BIOLOGICAL EVALUATION

SBC SOLAR PROJECT

TRONA SOLAR ENERGY DEVELOPMENT AREA, INYO COUNTY, CALIFORNIA

August 21, 2023

Biological Evaluation
SBC Solar Project

Prepared for:

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EXECUTIVE SUMMARY

SBC Investment LLC (Applicant) proposes to develop a 10-acre, 2-megawatt photovoltaic electrical generation system known as SBC Solar (Project) in Inyo County north of Trona. The Project Area is located at 2500 Bri-Mar Lane in Inyo County, 2.5 miles north of Trona. The parcels proposed for development include Assessor Parcel Numbers 038-340-20 and -21, both of which are privately owned. Parcel -20 is zoned Commercial while Parcel -21 is zoned Residential. The Project will be located within Inyo County's designated Trona Solar Energy Development Area (SEDA), and is near properties prioritized for solar development within the California state Desert Renewable Environmental Conservation Plan (DRECP).

Topography on the site is largely flat, averaging approximately 1,650 feet of elevation. The natural habitat in the Project Area is characterized by impacted remnants of *Atriplex spp.* scrubland that presents as poor habitat for native species. There are no U.S. Geological Survey (USGS) designated blue-line drainages, and no natural above-ground water sources of any kind. Much of the site is denuded and in use as a staging area for industrial raw materials and equipment. Bordering properties are generally impacted by human activities. However, beyond the corridor of impacted properties along Trona Wildrose Road is extensive open space that extends to nearby protected lands throughout the Searles Valley and surrounding mountain ranges. These protected lands represent good to excellent habitat for native species.

In support of permitting for the Project, comprehensive biological surveys were conducted for sensitive and special status plants and animals. A literature and data base search yielded a target list of 45 such species with the potential to occur in the Project Area and vicinity. Biological surveys for these species included: A general inventory of all plants and vertebrates, a focused botanical survey for sensitive plant species, a Migratory Bird Treaty Act (MBTA) nesting bird survey, U.S. Fish and Wildlife (USFWS) protocol surveys for desert tortoise (*Gopherus agassizii*), and California Department of Fish and Wildlife (CDFW) protocol surveys for burrowing owl (*Athene cunicularia*) and Mohave ground squirrel (*Xerospermophilus mohavensis*).

Botanical surveys recorded the presence of desert holly (*Atriplex hymenelytra*) and prickly pear cactus (*Opuntia basilaris* var. *basilaris*) in the Project Area, and these species are afforded consideration under the California Desert Native Plants Act (CDNPA). No other sensitive plants were observed in the Project Area. Comprehensive general surveys recorded no other sensitive or special status animals or their sign in the Project Area. Protocol surveys for desert tortoise, burrowing owl, and Mohave ground squirrel did not record any evidence of current or recent use. The Project Area presents as poor habitat for these special status species. There were no nesting birds, and the Project Area presents as poor habitat for most native birds. There were no desert kit fox (*Vulpes macrotis arsipus*) or American badger (*Taxidea taxus*), and no sign of their recent presence.

In summary, the development of the SBC Solar Project would not result in adverse impacts to any of the 45 sensitive and special status plants and animals indicated in this report. The CDNPA provides that the individual counties in which the plants are located shall have the authority to issue permits for their removal.

PROJECT DESCRIPTION AND LAND OWNERSHIP

SBC Investment LLC (Applicant) proposes to develop a 10-acre, 2 megawatt (MW) photovoltaic solar electricity generation system known as SBC Solar Project (Project) in Inyo County, California, north of the town of Trona (Figure 1). The Project Area is located at 2500 Bri-Mar Lane in Inyo County, 2.5 miles north of Trona and just west of Trona Wildrose Road. It includes Assessor Parcel Numbers (APNs) 038-340-20 and -21, both of which are privately owned. Parcel -20 is zoned Commercial while Parcel -21 is zoned Residential. (Figure 2). The Project is located within the Trona Solar Energy Development Area (SEDA), as designated within the Inyo County Renewable Energy General Plan Amendment (REGPA) Final Program Environmental Impact Report (EIR). It is also located near extensive lowland properties prioritized for potential solar development in the California state Desert Renewable Environmental Conservation Plan (DRECP) (Inyo County 2015; Conservation Biology Institute 2023).

The Project consists of a solar array comprised of 4,625 ground mounted solar panels and eight inverters. The inverters will connect to the existing Southern California Edison (SCE) 33 kV Hackman distribution line, which crosses the project site. The Project Area, for the purpose of this Biological Evaluation and the biological studies described herein, includes all areas to be developed by the Applicant.

The ground-mounted solar panels will be installed on galvanized steel pilings driven four feet into the ground. Trackers will rotate the panels east to west from morning to evening to maximize energy production. The panels will be stowed in a horizontal position during non-solar hours. The maximum height of the solar array during the rotation cycle will be ten feet. The individual panels in the array are designed and rated for non-glare performance to avoid disturbing observers from the ground or airspace. Ancillary electrical equipment will be mounted on concrete slabs and power poles at the point of interconnection with the 33 kV Hackman distribution line will be installed per applicable utility standards. Since the site is relatively flat, no significant grading is planned in the Project Area.

Construction of the proposed Project will include the following activities:

- Site preparation
- Earthwork
- Installation of ground-mounted solar panels and inverters
- Electrical/instrumentation work

Construction traffic will access the project from Bri-Mar Lane, through a gate located on the south side of the southeast corner of the site. Construction will take approximately three months and will take place during daytime hours starting at 7:30 am, five days per week. Construction will commence after building permits are secured and employ up to twenty workers. Impact noise from driving piles will occur for several days and it is expected that other noise will be minimal and short-term from sources such as grading equipment, motor vehicles and power-driven tools. Water spray will be used to control dust on-site and waste materials will be accumulated in appropriate containers and removed for offsite disposal at licensed locations.

Under normal circumstances, the completed site will operate unattended with remote monitoring, although occasional maintenance work may require two or three personnel. Accommodations for

visitors and personnel will include parking, a shade structure, personnel wash water, and a first aid station. The site will be surrounded by a six-foot chain link fence with barbed or razor wire strings on top with adequate setback distances. The only predicted noise will come from small equipment cooling fans, which will produce less than 45 decibels at the fence line. Potential windblown dust emissions will be mitigated by the application of a layer of limestone to vehicle and pedestrian pathways and parking areas.

SITE DESCRIPTION

The Project Area is situated on private lands within Inyo County. It is located on the Trona East U.S. Geologic Survey (USGS) 1:24,000 topographic map (7.5-minute quadrangle). The cadastral description of the Project Area is Township 24 South, Range 43 East, within the northwest quarter of the southeast quarter of Section 32.

Broadly, the Project Area is located within the Searles Valley, and bounded as follows:

- North – Similar vacant land
- South – Unincorporated community of Trona, and Searles dry lake
- East – Slate Mountain Range
- West – Argus Mountain Range

At its closest point, the Project Area is located approximately 28 miles north of the nearest designated desert tortoise Critical Habitat Units (CHU), which includes the Bureau of Land Management (BLM) Superior-Cronese and Fremont-Kramer Areas of Critical Environmental Concern (ACEC). Locally, it is within 2-3 miles of several protected land units to the west and northwest, including the Great Falls Basin Wilderness Study Area, the Indian Joe Springs Ecological Reserve, and the Panamint-Argus BLM ACEC. The Project Area is approximately 8 miles north of a California Department of Fish and Wildlife (CDFW) designated Mohave ground squirrel Core Area (2019; Figure 3). Under the rubric of the DRECP, the undeveloped northern portions of the Searles Valley are designated California Desert National Conservation Lands, and the surrounding undeveloped lands throughout the Searles Valley are designated as Mohave ground squirrel conservation area (Conservation Biology Institute 2023; Figure 3).

The SBC Project parcels themselves are situated amidst a relatively impacted local area within the Inyo County designated Trona SEDA, and are near other properties prioritized for solar development under the California state DRECP (Figure 3).

The parcels immediately surrounding the Project Area are characterized by:

- North – Old travel trailers, vehicles, and equipment. Scattered human trash.
- South – Old travels trailers and a junk yard, with residential housing located 500 feet to the southwest.
- East – Piles of fine gravel within the Project Area extending to adjacent property. Paved State Hwy 178 runs on a southwest-northeast axis, approximately 450 feet to the east.
- West – Generally, *Atriplex spp.* scrub habitat and open space to Searles Valley BLM public lands, backed up to the Argus Range Wilderness; one travel trailer and associated old vehicles to the west.

Numerous dirt roads traverse both parcels of the Project Area. The eastern parcel is largely denuded (graded and/or crushed by vehicle traffic and materials storage), and it contains a large above-ground liquid storage tank and several parked tractor trailers (Figure 2). Both parcels contain human trash, including wind-blown objects and intentional dump sites (Appendix 3 for site photos). Multiple wooden pole electric distribution lines are present throughout the site. The eastern parcel has a distribution line traversing from the northeast to the southwest. There is also a line along the southern boundary of the eastern parcel and a line running along the northern half of the western parcel and half of the eastern parcel.

The topography of the Project Area is generally flat, at an elevation of approximately 1,650 feet above mean sea level. There are no USGS drainages present on site, and no above-ground water sources (seeps, springs, ponds, or streams) of any kind (USGS 2023; Figure 4). The Project Area is not located within a 100-year flood plain (FEMA 2023) and it drains southeast towards Searles Dry Lake. Surface soils in the Project Area are generally a sandy loam, with some weathered small rocks of granitic origin (USDA 2023; Appendix 3 for site photos).

The vegetation community present on site can be characterized as an *Atriplex polycarpa* scrubland alliance (Sawyer et al. 2009), with the occurrence of a close associate *A. hymenelytra*. This natural community is not listed as a California sensitive natural community (CDFW 2023b). Much of the Project Area has been impacted by human activities and invasive grasses and mustard were growing throughout the site.

METHODS

Literature Review and Database Searches

Information was obtained from existing agency and publicly available databases, published professional literature, and unpublished agency and professional resources. The literature review and database searches yielded lists of sensitive plants and animals with the potential to occur in the Project Area and its vicinity. In addition, information was compiled to assess and characterize the local natural communities, sensitive habitats, soils, surface waterways and any wetlands (including flood potential).

Data sources reviewed and researched included, but were not limited to:

- California Department of Fish and Wildlife (CDFW) - California Natural Diversity Data Base (CNDDB; CDFW 2023a). Search included the following USGS 7.5 minute quadrangles: Homewood Canyon; Slate Range Crossing; Manly Fall; Trona West; Trona East; Copper Queen Canyon; Westend; Searles Lake; Layton Spring
- California Department of Fish and Wildlife - Natural Communities List (CDFW 2023b)
- California Department of Fish and Wildlife - Wildlife Habitat Relationships (CDFW 2023c)
- California Department of Fish and Wildlife - Special Animals List (CDFW 2023d)
- California Department of Fish and Wildlife - State and Federal Threatened and Endangered Animal Species List (CDFW 2023e)
- United States Fish and Wildlife (USFWS) - Environmental Conservation Online System (ECOS) database (USFWS 2023)

- United States Geologic Survey (USGS) - Watershed Information Network (USGS 2023)
- Bureau of Land Management (BLM) species databases (BLM 2022)
- Desert Renewable Energy Conservation Plan (DRECP; Conservation Biology Institute 2023) - Databasin.org searches of land stewardship and designated status
- U.S. Department of Agriculture Web Soil Survey (USDA 2023)
- International Union Conservation of Nature (IUCN 2023)

The literature research conducted for listed, candidate, and special status animal species identified a total of 33 taxa within nine 7.5-minute USGS quadrangles in and around the Project Area (CDFW 2023a; Table 1). The Project Area is characterized by relatively flat topography, sandy loam soils, and an *Atriplex* scrub habitat on a valley floor that is bounded by mountain ranges with very different hydrologic characteristics, soils, and vegetation communities. Many of the sensitive species identified as occurring near the Project Area in geospatial database searches are strongly associated with the surrounding mountainous terrain. Twelve of the 33 animal species are extremely unlikely to occur on the project site due to a lack of habitat and/or range constraints. Therefore, of the 33 animal species identified, only 21 were determined to have some potential to occur within the Project Area. These 21 species consisted of one reptile, 11 birds, and nine mammals; neither of the two insect species were considered likely to be found in the Project Area (Table 1).

The literature research conducted for listed, candidate, and special status plant species identified a total of 12 such sensitive species within the USGS quadrangles in and around the Project Area (CDFW 2023a; Table 2). However, none of these species were considered very likely to be encountered in the Project Area itself, due to soils and hydrologic constraints (Table 2).

Table 1. Federal and State Listed and Special-Status Wildlife Species and IUCN Red List Species with Potential to Occur in the Region and within the SBC Solar Project Area, Inyo County, California.

COMMON NAME *SCIENTIFIC NAME*	RANK OR STATUS					HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT AREA
	FEDERAL	STATE/ CDFW	G-RANK	S-RANK	IUCN		
INSECTS							
Desert Green Hairstreak (*Callophrys sheridanii comstocki*)	-	-	G3G4	S1S2	-	Remote desert canyons in the Great Basin and arid inter-mountain West. Prefers sagebrush scrub and pinyon-juniper woodland. Host plants are various wild buckwheats (*Eriogonum* spp.)	**UNLIKELY** – No habitat occurs in the Project Area. Habitat exists in the Argus Range, west and northwest of the Project Area.
Morrison Bumble Bee (*Bombus morrisoni*)	-	-	G3	S1S2	Vu	Open, dry scrub; nests underground, in structures, and in grass hummocks. Food plants include *Asclepias, Astragalus, Chrysothamnus, Cirsium, Cleome, Ericameria, Helianthus, Melilotus,* and *Senecio*.	**UNLIKELY** – Common food plants are not found in the Project Area. Local record from Birchum Springs in the Argus Mountains, NW of the Project Area.
REPTILES							
Agassiz's Desert Tortoise (*Gopherus agassizii*)	FT	ST	G3	S2S3	CR	Wide variety of desert habitats: alluvial fans, washes, canyons, and saltbush plains. Creosote bush scrub on alluvial fans and bajadas. Friable soils for excavating burrows.	**MODERATE** – Known occurrences north of the Project Area in the Searles Valley.
Panamint Alligator Lizard (*Elgaria panamintina*)	-	SSC	G3	S3	VU	In areas near permanent water, in canyons, damp gullies, and rocky areas near dense vegetation.	**UNLIKELY** – No habitat in the Project Area. Occurs near springs in the Argus and Panamint Mountain.
BIRDS							
Common Loon (*Gavia immer*)	-	SSC	G5	S1	LC	Estuarine and subtidal marine habitats and large, deep lakes in valleys and foothills. Needs at least 18 m of open water for take-off. Can fly over all terrains during migration.	**UNLIKELY** – No habitat in Project Area. Occurrence record at evaporation ponds on Searles Dry Lake near Trona.
Sharp-shinned Hawk (*Accipiter striatus*)	-	WL	G5	S4	LC	Winter resident throughout California; nests in dense, pole and small-tree stands of conifers near water in the mountains.	**LOW –** May hunt in the Project Area in winter.

COMMON NAME *SCIENTIFIC NAME*	RANK OR STATUS					HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT AREA
	FEDERAL	STATE/ CDFW	G-RANK	S-RANK	IUCN		
Golden Eagle (*Aquila chrysaetos*)	-	FP WL	G5	S3	LC	Year-round resident. Nests in tall trees, high rocky cliffs, or on electrical transmission towers. Forages in a variety of desert habitats with suitable prey or will scavenge for carrion.	**MODERATE –** Appropriate habitat for foraging in the Project Area with suitable nesting habitats in nearby mountains.
Swainson's Hawk (*Buteo swainsoni*)	-	ST	G5	S3	LC	Summer migrant; nests in Joshua tree woodland, non-native roadside trees, pine, elm, and tamarisk, windrow trees in active or historical agricultural areas; high site fidelity. Forages in grasslands, native desert scrub and woodland habitats, agricultural lands, residential developments.	**LOW –** May use Project Area for foraging during migration. No appropriate nesting habitat in the area.
Merlin (*Falco columbarius*)	-	WL	G5	S3S4	LC	Winter resident that requires dense trees close to bodies of water. Forages in a variety of desert and developed habitats	**LOW –** May use Project Area for foraging in winter.
Prairie Falcon (*Falco mexicanus*)	-	WL	G5	S4	LC	Year-round resident. Variety of desert habitats: annual and perennial grasslands, rangeland, some agricultural fields, and desert scrub. Sheltered cliff ledges for cover and nesting in cliffs, bluffs, or rock outcrops.	**MODERATE –** Appropriate habitat for foraging in the Project Area with suitable nesting habitats in nearby Argus Mountains; known occurrences nearby.
Western Snowy Plover (*Charadrius alexandrinus nivosus*)	FT	SSC	G3T3	S3	-	Summer resident and local breeder March through September within water filled alkali or saline lakes, agricultural evaporation and wastewater ponds, alkali playas, reservoirs, ponds, river channels, and salt evaporation ponds.	**UNLIKELY –** Alkali and saline lakes to support the species are absent from the Project Area. Known to nest on Searles Dry Lake near West End.
Short-eared Owl (*Asio flammeus*)	BCC	SSC	G5	S3	LC	Winter resident in non-mountainous areas of California. Closely associated with water filled dry lakes and marshes adjacent to irrigated alfalfa or grain fields, salt- and fresh-water marshes, undisturbed grassland or old pastures, and deserts with good cover.	**UNLIKELY** – Project Area lacks good cover for roosting.

COMMON NAME *SCIENTIFIC NAME*	RANK OR STATUS					HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT AREA
	FEDERAL	STATE/ CDFW	G-RANK	S-RANK	IUCN		
Long-eared Owl (*Asio otus*)	BCC	SSC	G5	S3?	LC	Year-round resident; nests in conifers, ornamental trees, tamarisks, Joshua trees, desert riparian, desert washes, pinyon-juniper, desert woodlands, or on the ground that are adjacent to open grasslands, meadows, and shrublands for foraging.	**UNLIKELY** – Project Area lacks good cover for roosting. Occurrence record in riparian habitat in Indian Joe Canyon, west of the Project Area.
Western Burrowing Owl (*Athene cunicularia* ssp. *hypugaea*)	BCC	SSC	G4	S3	LC	Year-round resident or migrant in arid and semi-arid habitats with well drained, level to gently sloping areas with sparse vegetation and bare ground: annual and perennial grasslands, deserts, and scrublands with low growing vegetation.	**MODERATE** – Appropriate habitat in the Project Area.
Costa's Hummingbird (*Calypte costae*)	BCC	-	G5	S4	LC	Common in summer and uncommon in winter in south half of California. Primarily occurs in arid scrub, chaparral, and along edges of riparian habitats.	**LOW** – May use the Project Area intermittently.
Rufous Hummingbird (*Selasphorus rufus*)	BCC	-	G4	S1S2	NT	Common migrant and uncommon resident of California, breeding more commonly farther north. Occurs in a variety of habitats during migration.	**MODERATE** – May use the Project Area intermittently during migration.
Olive-sided Flycatcher (*Contopus cooperi*)	BCC	SSC	G4	S3	NT	Summer resident in California, breeding in a variety of forest and woodland habitats. An uncommon migrant in other areas.	**UNLIKELY** – No breeding habitat in the Project Area; may pass through during migration.
Willow Flycatcher* (*Empidonax traillii*)	TE*	SE	G5	S3	LC	Rare to locally uncommon summer resident in wet meadows and montane riparian habitats in the Sierra Nevada and Cascade Range.	**UNLIKELY** – No breeding habitat in the Project Area; may pass through during migration.
Loggerhead Shrike (*Lanius ludovicianus*)	-	SSC	G4	S4	NT	Year-round or winter migrant; breeds in shrublands and open woodlands with grass cover and areas of bare ground. Uses tall shrubs, trees, desert scrub, sparse desert riparian, fence lines and	**MODERATE** – Appropriate habitat in the Project Area; nearby known occurrences.

COMMON NAME *SCIENTIFIC NAME*	RANK OR STATUS					HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT AREA
	FEDERAL	STATE/ CDFW	G-RANK	S-RANK	IUCN		
						posts, and power lines for perches and territory defense. Impaling sites in territory are required for prey.	
LeConte's Thrasher† (*Toxostoma lecontei*)	BCC	SSC†	G4	S3	LC	Uncommon to rare, local resident in southern California deserts and San Joaquin Valley; nests in a dense, spiny shrubs or densely branched cactus in desert washes or flats with large open areas.	**LOW** – Project Area has no appropriate shrubs for nesting; may use the area for foraging.
Inyo California Towhee (*Melozone crissalis eremophila*)	TE	SE	G4G5 T2	S2	-	Year-round resident at and near springs in the Argus Range, inhabiting riparian vegetation and adjacent upland scrub communities. Known only from the Argus Range.	**UNLIKELY** – Appropriate habitat does not occur in the Project Area.
Brewer's Sparrow (*Spizella breweri*)	-	-	G5	S4	LC	Common summer resident east of the Cascade-Sierra Nevada crest in mountains and higher valleys of Mojave Desert and Great Basin. Winter resident in southern Mojave and Colorado Deserts. Breeds in treeless shrub habitats with moderate canopy.	**MODERATE** – May use the Project Area during migration. Breeds in the Argus Range, west and northwest of the Project Area.
Yellow Warbler (*Setophaga petechia*)	-	SSC	G5	S3S4	LC	Summer resident and local breeder with high site fidelity. Desert riparian and upland desert scrub for breeding and in migration, including desert wash, Joshua tree woodland, irrigated agricultural fields, and deciduous orchards with open water nearby.	**UNLIKELY** – No breeding habitat in the Project Area; may pass through during migration. Breeds in the Argus Range, west and northwest of the Project Area.
Summer Tanager (*Piranga rubra*)	-	SSC	G5	S1	LC	Uncommon summer resident in mature, desert riparian habitat dominated by cottonwoods and willows.	**UNLIKELY** – No breeding habitat in the Project Area; may pass through during migration.
MAMMALS							
Pallid Bat (*Antrozous pallidus*)	-	SSC	G4	S3	LC	Variety of habitats; most common in open, dry habitats with rocky areas for roosting; most prey gleaned from ground; day roosts in caves, rock	**LOW** – May forage in the Project Area but there is no roosting habitat. Occurrence record in Indian Joe Canyon, WNW of Project Area.

COMMON NAME *SCIENTIFIC NAME*	RANK OR STATUS					HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT AREA
	FEDERAL	STATE/ CDFW	G-RANK	S-RANK	IUCN		
						crevices, mines; sometimes in tree hallows, buildings.	
Townsend's Big-eared Bat (*Corynorhinus townsendii*)	-	SSC	G4	S2	LC	Most abundant in mesic habits throughout California; forages most often by gleaning prey from foliage but will also take prey in flight; cover sites include caves, mines, tunnels, buildings, or other man-made structures.	**LOW** – May forage in the Project Area but there is no roosting habitat. Occurrence records in the Argus Mountains, NW of Project Area, also in Slate and Panamint Mountains.
Spotted Bat (*Euderma maculatum*)	-	SSC	G4	S3	LC	Foothills, mountains, and desert regions of southern California; forages over water and washes and near the ground; prefers to roost in rock crevices along cliffs.	**LOW** – May forage in the Project Area but there is no roosting habitat.
Western Small-footed Myotis (*Myotis ciliolabrum*)	-	-	G5	S3	LC	Arid uplands in a wide variety of habitats, primarily in arid wooded and brushy uplands near water; most often forages among trees and over water; cover sites include caves, buildings, mines, crevices, and occasionally under bridges and under bark.	**LOW** – May forage in the Project Area but there is no roosting habitat. Occurrence record in Indian Joe Canyon, WNW of Project Area.
Western Mastiff Bat (*Eumops perotis californicus*)	-	SSC	G4G5 T4	S3S4	-	Semi-arid to arid habitats including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban areas; catches and feeds on insects in flight; roosts in crevices in cliff faces, high buildings, trees, and tunnels.	**LOW** – May forage in the Project Area but there is no roosting habitat. Occurrence record in Redlands Canyon adit, Panamint Mountains.
Mohave Ground Squirrel (*Xerospermophilus mohavensis*)	-	ST	G3	S2	NT	Open desert shrubland habitats including creosote bush scrub, saltbush scrub, desert sink scrub, desert greasewood scrub, shadscale scrub, Joshua tree woodland, and mixed scrub; on deep, sandy to gravelly soils on flat to moderately sloping terrain.	**MODERATE** – Appropriate habitat occurs in Project Area and on adjacent parcels. Occurrence records throughout Searles Valley, including 2 miles W of Trona Airport, just north of Project Area.

COMMON NAME *SCIENTIFIC NAME*	RANK OR STATUS					HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE WITHIN THE PROJECT AREA
	FEDERAL	STATE/ CDFW	G-RANK	S-RANK	IUCN		
Argus Mountains Kangaroo Rat (*Dipodomys panamintinus argusensis*)	-	-	G5T1 T3	S1S3	-	Preferred habitats include pinyon and juniper woodland, Joshua tree woodland, and sagebrush scrub; on sandy-gravelly soils.	**UNLIKELY** – Occurs at higher elevation than the Project Area. Occurrence records in the Argus Mountains.
Desert Kit Fox (*Vulpes macrotis arsipus*)	–	CCR Title 14	-	-	-	Open desert scrub communities in friable soils with little or no relief for den excavation.	**MODERATE** – Appropriate habitat occurs in Project Area.
American Badger (*Taxidea taxus*)	–	SSC	G5	S3	LC	Desert shrublands, open areas in grasslands, and agricultural areas; friable soils for excavating deep burrows.	**MODERATE** – Appropriate habitat occurs in Project Area. Occurrence record in Searles Valley.
Desert Bighorn Sheep (*Ovis canadensis nelsoni*)	–	FP	G4T4	S3	-	Open, rocky, steep areas with available water and herbaceous forage; in California, widely distributed from White Mountains in Mono County to the Chocolate Mountains in Imperial County.	**LOW** – Project Area may be used as movement corridor between Argus Mountains and Panamint Mountains.

Note: See Appendix 1 for the definition of all Rank codes.
*Only the southwestern race of willow flycatcher (*Empidonax traillii extimus*) is federally endangered (FE).
†Only the San Joaquin population of LeConte's thrasher (*Toxostoma lecontei macmillanorum*) is a California Special of Special Concern (SSC).

Table 2. Federal and State Listed and Special-Status Plant Species with Potential to Occur in the Region and the SBC Solar Project Area, Inyo County, California.

SCIENTIFIC NAME COMMON NAME PLANT FAMILY, LIFE FORM	RANK OR STATUS[1]					FLOWERING PERIOD	HABITAT AND DISTRIBUTION NOTES
	FEDERAL/ STATE (CA)	G-RANK	S-RANK	CRPR	BLM		
STATE CANDIDATE FOR LISTING							
Yucca brevifolia **western Joshua tree** Agavaceae, tree-like	-/C	GNR	SNR	-	-	April-May	400-2000 m. Desert flats, slopes. Chenopod scrub, Mojave desert scrub, Joshua tree woodland. Known from the Argus Mountains.
CRPR 1B							
Astragalus atratus var. mensanus **Darwin Mesa milk-vetch** Fabaceae, perennial herb	-/-	G4G5T2	S2	1B.1E	Sen.	April-June	1340-2315 m. Clay, gravelly, volcanic soils. Great Basin scrub, Joshua tree woodland, pinyon and juniper woodland. Known from Etcharren Valley on the west slope of Argus Range.
Cryptantha clokeyi **Clokey's cryptantha** Boraginaceae, annual herb	-/-	G3	S3	1B.2	Sen.	April	725-1365 m. Rocky, gravelly slopes, ridge crests. Mojave desert scrub.
Penstemon fruticiformis **var.** ***amargosae*** **Amargosa beardtongue** Plantaginaceae, perennial herb	-/-	G4T3	S2	1B.3	Sen.	April-June	850-1400 m. Sandy or gravelly washes and drainages. Mojave desert scrub. Occurrence record at Bircham Spring in Argus Range.
CRPR 2B							
Aliciella ripleyi **Ripley's aliciella** Polemoniaceae, perennial herb	-/-	G3	S2	2B.3	-	May-July	305-1950 m. Carbonate soils. Mojave desert scrub. Occurrence record in Poison Canyon between Trona and Ridgecrest.
Castela emoryi **Emory's crucifixion-thorn** Poaceae, perennial grass	-/-	G3G4	S2S3	2B.2	-	June-July	90-725 m. Gravelly soils. Mojave desert scrub, Playas, Sonoran desert scrub. Occurrence record along road to Great Falls Basin.
Eremothera boothii **ssp.** ***boothii*** **Booth's evening-primrose** Onagraceae, annual herb	-/-	G5T4	S3	2B.3	-	April-September	815-2400 m. Sandy flats, steep loose slopes. Joshua tree woodland, pinyon and juniper woodland. Vague occurrence record 3.6 miles west of Trona.

SCIENTIFIC NAME COMMON NAME PLANT FAMILY, LIFE FORM	RANK OR STATUS[1]					FLOWERING PERIOD	HABITAT AND DISTRIBUTION NOTES
	FEDERAL/ STATE (CA)	G-RANK	S-RANK	CRPR	BLM		
CRPR 4							
Astragalus lentiginosus* var. *borregnanus **Borrego milk-vetch** Fabaceae, perennial herb	-/-	G5T5?	S4	4.3	-	February-May	30-895 m. Sandy soils. Mojave desert scrub, Sonoran desert scrub. Occurrence records near Trona and Poison Canyon.
Cordylanthus eremicus* ssp. *eremicus **desert birds-beak** Orobanchaceae, annual hemiparasitic herb	-/-	G3T3	S3	4.3 E	-	July-October	1000-3000 m. Joshua tree woodland, Mojave desert scrub, pinyon and juniper woodland. Occurrence records in the Argus Mountains.
Diplacus rupicola **Death Valley monkeyflower** Phrymaceae, annual herb	-/-	G4	S4	4.3 E	-	February-June	300-1830 m. Rocky carbonate soils. Mojave desert scrub. Occurrence record in Argus Mountains and Panamint Mountains.
Lycium torreyi **Torrey's box-thorn** Solanaceae, shrub	-/-	G4G5	S3	4.2	-	March-June	-50-1220 m. Sandy, rocky, washes, streambanks, desert valleys. Mojave desert scrub, Sonoran desert scrub. Occurrence records in Homewood Canyon, Argus Range.
Plagiobryoides vinosula **wine-colored tufa moss** Bryaceae, moss	-/-	G3G4	S3S4	4.2	-	-	30-1735 m. Clay, granitic, soils at seeps, streambanks. Cismontane woodland, Mojave desert scrub, meadows and seeps, pinyon and juniper woodland, riparian woodland. Occurrence record in the Argus Mountains.

Note: See Appendix 1 for the definition of all Rank codes.

Biological Surveys for Focal Sensitive Species

Agency Protocol Biological Surveys were conducted for desert tortoise (*Gopherus Agassizii*), burrowing owl (*Athene cunicularia*), and Mohave ground squirrel (*Xerospermophilus mohavensis*). The Mohave ground squirrel protocol surveys and results are detailed in Attachment 1 of this report. Biologists also surveyed for other special-status wildlife species during the focused surveys including desert kit fox (*Vulpes macrotis arsipus)*, American badger (*Taxidea taxus*), nesting birds, and sensitive plants. A complete list of all animal species recorded during surveys is included in the Results section and a list of all plant species is included as Appendix 2.

Desert Tortoise Surveys

The Mojave population of the desert tortoise is listed as a Threatened species at both the federal and California state levels and is currently a state candidate for Endangered listing (USFWS 1990, CFGC 2023; Table 1). It is the only *Gopherus* species that occurs in California (Murphy et al. 2011, CDFW 2023e) and is also the state reptile.

A 100 percent coverage survey, as defined in the USFWS protocol (2019), was conducted for desert tortoise within the "action area," which is consistent with the Project Area boundary. In brief, these protocols specify the following:

- Surveys to cover the "action area" which includes all areas to be affected directly or indirectly by a project action.
- An option to conduct 100% coverage surveys or probabilistic sampling if the site is large enough. The threshold to allow probabilistic sampling for the Western Mojave Desert is 3,290 acres.
- An option to conduct desert tortoise surveys at any time of the year on projects that are less 500 acres in size.
- Transects spaced at 10-meter intervals if 100% coverage surveys are utilized.
- Surveys for large projects to be conducted during tortoise active periods, April 1 to May 31 or September 1 to October 31 when the shaded air temperatures are below 40 ºC or 104ºF at 5 centimeters (2 inches) above ground.

Burrowing Owl

The burrowing owl is a USFWS Bird of Conservation Concern (BCC; USFWS 2021) and is a CDFW Species of Special Concern (SSC; CDFW 2023d). It is also protected under the federal Migratory Bird Treaty Act (MBTA). State agency protocol surveys (CDFG 2012) indicate guidelines for determining the presence or absence of burrowing owls on project areas.

In brief, these protocols specify the following:

- Transects spaced at 7- to 20-meters apart, adjusted for vegetation height and density.
- Occupancy of burrowing owl habitat is confirmed and recorded when at least one burrowing owl, or its sign (pellets, prey remains, whitewash, or decoration) is located at or near a burrow entrance.
- Survey of a 150-meter wide buffer around the perimeter of the Project Area.

- A provision by CDFW to propose alternate survey methods for large projects.

Mohave Ground Squirrel

Protocol surveys for the state Threatened Mohave ground squirrel require that trapping be conducted during specific time periods during the year. Biological surveys to assess site conditions and record wildlife and plants were completed on April 2 and 8, 2023. Based on these site visits, and the results of a literature review, protocol trapping surveys including three separate 5-day trapping periods were completed between April 26-July 10, 2023. The details of the methods, surveys, and results are included in Attachment 1.

Other Species

In addition to protocol surveys for desert tortoise and burrowing owl, the entire Project Area was surveyed concurrently for other wildlife species and sensitive/protected plants. All other special-status species and their sign were noted if observed. This included, but was not limited to, desert kit fox, American badger, sensitive bird species, nesting birds, and sensitive/protected plants.

Field Methods

Protocol USFWS and CDFW surveys for desert tortoise, burrowing owl, and general biological surveys for other sensitive species were conducted on April 2, 2023. A botanical inventory and sensitive plant surveys were conducted on April 8, 2023. Additional CDFW protocol surveys for Mohave ground squirrel were completed on April 26-30, May 10-14, and July 6-10. A separate report detailing the Mohave ground squirrel protocol surveys and results is included as Attachment 1.

Surveys were completed during the active season for sensitive desert animal species, and coincided with a notably profuse annual spring bloom of desert plants. During wildlife and plant surveys, the entire site was surveyed using continuous belt transects spaced at 10-meter intervals, to achieve 100% visual coverage of the Project Area. CDFW burrowing owl protocols recommend surveys of a 150-meter wide buffer around the Project Area. However, these buffer surveys were not conducted since access to the surrounding private property was not available. Surveys were completed by Gilbert Goodlett. Denise LaBerteaux, and Bruce Garlinger. These biologists each have more than 30 years of specific expertise in desert wildlife and botany.

All transects were walked in a north-south direction. North-south transects are preferred to facilitate visibility by reducing glare from walking directly into sun during morning and evening hours. During surveys, the biologists focused their search within an approximate 180-degree arc and 5-meter radius centered in front of them. Surveyors generally remained on their transect centerline except to investigate shrubs or other landscape features which prevented them from seeing an item of interest. After investigation of a feature, biologists returned to the transect centerline. This ensured accurate coverage of the survey area.

Biologists avoided staring at the GPS units to maintain their track. Instead, they selected an object on the horizon to use as a target and occasionally checked the GPS for their position with respect to the intended transect. Less than 10% of a biologist's time was spent looking at the GPS. All biologists fielded for the surveys have extensive prior experience in this type of GPS navigation.

Data collected for protocol desert tortoise surveys included:

- Observer name
- Date
- Location of observation (UTM, WGS84)
- Burrows and cover sites
- Burrow class
    - Class 1 - Currently active, with tortoise or recent tortoise sign
    - Class 2 - Good condition, definitely tortoise, no evidence of recent use
    - Class 3 - Deteriorated condition; definitely tortoise
    - Class 4 - Deteriorated condition; possibly tortoise
    - Class 5 – Good condition; possibly tortoise
- Burrow dimensions (length, width, height, soil cover [mm])
- Burrow aspect – direction mouth of burrow is facing
- Scat
    - Class (this year [TY] or not this year [NTY])
    - Number of individual items of scat
- Live tortoise
    - Maximum carapace length (MCL, mm)
    - Sex – male, female, or unknown. Sex cannot be reliably determined for animals under 180 mm MCL
    - Location – in burrow, under shrub, in open, etc.
    - Activity - resting, basking, walking, feeding, interacting, other
    - Health notes - signs of upper respiratory tract disease, cutaneous dyskeratosis, etc.
- Carcasses
    - MCL (mm)
    - Sex – male, female, or unknown. Sex cannot be reliably determined for animals under 180 mm MCL.
    - Sun exposure – percentage of time carcass is exposed to sun – for a carcass in the open the value is 100%
    - Position - upright, inverted, disarticulated
    - Cause of death – often unknown; detectable indications of cause of death could include predator chew marks, predator scat nearby, or gunshot wounds.
    - Time-since-death in standard categories (Berry and Woodman, 1984)
        - < 1 year
        - 1 to 2 years

    - 2 to 4 years
    - > 4 years
- Other sign such as tracks, drinking depressions (tortoise created water catchments), courtship rings (circular disturbed areas in the soil created by tortoise courtship activities), etc.
- Additional notes

Data collected for protocol burrowing owl surveys included:

- Observer name
- Date
- Location of observation (UTM, WGS84)
- Status of burrow
    - Inactive
    - Active
- Burrowing owl sign observed at burrow.
    - Feathers
    - Pellets
    - Prey items
    - Whitewash
- Observation of a live burrowing owl
    - At a burrow
    - Not associated with a burrow
- Detailed notes on observation

Data collected for desert kit fox included:

- Observer name
- Date
- Location of observation (UTM, WGS84)
- Status of den
    - Inactive
    - Active
    - Pupping
- Number of entrances to den

- Detailed notes on observation

Data collected for any additional sensitive species included:

- Observer name
- Date
- Location of observation (UTM, WGS84)
- Species
- Detailed notes on observation

In the field, all data points were collected using hand-held GPS units capable of ± 3m accuracy, and details were recorded on an Apple iPhone®. Photographs were taken of the Project Area, any animal sign, and any sensitive plants documented on site. Photographs were also taken of typical habitat features. The iPhone® application Theodolite was used to take all photographs. Theodolite imprints data to a digital photograph. These data include the date and time, location in Universal Transverse Mercator (UTM) coordinates (WGS 84, Zone 11S), altitude, datum, direction the camera is pointed, elevation and horizon angles, zoom level, and custom notes.

Weather conditions were recorded at the beginning and the end of the wildlife survey period. Data included the shaded air temperature at 1.5 meters as measured with a 0.1 °F precision thermistor, an estimated percentage of cloud cover and type of clouds, and wind speeds and direction. Wind speeds were measured with a Kestrel® brand electronic wind meter. Measurements were taken until average wind speeds stabilized. The average and maximum wind speeds were recorded. Wind direction was estimated by observing the drift direction of a handful of fine soil that was dropped.

Specific to desert tortoises, no animals were handled during the survey. Any burrows and potential cover sites were investigated by using a mirror to reflect sunlight into the burrow. Neither probes nor downhole cameras were utilized to investigate burrows to prevent potentially harassing tortoises.

Specific to burrowing owls, sign observations were placed in the following categories: live burrowing owls that did not appear to be associated with a burrow, live burrowing owls at or otherwise associated with a burrow or burrows, active burrowing owl burrows, and inactive burrowing owl burrows. Active burrowing owl burrows were of an appropriate size for use by a burrowing owl and one or more of the following recent items of sign were present: whitewash (uric acid excretions which are the equivalent of urine in mammals), owl feathers, pellets (undigested parts of owl's food that are regurgitated), remains of prey items, and disturbed area in the mouth of a burrow consistent with owls. Inactive burrows were similar to active burrowing owl burrows except that the sign was not recent. Inactive burrows are often difficult to determine because the sign persists for a limited time after a burrow becomes inactive.

Specific to desert kit fox, sign observations included pupping, active, and inactive kit fox dens. Pupping or natal dens were identified by observation of pups, hearing pups in the den, or den characteristics. Pupping den characteristics include multiple entrances to a den that show evidence of heavy use. The presence of prey items and scat tended to confirm a den's designation as a pupping den.

An active desert kit fox den was defined as an appropriately sized den with a typically narrow entrance, often with multiple access points, and with one or more of the following recent items of sign present: disturbance in one or more entrances showing recent use, fox tracks in the vicinity, remains of prey items nearby, live foxes heard or seen in the den, or flies in the burrow indicating a likely uneaten or decomposing prey item inside. Inactive kit fox dens possess the same general characteristics less the recent sign and are more difficult to identify than active kit fox dens.

Species Identification Resources

Identification of plants followed *The Jepson Manual: Vascular Plants of California* (Baldwin, 2012) and plant communities followed *A Manual of California Vegetation: Second Edition* (Sawyer and Keeler-Wolf and Evens, 2009).

Bird identification resources included *A Field Guide to Western Birds* (Peterson, 1993), Field *Guide to the Birds of North America* (National Geographic Society, 1987), and *Stokes Field Guide to Birds: Western Region* (Stokes, 1996).

Mammal identification resources included *A Field Guide to the Mammals of North America North of Mexico* (Burt and Grossenheider, 1980).

Reptile identification resources included *A Field Guide to Western Reptiles and Amphibians* (Stebbins, 1985).

RESULTS

Weather conditions on the day of the wildlife surveys on April 2, 2023 were nearly clear (5% cirrus clouds), with light and variable winds (≤ 5mph). At the start of surveys, the temperature was 68.2°F at 1130 hours, and it had risen to 73.8°F at 1330 hours when surveys were completed. Two plant species included in the California Desert Native Plants Act (CDNPA), desert holly (*Atriplex hymenelytra)* and beavertail cactus (*Opuntia basilaris* var. *basilaris)* were observed. Surveys did not record any other sensitive animals, plants, or recent sign (dens, burrows, tracks, prey remains, scat, carcasses, drinking depressions, feathers, nests, or whitewash).

Much of the landscape in the Project Area has been previously cleared of native vegetation, and in many places invasive mustard and grass species are most common (Appendix 2). Where native vegetation is still prevalent, the plant community is dominated by *Atriplex* species, and can be described as *Atriplex polycarpa* scrub alliance, with associated *A. hymenelytra* (Sawyer et al. 2009).

In general, the Project Area is heavily impacted by human disturbance (vegetation clearing, vehicle travel, powerlines, raw industrial materials storage, and trash; see photos in Appendix 3. Many of the surrounding properties in the immediate vicinity contain human structures (both inhabited and abandoned), trash, abandoned vehicles and equipment, and are in general fragmented by land clearing (Figure 2). Biologists noted the presence of domestic dogs roaming freely through adjacent areas.

Desert Tortoise

There were no desert tortoises and no sign encountered during the protocol surveys. There were no burrows of notable size or shape that would present as attractive temporary shelter sites for transient tortoises, and no isolated anthropogenic features (e.g., stacked materials or concrete rubble) that would provide similar cover.

Mohave Ground Squirrel

Site habitat assessments and visual surveys for Mohave ground squirrel did not record any live animals or their sign. Likewise, trapping surveys yielded no sign of Mohave ground squirrel. See Attachment 1 for a detailed report of Mohave ground squirrel surveys.

Burrowing Owl

There were no burrowing owls and no sign recorded during protocol surveys. The vegetation and terrain are characterized as largely flat, open, arid habitat that is typically preferred by this species. However, the owls do not excavate burrows themselves, and there were no existing burrows of notable size or shape that would present as attractive temporary shelter sites for traveling owls. In addition, there were no anthropogenic features that could provide shelter. Such features can include abandoned building foundations and retaining walls, stacked materials, piled rubble, culverts, and pipes.

Desert Kit Fox

There were no desert kit fox and no sign detected during surveys. There were no burrows of notable size or shape that would present as attractive temporary shelter sites for desert kit fox.

In addition, there were no anthropogenic features that could provide shelter, such as abandoned buildings, stacked materials, piled rubble, culverts, or pipes.

American Badger

There were no American badgers and no sign detected during surveys. There were no burrows of notable size or shape that would present as attractive temporary shelter sites for badger.

Nesting Migratory Birds

There were no nesting birds located during surveys, and the only bird species recorded on-site was a common raven (*Corvus corax*), observed flying over the Project Area.

Other Special Status Wildlife

There were no other sensitive or special status wildlife species recorded in the Project Area.

Special Status Plants

None of the 12 target plant species included in Table 2 were found on-site. The area was dominated by *Atriplex polycarpa* and *Atriplex hymenelytra*, of which the latter is considered protected under the CDNPA (§80073; CDFW 2023f). There are approximately 3,050 *Atriplex hymenelytra* individuals on-site, of which approximately 40% are mature plants and 60% are seedlings. In addition, there were six *Opuntia basilaris* var. *basilaris* cactus plants located on-site, which are also protected under the CDNPA (§80073; CDFW 2023f).

General Species Observations

Other animal species and sign observed in the Project Area included wild burro (*Equus asinus*) scat, coyote (*Canis latrans*) scat, common raven, western whiptail lizards (*Aspidoscelis tigris*), and side-blotched lizards (*Uta stansburiana*). A total of 36 plant species (native and non-native) were recorded during botanical surveys on April 8, 2023. A complete list of all plant species recorded on site can be found in Appendix 2.

DISCUSSION

None of the 45 special status plant and animal species identified during the literature research were recorded in the Project Area. Furthermore, there were no breeding birds located on the properties at the time of surveys, and no abandoned nests were observed to indicate recent use of the habitat. Two of the plant species present on site (*Atriplex hymenelytra* and *Opuntia basilaris* var. *basilaris*) are included in the CDNPA.

The locally degraded natural habitat conditions of the Project Area, coupled with its proximity to human activity (including free-roaming dogs), present as poor habitat for most native animal species. Indeed, few animals of any sort were recorded during the biological surveys. However, the SBC Solar Project Area is located near open, natural habitat on lands managed by the BLM.

Desert Tortoise

The Project Area lands are within the known range of the desert tortoise, and the properties are bordered to the west and southwest by large parcels of mostly open habitat, which in turn

maintain connections to intact natural habitat within the broader Searles Valley (Zeiner et al. 1988-1990, Figure 3). Desert tortoises have been recently recorded nearby in the Searles Valley. The nearest desert tortoise observation located through the literature search was of an adult individual sighted in March of 2017. It was walking across a dirt access road for nearby mining facilities, approximately 2.6 kilometers to the north of the Project Area (CDFW 2023a). Therefore, although the SBC properties themselves do not present as good habitat for desert tortoise, it is possible that tortoises could travel onto the project from the surrounding landscape during routine travel within adjacent home ranges, as well as during more infrequent dispersal movements (Franks et al. 2011, Sadoti et al. 2017).

Mohave Ground Squirrel

The Project Area is located within the known range of the Mohave ground squirrel and there are recent records in the greater Searles Valley (Leitner 2021). However, the Project Area presents highly disturbed habitat that would be poor quality for Mohave ground squirrel. No live animals were trapped on-site during extensive trapping surveys. See Attachment 1 for a detailed report on Project Area Mohave ground squirrel biological surveys. While it is possible that the species may transient the site, it is unlikely to reside in the Project Area.

Burrowing Owl

The Project Area is located within the known range of the burrowing owl (Zeiner et al. 1988-1990), and the soils and vegetation community on-site and in surrounding properties present as poor to moderate potential habitat (Plumpton and Lutz 1993, Rosenburg et al. 2007). The literature search of the CNDDB system did not indicate any recent sightings in the Searles Valley itself. However, this is likely due to the area getting little attention from professional biologists as a result of the remote location. The nearest CNDDB records for burrowing owl are located to the west of Ridgecrest and in Death Valley National Park. Burrowing owls are frequently recorded by experienced birders in the vicinity of Ridgecrest, CA, which is approximately 17 miles to the southwest, as well as in Death Valley National Park, which is located to the northeast (Sullivan et al. 2009; Cornell University eBird1 2023). These regions have similar habitat, and therefore it is very likely that burrowing owls are resident in the greater Searles Valley landscape. Consequently, it is possible that burrowing owls could be found foraging on the project at some point in the future. However, it is unlikely that burrowing owls would breed in the Project Area, due to the presence of roaming dogs, human activities, and lack of suitable burrows or cover sites.

Desert Kit Fox

Although the Project Area is located within the known range of the desert kit fox, it does not present as favorable breeding habitat (Zeiner et al. 1988-1990). This is due to human impacts on the properties and surrounding landscape. Surveyors noted the presence of roaming domestic dogs, and several locations with coyote scat. Kit foxes are often displaced from areas

[1] Cornell University's eBird on-line database (2023) is contributed to by both amateur and professional birders and includes the ability to submit photographs, videos, and sound recordings with each checklist developed from a specific survey. Each birder's checklist is thoroughly reviewed by a qualified avian biologist. Checklist ambiguities, errors, and clarifying questions regarding submitted data are routinely identified by the eBird moderating biologist, who in turn engages with the submitting party to direct revisions and corrections. Revisions to the checklist must be made by the birder. For the purposes of this report, eBird data are used here to supplement the CNDDB list with the caveat that the information presented for each avian species has not been reviewed by CNDDB personnel.

with roaming domestic dogs and are known to be in competition with, and preyed upon by established coyote populations (Zoellick et al. 1989, Meaney et al. 2006, Lonsinger et al. 2017). Nevertheless, it is possible that the SBC properties could see transient desert kit fox activity during foraging or long-range travel.

American Badger

American badgers are very unlikely to ever breed within the vicinity of the SBC project, due to the human impacts to the landscape and the presence of loose domestic dogs. However, the project is located within the known range of American badgers, so it is possible that the Project Area could see transient badger activity during foraging or long-range travel (Zeiner et al. 1988-1990).

Migratory and Nesting Birds

There were no nesting birds located during the biological surveys, which occurred during peak breeding bird season in this area of the Mojave Desert. Few of the bird species indicated by the literature review would be likely to ever nest in the Project Area, due to lack of suitable habitat. It is possible that some raptor species might use the area for foraging, and it is always possible that any of the birds listed in Table 1 could occur on-site as transients during migration, or as strays driven by adverse weather phenomena.

Sensitive Plants

Sensitive plant surveys were completed during peak blooming season in this portion of the Mojave Desert, but none of the special status plants indicated during the literature search were found on-site. The surveys were conducted by an experienced botanist, and given that favorable winter precipitation resulted in widespread germination, it is unlikely that any sensitive plants were missed. Many of the sensitive plants indicated in Table 2 would be unlikely to grow on site due to lack of suitable habitat. The Project Area is impacted by historic human alterations including vehicle traffic, trash dumping, as well as widespread surface clearing of vegetation on the eastern property. As such, the Project Area presents as very poor to moderate potential habitat for native plants in general.

Two plant species present on the site, desert holly and beavertail cactus, are included in the California Desert Native Plants Act and codified in Division 23 of the California Food and Agriculture Code. The CDNPA protects certain desert plant species from unlawful harvesting on public and private lands. It is only applicable within named counties. Inyo County is one of those counties. The CDNPA establishes that covered plants may be removed upon the issuance of a permit by the agricultural commissioner or sheriff of each county in which the plants are located.

Additional Sensitive Species

Insects

The two sensitive insect species indicated in the literature search would not be found on-site due to lack of habitat (Table 1). Both species are found in the Argus Mountain range to the west and northwest of the Project, in association with plants that grow in habitat there.

Reptiles

Only two sensitive species of reptiles were indicated during the literature search (Table 1). The desert tortoise was discussed previously. The second species, the Panamint alligator lizard (*Elgaria panamintina*), is extremely unlikely to be found on-site, due to a lack of suitable habitat and hydrological conditions.

Birds

As previously discussed, some bird species listed in Table 1 were considered potential foragers or transients in the Project Area. However, they would not nest on-site due to lack of suitable habitat (hydrologic characteristics, vegetation community) or nesting substrate (the site has no cliffs, trees, or large shrubs and cacti). Transients that might use the Project Area temporarily during migration include the rufous (*Selasphorus rufus*) and Costa's (*Calypte costae*) hummingbirds, Brewer's sparrow (*Spizella breweri*), yellow warbler (*Setophaga petechia*), and the summer tanager (*Piranga rubra*). Other passerine (perching) birds with local ranges that could be found foraging on site include LeConte's thrasher (*Toxostoma lecontei*) and loggerhead shrike (*Lanius ludovicianus*). However, these species would not breed on site, because they prefer large chollas, yuccas, or trees to nest in. There are no such host plants on site.

It is possible that some raptor species could use the wooden power poles as temporary perching sites while foraging in the area. However, there is no appropriate nesting substrate for raptors in the Project Area. The closest appropriate nesting habitat is likely the Argus mountains to the west of the Project Area.

Mammals

Among the mammals listed in Table 1, only three of the nine species have the potential to breed or reside on-site, and these were addressed specifically in this report (Mohave ground squirrel, desert kit fox, and American badger). The remaining six mammal species would not be found on-site due to lack of habitat, such as the Argus Mountains kangaroo rat (*Dipodomys panamintinus argusensis*), or at most would be transient, utilizing the site for foraging in the case of various bat species, or as an unlikely travel route in the case of desert bighorn sheep (*Ovis canadensis nelsoni*).

CONCLUSIONS AND MITIGATION RECOMMENDATIONS

The Project Area is located within the Trona SEDA, as designated within the Inyo County REGPA Final Program EIR, and is adjacent to extensive lowland properties prioritized as a potential solar development site within the greater context of the California state DRECP (Inyo County 2015, Conservation Biology Institute 2023). As such, the SBC Solar site has been identified through extensive study and review as a preferred location for solar development.

This biological evaluation of the Project Area indicates that the development of the SBC Project will not adversely impact sensitive or special status native species. Due to human impacts (trash, vehicle traffic, grading vegetation clearing), the properties do not present favorable habitat for most native species. Indeed, the eastern parcel representing at least 50% of the land (Figure 2) is already under use as a staging area for raw industrial materials and equipment (mining derivatives; see photos in Appendix 3).

Contact was initiated with the Inyo County Agricultural Commissioner's Office to determine the requirements for compliance with the CDNPA. Upon completion of this report, no response had yet been received regarding permitting for removal of desert holly and beavertail cactus.

It is recommended that the Applicant provide this report to the Inyo County Planning Department to obtain the necessary permits. This shall ensure that construction of the facilities will remain in compliance with natural resource laws and will not adversely impact natural resources.

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FIGURES

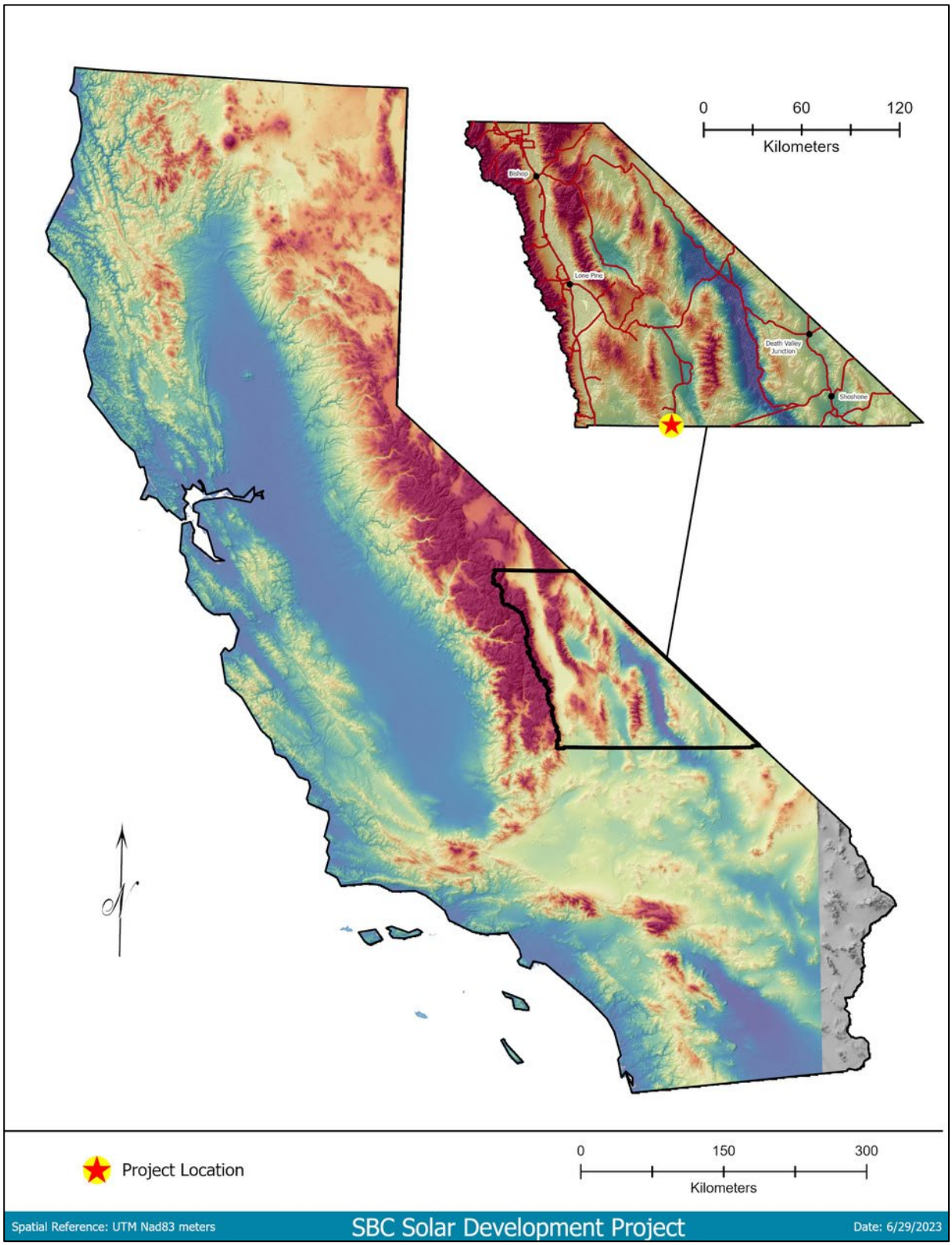


Figure 1. SBC Solar Project – Overview of Site within Inyo County, California

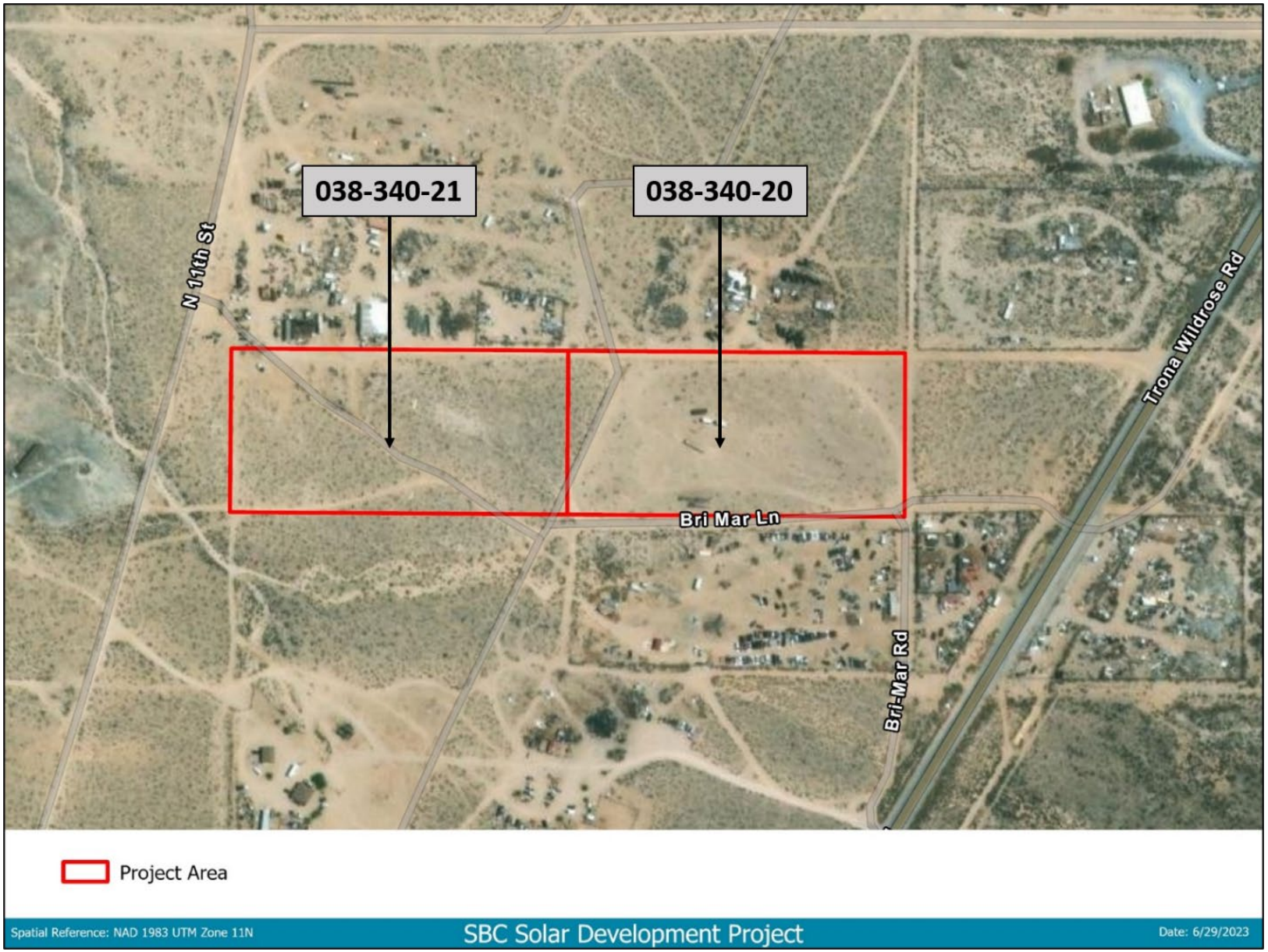


Figure 2. Parcels proposed for SBC Solar Project, north of Trona, Inyo County, California.

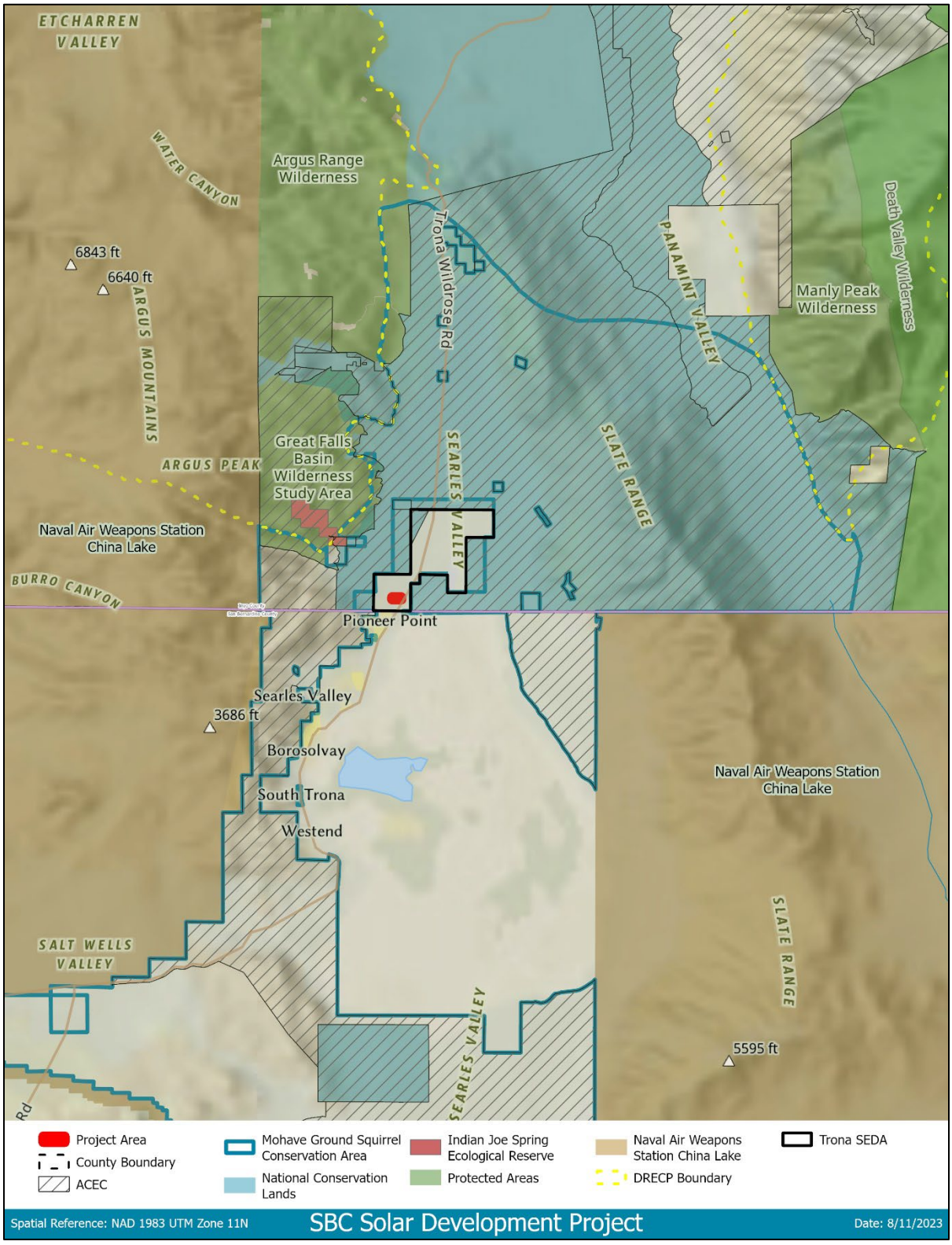


Figure 3. Land Designations near the SBC Solar Project and vicinity.

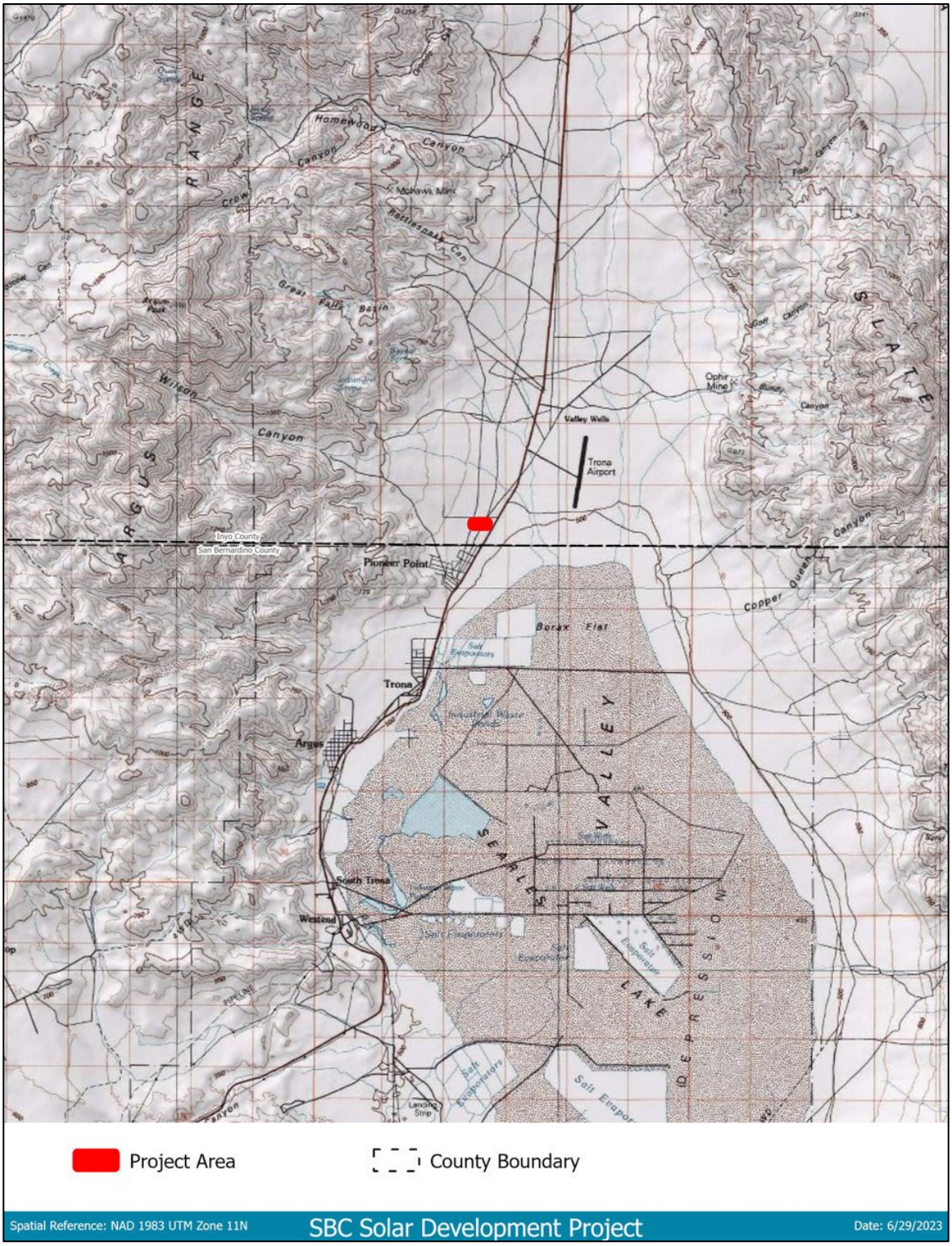


Figure 4. Topographic Map of the SBC Solar Project Site and vicinity in Searles Valley.

APPENDICES

Appendix 1. List of Federal, State, and IUCN Ranking Codes for the SBC Solar Project, Trona SEDA, Inyo County, California

USFWS / ESA Listing Codes:
FE Federally listed as Endangered
FT Federally listed as Threatened
FPE Federally proposed for listing as Endangered
FPT Federally proposed for listing as Threatened
FPD Federally proposed for delisting
FC Federal candidate species (former Category 1)
BCC Birds of Conservation Concern
BGEPA Bald and Golden Eagle Protection Act

CDFW / CESA Listing Codes:
SE State listed as Endangered
ST State listed as Threatened
SCE State candidate for listing as Endangered
SCT State candidate for listing as Threatened
SCD State candidate for delisting
R Rare
FP Fully Protected
SGCN Species of Greatest Conservation Need
SSC Species of Special Concern
WL Watch List

Birds of Conservation Concern are species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973 (ESA, USFWS 2008).

California Fully Protected Species are identified as those animals that are rare or face extinction and require additional protection. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of bird species for the protection of livestock (CDFW 2023a).

Watch List of Species of Special Concern include species that are not on the current special concern list that 1) formerly were on the 1978 (Remsen 1978) or 1992 (CDFG 1992) special concern lists and are not currently listed as state threatened and endangered; 2) have been removed (delisted) from either the state or federal threatened and endangered lists (and remain on neither); or 3) are currently designated as Fully Protected in California (Shuford and Gardali 2008; CDFW 2023a).

CALFIRE Sensitive Species are those species that warrant special protection during timber operations (CDFW 2023a).

Global Rank (G-Rank):

GX = Presumed Extinct – Not located despite intensive searches and virtually no likelihood of rediscovery.

GH =Possibly Extinct – Known from only historical occurrences but still some hope of rediscovery. Examples of evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is extinct throughout its range.

G1 = **Critically Imperiled**—At very high risk of extinction due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.

G2 = **Imperiled**—At high risk of extinction due to very restricted range, very few populations or occurrences, steep declines, severe threats, or other factors.

G3 = **Vulnerable**—At moderate risk of extinction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.

G4 = **Apparently Secure**—At fairly low risk of extinction due to an extensive range and/or many population occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

G5 = **Secure**—At very low risk of extinction due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.

GNR = Unranked – Global rank not yet assessed.

Taxon Rank - Subspecies level:

Subspecies/varieties receive a **T-rank** attached to the G-rank. With the subspecies/varieties, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global status of just the subspecies.

State Rank (S-Rank):

SX = Presumed Extirpated – Species is believed to be extirpated from the state. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.

SH = Possibly Extirpated – Known from only historical records but still some hope of rediscovery. There is evidence that the species may no longer be present in the state, but not enough to state this with certainty. Examples of such evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is no longer present in the jurisdiction.

S1 = **Critically Imperiled**—At very high risk of extirpation in the state due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.

S2 = **Imperiled**—At a high risk of extirpation in the state due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.

S3 = **Vulnerable**—At moderate risk of extirpation in the state due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.

S4 = **Apparently Secure**—At a fairly low risk of extirpation in the state due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

S5 = **Secure**—At very low or no risk of extirpation in the state due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.

SNR = Unranked – State rank not yet assessed.

Uncertainty about the rank of an element is expressed in two major ways: 1) by expressing the rank as a range of values: e.g., S2S3 means the rank is somewhere between S2 and S3; and 2) by adding a "?" to the rank: e.g., S2? This represents more certainty than S2S3, but less than S2

IUCN Red List Criteria (IUCN 2020)**:**

EX – Extinct: A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

EW – Extinct In The Wild: A taxon is Extinct In The Wild when it is known only to survive in cultivation, in captivity or as a naturalized population (or populations) well outside the past range. A taxon is presumed Extinct In The Wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

CR – Critically Endangered: A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered, and it is therefore considered to be facing an extremely high risk of extinction in the wild.

EN – Endangered: A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered, and it is therefore considered to be facing a very high risk of extinction in the wild.

VU — Vulnerable: At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

NT – Near Threatened: A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.

LC – Least Concern: A taxon is Least Concern when it has been evaluated against the Red List criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened.

DD — Data Deficient: A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking.

Appendix 2. Complete list of all vascular plants observed on April 8, 2023 during botanical surveys of the SBC Solar Project, Trona SEDA, Inyo County, California.

FAMILY SPECIES (Scientific Name)	SPECIES (Common Name)	HABIT
GYMNOSPERMS		
ASTERACEAE	**SUNFLOWER FAMILY**	
Chaenactis carphoclinia var. *carphoclinia*	pebble pincushion	annual herb
Lasthenia gracilis	common goldfields	annual herb
Logfia depressa	hierba limpia	annual herb
Malacothrix coulteri	snake's-head	annual herb
Malacothrix glabrata	desert dandelion	annual herb
Monoptilon bellioides	desert star	annual herb
Rafinesquia neomexicana	desert chicory	annual herb
BORAGINACEAE	**BORAGE FAMILY**	
Cryptantha nevadensis	Nevada cryptantha	annual herb
Eremocarya micrantha var. *micrantha*	desert red-root	annual herb
Johnstonella angustifolia	narrow-leaved johnstonella	annual herb
Pectocarya heterocarpa	mixed-nut pectocarya	annual herb
BRASSICACEAE	**MUSTARD FAMILY**	
Caulanthus lasiophyllus	California mustard	annual herb
Lepidium flavum	yellow peppergrass	annual herb
Sisymbrium irio[2]	London rocket	annual herb
Sisymbrium orientale[2]	Oriental rocket	annual herb
CACTACEAE	**CACTUS FAMILY**	
Opuntia basilaris var. *basilaris*[1]	Beavertail	perennial stem succulent
CHENOPODIACEAE	**GOOSEFOOT FAMILY**	
Atriplex hymenelytra[1]	desert holly	shrub
Atriplex polycarpa	Allscale	shrub
Stutzis covillei	Coville's orach	annual herb
Suaeda nigra	bush seepweed	subshrub/shrub
LOASACACEAE	**LOASA FAMILY**	
Mentzelia albicaulis	little blazing star	annual herb
MALVACEAE	**MALLOW FAMILY**	
Eremalche rotundifolia	desert fivespot	annual herb
NAMACEAE	**NAMA FAMILY**	
Nama demissa var. *demissa*	purple mat	annual herb
ONAGRACEAE	**EVENING-PRIMROSE FAMILY**	
Camissonia campestris ssp. *campestris*	Suncups	annual herb
Chylismia claviformis	brown-eyed primrose	annual herb
Eremothera boothii ssp. *desertorum*	desert evening-primrose	annual herb
POLEMONIACEAE	**PHLOX FAMILY**	
Aliciella latifolia ssp. *latifolia*	broad-leaved aliciella	annual herb
Eriastrum sp.	woolly-star	annual herb
Gilia latiflora	broad-flowered gilia	annual herb
Gilia minor	little gilia	annual herb
Linanthus bigelovii ssp. *johnsonii*	Bigelow linanthus	annual herb
Loeseliastrum matthewsii	desert calico	annual herb
POLYGONACEAE	**BUCKWHEAT FAMILY**	
Chorizanthe rigida	Devil's spineflower	annual herb
SOLANACEAE	**NIGHTSHADE FAMILY**	
Lycium pallidum var. *oligospermum*	rabbit thorn	shrub
MONOCOT FLOWERING PLANTS		
POACEAE	**GRASS FAMILY**	
Hordeum murinum[2]	wall barley	annual grass
Schismus arabicus[2]	Arabian grass	annual grass

[1] CDNPA species
[2] non-native species

Appendix 3. Site photos of the SBC Solar Project, Trona SEDA, Inyo County, California

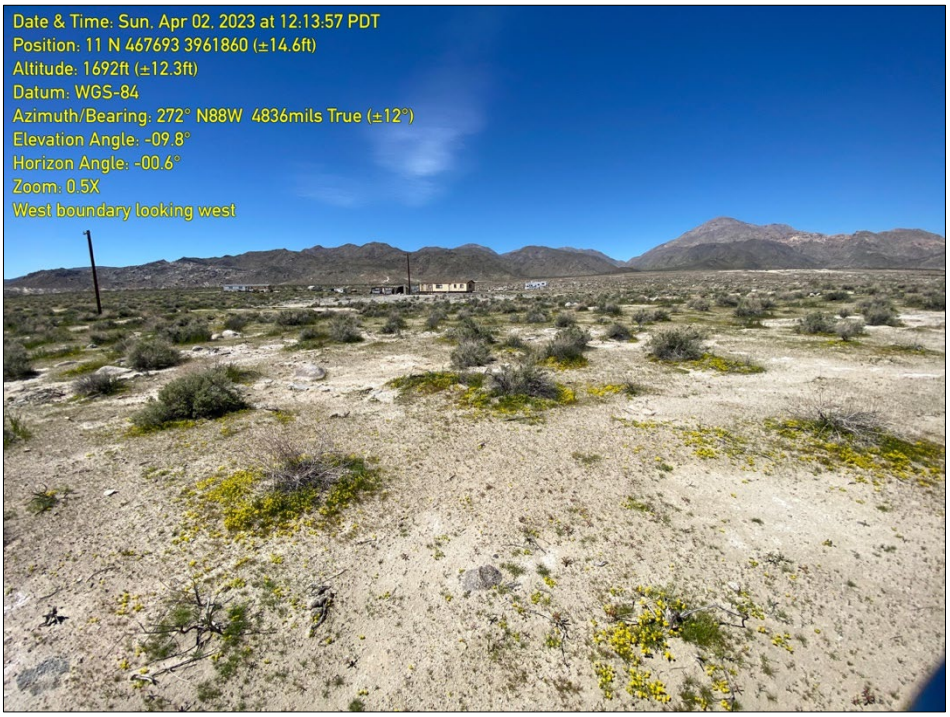
Photograph 1. Overview Site Photo – SBC Solar Project northeast corner, view to southwest. Denuded and in use for industrial raw materials storage.

Photograph 2. Overview Site Photo – SBC Solar Project southeast corner, view to northwest. Denuded and in use for industrial raw materials storage.

Photograph 3. Overview Site Photo – SBC Solar Project along southern boundary, view to southeast from center of Project Area boundary at lot lines of the two parcels. View of fragmented *Atriplex* spp. shrubland alliance habitat.

Photograph 4. Overview Site Photo – SBC Solar Project along southern boundary, view to southwest from center of Project Area boundary at lot lines of the two parcels. View of fragmented *Atriplex* spp. shrubland alliance habitat and connections to protected native habitat in the greater Searles Valley region.

Photograph 5. Overview Site Photo – SBC Solar Project southwest corner, view to the northeast. Fragmented *Atriplex* spp. shrubland alliance habitat.



Photograph 6. Overview Site Photo – SBC Solar Project, view from western boundary looking further west. Largely intact *Atriplex* spp. shrubland alliance native habitat, connecting to protected lands within the greater Searles Valley.

Photograph 7. Overview Site Photo – SBC Solar Project northwest corner, view to southeast to include industrial equipment and fragmented *Atriplex* spp. shrubland alliance habitat.

Photograph 8. Overview Site Photo – SBC Solar Project, typical example of dumped trash found on site.

Photograph 9. Overview Site Photo – SBC Solar Project, typical example of wind-blown trash found on site, in fragmented native habitat.

Photograph 10. Overview Site Photo – SBC Solar Project, typical examples of scattered exposed rock, *Atriplex hymenalytra*, and wind-blown trash.

Photograph 11. Overview Site Photo – SBC Solar Project, typical example of *Opuntia basilaris* var. *basilaris* found in the Project Area.

Photograph 12. Overview Site Photo – SBC Solar Project, typical example of *Atriplex hymenalytra* found in the Project Area.

ATTACHMENTS

Attachment 1. Mohave Ground Squirrel Report for the SBC Solar Project, Trona SEDA, Inyo County, California

Mohave Ground Squirrel Habitat Assessment and Live Trapping Survey at the Proposed SBC Solar Project Site

Inyo County, California

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July 2023

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1.1 PROJECT DESCRIPTION

SBC Solar proposes to construct a 2.0 MWAC photovoltaic solar electricity generation system (Project) which would be interconnected to the existing local Southern California Edison distribution system. At the point of interconnection, the electricity would feed into the utility grid for use by interconnected customers. The Project would be constructed on private land in Inyo County north of Trona (Project Area) and would occur on two assessor's parcels (APNs 038-340-20 and 038-340-21) totaling approximately 10 acres. The physical address of the Project Area is 2500 Bri-Mar Lane.

1.2 PROJECT LOCATION

The Project Area is in Searles Valley, northwest of Searles Dry Lake and in the northern portion of the Mojave Desert. It is approximately 3 miles north-northeast of the unincorporated town of Trona, San Bernardino County (Figures 1 and 2). It lies on the Trona East USGS 1:24,000 topographic map (7.5-minute quadrangle) in the northwest quarter of the southeast quarter of Section 32, Township 24 South, Range 43 East, Mt. Diablo Base Meridian (Figure 3).

1.3 MOHAVE GROUND SQUIRREL

The Mohave ground squirrel (MGS, *Xerospermophilus mohavensis*), a California endemic species, was listed in 1971 as a Rare species under the California Endangered Species Act (CESA). It was later classified as Threatened when CESA was reauthorized in 1984. Its range is limited to the western Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo counties (Best 1995). Within its range it has a patchy distribution but occupies a variety of habitats, including saltbush (*Atriplex* spp.) scrubs, creosote bush (*Larrea tridentata*) scrubs, Joshua tree (*Yucca brevifolia*) woodland, blackbrush scrub (*Coleogyne ramosissima*), and big sagebrush (*Artemisia tridentata*) scrub. It occurs at elevations up to at least 5,600 feet above mean sea level (Gustafson 1993, Best 1995).

MGS occupies areas with sandy soils or soils with a mix of sand and gravel, usually on fairly flat terrain with occasional rivulets and with a shrub cover of 10-19%. It usually avoids steep sloping and rocky terrains (Best 1995). Soil characteristics are critical because MGS construct burrows to provide temperature regulation, avoid predators, and use for birthing and raising young and for shelter during the inactive season.

MGS eat mainly leaves of forbs, shrubs, and grasses; fruit and flowers of forbs; seeds of forbs, grasses, shrubs, and Joshua trees; fungi; and arthropods (Best 1995). Under drought conditions, saltbush, winter fat (*Krascheninnikovia lanata*), spiny hop-sage (*Grayia spinosa*), and box-thorn (*Lycium* spp.) are probably the most important food plants helping to sustain viable populations of MGS throughout their range (Leitner and Leitner 1998).

Reasons for decline and extirpation of local populations include persistent drought, habitat destruction, degradation and fragmentation; use of pesticides for rodent control; domestic cat predation; and, possibly, shooting and vehicle strike (Gustafson 1993).

A search of the California Natural Diversity Database (CNDDB 2023) found 13 MGS records in the Searles Valley (Figure 4). These records represent collections, live trapping results, or incidental observations between 1891 and 2006. More recent records in the area are from 2013-2022 and are described in Leitner (2021) and Leitner and Leitner (2022).

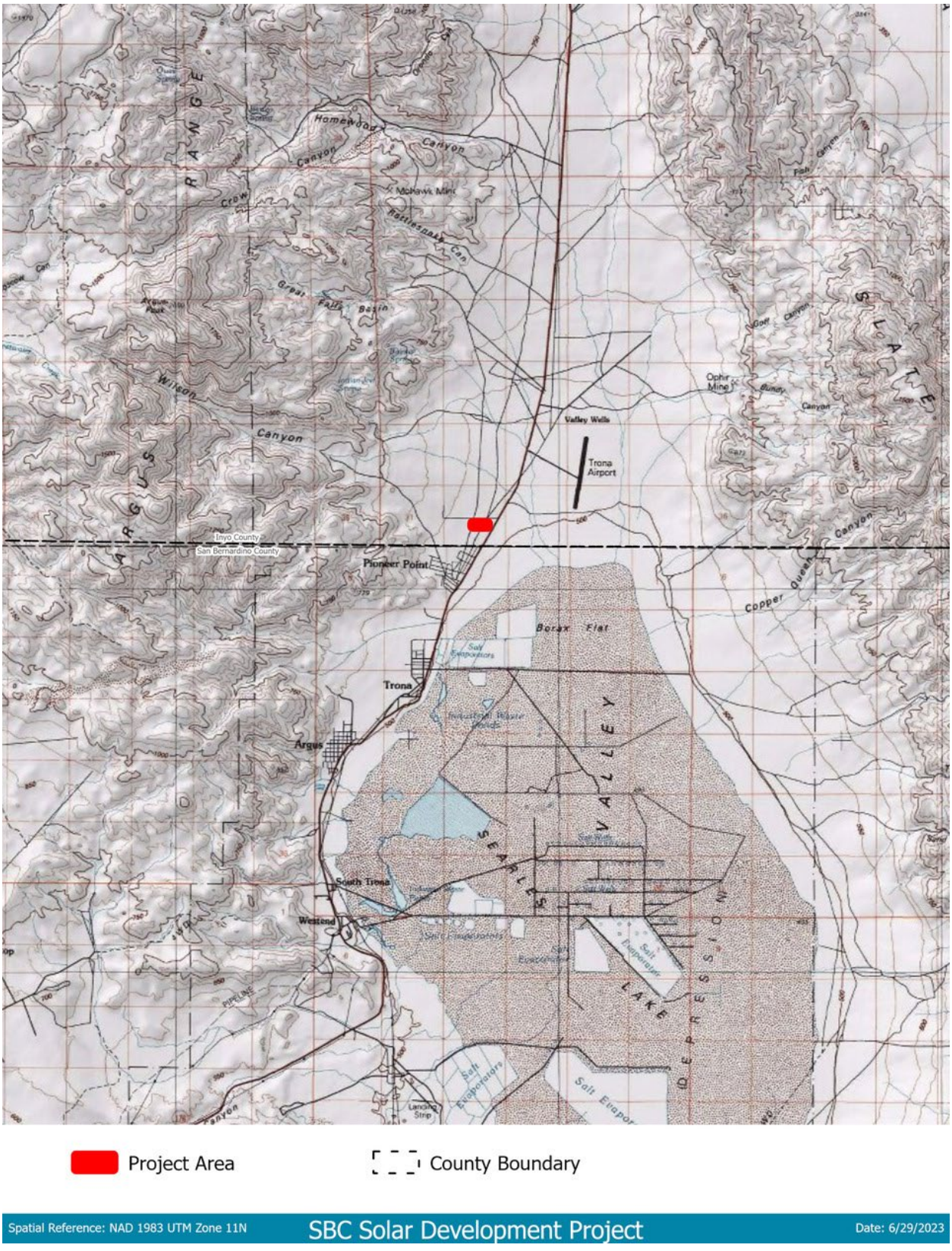

Figure 1. Regional Map, SBC Solar

Figure 2. Project Area, SBC Solar

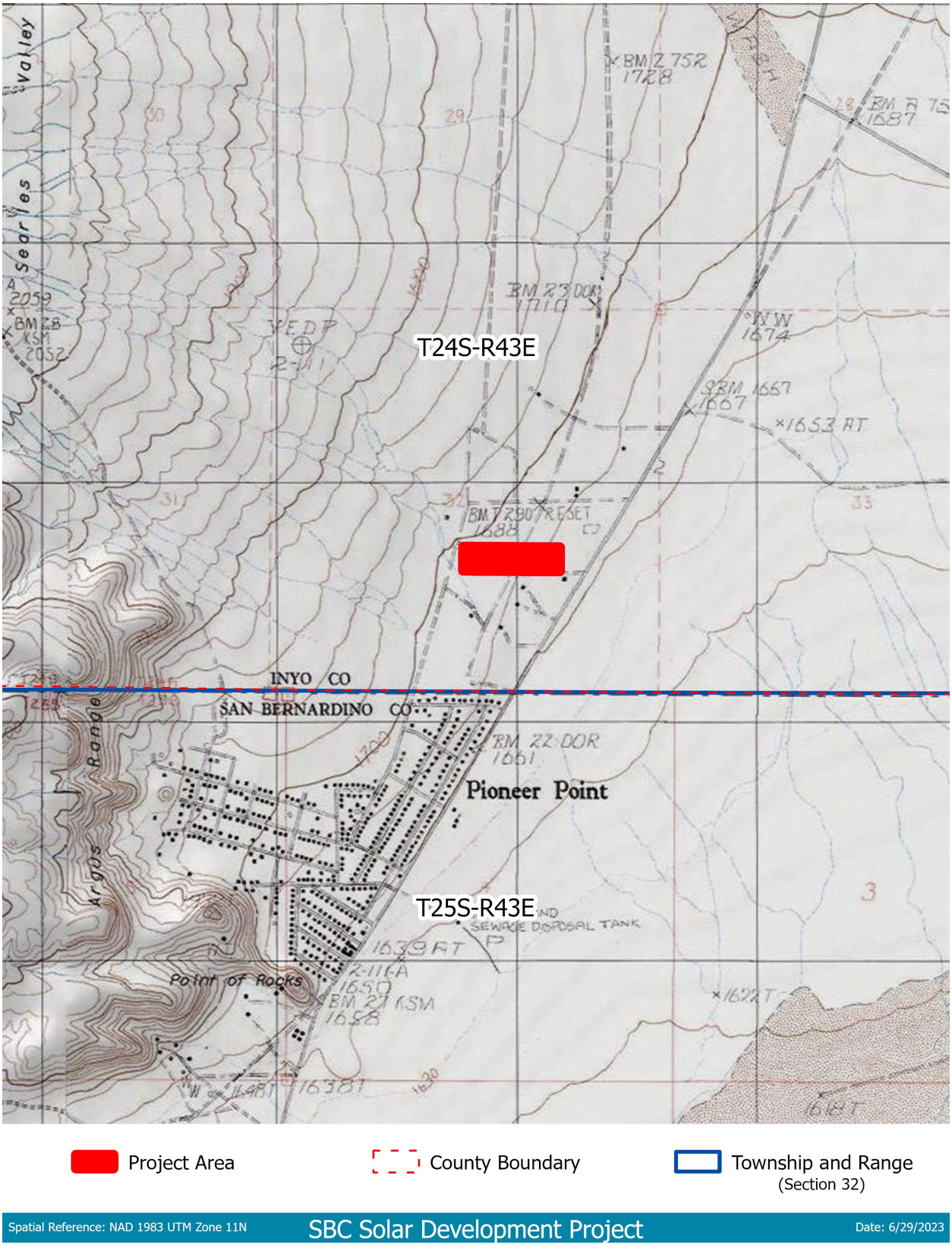

Figure 3. Cadastral Location of the SBC Solar Project Area

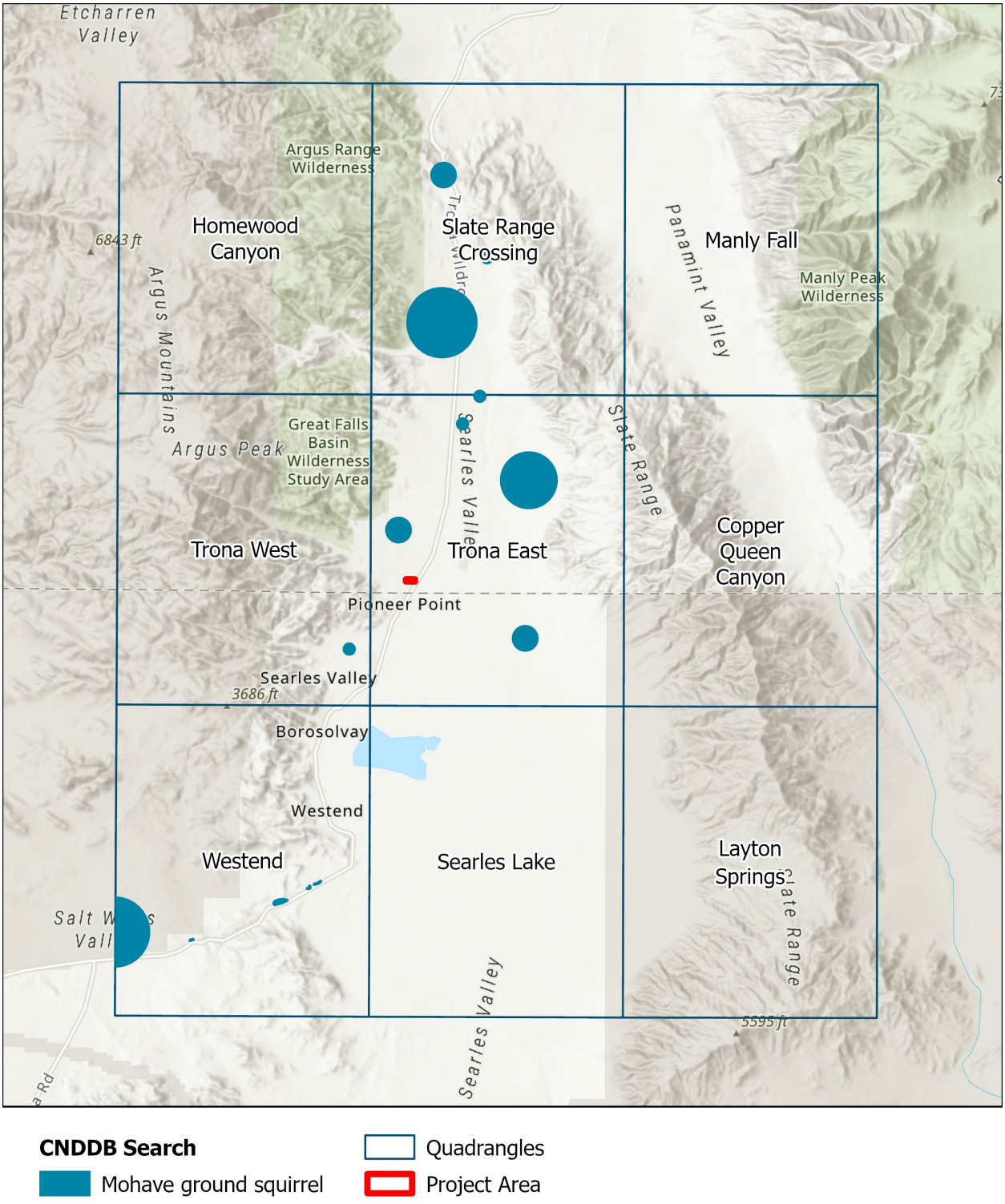

Figure 4. Mohave Ground Squirrel CNDDB Records Near the SBC Solar Project Area

2. METHODS

2.1 HABITAT ASSESSMENT

EREMICO Biological Services, LLC (EBS) biologists Denise LaBerteaux and Bruce Garlinger conducted the MGS habitat assessment in the Project Area on April 8, 2023. The purpose of the survey was to evaluate the potential for the Project Area to support a population of MGS. The assessment was conducted by walking meandering transects throughout the 10-acre site. They identified and recorded vegetation communities, plant species, landforms, soils, and types of human disturbances; and noted the presence or absence of small mammal burrows.

2.2 TRAPPING SURVEY

To determine MGS presence on the project site, a visual survey and then a trapping survey were conducted. The visual survey was conducted in conjunction with the habitat assessment. The purpose of this survey was to unobtrusively search for MGS and to select the site for the trapping grid. The MGS presence-or-absence trapping study was conducted using standardized survey guidelines (California Department of Fish and Game [CDFG] 2010). One grid is required per 80 acres of potential MGS habitat on the project site (CDFG 2010). The proposed Project was less than 80 acres; therefore, one grid was established at the site.

The grid consisted of 100 Sherman live traps (12-inch kangaroo rat model), placed in suitable habitat in the Project Area, which measured approximately 6 acres (Figure 5). The normal distance between traps of 35 meters (m) could not be accommodated due to the small Project Area. Instead, the spacing was 10-15 m, which allowed for full coverage of all suitable habitat. Each trap was placed in a 13-cm x 13-cm x 43-cm open-ended corrugated cardboard box. The boxes not only provided shade but also insulation to minimize thermal stress on captured animals. Traps and shelters were placed on the north-south axis and were baited with a mixture of sweet horse grain and a blend of peanut butter and rolled oats. The traps were opened by one hour after sunrise or when the air temperature at 30 cm above the ground reached 10°C. The ambient air temperature 30 cm above the ground and surface temperature, both in the shade, were recorded every hour during the trapping effort. Cloud cover and wind speed and direction were also recorded three times each day during trapping. If the air temperature exceeded 32°C, then the traps were closed until the temperature fell below 32°C. Traps were also closed during periods of rain and high wind. Traps were checked every 2-4 hours and closed by sunset.

The following data were recorded on all captured animals: capture time, trap number, species, sex, age (adult or juvenile), and reproductive condition. No animals were marked. After each animal was processed, it was released at the point of capture. A California Native Species Field Survey Form for MGS was completed for the project site regardless of the outcome of trapping.

If the full duration of trapping was conducted, then the grid was trapped for a maximum of three, 5-consecutive day periods. According to the trapping protocol (CDFG 2010) the first trapping session would occur between March 15 and April 30, 2023. The second session would occur at least two weeks after the end of the first trapping session and between May 1 and May 31, 2023. The third session would occur at least two weeks after the end of the second trapping session and between June 15 and July 15, 2023. Trapping would cease upon the capture of an MGS. For example, if an MGS were to be captured during the first trapping period, then the second and third trapping sessions would not be necessary.

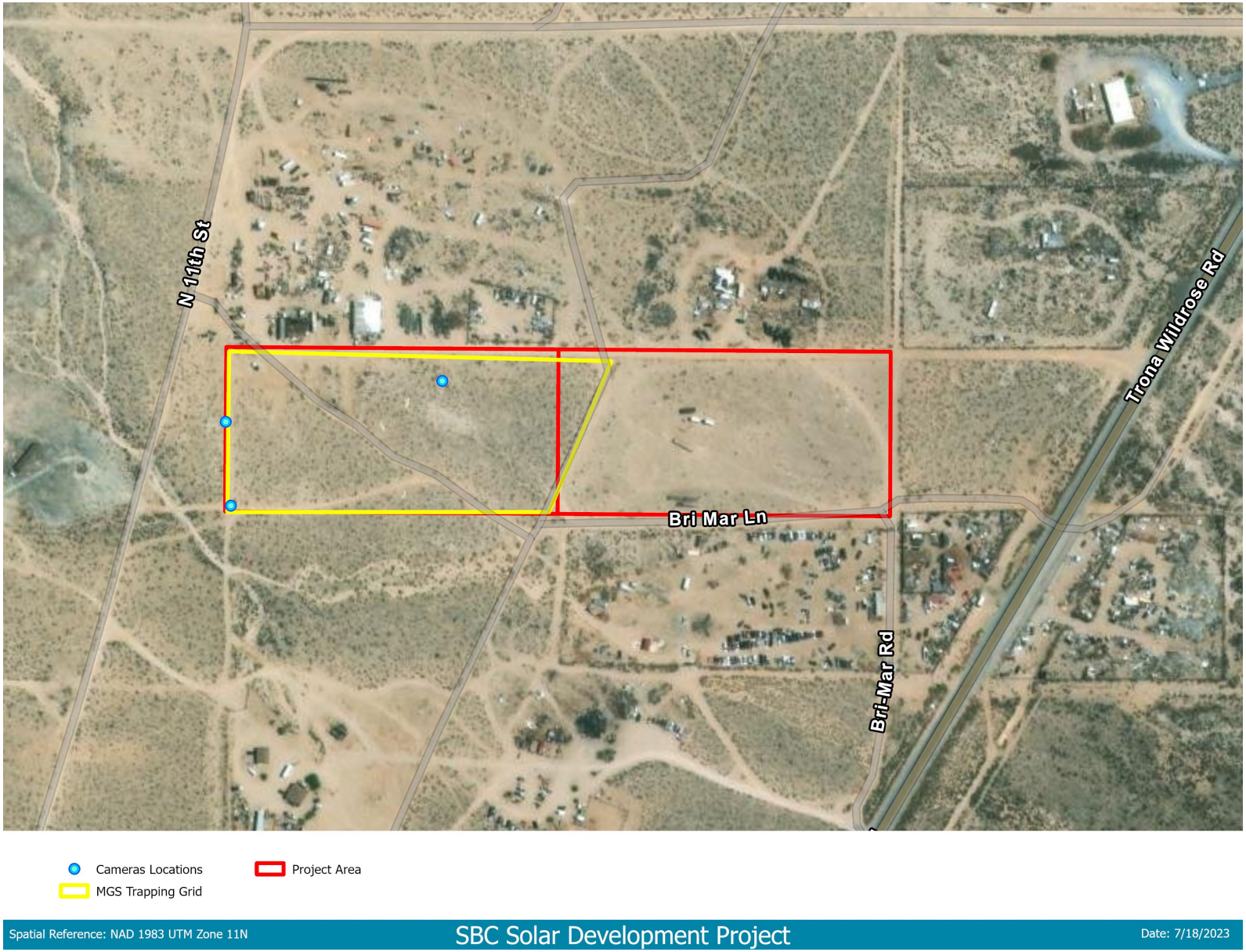

Figure 5. Mohave Ground Squirrel Live Trapping Grid and Camera Locations, SBC Solar Project Area

Starting in Trapping Period 2, the field investigator installed three wildlife cameras on the trapping grid to increase the chances of detecting an MGS in the Project Area (Figure 5). Cameras used in this study were Stealth Cam® Model STC-G42NG cameras, with 32-gigabyte, secure digital high capacity (SDHC) cards. Each camera was set at 8-megapixel, full color resolution, had an infrared flash, and was triggered by motion detection. Each camera was mounted on a 1.5-m tall T-post, which was inclined toward a point on the ground about 1.2 to 1.5 m north of the bait. Vegetation was cleared from the camera's detection zone to minimize false triggering under windy conditions. The camera stations were baited by spreading sweet horse grain. Images from the cameras were reviewed, and the following information was noted for each MGS: camera number, date or date range, age, and sex. All other vertebrate wildlife species that were recorded on film were noted as being present.

The trapping survey was conducted under the authority of a Memorandum of Understanding between the California Department of Fish and Wildlife (CDFW) and EREMICO Biological Services, LLC, dated April 16, 2018, expiring December 31, 2021 but extended indefinitely under CDFW's renewal policy.

3. RESULTS

3.1 EXISTING ENVIRONMENT

The Project is located in the Mojave Desert Region of the Desert Floristic Province. The elevation is 509-518 m above mean sea level. The primary landform is alluvial plain derived from granite or mixed sources. There was one small rock outcrop in the southeast corner of the property. The entire site drains southeast towards Searles Dry Lake. Soils are silty sands with a gravelly surface, friable and suitable for MGS occupation (Best 1995). Small mammal burrows were observed on the site. Photographs of the Project Area appear in Appendix A

Only one natural community, *Atriplex polycarpa* Shrubland Alliance (allscale scrub) as defined by Sawyer et al. (2009), was identified during the MGS habitat assessment. It occupied approximately 60% of the Project Area (Photographs 1 and 2, Appendix A). Desert holly (*Atriplex hymenelytra*) was a common associate in the Project Area. Typically, allscale scrub is found in washes and on playa lake beds and shores, dissected alluvial fans, rolling hills, terraces, and edges of large, low gradient washes at an elevation of 75 m to 1500 m. Soils may be carbonate-rich, alkaline, sandy, or sandy loam. Shrub height is usually less than 3 m and the canopy is open to continuous (Sawyer et al. 2009). This natural community is not listed as a California sensitive natural community (CDFW 2023).

Other perennial plant species found in the Project Area were infrequent or had patchy distributions. These species included bush seepweed (*Suaeda nigra*), rabbit thorn (*Lycium pallidum* var. *oligospermum*), and beavertail (*Opuntia basilaris* var. *basilaris*). A variety of winter annual plants were present and are listed in Appendix B.

The remaining 40% of the Project Area, exclusively in the eastern half of the site, was highly disturbed habitat. It was being used for storage of vehicles and crushed limestone (Photographs 3-4, Appendix A). Shrubs were confined to corners and edges of the disturbed area (Photograph 5, Appendix A).

Other disturbances in the Project Area included scattered trash, three dirt roads, and one distribution line along the south edge and another one through the center of the property. There was some evidence that neighborhood dogs have been in the Project Area. Adjacent parcels had a junk yard and two residences on northern parcels and a residence on the south-southeast parcel. Open desert with allscale scrub habitat occurred on parcels towards the west, east, and south (Figure 2; Photographs 6-8, Appendix A).

3.2 HABITAT SUITABILITY FOR MOHAVE GROUND SQUIRRELS

The Project is proposed in an area of mostly open, native desert without wide-spread disturbances from human activities. Suitable soils and vegetation communities for MGS occur on the property, and this species was known to occur in the region in the last decade. Rabbit thorn and saltbush, important MGS food plants, are present on-site and may help to sustain a viable population in the area (Leitner and Leitner 1998). Therefore, with the exception of the highly disturbed area on the eastern portion of the property, MGS has potential to inhabit the Project Area.

3.3 LIVE TRAPPING RESULTS

The visual survey in the Project Area resulted in no MGS detections. Therefore, a live trapping survey commenced. All trapping was completed by EBS's biologist Bruce Garlinger. The trapping

results are summarized in Table 1. Prevailing weather conditions during trapping are provided on the trapping summary form (Appendix C).

Table 1. Results of the Mohave ground squirrel trapping effort at the proposed SBC Solar Project Area, Inyo County, California.

PERIOD	DATE	TRAP-HOURS	SPECIES	Ad. M	Ad. F	Juv. M	Juv. F	Unk.	TOTAL CAPTURES
1	April 26, 2023	700	tiger whiptail	0	0	0	0	2	2
	April 27, 2023	650	long-nosed leopard lizard	0	0	0	0	2	2
	April 28, 2023	550	white-tailed antelope squirrel	1	0	0	0	0	1
			chisel-toothed kangaroo rat	0	0	0	0	1	1
	April 29, 2023	750	white-tailed antelope squirrel	2	0	0	0	0	2
			chisel-toothed kangaroo rat	0	0	0	0	1	1
			tiger whiptail	0	0	0	0	2	2
			long-nosed leopard lizard	0	0	0	0	3	3
			red racer	0	0	0	0	1	1
	April 30, 2023	700	white-tailed antelope squirrel	1	1	0	0	0	2
			tiger whiptail	0	0	0	0	1	1
2	May 10, 2023	1325	white-tailed antelope squirrel	6	2	0	2	0	10
			desert iguana	0	0	0	0	1	1
			red racer	0	0	0	0	1	1
			house finch	0	0	0	0	2	2
			house sparrow	0	0	0	0	4	4
			black-throated sparrow	0	0	0	0	1	1
			Bell's sparrow	0	0	0	0	5	5
	May 11, 2023	900	white-tailed antelope squirrel	2	0	1	0	0	3
			house sparrow	0	0	0	0	1	1
			Bell's sparrow	0	0	0	0	2	2
	May 12, 2023	725	white-tailed antelope squirrel	1	1	0	1	0	3
			tiger whiptail	0	0	0	0	1	1
			red racer	0	0	0	0	1	1
			house sparrow	0	0	0	0	8	8
	May 13, 2023	650	house sparrow	0	0	0	0	6	6
	May 14, 2023	550	white-tailed antelope squirrel	0	3	1	0	0	4
			tiger whiptail	0	0	0	0	1	1
			long-nosed leopard lizard	0	0	0	0	1	1
			house sparrow	0	0	0	0	5	5

PERIOD	DATE	TRAP-HOURS	SPECIES	Ad. M	Ad. F	Juv. M	Juv. F	Unk.	TOTAL CAPTURES
3	July 6, 2023	500	white-tailed antelope squirrel	2	1	0	1	0	4
	July 7, 2023	500	white-tailed antelope squirrel	2	0	1	1	0	4
	July 8, 2023	500	white-tailed antelope squirrel	2	2	2	2	0	8
	July 9, 2023	500	white-tailed antelope squirrel	4	2	2	3	0	11
	July 10, 2023	450	white-tailed antelope squirrel	1	0	0	0	0	1

The first trapping period occurred April 26-30, 2023. The effort totaled 3,300 trap-hours. Captured animals included five white-tailed antelope squirrels (*Ammospermophilus leucurus*) which a common desert ground squirrel, two chisel-toothed kangaroo rats (*Dipodomys microps*), five tiger whiptails (*Aspidoscelis tigris*), five long-nosed leopard lizards (*Gambelia wislizenii*), and one red racer (*Masticophis flagellum piceus*). No MGS were captured (Table 1).

The second trapping period occurred May 10-14, 2023. The effort totaled 4,150 trap-hours. Captured animals included 20 white-tailed antelope squirrels, two tiger whiptails, one long-nosed leopard lizard, one desert iguana (*Dipsosaurus dorsalis*), two red racers, two house finches (*Haemorhous mexicanus*), 24 house sparrows (*Passer domesticus*), one black-throated sparrow (*Amphispiza bilineata*), and seven Bell's sparrows (*Artemisiospiza belli*). No MGS were captured (Table 1).

The third trapping period occurred from July 6-10, 2023. The effort totaled 2,450 trap-hours. Captured animals included 28 white-tailed antelope squirrels. No MGS were captured (Table 1).

A standardized form, included in the survey guidelines (CDFG 2010), summarizing the Mohave ground squirrel survey and trapping effort is provided in Appendix C. A completed California Native Species Field Survey Form showing negative results is provided in Appendix D.

3.4 CAMERA TRAPPING RESULTS

The three cameras that were installed in the Project Area were in operation from May 14, 2023 to July 10, 2023. The cameras captured 32,196 images. There were no images of MGS. Wildlife detected on camera included chuckwalla (*Sauromalus obesus*), common side-blotched lizard (*Uta stansburiana*), zebra-tailed lizard (*Callisaurus draconoides*), long-nosed leopard lizard, desert iguana, tiger whiptail, red racer, Eurasian collared-dove (*Streptopelia decaocto*), LeConte's thrasher (*Toxostoma lecontei*), white-tailed antelope squirrel, chisel-toothed kangaroo rat, desert cottontail (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*), and domestic dog (*Canis familiaris*).

Other wildlife species that were incidentally observed during the MGS habitat assessment and trapping survey included Say's phoebe (*Sayornis saya*), horned lark (*Eremophila alpestris*), and Brewer's Sparrow (*Spizella breweri*).

4. CONCLUSION

A Mohave ground squirrel habitat assessment followed by live trapping and camera trapping were conducted from mid-April through mid-July 2023 to determine the presence of potential habitat and Mohave ground squirrels at the proposed 10-ac SBC Solar Project site north of Trona in southern Inyo County, California. Potential Mohave ground squirrel habitat measured approximately 6 acres and occurred mostly on the western portion of the site. The live trapping survey followed survey guidelines (CDFW 2010) and resulted in no MGS detections. The results of this survey expire on July 10, 2024.

5. REFERENCE LIST

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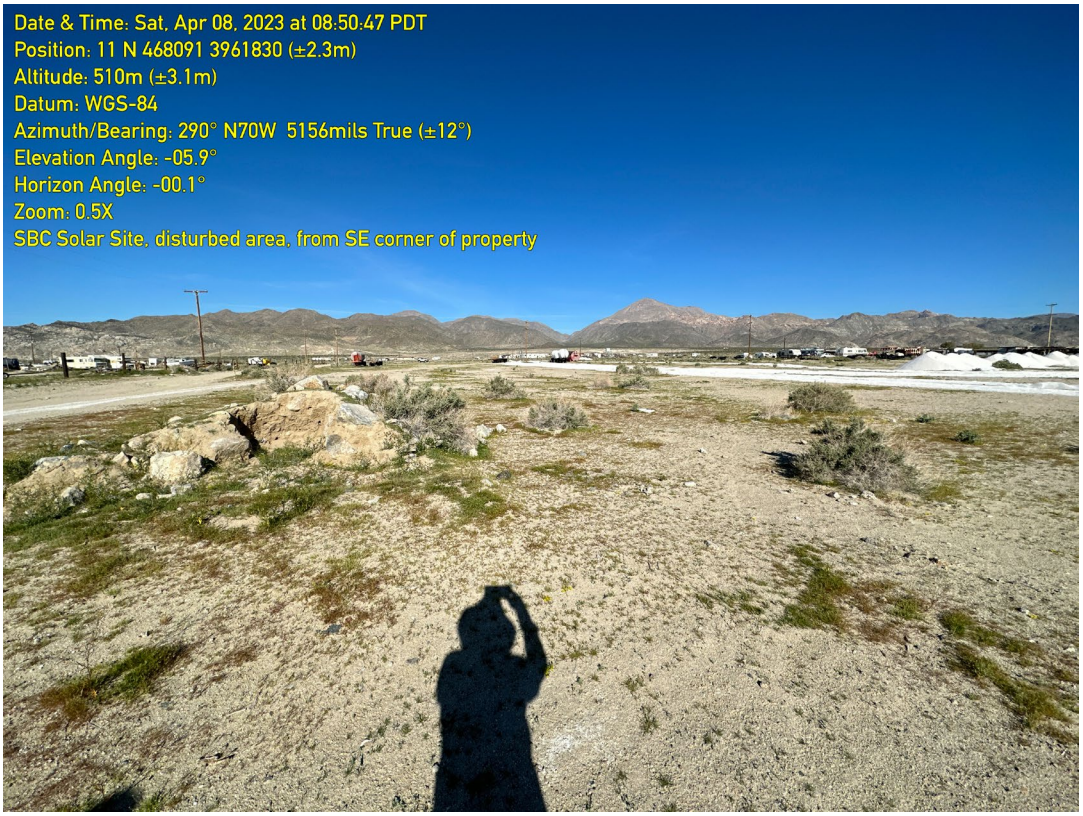
APPENDIX A
Photographs

Photograph 1. *Atriplex polycarpa* Shrubland Alliance at SBC Solar Project Area, from SW corner of western parcel.

Photograph 2. *Atriplex polycarpa* Shrubland Alliance at SBC Solar Project Area, from NE corner of western parcel.

Photograph 3. Disturbed habitat at SBC Solar Project Area, from NW corner of eastern parcel.

Photograph 4. Disturbed habitat at SBC Solar Project Area, from NE corner of eastern parcel.



Photograph 5. Habitat in corner of disturbed area at SBC Solar Project Area, from SE corner of eastern parcel.

Photograph 6. Open desert east of the SBC Solar Project Area.

Photograph 7. Open desert south of the SBC Solar Project Area.

Photograph 8. Open desert west of the SBC Solar Project Area.

APPENDIX B
Plant List

FAMILY SPECIES (Scientific Name)	SPECIES (Common Name)	HABIT
GYMNOSPERMS		
ASTERACEAE	**SUNFLOWER FAMILY**	
Chaenactis carphoclinia var. *carphoclinia*	pebble pincushion	annual herb
Lasthenia gracilis	common goldfields	annual herb
Logfia depressa	hierba limpia	annual herb
Malacothrix coulteri	snake's-head	annual herb
Malacothrix glabrata	desert dandelion	annual herb
Monoptilon bellioides	desert star	annual herb
Rafinesquia neomexicana	desert chicory	annual herb
BORAGINACEAE	**BORAGE FAMILY**	
Cryptantha nevadensis	Nevada cryptantha	annual herb
Eremocarya micrantha var. *micrantha*	desert red-root	annual herb
Johnstonella angustifolia	narrow-leaved johnstonella	annual herb
Pectocarya heterocarpa	mixed-nut pectocarya	annual herb
BRASSICACEAE	**MUSTARD FAMILY**	
Caulanthus lasiophyllus	California mustard	annual herb
Lepidium flavum	yellow peppergrass	annual herb
Sisymbrium irio[2]	London rocket	annual herb
Sisymbrium orientale[2]	Oriental rocket	annual herb
CACTACEAE	**CACTUS FAMILY**	
Opuntia basilaris var. *basilaris*[1]	beavertail	perennial stem succulent
CHENOPODIACEAE	**GOOSEFOOT FAMILY**	
Atriplex hymenelytra[1]	desert holly	shrub
Atriplex polycarpa	allscale	shrub
Stutzis covillei	Coville's orach	annual herb
Suaeda nigra	bush seepweed	subshrub/shrub
LOASACACEAE	**LOASA FAMILY**	
Mentzelia albicaulis	little blazing star	annual herb
MALVACEAE	**MALLOW FAMILY**	
Eremalche rotundifolia	desert fivespot	annual herb
NAMACEAE	**NAMA FAMILY**	
Nama demissa var. *demissa*	purple mat	annual herb
ONAGRACEAE	**EVENING-PRIMROSE FAMILY**	
Camissonia campestris ssp. *campestris*	suncups	annual herb
Chylismia claviformis	brown-eyed primrose	annual herb
Eremothera boothii ssp. *desertorum*	desert evening-primrose	annual herb
POLEMONIACEAE	**PHLOX FAMILY**	
Aliciella latifolia ssp. *latifolia*	broad-leaved aliciella	annual herb
Eriastrum sp.	woolly-star	annual herb
Gilia latiflora	broad-flowered gilia	annual herb
Gilia minor	little gilia	annual herb
Linanthus bigelovii ssp. *johnsonii*	Bigelow linanthus	annual herb
Loeseliastrum matthewsii	desert calico	annual herb
POLYGONACEAE	**BUCKWHEAT FAMILY**	
Chorizanthe rigida	Devil's spineflower	annual herb
SOLANACEAE	**NIGHTSHADE FAMILY**	
Lycium pallidum var. *oligospermum*	rabbit thorn	shrub
MONOCOT FLOWERING PLANTS		
POACEAE	**GRASS FAMILY**	
Hordeum murinum[2]	wall barley	annual grass
Schismus arabicus[2]	Arabian grass	annual grass

[1] CDNPA species
[2] non-native species

APPENDIX C

Mohave Ground Squirrel Survey and Trapping Summary Forms

MOHAVE GROUND SQUIRREL (MGS) SURVEY AND TRAPPING FORM

PART 1 – PROJECT INFORMATION

Project Name: SBC Solar **Company:**

Location (Township, Range, Section): Inyo County, north of Trona. Township 24S, Range 43E, NW quarter of SE quarter Section 32, MBDM.

Quad Map/Series: Trona East, 7.5 Minute Series

UTM Coordinates of Live Trapping Grid Corners (WGS84, Zone 11):

SW 467690E, 3961820N; NW 467690E, 3961920N; SE 467900E, 3961815N; NE 467940E, 3961915N.

UTM Coordinates of Camera Trap Stations (WGS84, Zone 11):

Camera 1: 467695E, 3961822N; Camera 2: 467692E, 3961872N; Camera 3: 467913E, 3961897N.

Acreage of Project Site: 10 acres **Acreage of Potential MGS Habitat on Site:** 6 acres

Total Acreage Visually Surveyed: 10 acres **Date(s) of Visual Survey:** April 8, 2023

Visual Survey Conducted By: Denise LaBerteaux and Bruce Garlinger

Total Acres Trapped: 6 acres **Number of Sampling Grids:** 1

Trapping Conducted By: Bruce Garlinger

Dates of Sampling Term(s):

FIRST April 26-30, 2023; **SECOND** May 10-14, 2023; **THIRD** July 6-10, 2023

PART II – GENERAL HABITAT DESCRIPTION

Vegetation Type: *Atriplex polycarpa* Shrubland Alliance

Dominant Perennials: *Atriplex polycarpa, Atriplex hymenelytra*

Other Perennials: *Suaeda nigra, Lycium pallidum* var*. oligospermum, Opuntia basilaris* var*. basilaris*

Dominant Annuals: *Lepidium flavum, Malacothrix coulteri, Malacothrix glabrata, Schismus* arabicus*.*

Other Annuals: *Chaenactis carphoclinia* var*. carphoclinia, Lasthenia gracilis, Logfia depressa, Malacothrix coulteri, Malacothrix glabrata, Monoptilon bellioides, Rafinesquia neomexicana, Cryptantha nevadensis, Eremocarya micrantha* var*. micrantha, Johnstonella angustifolia, Pectocarya heterocarpa, Caulanthus lasiophyllus, Lepidium flavum, Sisymbrium irio, Sisymbrium orientale, Stutzis covillei, Mentzelia albicaulis, Eremalche rotundifolia, Nama demissa* var*. demissa, Camissonia campestris* ssp*. campestris, Chylismia claviformis, Eremothera boothii* ssp*. desertorum, Aliciella latifolia* ssp*. latifolia, Eriastrum* sp.**,** *Gilia latiflora, Gilia minor, Linanthus bigelovii* ssp*. johnsonii, Loeseliastrum matthewsii, Chorizanthe rigida, Hordeum murinum.*

Land Form: alluvial plain

Soils Description: silty sand, gravel

Elevation: 509-518 m **Slope Aspect:** southeast **Percent Slope:** 0-1%

PART III – WEATHER

Project Name: SBC Solar
Company:

Year: 2023 (Trapping Period 1)

Grid Number: 1

WEATHER (temperature = °C; cloud cover = %; wind speed = km/hr)

DATE: 4/26/23 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	13.2	0600
AIR TEMPERATURE, MAX.	32.0	1300
SOIL TEMPERATURE, MIN.	10.1	0600
SOIL TEMPERATURE, MAX.	32.6	1300
CLOUD COVER, AM	20	0800
CLOUD COVER, PM	10	1200
WIND SPEED, AM	3	0800
WIND SPEED, PM	17	1200

DATE: 4/27/23 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	13.8	0600
AIR TEMPERATURE, MAX.	33.2	1300
SOIL TEMPERATURE, MIN.	11.3	0600
SOIL TEMPERATURE, MAX.	33.4	1300
CLOUD COVER, AM	0	0800
CLOUD COVER, PM	0	1200
WIND SPEED, AM	1	0800
WIND SPEED, PM	5	1200

DATE: 4/28/23 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	13.9	0600
AIR TEMPERATURE, MAX.	32.5	1200
SOIL TEMPERATURE, MIN.	12.4	0600
SOIL TEMPERATURE, MAX.	33.7	1200
CLOUD COVER, AM	0	0800
CLOUD COVER, PM	0	1200
WIND SPEED, AM	4	0800
WIND SPEED, PM	4	1200

DATE: 4/29/23 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	15.5	0600
AIR TEMPERATURE, MAX.	32	1300
SOIL TEMPERATURE, MIN.	14.9	0600
SOIL TEMPERATURE, MAX.	31.2	1300
CLOUD COVER, AM	0	0800
CLOUD COVER, PM	0	1200
WIND SPEED, AM	2	0800
WIND SPEED, PM	3	1200

DATE: 4/30/23 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	17.1	0600
AIR TEMPERATURE, MAX.	32.0	1300
SOIL TEMPERATURE, MIN.	15.2	0600
SOIL TEMPERATURE, MAX.	30.6	1300
CLOUD COVER, AM	20	0800
CLOUD COVER, PM	30	1200
WIND SPEED, AM	3	0800
WIND SPEED, PM	7	1200

PART III – WEATHER

Project: SBC Solar
Company:

Year: 2023 (Trapping Period 2)

Grid Number: 1

WEATHER (temperature = °C; cloud cover = %; wind speed = km/hr)

DATE: 5/10/2023 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	10.5	0600
AIR TEMPERATURE, MAX.	28.9	1700
SOIL TEMPERATURE, MIN.	8.8	0600
SOIL TEMPERATURE, MAX.	29.5	1700
CLOUD COVER, AM	20	0800
CLOUD COVER, PM	0	1200
WIND SPEED, AM	3	0800
WIND SPEED, PM	10	1200

DATE: 5/11/2023 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	11.1	0600
AIR TEMPERATURE, MAX.	32.0	1500
SOIL TEMPERATURE, MIN.	10.7	0600
SOIL TEMPERATURE, MAX.	31.7	1500
CLOUD COVER, AM	10	0800
CLOUD COVER, PM	5	1200
WIND SPEED, AM	3	0800
WIND SPEED, PM	7.4	1200

DATE: 5/12/2023 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	13.3	0600
AIR TEMPERATURE, MAX.	32	1300
SOIL TEMPERATURE, MIN.	11.6	0600
SOIL TEMPERATURE, MAX.	31.3	1300
CLOUD COVER, AM	0	0800
CLOUD COVER, PM	0	1200
WIND SPEED, AM	1	0800
WIND SPEED, PM	11	1200

DATE: 5/13/2023 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	17.4	0600
AIR TEMPERATURE, MAX.	31.8	1200
SOIL TEMPERATURE, MIN.	15.8	0600
SOIL TEMPERATURE, MAX.	29.9	1200
CLOUD COVER, AM	20	0800
CLOUD COVER, PM	10	1200
WIND SPEED, AM	7.6	0800
WIND SPEED, PM	21.2	1200

DATE: 5/14/2023 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	17.8	0600
AIR TEMPERATURE, MAX.	31.6	1100
SOIL TEMPERATURE, MIN.	15.1	0600
SOIL TEMPERATURE, MAX.	30.7	1100
CLOUD COVER, AM	10	0800
CLOUD COVER, PM	5	1200
WIND SPEED, AM	4.3	0800
WIND SPEED, PM	12.6	1200

PART III – WEATHER

Project Name: SBC Solar
Company:

Year: 2023 (Trapping Period 3)

Grid Number: 1

WEATHER (temperature = °C; cloud cover = %; wind speed = km/hr)

DATE: 7/6/2023 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	20.4	0530
AIR TEMPERATURE, MAX.	33.5	1100
SOIL TEMPERATURE, MIN.	19.8	0530
SOIL TEMPERATURE, MAX.	33.1	1100
CLOUD COVER, AM	0	0800
CLOUD COVER, PM	0	1100
WIND SPEED, AM	0	0800
WIND SPEED, PM	2.3	1100

DATE: 7/7/2023 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	21.1	0530
AIR TEMPERATURE, MAX.	32.1	1100
SOIL TEMPERATURE, MIN.	18.6	0530
SOIL TEMPERATURE, MAX.	31.6	1100
CLOUD COVER, AM	0	0800
CLOUD COVER, PM	0	1100
WIND SPEED, AM	2.3	0800
WIND SPEED, PM	2.7	1100

DATE: 7/8/2023 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	19.4	0530
AIR TEMPERATURE, MAX.	32.1	1100
SOIL TEMPERATURE, MIN.	18.5	0530
SOIL TEMPERATURE, MAX.	31.9	1100
CLOUD COVER, AM	0	0800
CLOUD COVER, PM	0	1100
WIND SPEED, AM	1.1	0800
WIND SPEED, PM	4.6	1200

DATE: 7/9/2023 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	19.5	0530
AIR TEMPERATURE, MAX.	32.8	1100
SOIL TEMPERATURE, MIN.	18.4	0530
SOIL TEMPERATURE, MAX.	31.9	1100
CLOUD COVER, AM	0	0800
CLOUD COVER, PM	0	1100
WIND SPEED, AM	8.3	0800
WIND SPEED, PM	5.7	1200

DATE: 7/10/2023 **ACTIVITY:** trapping

WEATHER CONDITION	VALUE	TIME
AIR TEMPERATURE, MIN.	19.3	0530
AIR TEMPERATURE, MAX.	31.8	1000
SOIL TEMPERATURE, MIN.	18.1	0600
SOIL TEMPERATURE, MAX.	31.5	1000
CLOUD COVER, AM	0	0800
CLOUD COVER, PM	0	1200
WIND SPEED, AM	1.2	0800
WIND SPEED, PM	1.7	1200

APPENDIX D
CNDDB Form

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95814
Fax: (916) 324-0475 email: WHDAB@dfg.ca.gov

For Office Use Only
Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work *mm/dd/yyyy:* 07/10/2023

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Xerospermophilus mohavensis*

Common Name: Mohave Ground Squirrel

Species Found? ☐ Yes ☑ No _____ If not, why?

Total No. Individuals 0 Subsequent Visit? ☑ yes ☐ no
Is this an existing NDDB occurrence? _____ ☑ no ☐ unk.
Yes, Occ. #

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: EREMICO Biological Services, LLC
Address: PO Box 1057
Weldon, CA 93283
E-mail Address: eremicobiologicalservices@gmail.com
Phone: (760) 617-6306

Plant Information

Phenology: _____ % vegetative _____ % flowering _____ % fruiting

Animal Information

0	0			
# adults	# juveniles	# larvae	# egg masses	# unknown

☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

Site is about 3 miles NNE of Trona in extreme southern Inyo County. APNs 038-340-20 and 038-340-21; physical address 2500 Bri-Mar Lane.

County: Inyo Landowner / Mgr.: Private
Quad Name: Trona East Elevation: 509-518 m
T 24S R 43E Sec 32 , NW ¼ of SE ¼, Meridian: H☐ M☑ S☐ Source of Coordinates (GPS, topo. map & type): GAIA APP
T____ R ___ Sec ____ , ____ ¼ of _____ ¼, Meridian: H☐ M☐ S☑ GPS Make & Model _____
Datum: NAD27☐ NAD83☐ WGS84☑ Horizontal Accuracy 3 meters meters/feet
Coordinate System: UTM Zone 10☐ UTM Zone 11☑ *OR* Geographic (Latitude & Longitude)☐
Coordinates: Easting/Longitude see comments Northing/Latitude see comments

Habitat Description *(plant communities, dominants, associates, substrates/soils, aspects/slope):*

Atriplex polycarpa Shrubland Alliance with Atriplex hymenelytra (common), Suaeda nigra, Lycium pallidum var. oligospermum, Opuntia basilaris var. basilaris. Alluvial plain 0-1% slope. Aspect SE. Silty sand with gravelly surface. Annuals included Lepidium flavum, Malacothrix coulteri, Malacothrix glabrata, Schismus arabicus, Chaenactis carphoclinia, Rafinesquia neomexicana, Cryptantha nevadensis, Eremocarya micrantha Johnstonella angustifolia, Caulanthus lasiophyllus, Sisymbrium irio, Sisymbrium orientale, Stutzis covillei, Mentzelia albicaulis, Camissonia campestris, Eremothera boothii ssp. desertorum, Aliciella latifolia, Eriastrum sp.

Other rare taxa seen at THIS site on THIS date:

Site Information Overall site quality: ☐ Excellent ☑ Good ☐ Fair ☐ Poor

Current / surrounding land use: Open desert with dirt roads, distribution lines; disturbed storage area; rural residents to north and south; open desert to west and east.

Visible disturbances: Dirt roads have moderate use. Vehicles and crushed limestone being stored on site. 40% of site (4 acres) denuded.

Threats: OHV activities; more storage of crushed limestone; proposed solar development

Comments: 10-acre site. 6 acres trapped. Corners of trapping grid: SW 467690E, 3961820N; NW 467690E, 3961920N; SE 467900E, 3961815N; NE 467940E, 3961915N. 100-trap grid trapped Apr 26-30, 2023, May 10-14, 2023, and July 6-10, 2023. Trapping conducted by Bruce Garlinger.

Determination: *(check one or more, and fill in blanks)*
☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	☐	☐	☐
Habitat	☐	☐	☑
Diagnostic feature	☐	☐	☐

May we obtain duplicates at our expense? ☑ yes ☐ no

FG/WHDAB/1747 Rev.10/20/03