name	CRPR Rating	Blooming Period
Eriogonum bifurcatum	forked buckwheat	1B.2	Apr-Jun
Eriogonum contiguum	Reveal's buckwheat	2B.3	(Feb) Mar-May (Jun)
Funastrum utahense	Utah vine milkweed	4.2	(Mar) Apr-Jun (Sep-Oct)
Johnstonella holoptera	winged cryptantha	4.3	Mar-Apr
Mentzelia tricuspis	spiny-hair blazing star	2B.1	Mar-May
Mortonia utahensis	Utah mortonia	4.3	Mar-May
Peteria thompsoniae	spine-noded milk vetch	2B.1	May-Jun
Phacelia parishii	Parish's phacelia	1B.1	Apr-May (Jun-Jul)
Phacelia pulchella var. gooddingii	Goodding's phacelia	2B.2	Apr-Jun
Sclerocactus johnsonii	Johnson's bee-hive cactus	2B.2	Apr-May

Surveys were completed by Essra Mostafavi, MA (Geode Environmental, Project Lead), and Hilary Parish, BS (Geode Environmental, Senior Biologist). Ms. Mostafavi has 7 years of experience conducting botanical surveys in the Eastern Sierra Nevada, Great Basin, and Mojave Desert floristic provinces, and 12 years throughout California. Ms. Parish has 7 years of experience conducting botanical surveys in the Eastern Sierra, Great Basin, and Mojave Desert floristic provinces. Table 3 shows dates and conditions for each survey period.

TABLE 3 | Botanical Survey Dates and Personnel

Date of Survey	Surveyors	Start Time	End Time	Weather
May 1, 2023	Essra Mostafavi, Hilary Parish	5:30 PM	6:30 PM	76-81°F; partly cloudy; SW 5 MPH, gusts 11 - 14 MPH
May 2, 2023	Essra Mostafavi, Hilary Parish	8:50 AM	2:45 PM	55-70°F; partly cloudy; SSW 8-9 MPH, gusts 15 MPH

Surveys were completed on foot, walking meandering transects that resulted in 100% coverage of the project site. The survey was comprehensive and floristic in nature. All plant and animal species observed onsite were recorded and identified to the taxonomic level necessary to determine if a species was of special-status or not. Animal signs (i.e, scat, burrows, tracks, etc.) were also recorded. Resources used to identify plants include The *Jepson eFlora* online manual (Jepson Flora Project, 2023), *The Jepson Desert Manual* (Baldwin et al, 2002), Calflora, and Calphoto. Plant nomenclature follows *The Jepson eFlora* online manual. Habitat on the project site was assessed for its potential to support special-status species identified in database queries made during the literature review. Habitats were classified based upon guidelines outlined in *A Manual of California Vegetation* (CNPS, 2023). Habitat sensitivity was determined by consulting the most recent version of CDFW California Natural Community List (CDFW, 2022).

3 | RESULTS

Existing Environmental Setting

Land Use

The project-parcel is currently undeveloped, unfenced, and has a land use designation of Resort/Recreational (REC). The REC designation "provides for a mixture of residential and recreational commercial uses, such as resorts, recreational facilities, motels, campgrounds, trailer parks, restaurants, general stores, service stations, and similar and compatible uses. This designation is oriented toward tourist use; however, it also permits permanent residential use and public and quasi-public uses" (Inyo County, 2001).

Physical Environment

The project site is located on the valley floor of Pahrump Valley, in the Amargosa Desert Ecoregion (Griffith et al., 2016). The climate consists of freezing, windy winters and hot, dry summers (National Park Service, 2023a). Average annual rainfall in the vicinity of the project site is less than 5 inches (Western Regional Climate Center, 2023a) and precipitation falls primarily between October and April. Isolated but intense summer monsoonal showers may fall in July and August (Desert Studies Center, 2023). On average, the monthly maximum temperatures range from 57°F to 102°F, and monthly minimum temperatures range from 27°F to 67°F (Western Regional Climate Center, 2023a). The frost-free period can last from 180 to 240 days (United States Department of Agriculture, 2023). According to the US Drought Monitor, this section of Inyo County experienced a continuous drought from August 2020 through April 2023 (National Drought Mitigation Center, 2023). Total precipitation for the region from October 2022 through April 2023 measured at the Pahrump Western Regional Climate Center weather station was 5.13 inches (Western Regional Climate Center, 2023b).

Elevation within the project site ranges from approximately 2,582 - 2,598 feet above sea level. The topography within the project site slopes very gently from the southeast towards the northwest.

The Project is located within the Calvada Springs Watershed (USGS HUC 10 1606001504) which covers an area of approximately 135 square miles. There are no perennial streams in this watershed, only ephemeral streams. The majority of water flows as groundwater beneath the surface within the Pahrump Valley Groundwater Basin (Inyo County, 2016).

There are no surface waters in the project site. The USGS National Hydrography Dataset shows the project site sits between two ephemeral streams (Figure 4). At its nearest point to the project, the eastern stream is approximately 150 feet away from the northeast corner of the project site. The western stream is approximately 680 feet from the southwest corner of the project site at its nearest point to the project.

The Natural Resources Conservation Service (NRCS) Web Soil Survey identified the map unit within the project site as NOTCOM (NRCS, 2023). This map unit type means there is no digital data available for this area. The NRCS Web Soil Survey had soil type data for the base of the alluvial fans that are 4 to 5 miles uphill of the project site. These alluvial fans had the following map units: Corbilt (441), Prisoner - Bluepoint (781) and Pahrump Wodavar - Vegastorm (460). Description treads across these soil series concluded that the soils are gravelly, silty, loam, and/or sandy, which matches soils textures found in the project site. All soils series are alkaline (Soil Survey Staff, 2023).

FIGURE 4 | SURFACE WATERS MAP

Biological Environment

There are two types of land cover within the project site. One land cover is the natural plant community Nevada Joint Fir (*Ephedra nevadensis)* - Anderson's Boxthorn (*Lycium andersonii*) Scrubland Association. Plant communities were classified based upon guidelines outlined in *A Manual of California Vegetation* (CNPS, 2023). In the project site, dominant shrub species were Anderson's boxthorn, Cooper's box thorn (*Lycium cooperi*) and Nevada joint fir. Other common shrub species included shadscale (*Atriplex confertifolia*), white bursage (*Ambrosia dumosa*) and desert pepper grass (*Lepidium fremontii*). Dominant herbs include fleshy pincushion (*Chaenactis xantiana*), common phacelia (*Phacelia distans*), Prince's plume (*Stanleya pinnata*), London rocket (*Sisymbrium irio*) and Fremont's phacelia (*Phacelia fremontii*). Mediterranean grass (*Schismus arabicus*) was the only dominant grass, commonly found growing under shrubs. A few pieces of trash were observed scattered in this habitat.

Photograph 1: Nevada Joint Fir - Anderson's Boxthorn Shrubland. Photograph taken on May 2, 2023 by Essra Mostafavi

There was a small area along the north edge of the project site that showed higher plant density and vigor compared to the rest of the parcel (Figure 5). Herb diversity was also greater in this area. The area is about 200 feet long and 25 feet wide at its widest point. It runs along and slightly into Ruby Ln. There is a small dirt berm that also runs

parallel along Ruby Ln in this area. This berm may have helped trap water and allowed for the higher plant density and vigor in this area.

Photograph 2: Area of High Plant Density. Photograph taken on May 2, 2023 by Essra Mostafavi

FIGURE 5 | AREA OF HIGH PLANT DENSITY

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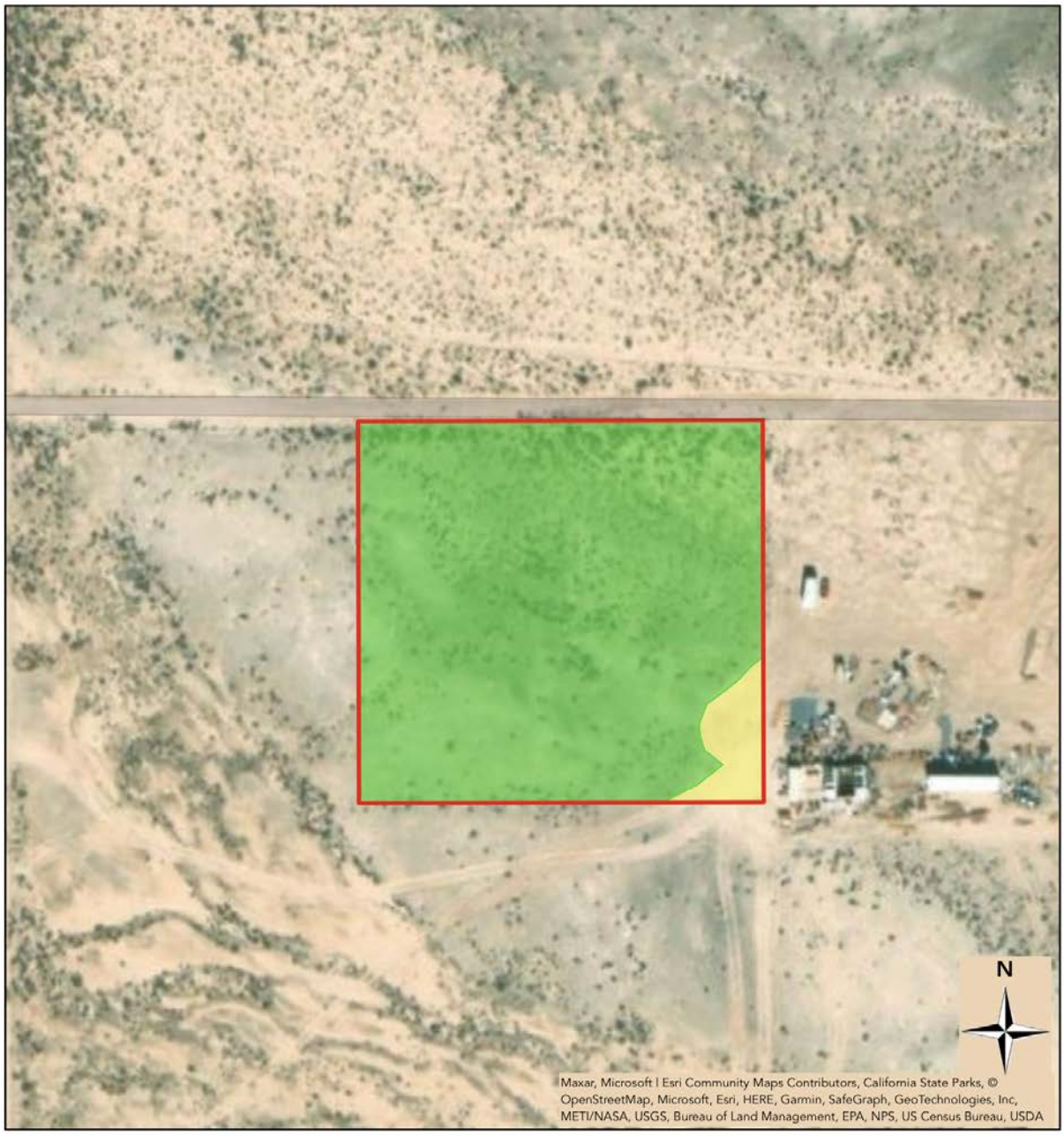
The other land cover is non-natural, disturbed habitat. This covertype is used to describe portions of the project site that are open unvegetated areas due to vehicular traffic. The disturbance is focused in the southeast corner of the project site. Figure 6 shows the location of each habitat type within the project site. Table 4 lists all common wildlife observed onsite during the field survey, while Table 5 lists all the common plant species observed.

Photograph 3: Disturbed Habitat. Photograph taken on May 2, 2023 by Hilary Parish

FIGURE 6 | HABITAT MAP



Project Boundary

Nevada Joint Fir - Anderson's Boxthorn Shrubland

Disturbed

1:1,698

0 0.01 0.02 0.04 mi

0 0.02 0.04 0.07 km

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TABLE 4 | Common Wildlife Species Observed

Scientific Name	Common Name
Aves	Birds
ALAUDIDAE	LARK FAMILY
Eremophila alpestris	horned lark
COLUMBIDAE	PIGEON AND DOVE FAMILY
Streptopelia decaocto	Eurasian collared-dove
TYRANNIDAE	TYRANT FLYCATCHER FAMILY
Sayornis saya	Say's phoebe
Mammalia	Mammals
LEPORIDAE	RABBIT AND HARE FAMILY
Lepus californicus	black-tailed jack rabbit *
SCIURIDAE	SQUIRREL FAMILY
Ammospermophilus leucurus	white-tailed antelope squirrel
Reptilia	Reptiles
PHRYNOSOMATIDAE	ZEBRA-TAILED AND SIDE-BLOTCHED LIZARD FAMILY
Callisaurus draconoides rhodostictus	western zebra-tailed lizard
Uta stansburiana elegans	western side-blotched lizard
* Scat only	

TABLE 5 | Common Plant Species Observed

Scientific Name	Common Name
Angiospermae: Dicotyledones	Flowering Plants: Dicots
ASTERACEAE	SUNFLOWER FAMILY
Ambrosia dumosa	white bursage
Chaenactis fremontii	Fremont pincushion
Chaenactis xantiana	fleshy pincushion
Malacothrix glabrata	desert dandelion
Stephanomeria pauciflora	wire-lettuce
Xylorhiza tortifolia var. tortifolia	Mojave aster
BRASSICACEAE	MUSTARD FAMILY
Descurainia sophia	herb sophia (invasive non-native, L*)
Lepidium fremontii	desert pepper grass
Lepidium virginicum	Virginia pepperweed
Sisymbrium irio	London rocket (invasive non-native, M*)
Stanleya pinnata	Prince's plume
BORAGINACEAE	BORAGE FAMILY
Lappula redowskii var. redowskii	western stickseed
Oreocarya virginensis	Virgin River oreocarya
Pectocarya recurvata	arched-nut pectocarya
CHENOPODIACEAE	GOOSEFOOT FAMILY
Atriplex confertifolia	shadscale
EPHEDRACEAE	EPHEDRA FAMILY
Ephedra nevadensis	Nevada joint fur
Ephedra torreyana	Torrey's joint fur
EUPHORBIACEAE	SPURGE FAMILY

Scientific Name	Common Name
Euphorbia albomarginata	rattlesnake sandmat
FABACEAE	PEA FAMILY
Astragalus lentiginosus	freckled milkvetch
Senna armata	spiny senna
GERANIACEAE	GERANIUM FAMILY
Erodium cicutarium	red stemmed filaree (invasive non-native, L*)
HYDROPHYLLACEAE	WATERLEAF FAMILY
Phacelia crenulata	notch leaved phacelia
Phacelia distans	common phacelia
Phacelia freemontii	Fremont's phacelia
Phacelia pachyphylla	thick leaved phacelia
MALVACEAE	MALLOW FAMILY
Sphaeralcea ambigua	Desert globemallow
POLEMONIACEAE	PHLOX FAMILY
Gilia brecciarum	Nevada gilia
Gilia cana	showy gilia
Langloisia setosissma	lilac sunbonnet
POLYGONACEAE	KNOTWEED FAMILY
Chorizanthe rigida	devil's spineflower
Eriogonum brachypodum	Parry's wild buckwheat
SOLANACEAE	NIGHTSHADE FAMILY
Lycium andersonii	Anderson's boxthorn
Lycium cooperi	Cooper's box thorn
Angiospermae: Monocotyledones	Flowering Plants: Monocots
POACEAE	GRASS FAMILY

Scientific Name	Common Name
Bromus rubens	red brome (invasive non-native, H*)
Elymus elymoides	squirreltail
Schismus arabicus	Mediterranean grass (invasive non-native, L*)
* California Invasive Plant Council Rating: H - High; M - Moderate; L - Limited	

Adjacent Habitat

As a whole, the Charleston View area is mostly undeveloped natural shrubland. There are a few parcels that have been developed for residential use. Immediately adjacent to the project site, is a mix of developed and undeveloped land. Ruby Ln, a dirt road, runs parallel to and along the top of the north edge of the project site. The parcel east of the project site has been developed and consists mostly of disturbed graded soil, a trailer, and piles of miscellaneous material. Nevada joint fir - Anderson's boxthorn shrubland extends to the south and west out of the project site.

Natural Communities of Concern

USFWS and CNDDB records show no critical habitat or other special-status habitats occurring within or adjacent to the project site. There are no sensitive natural vegetation communities or wetlands within the project site.

Special-Status Species

Table 6a and 6b provide summaries of the special-status wildlife and plant species that were identified in the literature review as potentially occurring in the project vicinity; their habitat requirements; and, a rationale regarding their potential to occur within the project site. The species listed in Table 6a and Table 6b are considered to be of special concern based on: (1) federal, state, or local laws regulating impacts to these species; (2) limited distributions; and/or (3) the habitat requirements of special-status animals occurring in the vicinity of the site. Some species warranted further consideration because of the presence of marginal or suitable habitat onsite. These species are discussed in further detail in this section. Species whose habitat is absent were eliminated from consideration and are not discussed further after Tables 6a and 6b.

TABLE 6A | Special-Status Wildlife Species with Potential to Occur Onsite

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Absent	Occurrence Probability
BIRDS					
Accipiter gentilis	northern goshawk	SSC	North coast coniferous forest; Subalpine coniferous forest; Upper montane coniferous forest	A	NONE. No nesting or foraging habitat.
Athene cunicularia	burrowing owl	SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals to provide nests.	P	MODERATE. Foraging and nesting habitat onsite.
Aquila chrysaetos	golden eagle	FP	Rolling foothills, mountain areas, and desert.They are found primarily in mountains up to 12,000 feet, canyonlands, rimrock terrain, and riverside cliffs and bluffs. Nests on cliffs and steep escarpments in grassland, shrubland, forests, and other vegetated areas.	A	NONE. No suitable topography in the project site. This species forages and nests in terrain where there is some elevation change such as rolling hills and mountains. The project site is flat and the nearest mountains are more than 3 miles away.
Falco peregrinus anatum	peregrine falcon	FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures.	A	NONE. No nesting or foraging habitat.
Vireo vicinior	gray vireo	SSC	Dry chaparral; west of desert, in chamise-dominated habitat; mountains of Mojave Desert, associated with juniper and Artemisia.	A	NONE. No nesting or foraging habitat.
INVERTEBRATES					
Danaus plexippus	Monarch butterfly	FC	Female monarchs lay their eggs on the underside of poisonous milkweed leaves (National Park Service, 2023b).	A	NONE. No milkweed onsite.
MAMMALS					

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Absent	Occurrence Probability
Antrozous pallidus	pallid bat	SSC	Mojave desert scrub. Most common in open, dry habitats with rocky areas to roost. Roost in rock crevices, tree hollows, mines, caves, and a variety of anthropogenic structures, including vacant and occupied buildings (Texas Parks and Wildlife 2023). Very sensitive to disturbance of roosting sites.	P	LOW. Foraging habitat only. No roosting habitat.
Corynorhinus townsendii	Townsend's big-eared bat	SSC	Throughout California in a wide variety of habitats. Microhabitat: chenopod scrub, great basin scrub. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Extremely sensitive to human disturbance.	P	MINIMAL. Foraging habitat only. The project site is xeric not mesic, making it less likely for this species to use habitat in the project site. No roosting habitat.
Ovis canadensis nelsoni	desert bighorn sheep	FP	Mojavean desert scrub. Inhabit rocky slopes and cliffs, canyons, washes and alluvial fans. Open, rocky, steep areas with available water and herbaceous forage.	A	NONE. No suitable topography in the project site. This species prefers steep slopes and the project site is flat. The nearest mountains are more than 3 miles away.
REPTILES					
Heloderma suspectum cinctum	banded Gila monster	SSC	Mojavean desert scrub. Inhabits the lower slopes of rocky canyons and arroyos, but is also found on desert flats among scrub and succulents. Eggs are laid in soil in excavated nests; thus, soil must be sandy or friable. Prefers rocky areas and has been observed in deeply incised topography, in most cases, associated with large and relatively high mountain ranges. (California Herps 2023).	P	MINIMAL. The shrubland onsite provides foraging and nesting habitat however the habitat is marginal because it is flat, not rocky and is 2 - 3 miles from mountains.
Gopherus agassizii	desert tortoise	FT, ST	Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual	P	MODERATE. Suitable foraging and burrow habitat is present.

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Absent	Occurrence Probability
			wildflower blooms preferred.		

Status
FE: Federally listed, endangered.
FT: Federally listed, threatened.
SE: State listed, endangered.
ST: State listed, threatened.
SSC: California Species of Special Concern. Considered vulnerable to extinction due to declining numbers, limited geographic ranges, or ongoing threats.
FP: Fully protected. May not be taken or possessed without permit from CDFG.

TABLE 6B | Special-Status Plant Species with Potential to Occur Onsite

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Absent	Occurrence Probability	Species Observed During Protocol Floristic Surveys
PLANTS						
Acleisanthes nevadensis	desert wing-fruit	2B.1	Joshua tree "woodland", Mojavean desert scrub. Creosote bush scrub. Gravelly, Rocky. Elevation: 2610 - 4100 ft.	P	MODERATE. Suitable habitat onsite and there are multiple recent occurrences within the project vicinity.	No
Agave utahensis var. eborispina	ivory-spined agave	1B.3	Mojavean desert scrub (carbonate, rocky slopes). Elevation: 3100 - 4495 ft.	A	NONE. The project site is outside the elevation range for this species, the project site is sandy and gravelly but not rocky and the project site is flat, not on a slope.	No
Agave utahensis var. nevadensis	Clark Mountain agave	4.2	Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland. Carbonate (sometimes), Volcanic (sometimes). Elevation: 2955 - 5200.	A	NONE. The project site is outside the elevation range for this species.	No
Aliciella ripleyi	Ripley's aliciella	2B.3	Mojavean desert scrub. Carbonate. Elevation: 1000-6400 ft.	P	LOW. Suitable habitat onsite but there are no occurrences within the project vicinity.	No
Allium nevadense	Nevada onion	2B.3	Pinyon and juniper woodland. Gravelly, Sandy. Elevation: 2660 - 5580	A	NONE. No suitable habitat present.	No
Androstephium breviflorum	small-flowered androstephium	2B.2	Desert dunes, Mojavean desert scrub, Bajadas. Elevation: 720 - 2625 ft.	P	MODERATE. Suitable habitat onsite and there are multiple recent occurrences within the project vicinity.	No

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Absent	Occurrence Probability	Species Observed During Protocol Floristic Surveys
Arctomecon merriamii	white bear poppy	2B.2	Chenopod scrub, Mojavean desert scrub. Rocky. Elevation: 1610 - 5905 ft.	P	LOW. Suitable habitat onsite but there are no occurrences within the project vicinity.	No
Astragalus nutans	Providence Mountains milk-vetch	4.3	Joshua tree "woodland", Mojavean desert scrub, Sonoran desert scrub. Gravelly (sometimes), Sandy (sometimes). Elevation: 1475 -6400 ft.	P	LOW. Suitable habitat onsite but there are no occurrences within the project vicinity.	No
Astragalus nyensis	Nye milk-vetch	1B.1	Mojavean desert scrub. Alkaline (sometimes, Gravelly, Sandy). Elevation: 2590 - 2675 ft.	P	MODERATE. Suitable habitat onsite and there are multiple recent occurrences within the project vicinity.	No
Astragalus preussii var. preussii	Preuss' milk-vetch	2B.1	Chenopod scrub, Mojavean desert scrub. Clay. Elevation: 2460 - 2640 ft.	P	MODERATE. Suitable habitat onsite and there are multiple recent occurrences within the project vicinity.	No
Astragalus sabulonum	gravel milk-vetch	2B.2	Desert dunes, Mojavean desert scrub, Sonoran desert scrub. Flats, Gravelly (sometimes), Roadsides, Sandy (usually). Elevation: -195 - 3050 ft.	P	MODERATE. Suitable habitat onsite and there are multiple recent occurrences within the project vicinity.	No
Astragalus tidestromii	Tidestrom's milk-vetch	2B.2	Mojavean desert scrub. Carbonate, Gravelly (sometimes), Sandy (sometimes). Elevation: 1970 - 5855 ft.	P	MODERATE. Suitable habitat onsite and there are multiple recent occurrences within the project vicinity.	No
Atriplex argentea var. longitrichoma	Pahrump orache	1B.1	Mojavean desert scrub. Alkaline, Disturbed areas, Roadsides. Elevation: 2100 - 2790 ft.	P	LOW. Suitable habitat onsite but there are no occurrences within the project vicinity.	No

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Absent	Occurrence Probability	Species Observed During Protocol Floristic Surveys
Boechera lincolnensis	Lincoln rockcress	2B.3	Chenopod scrub, Mojavean desert scrub. Carbonate. Elevation: 3610 - 8875 ft.	A	NONE. The project site is outside the elevation range for this species.	No
Bouteloua trifida	three-awned grama	2B.3	Mojavean desert scrub. Carbonate, Rocky. Elevation: 2295 - 6560 ft.	P	MINIMAL. Suitable habitat onsite but there are no occurrences within the project vicinity, and the habitat is sandy and gravelly but not rocky.	No
Chaetadelpha wheeleri	Wheeler's dune-broom	2B.2	Desert dunes, Great Basin scrub, Mojavean desert scrub. Sandy. Elevation: 2610 - 6235 ft.	P	MODERATE. Suitable habitat onsite and there are multiple recent occurrences within the project vicinity.	No
Coryphantha chlorantha	desert pincushion	2B.1	Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland. Carbonate, Gravelly, Rocky. Elevation: 150 - 5595 ft.	P	LOW. Suitable habitat onsite but there are no occurrences within the project vicinity.	No
Cryptantha clokeyi	Clokey's cryptantha	1B.2	Mojavean desert scrub. Elevation: 2380 - 4480 ft.	P	LOW. Suitable habitat onsite but there are no occurrences within the project vicinity.	No
Cymopterus gilmanii	Gilman's cymopterus	2B.3	Mojavean desert scrub. Often carbonate. Elevation: 3000 - 6560 ft.	A	NONE. The project site is outside the elevation range for this species.	No
Cymopterus multinervatus	purple-nerve cymopterus	2B.2	Mojavean desert scrub, Pinyon and juniper woodland. Gravelly (sometimes), Sandy (sometimes). Elevation: 2590 - 5905 ft.	P	MODERATE. Suitable habitat onsite and there is a recent occurrence within the project vicinity.	No
Ephedra torreyana	Torrey's Mormon-tea	2B.1	Great Basin scrub. Valley Bottoms, Silt. Elevation: 2510 - 2660 ft.	P	PRESENT. Species observed onsite during focused rare plant surveys.	Yes

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Absent	Occurrence Probability	Species Observed During Protocol Floristic Surveys
Eremothera boothii ssp. intermedia	Booth's hairy evening-primrose	2B.3	Great Basin scrub, Sandy. Pinyon and juniper woodland. Elevation: 4920 - 7055 ft.	A	NONE. The project site is outside the elevation range for this species.	No
Eriogonum bifurcatum	forked buckwheat	1B.2	Chenopod scrub. Sandy. Elevation: 2115 - 2660 ft.	P	MODERATE. Suitable habitat onsite and there are multiple recent occurrences within the project vicinity.	No
Eriogonum contiguum	Reveal's buckwheat	2B.3	Mojavean desert scrub. Sandy. Elevation: 100 - 4330 ft.	P	MODERATE. Suitable habitat onsite and there are multiple recent occurrences within the project vicinity.	No
Eriogonum heermannii var. floccosum	Clark Mountain buckwheat	4.3	Pinyon and juniper woodland. Carbonate. Elevation: 2955 - 7875 ft.	A	NONE. No suitable habitat.	No
Eriogonum umbellatum var. juniporinum	juniper sulphur-flowered buckwheat	2B.3	Mojavean desert scrub, Pinyon and juniper woodland. Elevation: 4265 - 8205 ft.	A	NONE. The project site is outside the elevation range for this species.	No
Erioneuron pilosum	hairy erioneuron	2B.3	Pinyon and juniper woodland. Sometimes carbonate, rock. Elevation: 4660 - 6595 ft.	A	NONE.. The project site is outside the elevation range for this species.	No
Fendlerella utahensis	yerba desierto	4.3	Lower montane coniferous forest, Mojavean desert scrub, Pinyon and juniper woodland. Carbonate. Elevation: 4265 - 9185 ft.	A	NONE. The project site is outside the elevation range for this species.	No

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Absent	Occurrence Probability	Species Observed During Protocol Floristic Surveys
Funastrum utahense	Utah vine milkweed	4.2	Mojavean desert scrub, Sonoran desert scrub. Gravelly (sometimes), Sandy (sometimes). Elevation: 330 - 4710 ft.	P	LOW. Suitable habitat onsite but there are no occurrences within the project vicinity.	No
Galium hilendiae ssp. kingstonense	Kingston Mountains bedstraw	1B.3	Lower montane coniferous forest, Pinyon and juniper woodland. Elevation: 3935 - 6890 ft.	A	NONE. No suitable habitat.	No
Galium proliferum	desert bedstraw	2B.2	Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland. Carbonate. Elevation: 3905 - 5350 ft.	A	NONE. The project site is outside the elevation range for this species.	No
Hecastocleis shockleyi	prickle-leaf	3	Chenopod scrub, Mojavean desert scrub. Often slate. Carbonate (often), Rocky, Slopes, Washes. Elevation: 3935 - 7220	A	NONE. No suitable habitat.	No
Hedeoma nana ssp. californica	California mock pennyroyal	4.3	Joshua tree "woodland", Pinyon and juniper woodland. Carbonate (often), Rocky. Elevation: 2805 - 6890 ft.	A	NONE. No suitable habitat.	No
Ivesia patellifera	Kingston Mountains ivesia	1B.3	Pinyon and juniper woodland. Granitic, Rocky. Elevation: 4595 - 6890 ft.	A	NONE. No suitable habitat.	No
Johnstonella holoptera	winged cryptantha	4.3	Mojavean desert scrub, Sonoran desert scrub. Elevation: 330 - 5545 ft.	P	LOW. Suitable habitat onsite but there are no occurrences within the project vicinity.	No
Mentzelia pterosperma	wing-seed blazing star	2B.2	Mojavean desert scrub. Gypseous, Clay. Elevation: 3740 - 3740 ft.	A	NONE. The project site is outside the elevation range for this species.	No
Mentzelia tricuspis	spiny-hair blazing star	2B.1	Mojavean desert scrub. Gravelly, Sandy, Slopes, Washes. Elevation: 490 - 4200 ft.	P	LOW. Suitable habitat onsite but there are no occurrences within the project vicinity.	No

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Absent	Occurrence Probability	Species Observed During Protocol Floristic Surveys
Monardella eremicola	Clark Mountain monardella	1B.3	Pinyon and juniper woodland, Riparian scrub (desert). Usually in bedrock cracks and benches along canyon washes. Elevation: 4920 - 6890 ft.	A	NONE. No suitable habitat.	No
Mortonia utahensis	Utah mortonia	4.3	Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland. Carbonate. Elevation: 2495 - 6890 ft.	P	LOW. Suitable habitat onsite but there are no occurrences within the project vicinity.	No
Pellaea truncata	spiny cliff-brake	2B.3	Pinyon and juniper woodland. Granitic, Rocky, Volcanic. Elevation: 3935 - 7055 ft.	A	NONE. No suitable habitat.	No
Penstemon fruticiformis var. amargosae	Amargosa beardtongue	1B.3	Mojavean desert scrub. Elevation: 2790 - 4595 ft.	A	NONE. The project site is outside the elevation range for this species.	No
Penstemon stephensii	Stephens' beardtongue	1B.3	Mojavean desert scrub, Pinyon and juniper woodland. Carbonate (usually), Rocky. Elevation: 3805 - 6070 ft.	A	NONE. The project site is outside the elevation range for this species and the habitat onsite is not rocky.	No
Penstemon utahensis	Utah beardtongue	2B.3	Chenopod scrub, Great Basin scrub, Mojavean desert scrub, . Rocky. Elevation: 3495 - 8205 ft.	A	NONE. The project site is outside the elevation range for this species and the habitat onsite is not rocky.	No
Peteria thompsoniae	spine-noded milk vetch	2B.1	Mojavean desert scrub. Alluvial fans, Sandy. Elevation: 2625 - 2705 ft.	P	LOW. Suitable habitat onsite and there is one recent occurrence within the project vicinity but the project site is not on an alluvial fan.	No

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Absent	Occurrence Probability	Species Observed During Protocol Floristic Surveys
Phacelia parishii	Parish's phacelia	1B.1	Mojavean desert scrub, Playas. Alkaline (sometimes), Clay (sometimes). Elevation: 1770 - 3935 ft.	P	LOW. Suitable habitat onsite but there are no occurrences within the project vicinity.	No
Phacelia pulchella var. gooddingii	Goodding's phacelia	2B.2	Mojavean desert scrub. Clay, Often Alkaline. Elevation: 2510 - 3280 ft.	P	MODERATE. Suitable habitat onsite and there are multiple recent occurrences within the project vicinity.	No
Sclerocactus johnsonii	Johnson's bee-hive cactus	2B.2	Mojavean desert scrub. Granitic. Elevation: 1640 - 3935 ft.	P	LOW. Suitable habitat onsite but there are no occurrences within the project vicinity.	No
Sphaeralcea rusbyi var. eremicola	Rusby's desert-mallow	1B.2	Joshua tree "woodland", Mojavean desert scrub. Elevation: 3200 - 5395 ft.	A	NONE. The project site is outside the elevation range for this species.	No
Stipa arida	Mormon needle grass	2B.3	Joshua tree "woodland", Pinyon and juniper woodland. Carbonate. Elevation: 1640 - 8430 ft.	A	NONE. No suitable habitat.	No
Tetradymia argyraea	striped horsebrush	4.3	Pinyon and juniper woodland (rocky). Elevation: 4595 - 7315 ft.	A	NONE. No suitable habitat.	No

Status

California Rare Plant Rank (CRPR) designations. 1A: Plants presumed extinct in California. 1B: Plants rare and endangered in California and throughout their range. 2A: Plants presumed extinct in California but more common elsewhere in their range. 2B: Plants rare, threatened or endangered in California but more common elsewhere in their range. 3: Plants about which we need more information; a review list. 4: Plants of limited distribution; a watch list.

California Rare Plant Rank Threat designation extensions: .1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat) .2 Fairly endangered in California (20-80% occurrences threatened) .3 Not very endangered in California (<20% of occurrences threatened or no current threats known)

Bats

As shown in Table 6a, the project site contains potentially suitable foraging habitat for two special status bat species. Both are CDFW Species of Special Concern, an administrative designation from the CDFW that carries no formal legal status. However, all bat species (regardless of listing status) are protected by California Fish and Game Code Section 4150, which states that all nongame mammals or parts thereof may not be taken or possessed except as provided otherwise in the code or in accordance with regulations adopted by the California Fish and Game Commission. Activities resulting in the mortality of nongame mammals (e.g. destruction of an occupied bat roost, resulting in the death of bats), or disturbance that results in the loss of a maternity colony of bats (including the death of young), may be considered a "take" by CDFW. Furthermore, any structure occupied by a bat maternity colony of any species is considered a native wildlife nursery site that is essential to the viability of local populations.

Townsend's big eared bats inhabit a wide variety of habitats. It is most abundant in mesic habitats (Harris, J. et al. 1988-1990a). It roosts in the open, hanging from walls and ceilings of buildings, caves, and mines. It also has been reported to use bridges, rock crevices, and hollow trees as roost sites. Colonies usually are at least 16-19 kilometers (km) (10-12 miles) apart (Harris, J. et al. 1988-1990a). Maternity roosts occur in caves, mines, and buildings (Jones and Stokes 2006). Females and their pups form maternity colonies, which often number from around 12 to 200 bats (Harris, J. et al. 1988-1990a). Maternity colonies form between March and June (based on local climatic factors), and females bear a single pup between May and July (Sherwin and Piaggio 2005).

The pallid bat is a locally common species of low elevations in California. A wide variety of habitats is occupied, including grasslands, shrublands, woodlands, and forests, from sea level, to mixed conifer forests. The species is most common in open, dry habitats and prefers rocky areas for roosting. Most pallid bats (95%) roost in groups of 20, or more, ranging to 162 (Harris, J. et al. 1988-1990b). Roosts must protect bats from high temperatures. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Foraging areas generally are not far from day roosts [but up to at least 7-11 km (4 - 7 miles) away (Natureserve Explorer 2023)]. Night roosts may be in more open sites, such as porches and buildings. Pregnant females gather in summer maternity colonies (Texas Parks and Wildlife 2023). Maternity colonies disband between August and October. This species is very sensitive to disturbance of roosting sites.

Survey Results

There are no CNDDB occurrences for either bat species within the project site. The nearest CNDDB occurrence for Townsend's big eared bat is recent (less than 20 years old) and more than 15 miles away (CNDDB Element Occurrence Index (EONDX) 94186). The nearest CNDDB occurrence for pallid bat is recent and more than 15 miles away (EONDX 54769). Neither species was observed during the field survey.

The project site provides foraging habitat for both species; however, it is not a preferred habitat for either species. Townsend's big eared bats prefer mesic habitats or habitats that contain a moderate amount of moisture. The project site is dry. Pallid bats prefer rocky habitat, unlike the project site, which is flat, sandy, and gravelly. Stump spring and other springs found on the alluvial fans of nearby mountains are potential water sources for individuals foraging in the project area.

There is no suitable roosting habitat in the project site. Approximately 150 feet east of the parcel boundary, on the adjacent property, a dilapidated single wide trailer may provide roosting habitat.

Banded Gila Monster

As shown in Table 6a, the project site contains marginally suitable habitat for the banded gila monster, a CDFW "Species of Special Concern." Although this is an administrative designation from the CDFW, and carries no formal legal status, section 15380 of the CEQA Guidelines indicates that these species should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.

The Gila monster is uncommon in a variety of desert woodland and scrub habitats in the extreme eastern Mojave Desert, principally in desert mountain ranges (Harris, J. et al. 1988-1990c). There are very few well-documented records for the state. Habitat in which the species has been observed in California is characterized by rocky, deeply incised topography, in most cases, associated with large and relatively high mountain ranges (California Herps 2023). It prefers slightly moist habitats in canyons, arroyos, and washes (Harris, J. et al. 1988-1990c). In California, this species is probably only active in spring, summer and early fall. The Gila monster utilizes the burrows of other animals and may construct its own. Eggs are laid in the soil in excavated nests, so the soil must be sandy or friable. This species occurs in areas that are moister than the area surrounding the project site. Most localities are associated with riparian areas (California Herps 2023).

Survey Results

There are no CNDDB occurrences for this species within the project site. The nearest CNDDB occurrence is historic (greater than 20 years old) and more than 10 miles away (EONDX 72630). This species was not observed onsite during the field survey.

Nevada joint-fir and Ansderson's boxthorn shrubland provides marginally suitable habitat for foraging. Rodent burrows were observed onsite showing there is potential nesting habitat for gila monsters. The habitat is considered marginal because the project site is on a flat valley floor. Gila monsters are generally found in incised habitats such as canyons, arroyos, and washes in mountainous areas. The nearest mountain slopes are approximately 2 - 3 miles away. Gila monsters are also generally found in the more moist parts of such terrain. There is no riparian habitat on the site, only dry shrublands. This species also prefers rocky terrain to seek shelter from the elements and predators. There are no rocks on the project site, only gravel, pebbles and sand.

Burrowing Owl

As shown in Table 6a, the project site contains suitable habitat for burrowing owl, a CDFW "Species of Special Concern." Although this is an administrative designation from the CDFW, and carries no formal legal status, section 15380 of the CEQA Guidelines states that these species should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein. Burrowing owls are protected by the Migratory Bird Treaty Act. Neither individuals, nor their nests, can be killed, injured or destroyed.

Burrowing Owls live in open, treeless areas with low, sparse vegetation, usually on gently sloping terrain (Cornell University, 2023). They are often associated with high densities of burrowing mammals such as prairie dogs, ground squirrels, and tortoises. Breeding pairs stay near a dedicated nesting burrow, while wintering owls may move around, roosting in tufts of vegetation rather than burrows.

Survey Results

There are no CNDDB occurrences for this species within the project site. The nearest CNDDB occurrence is historic (greater than 20 years old) and more than 50 miles away (CNDDB EONDX 82786). There are no Ebird hotspots in Charleston View (Ebird, 2023). The nearest Ebird hotspot in Pahrump Valley is a sighting of burrowing owls, referred to as the Calvada Eye Park Hotspot, approximately 15 miles from the project site.

Recent desert tortoise surveys were completed in 2018 for the Yellow Pine Solar Project, approximately 10-11 miles east of the project site (SWCA Environmental Consultants 2018). Observations of burrowing owls and their signs were recorded during these surveys. The survey area was 5,032 acres. Seven burrowing owls were observed along with 48 burrows with signs of owl use.

Charleston View contains important burrowing owl habitat (Inyo County, 2016). Nevada joint fir - Anderson's boxthorn scrubland provides foraging and nesting habitat onsite. Rodent burrows were observed on site; however, the burrow entrances were too small for use by burrowing owls. Neither this species nor any of its signs (i.e. white wash, pellets) were observed onsite during the field survey.

Desert Tortoise

As shown in Table 6a, the project site contains suitable habitat for the desert tortoise, listed as threatened under the Federal Endangered Species Act and the California Endangered Species Act. The desert tortoise (*Gopherus agassizii*) is the largest reptile and the only wild land tortoise found in the southwestern United States. The tortoise occurs in southern Nevada, western Arizona, southeastern California, and northwestern Mexico.

The Mojave population of desert tortoise lives in a variety of habitats from sandy flats to rocky foothills, including alluvial fans, washes and canyons (USFWS, 2023b). Desert tortoises are typically found in creosote bush, cactus, and shade scale scrub, and Joshua tree woodland habitats below 5,000 feet of elevation. The desert tortoise eats various herbs, grasses, cacti and wildflowers.

The desert tortoise hibernates in burrows for up to nine months each year, and is most active from March-June and September-October. Burrows are crescent shaped and are most often found at the base of desert shrubs or in wash banks. A desert tortoise may have multiple burrows within their home range. Burrows and tortoises are primarily found on valley floors and slopes, but also on the less precipitous slopes and ridges of desert mountain ranges. Many different species utilize tortoise burrows including mammals, birds, reptiles, and invertebrates.

Survey Results

Tortoise sightings are frequent by locals in the Charleston View area (Inyo County 2016). There were no CNDDB occurrences in the project site. There are two CNDDB occurrences within 10 miles of the project site and both are more than 30 years old (EONDX 14784 & 14795). The nearest occurrence is approximately 8 miles outside of the project limits.

Recent desert tortoise surveys were completed in 2018 for the Yellow Pine Solar Project, approximately 10-11 miles east of the project site (SWCA Environmental Consultants 2018). The survey area was 5,032 acres. Desert tortoises were observed during the survey and tortoise density was estimated at 3.04 adult tortoises/km^2.

Within the project site, Nevada joint fir - Anderson's boxthorn scrubland, and the presence of sandy and friable soils, provide potential foraging and burrowing habitat. However, because habitat on the project site is separated from continuous natural habitat in every direction by dirt roads, the project site does not constitute critical habitat. Additionally, there were no individual animals, burrows, or any other desert tortoise signs observed onsite during the field survey.

Plants

Based on a review of the available data, a total of 25 special-status plant taxa were considered to have the potential to occur on the project site. Results of the CNDDB query showed that Gooding's phacelia has been observed within a half mile of the project site (EONDX 85798). Two special-status species have been observed on the project site: Torrey's Mormon-Tea (EONDX 86568), observed in 2013, and forked buckwheat (EONDX 87407), observed in 2012.

Before being discovered in California in 2011, Torrey's Mormon-Tea was known to grow in Arizona, Colorado, Nevada, New Mexico, Texas, and Utah in the United States. It is known in California only in the Pahrump Valley (California Native Plant Society, Rare Plant Program, 2023). Torrey's Mormon-Tea has 12 CNDDB occurrences. After reviewing the occurrences, the majority of the several hundred Torrey's Mormon-Tea observations were made in or near the Charleston View area. Some of these observations were on Bureau of Land Management (BLM) land, but the majority were located on private land. Outside of Charleston View, smaller amounts of plants, at most 30 at a time, have been observed west of the playa in Pahrump Valley. The occurrence that overlaps with the project site states that anywhere from 1-15 plants were observed.

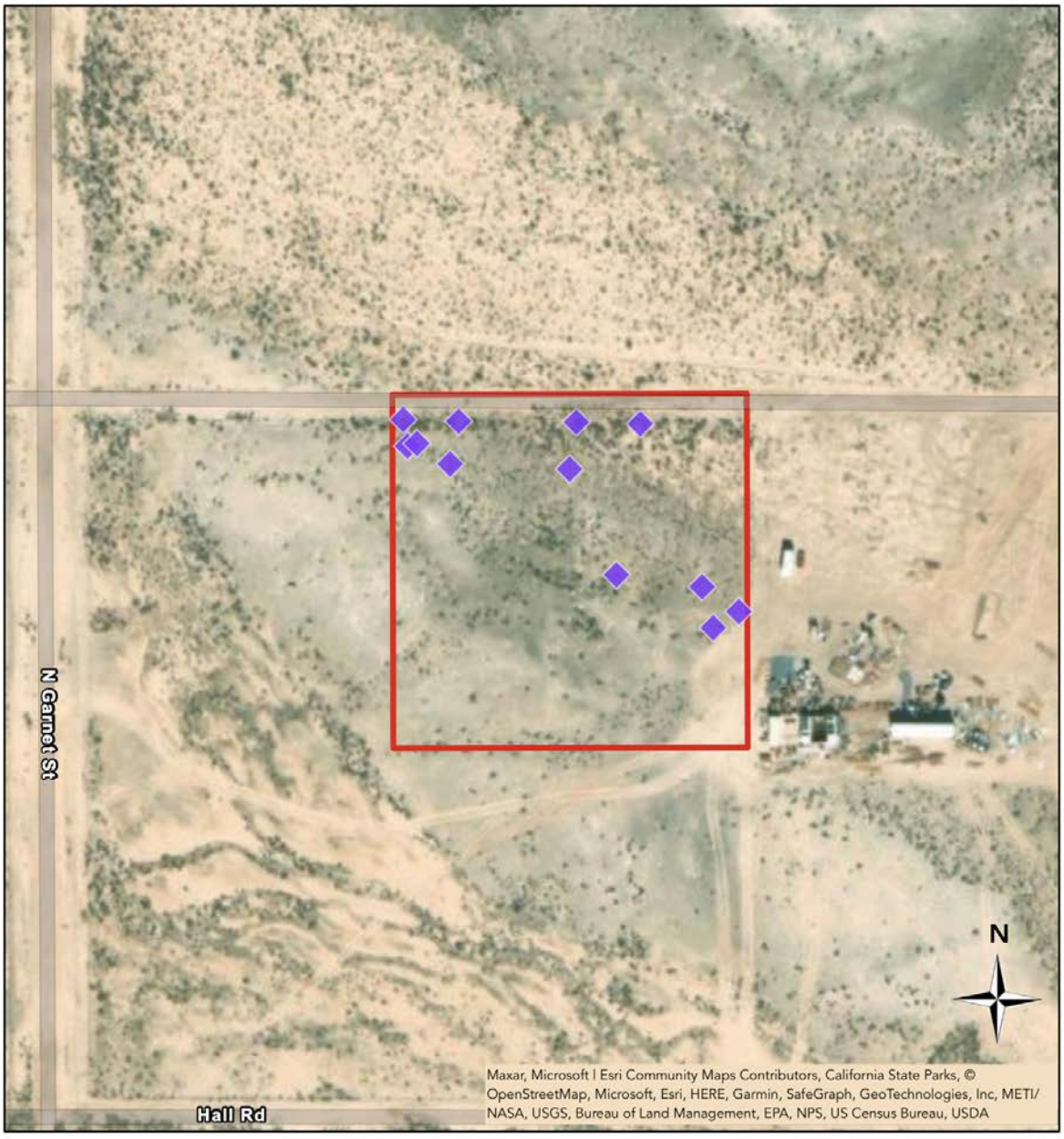
Forked buckwheat grows in California and Nevada. In California, this species has been seen only in Inyo and San Bernardino Counties. The earliest CNDDB record of forked buckwheat in Inyo County is from 1941 (EONDX 20960). In Pahrump Valley, there are pockets of CNDDB occurrences throughout the entire valley. The number of plants observed per occurrence ranged from a few individuals to one million. More than 37,000 individuals have been observed in the Charleston View area, most on private land. The occurrence that extends into the project site states that 50 skeletons were

observed in 2012 (EONDX 87407).

During the protocol-level floristic surveys that were conducted on May 1 & 2, 2023, 36 vascular plant taxa were identified in the project site. The only ranked plant that was found was Torrey's Ephedra (CNPS 2B.1). Eleven of these plants, with mature female cones, were identified and mapped (Figure 7). A CNDDB form was completed and submitted (Appendix A).

Photograph 4: Torrey's Mormon-Tea. Photograph taken on May 2, 2023 by Hilary Parish

FIGURE 7 | LOCATIONS OF TORREY'S MORMON-TEA



GEODE ENVIRONMENTAL

Invasive species

Five invasive plant species listed as having "high," "moderate," or "limited" impact ratings by the California Invasive Plant Council (CAL-IPC 2023) were observed within the project site (Table 7). Mediterranean grass was fairly common under the edges of shrubs throughout the Nevada joint fir - Anderson's boxthorn shrubland. The other four species were most common near the northern edge of the project site.

TABLE 7 | Invasive Species Observed Onsite

Scientific Name	Common Name	CAL-IPC Rating
Bromus rubens	red brome	High
Descuraina sophia	herb sophia	Limited
Erodium cicutarium	red stemmed filaree	Limited
Schismus arabicus	Mediterranean grass	Limited
Sisymbrium irio	London rocket	Moderate

Habitat Connectivity

Habitat connectivity is defined as the degree to which the landscape facilitates or impedes animal movement and other ecological processes, such as seed dispersal. Habitat connectivity on the project site is moderate to high because the majority of the surrounding habitat is undeveloped, natural vegetation communities. Connectivity is degraded by the grid of dirt roads that provide access to all parts of Charleston View.

4 | CONCLUSIONS

Impacts

Bats

Since there is no bat roosting habitat on the project site, the project would not result in the direct removal of any roosting bats or roosting habitat. Project activities will not impact any potentially roosting bats.

Banded Gila Monster

Due to the marginal quality of the habitat found in the project site, the distance from preferred habitat, and the absence of species or signs from the project site during field surveys, this species is not expected to be onsite. There have been no recent banded gila monster observations within 10 miles of the project site. Habitat onsite may be used by dispersing individuals. With the application of mitigation measures BIO 1 and BIO 2, no impacts to this species are anticipated.

Burrowing owls

Since there were no burrowing owls, or their sign observed onsite, the species is not expected to be onsite and are not expected to be impacted by the proposed project. There have been no recent burrowing owls observations within 10 miles of the project site. Habitat onsite may be used by dispersing individuals. With the application of mitigation measures BIO 1 and 2, no impacts to this species are anticipated.

Desert Tortoise

Since there were no desert tortoises, or their sign observed onsite, the species is not expected to be onsite and are not expected to be impacted by the proposed project. There have been no recent desert tortoise observations within 10 miles of the project site. Habitat onsite may be used by dispersing individuals. With the application of mitigation measures BIO 1 and BIO 2, no impacts to this species are anticipated.

Plants

None of the special-status species identified in the CNDDB search, were observed onsite. The survey was completed during the optimal blooming period for all special-status species, during a year with sufficient rain to trigger plant growth in spring. Since these species were not observed onsite, they are not expected to be impacted by the project. The use of mitigation measure BIO 2 will detect any of these species if they start new colonies onsite, between the time the field survey was

completed, and the start of construction. With the application of this mitigation measure, no impacts to these species are anticipated.

The proposed project will result in the removal of Torrey's Mormon-Tea individuals. Development of the project site is concentrated in the southern half of the project. Based on the location of female Torrey's Mormon-Tea individuals identified onsite, at least four of these individuals would be removed and replanted onsite. The application of mitigation measure BIO 3 will minimize or mitigate impacts to this species.

Mitigation Measures

The following avoidance, minimization and mitigation measures are proposed below.

BIO 1: Worker Environmental Awareness Training

Before any work occurs in the project area, including grading and equipment staging, a qualified biologist shall provide a Worker Environmental Awareness Training (WEAT) to all employees, representatives, contractors, and subcontractors regarding special-status species present within the project limit. The training shall describe sensitive resources (i.e. special-status species, nesting birds) to be avoided during project construction and applicable avoidance and minimization measures they need to follow. The qualified biologist shall provide interpretation for non-English speaking workers. If new construction personnel are added to the project, they must receive the mandatory training before starting work. After being trained, each worker shall sign a sign-in sheet to document that they received and understood the training.

BIO 2: Wildlife and Special-Status Species Pre Construction Surveys

A qualified biologist shall survey the site for special-status species, and any habitat, dens, burrows, nests, etc. capable of supporting special-status species 24 hours prior to initiating ground-disturbing activities. The qualified biologist shall ensure that the methods used to locate, identify, map, avoid, and buffer individuals, or habitat, are appropriate and effective. These methods include attaining 100% visual coverage of the potential impact areas, all areas not previously surveyed, and an appropriate buffer surrounding those areas. If a special-status species is identified during the pre-activity survey, appropriate avoidance and minimization measures shall be developed and employed if needed. If the species is federally or state listed and cannot be avoided, there will be coordination with the appropriate resource agency, either USFWS, CDFW, or both.

BIO 3: Torrey's Mormon-Tea Avoidance or Landscaping

The applicant shall avoid Torrey's Mormon-Tea individuals at the ingress and egress of the project site. The applicant will coordinate with a qualified biologist to ensure these

individuals are avoided.

BIO 4: Nesting Bird Avoidance Measures

If it is necessary to commence project construction between March 15 and September 30 (nesting bird season), nesting bird surveys shall be conducted within 7 days of, and no more than 24 hours prior to, initiating ground-disturbing activities. A qualified biologist shall survey all potential nesting habitat within the project site for nesting birds prior to project activities, including site preparation and construction. Should nesting birds be identified, the project biologist shall mark those areas with Environmentally Sensitive Area fencing or flagging, and monitor throughout project activities, until the young have fledged. If the nesting birds continue to show signs of distress or of potentially abandoning the nest, the qualified biologist shall have the authority to stop all work near the nest until the young have fledged.

BIO 5: Hazardous Waste

Spills of raw cement/concrete or washings thereof, asphalt, paint, or other coating material, oil or other petroleum products, or any other substances which could be hazardous to wildlife resources, shall be removed from the site immediately or sealed in a container until the substance can be removed from the site.

BIO 6: Equipment Maintenance

All construction equipment shall be checked *daily* prior to initiating work. If equipment is leaking while onsite, please place a construction diaper (i.e., tarp and wattles) underneath until the equipment can be maintained.

BIO 7: Litter

All trash will be disposed of in a closed container or disposed of offsite at the end of each work day. This measure will remove food that may attract predators such as ravens and coyotes into the project site as well as minimize degradation of habitat by decreasing the amount of litter at the project site.

BIO 8: Invasive Species

During construction of the proposed project, vehicles and all equipment will be washed (including wheels, undercarriages, and bumpers) before entering the proposed project footprint. Vehicles will be cleaned at existing construction yards or legally operating car washes, both before entering the project site, and before vehicles from the project site move to natural habitats in other project sites.

Agency Coordination

This section discusses anticipated coordination with resource agencies based on the biological resources that were observed in the project area or in the case of special-status species, have the potential to be in the project site.

United States Fish and Wildlife Service

No federally listed species, or proposed candidates for listing under the FESA, were observed in the project site at this time. There is no critical habitat within the project site. If desert tortoise or its sign are observed on site during preconstruction surveys, it is recommended that no ground disturbing construction activities start until USFWS is contacted and an incidental take permit under Section 10 of the FESA is acquired.

California Department of Fish and Wildlife

1. Incidental Take Permit under CESA Section 2081

No state listed species or proposed candidates for listing under the CESA were observed in the project area. If desert tortoise or its sign are observed on site during preconstruction surveys, or during construction, it is recommended that no ground disturbing construction activities start until CDFW is contacted and an incidental take permit acquired.

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Appendix A: Torrey's Mormon-Tea CNDDB Form

CNDDB Online Field Survey Form Report

California Natural Diversity Database
Department of Fish and Wildlife
1416 9th Street, Suite 1266
Sacramento, CA 95814
Fax: 916.324.0475
cnddb@wildlife.ca.gov
www.dfg.ca.gov/biogeodata/cnddb/

This data has been reported to the CNDDB, but may not have been evaluated by the CNDDB staff

Source code PAR23F0004
Quad code 3511588
Occ. no.
EO index no.
Map index no.

Scientific name: *Ephedra torreyana*

Common name: Torrey's Mormon-tea

Date of field work (mm-dd-yyyy): 05-02-2023

Comment about field work date(s):

OBSERVER INFORMATION

Observer: Hilary Parish

Affiliation: Geode Environmental

Address: 98 Coldwater Rd , Bishop, CA 93514

Email: hilary@geodeenvironmental.com

Phone: (760) 920-7139

Other observers:

DETERMINATION

Keyed in:

Compared w/ specimen at:

Compared w/ image in: Calflora and Calphoto

By another person:

Other: Compared original description of E. torreyana (Proceedings of the American Academy of Arts and Sciences 14:299-300 (1879)) with descriptions of E.nevadensis (eJepson) & E.funerea (eJepson). Compared photos of female cones and seeds of all three species.

Identification explanation: E.nevadensis was also onsite but it has two seeds per cone whereas E. torreyana has 1-3 seeds per cone. Could not tell the difference between male E. torreyana and E.nevadensis so I mapped only the approximate location of the female E.torreyana.

Identification confidence: Very confident

Species found: Yes **If not found, why not?**

Level of survey effort: General biological survey of a 2.5 acre parcel for a private land owner. Meandering transect throughout the parcel. Recorded the approximate location of female ephedra torreyana. Did not use a GPS unit, used field posts that marked corners of parcel.

Total number of individuals: 12

Collection? No **Collection number:**

Museum/Herbarium:

PLANT INFORMATION

Phenology:

vegetative	flowering	fruiting
	100 %	

SITE INFORMATION

Habitat description: Ephedra nevadensis - Lycium andersonii - Grayia spinosa Shrubland Alliance. Dominant species were Lycium andersonni, Lycium cooperi and Ephedra nevadensis. Other common shrubs were Atriplex confertifolia, Ambrosia dumosa, and Lepidium fremontii. Common herbs were Chaenactis xantiana, Phacelia distans, Stanleya pinnata, Schismus arabicus and Phacelia fremontii. Some trash scattered through the site.

Slope: 0 - 2 percent

Land owner/manager: Private

Aspect:

Site condition + population viability: Good

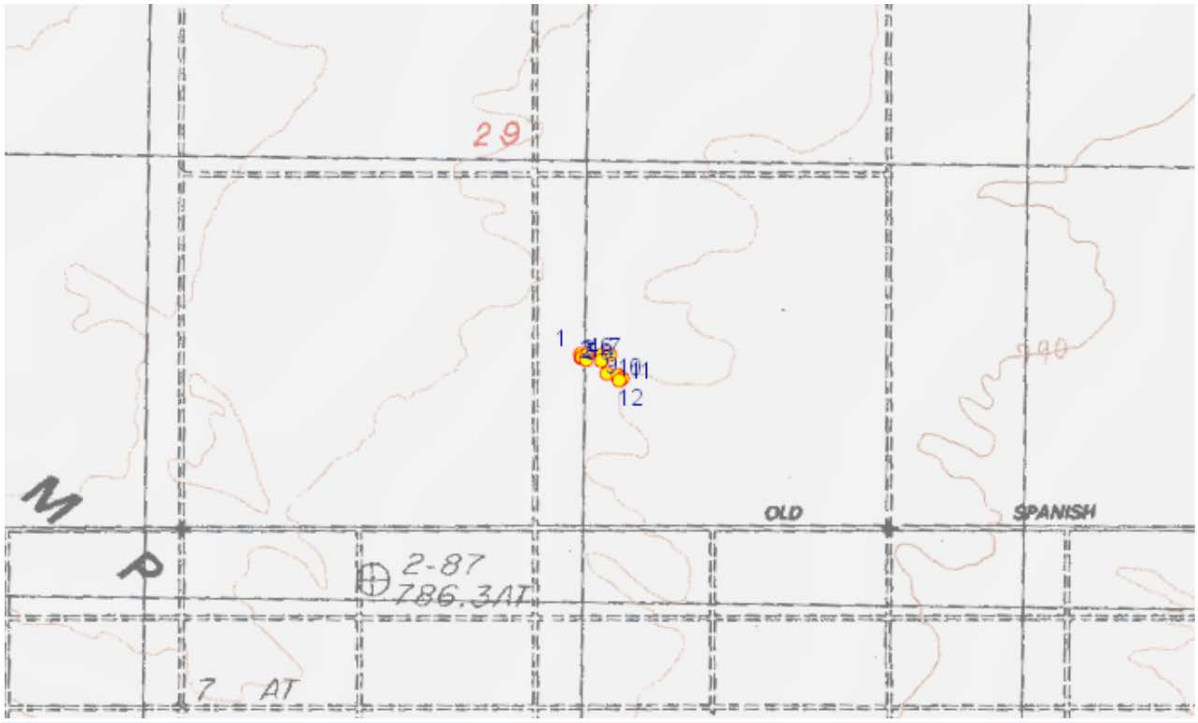
Immediate & surrounding land use: The parcel is currently undeveloped. Three of the adjacent parcels are undeveloped. The parcel to the east is residential. Most of the area is undeveloped but is available to be developed.

Visible disturbances: Trash, non native plants on site: Bromus rubens, Sisymbrium irio, Descurainia sophia, Erodium cicutarium, Schismus arabicus

Threats: off road vehicles, development, non-native plants

General comments:

MAP INFORMATION



ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
1	Inyo	Calvada Springs	-9999	35.97544	-115.92513	596907	3981759	11
	Public Land Survey	**Feature Comment**						
	S T22N R10E 29							

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
2	Inyo	Calvada Springs	2585	35.97537	-115.92512	596908	3981751	11
	Public Land Survey	**Feature Comment**						
	S T22N R10E 29							

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Inyo	Calvada Springs	2585	35.97538	-115.92509	596911	3981752	11
3	Public Land Survey	Feature Comment						
	S T22N R10E 29							

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Inyo	Calvada Springs	-9999	35.97543	-115.92496	596923	3981758	11
4	Public Land Survey	Feature Comment						
	S T22N R10E 29							

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Inyo	Calvada Springs	-9999	35.97533	-115.92498	596920	3981746	11
5	Public Land Survey	Feature Comment						
	S T22N R10E 29							

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Inyo	Calvada Springs	-9999	35.97543	-115.92458	596956	3981759	11
6	Public Land Survey	Feature Comment						
	S T22N R10E 29							

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Inyo	Calvada Springs	-9999	35.97543	-115.92438	596975	3981759	11
7	Public Land Survey	Feature Comment						
	S T22N R10E 29							

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Inyo	Calvada Springs	-9999	35.97531	-115.92461	596954	3981745	11
8	Public Land Survey	Feature Comment						
	S T22N R10E 29							

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Inyo	Calvada Springs	-9999	35.97505	-115.92446	596968	3981716	11
9	Public Land Survey	Feature Comment						
	S T22N R10E 29							

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Inyo	Calvada Springs	-9999	35.97501	-115.92419	596992	3981713	11
10	Public Land Survey	Feature Comment						
	S T22N R10E 29							

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Inyo	Calvada Springs	-9999	35.97495	-115.92407	597003	3981705	11
11	Public Land Survey	Feature Comment						
	S T22N R10E 29							

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Inyo	Calvada Springs	-9999	35.97491	-115.92415	596996	3981701	11

ID	Public Land Survey	Feature Comment
12	S T22N R10E 29	

The mapped feature is accurate within: 10 m

Source of mapped feature: CNDDB online field survey tool

Mapping notes: only female E.torreyana individuals mapped.

Location/directions comments: Charleston View, CA, Inyo County. APN 048-364-070.

Attachment(s): IMG_3229.jpg; IMG_7733.jpg, general habitat onsite; IMG_3222.jpg, general habitat onsite

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