Appendix C1 Biological Resources Technical Report

McCullough-Victorville Transmission Lines 1&2 Project

Biological Resources Technical Report

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Attachments

- Attachment A: Figures
- Attachment B: Representative Site Photos
- Attachment C: Plant Species Observed within the Project Area
- Attachment D: Wildlife Species Observed within the Project Area
- Attachment E: Jurisdictional Delineation

1.0 Executive Summary

This report describes the biological resources present or potentially present on the Los Angeles Department of Water and Power (LADWP) McCullough-Victorville Transmission Lines 1 & 2 Project alignments (Project). Each Line extends approximately 160 miles, from the McCullough Switching Station, located near Henderson, Nevada, to the Victorville Switching Station, located in Victorville California (see Attachment A, Figure 1). The Project is divided into two segments: California and Nevada. The Nevada segment spans from the McCullough Substation to Line 1 Tower 27-5 and Line 2 Tower 26-7. The California segment spans from Line 1 Tower 27-6 and Line 2 Tower 27-1 to the Victorville Switching Station.

Focused biological field surveys were conducted from April to June 2021 and April and May 2024. A total of 27 vegetation and cover types were identified within the Project Area, five sensitive natural communities were identified within the California Segment. These communities include Acton's and Virgin River brittle brush - net-veined goldeneye scrub (S3 Vulnerable Ranking), Fermont's smokebush – Nevada smokebush scrub (S3 Vulnerable Ranking), Fremont cottonwood forest and woodland (S3.2 Vulnerable Ranking), Nevada joint fir - Anderson's boxthorn - spiny hop sage scrub (S3S4 Vulnerable Ranking), and Joshua tree woodland (S3 Vulnerable Ranking).

Two Federally or State Listed plants were observed:

- Blue diamond cholla (*Cylindropuntia multigeniculata*) is a Nevada listed Critically Endangered Plant and BLM-designated Sensitive Plant. A single blue diamond cholla was observed within the Project Area at Line 1 Tower 10-1.
- Western Joshua tree (*Yucca brevifolia* var. *brevifolia*), a California State Candidate Species, was observed along the project alignment. Western Joshua trees occur within the Project Area from south of Dale Evans Parkway and northwest of North D Street in Victorville, California.

Eleven special-status plants (Bureau of Land Management [BLM] S, Nevada Department of Natural Heritage [NDNH] CY, California Rare Plant Rank [CRPR] 1B, 2B) have been recorded in the Project Area:

- Tidestrom's milkvetch (Astragalus tidestromii),
- Three-awned grama (Bouteloua trifida),
- Desert pincushion (Coryphantha chlorantha),
- Viviparous foxtail cactus (Coryphantha vivipara var. rosea),
- Harwood's eriastrum (Eriastrum harwoodii),
- Parish's club-cholla (Grusonia parishii),
- Polished blazing star (Mentzelia polita),
- Creamy blazing star (Mentzelia tridentata)
- Rosy two-toned beardtongue (Penstemon bicolor ssp. roseus),
- Mojave fishhook cactus (Sclerocactus polyancistrus), and
- Rusby's desert-mallow (Sphaeralcea rusbyi var. eremicola).

In addition, seven plants recognized as "watch-list" species (CRPR 4) have been recorded in the Project Area:

- Ashen forget me not (*Cryptantha costata*),
- Black grama (Bouteloua eriopoda),
- Cespitose evening-primrose (Oenothera cespitosa ssp. crinite),
- Clark Mountain buckwheat (Eriogonum heermannii var. floccosum),

- Clark Mountain agave (Agave utahensis var. nevadensis),
- Naked-stemmed daisy (Enceliopsis nudicaluis var. nudicaulis) and
- Utah mortonia (Mortonia utahensis).

Potential for occurrence for all other special-status plants (not observed during surveys) is summarized in Table 3.

Federally or State listed, or State Fully Protected Species (Title 14) wildlife species were observed:

- Desert tortoise (*Gopherus agassizii*) is a Federally Threatened, California State Threatened, Nevada State Listed Threatened Reptile and BLM-designated Sensitive wildlife species was observed in both segments of the Project Area.
- Desert kit fox (*Vulpes macrotis arsipus*) is a State of California Fully Protected Furbearing mammal (Title 14). This species was detected at several locations along the right of way and should be expected to occur along most of the alignment.

BLM Sensitive wildlife species were observed within the Project Area:

- Golden eagle (Aquila chrysaetos),
- Burrowing owl (Athene cunicularia),
- Loggerhead shrike (Lanius ludovicianus),
- Le Conte's thrasher (*Toxostoma lecontei*),
- Long-nosed leopard lizards (Gambelia wislizenii), and
- Common chuckwalla (*Sauromalus ater*).

Potential for occurrence for all other special-status wildlife (not observed during surveys) is summarized in below and they may occur in or around the alignment. Potential occurrence for all other special-status wildlife is summarized in Table 5.

2.0 Introduction

This report was prepared to characterize the biological resources that are present or potentially present on the proposed right of way for the Los Angeles Department of Power and Water (LADWP) 500 kilovolt (kV) McCullough-Victorville transmission lines Retrofit Project (MCC-VIC 1 & 2; Project). These transmission lines extend approximately 160 miles from McCullough Substation, located outside of Henderson, NV to Victorville Substation in Victorville, CA (see Attachment A, Figures 1 & 2). The Project is intended to increase the capacity of MCC-VIC 1 & 2 to allow for additional renewable energy transmission.

Biological information was obtained through a review of literature, geospatial analysis, field surveys, and consultation with local biologists and regional experts. The work was conducted by Aspen Environmental Group (Aspen) between April 19 and June 17, 2021 and between April 15 and May 9, 2024. Due to the Project occurring in two states with different jurisdictions, biological resources were considered separately into two segments: California and Nevada. The Nevada segment spans from the McCullough Substation to Line 1 Tower 27-5 and Line 2 Tower 26-7. The California segment spans from Line 1 Tower 27-6 and Line 2 Tower27-1 to the Victorville Switching Station.

3.0 Project Overview

The Project extends between the McCullough Substation and the Victorville Substation with 1,759 towers on both alignments (876 towers along Line 1, 863 towers along Line 2) over approximately 160-miles. The

Henderson Substation is approximately 16.5 miles south of the City of Henderson in Clark County, NV. The Victorville Substation is located within the northern region of the City of Victorville in San Bernardino County, CA (Attachment A, Figure 2).

To increase the capacity of MCC-VIC 1 & 2 to allow for additional renewable energy transmission, the Project is expected to involve the re-tensioning of conductors, replacement of existing conductors, replacement of insulators and hardware assemblies, and upgrading or installing additional grounding. Additional improvements associated with the Project may consist of raising existing transmission towers, replacing transmission towers, replacing tower footings, and replacing tower steel members.

3.1 Project Setting

The Project is in the Mojave Desert, a hot, dry desert region south of the Sierra Nevada Mountains and east-northeast of the Transverse Ranges. Climate conditions are characterized by large fluctuations in daily temperature, high seasonal winds, and low humidity. Annual precipitation ranges from three to six inches and mainly occurs in the winter and spring months. Unique years can generate increased rainfall, when subtropical air from the south moves into the area and creates monsoonal thunderstorms. Alternatively, years of drought can yield average rainfall of less than one inch for the entire year. The region also receives periodic snowfall during cold winter storms. Elevations in the Mojave Desert range from about 280 feet above mean sea level (amsl) near Death Valley to approximately 8,000 feet amsl near Clark Mountain. However, the majority of the Mojave Desert ranges between 2,000 feet and 5,000 feet amsl, characteristic of the High Desert found throughout the Mojave.

The Mojave Desert is characterized by widely scattered steep mountain ranges, dry lakes (playas), relatively flat plains (basins), bajadas (alluvial fans or debris flows), intermittent drainages, sand sheets, and volcanic landforms. The Project route crosses multiple bajadas, intermittent drainages, dry lakes, and mountains.

The Project route crosses largely undeveloped federal lands under the jurisdiction of the Bureau of Land Management (BLM). National monuments, wilderness areas, Important Bird Areas, California Desert Conservation Areas (CDCA), and Desert Renewable Energy Conservation Plan (DRECP) areas are located near, but not within, the Project route. The Project also crosses rural and low-density residential areas on non-federal land in San Bernardino County, California and Clark County, Nevada.

There are several BLM designated conservation lands that overlap the Project route. These include Areas of Critical Environmental Concern and Designated Essential Connectivity Areas. Within the Project area, the Clark Mountain Area of Critical Environmental Concern was established to prevent significant damage to important ecological and cultural resources. Designated Essential Connectivity Areas are largely owned by BLM to protect undisturbed habitat that serve as critical connectivity points to support wildlife movement and gene flow (Audubon, 2014). These include the Mid Hills/Ivanpah, Valley/New York, Mountains-Calico Mountains, and the San Bernardino Mountains -Calico Mountains Essential Connectivity Areas (Attachment A, Figure 8).

The Project Area falls within two multi-jurisdictional habitat conservation plans. The proposed Town of Apple Valley Multi-Species Conservation Plan Area is still in the planning process but may be completed during Project activity. The Nevada segment of the Project is located within the Clark County Multiple Species Habitat Conservation Plan (MSHCP) area. Together with BLM conservation lands, they help protect the highly diverse species and habitat present within the Mojave Desert.

The Project route also overlaps with USFWS-designated critical habitat for the desert tortoise (*Gopherus agassizii*) within the Ivanpah, Superior-Cronese, Ord-Rodman and Piute-Eldorado critical habitat units, and southwestern willow flycatcher (*Empidonax traillii extimus*) within the Mohave River Critical habitat unit. Critical Habitat is defined as the specific areas within the geographical range occupied by the species that possess the physical or biological features essential for the conservation of the species and that may require special management protection. The desert tortoise requires gentle-sloping sandy-gravel desert scrub habitat and southwestern willow flycatcher requires relatively riparian tree and scrub habitat within the 100-year floodplain with low-ground vegetation for nesting (USFWS, 1994; USFWS, 2013; USFWS, 2014).

4.0 Methods

This section provides a description of the methodologies used to locate and assess biological resources in the Project Area. For this report, the following designations apply:

- **Project Area or Survey Area:** Refers to the 120-foot buffer around each tower location that may be potentially subjected to repair and operation and maintenance of the Project. The Project Area also includes access roads that were used for ingress/egress to, and along, the corridor plus a 10-foot buffer from the shoulder of the access roads (see Attachment A, Figure 2).
- **Project Vicinity:** Refers to the Project Area and a 0.5-mile buffer.
- **Study Area:** Refers to the Project Area and a 5-mile buffer (used to establish a regional biological baseline).

Aspen conducted a review of existing online and published literature and collaborated with the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), BLM, Nevada Department of Natural Heritage (NDNH), and local experts to determine a regional baseline of biological conditions in the broader Study Area. Biological information was also collected through extensive field investigations including plant community mapping, floristic surveys for sensitive plants, and reconnaissance surveys for wildlife in the more defined Project Area (collectively referred to as the "the 2021 and 2024 surveys"). The methods were developed to use all available data related to biological resources to the extent possible and to independently review, verify, and supplement this data to compile a concise and accurate description of the baseline biological conditions within the Project Area.

The survey methodologies were developed in consideration of several factors including:

- The expansive Project Area, which includes 1,759 towers on both alignments and over 160-miles of utility Right-of-Way (ROW) and access roads dispersed across Clark County, NV and San Bernardino County, CA.
- Multiple federal and private land managers including the California BLM, Nevada BLM, and private landowners and residential properties.
- The presence of numerous special-status plants, vegetation communities, soil types, aquatic features, and wildlife.
- The cryptic nature of some wildlife species and changing distribution in the Project Area.
- The floristic patterns of rare plants and varying plant expressions throughout the region given the rainfall patterns in 2020 and 2021.

4.1 Pre-Field Training and Field Surveys

Prior to the initiation of the 2021 and 2024 surveys, each of the botanists and wildlife biologists conducted training on the special-status species known to or expected to occur in the Study Area; use of the tablet and global positioning system (GPS) units (the Arrow 100 GPS unit and an iPad with Environmental Systems Research Institute [ESRI] Collector software); data collection methods; fire safety measures; personal safety requirements; and communication protocols. Training was conducted to ensure each of the biologists collected data in a uniform manner.

4.2 Field Surveys

Aspen surveys and QA/QC reviews occurred between April and June 2021. Additional botanical surveys were conducted April 15-19, 29-30, May 1 and 9, 2024 at various locations with the Project Area. After the 2021 surveys, the Project Area expanded to include additional areas to be impacted during construction; therefore, additional surveys were conducted to reflect the changes in Project Scope. Surveys were conducted by experienced biologists familiar with the resources that occur in Southern California and Nevada. Survey crews were placed into teams of two or three biologists and consisted of one wildlife biologist and up to two botanists. Each of the teams were responsible for surveying the 120-foot Project Area and all designated access roads and buffers. Access roads were surveyed 10 feet from the shoulder of the access roads. Crews surveyed all accessible areas of the ROW. Areas that were not accessible were surveyed with binoculars and spotting scopes.

4.3 Survey Assumptions

Field protocols focused on the collection of botanical and vegetation data. Due to the large Project Area, limited survey window, and uncertainty of detecting wildlife, a habitat-based approach was used to assess the occurrence potential for special-status wildlife. This method recognizes that many species of wildlife are expected to occur in each area but may not be detected by the surveys under this biological assessment effort. General assumptions and methods included the following.

- If there was uncertainty regarding the presence of a species, presence was assumed based on habitat.
- iPads were equipped with a data dictionary, showing all expected habitats and species on a dropdown menu.
- Survey teams consisted of one senior wildlife biologist and one or two senior botanists.
- The wildlife biologist walked in front of the botanists to identify species before or while they flushed.
- Botanists walked meandering transects and focused on micro-habitat, soils, and other features.
- All accessible areas were surveyed. Inaccessible areas were investigated with binoculars or spotting scopes and mapped accordingly.
- Drainages, culverts, road ditches, streams, and other potential aquatic features were mapped and evaluated during the wetland and waters assessment.
- Important snags, middens, nests, burrows, and other features were mapped.

Literature Search 4.4

Special-status biological resources known to, or with the potential to, occur in the Study Area were identified through a review of existing literature sources including U.S. Geological Survey (USGS) topographic maps, aerial photography, CDFW California Natural Diversity Database (CNDDB) and the Nevada Natural Heritage Program Maps and Data. The project spans 30 USGS 7.5' topographic quadrangles. These include:

- Alvord Mtn. East
- Alvord Mtn. West
- Apple Valley North
- Barstow SE
- Bitter Spring
- Clark Mountain
- Cronese Lakes
- Daggett
- Desert
- Dunn

- East Of Kingston Spring
- Harvard Hill
- Ivanpah Lake
- Kingston Spring
- McCullough Mountain NE
- McCullough Pass
- Minneola
- North Of Baker
- Pachalka Spring
- Red Pass Lake

- Roach
- Silurian Valley
- Sloan SE
- State Line Pass
- Stoddard Well
- Turguoise Mountain
- Turtle Valley
- Victorville
- West Of Baker
- Yermo

In addition, 28 USGS 7.5' topographic quadrangles within a five-mile buffer of the Project Area were assessed during the literature review. These include:

- Adelanto
- Baker
- Boulder City SW
- Cave Mountain
- Covote Lake
- East Of Langford Well
- Fairview Valley
- Halloran Springs
- Helendale
- Hesperia

- Hidden Valley
- Hodge
- Jean
- Keyhole Canyon
- Manix
- Mccullough Mountain
- Mesquite Lake
- Mesquite Mountains
- Nebo

- Newberry Springs
- Ord Mountain
- Red Pass Lake NE
- Silurian Hills
- Solomons Knob
- Valley Wells
- West Of Red Pass Lake
- West Of Soda Lake
- West Ord Mountain
- Additional data regarding the potential occurrence of special-status species and policies relating to these sensitive natural resources were gathered from several other sources including but not limited to the following:
 - California Natural Diversity Database (CNDDB, CDFW 2021a),
 - State and federally listed endangered and threatened Plants of California (CDFW, 2021b),
 - Special Animals List (CDFW, 2021c),
 - California Wildlife Habitat Relationships (CDFW, 2021d),
 - California List of Natural Communities (CDFW, 2024),
 - Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2021),
 - Consortium of Herbaria (CCH, 2021),
 - BLM NV Special Status Species List (BLM, 2023),
 - BLM CA Special Status in CA, Including BLM Designated Sensitive Species (BLM, 2019),
 - BLM CA Plant Special Status Species List (BLM, 2023),
 - Nevada At-Risk Plant and Animal Tracking List (NDNH, 2021a),
 - Nevada Plant and Animal Watch List (NDNH, 2021b),

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- Nevada Natural Heritage Program Maps and Data (NDNH, 2021c),
- Aerial photographs of the Project site and surrounding areas (October 2020, April 2020, February 2020, May 2018, July 2016, and August 2014).

4.5 **Biological Surveys and Habitat Assessments**

Biological surveys/habitat assessments were conducted in the Project Area between April and June 2021 and April 2024. The surveys were conducted by experienced biologists familiar with the resources expected to occur in the broader Study Area and were completed at times and conditions when wildlife species were active and when most plants were flowering.

4.6 Botanical Surveys and Vegetation Mapping

4.6.1 Sensitive Plants

The botanical surveys were conducted according to the most recent CDFW survey protocols (CDFW, 2018a) with several exceptions discussed in the following paragraphs. The surveys were (a) floristic in nature, (b) consistent with conservation ethics, and (c) inclusive of all habitat types within the Project Area. The surveys were floristic in nature and were performed during the time of year when most species would be detectable. Reference occurrences were not checked because of the large scale of the Project and because of the number of target species.

Annual rainfall in 2020/2021 may not have been adequate for some rare annuals to have germinated and for perennial herbs to have flowered. Although several rare species of annual and perennial herbs were detected during surveys, it is likely that additional species or populations would be present within the Project Area during an average rain year. All areas that were accessible were surveyed. Surveys were not conducted where the terrain posed a safety risk to the biologists.

The Project Area was surveyed by botanists walking loosely spaced parallel transects throughout accessible portions, with particular attention given to areas of suitable habitat for special-status plant species. All plant species observed were identified in the field or collected for later identification. Plants were identified using keys, descriptions, and illustrations in Baldwin et al. (2012), the Jepson Flora project (2021), and other regional references. In conformance with CDFW (2018a), Attachment C (Plant Species Observed Within the Project Area) contains a list of all the plant species identified during the 2021 surveys.

4.6.2 Vegetation Mapping

Vegetation maps were prepared by drawing tentative vegetation type boundaries onto high-resolution aerial images in the field on tablets using a sub-meter Arrow GPS unit and an iPad with a Collector application. Mapping was done electronically using ArcGIS (Version 10) and a 22-inch-diagonal flat screen monitor with aerial photos. Vegetation descriptions and names are based on nomenclature used *A Manual of California Vegetation* (Sawyer et al., 2009) (See Attachment A, Figure 3).

4.7 Wildlife Surveys and Habitat Assessments

The focus of the faunal species surveys was to identify habitat suitability for special-status wildlife that have the potential to occur within the Project Area. Habitat assessments were conducted to predict those species with a higher probability of occurrence. Species not identified in the field were not excluded from the analysis. Attachment D (Wildlife Species Detected Within the Project Area) contains a list of all the wildlife species identified during the 2021 and 2024 surveys.

Invertebrates

Biologists periodically searched for terrestrial insects and other invertebrates on flowers and leaves, under loose bark, and under stones and logs on the ground throughout the Project Area. Butterflies and other aerial species were noted when observed. Randomly selected areas within appropriate micro-habitats (i.e., leaf litter, underneath felled logs, etc.) were visually inspected to determine the presence/absence of gastropods.

Reptiles

Reptiles were observed opportunistically during the 2021 surveys. Reptiles were searched for by visually inspecting micro-habitat sites (i.e., basking sites, rock outcrops, leaf litter, wood piles, etc.). Nocturnal surveys, acoustic surveys, dip netting, and seining, were not conducted during the 2021 surveys. For desert tortoise, biologists recorded the location (Latitude/Longitude), sex (if possible), approximate size (\geq or < 180-millimeter[mm] midline carapace length [MCL]) for all desert tortoise observed. For all other tortoise sign observed within the Project Area, biologists recorded the location, type of sign (burrow, scat, tracks, or carcass), and class of sign (Class 1 to 5, using definitions described in USFWS 1992 and 2009), as applicable.

Birds

Focused (non-protocol) surveys for birds were conducted, with an emphasis on the period from dawn to 11:00 a.m., and at dusk during calm, non-windy conditions. Bird species were identified by sight and sound.

Terrestrial Mammals

Terrestrial mammal surveys were conducted within specific areas containing suitable micro-habitat. Biologists recorded all animal observations and visually searched for animal signs (i.e., scat, footprints, fur, middens, burrows, etc.). Surveys for bats were not conducted, although a variety of bat species are known to occur in the Mojave Desert.

5.0 Results

5.1 Weather Data

Climate in the region is dominated by hot, dry summers and warm, dry winters. Average annual high temperatures in the California segment vary from 79°F in Victorville to 84°F in Baker; while average annual low temperatures vary from 46°F in Victorville to 54°F in Baker (U.S. Climate Data, 2021). The Nevada segment has an average annual high temperature of 77°F in Henderson; with an average annual low temperature of 48°F (U.S. Climate Data, 2021).

Rainfall typically falls in the region from December through March and occasionally during the late summer when monsoonal moisture pushes west from Arizona and Nevada. Average rainfall in the California segment near Barstow, approximately 1 mile east of the alignment is 5.30 inches (U.S. Climate Data 2018). The rainfall total for the 2020-2021 rainfall year (July-June) in Barstow was 1.11 inches, approximately 21 percent of the annual average (NOAA 2021). Average rainfall in the Nevada segment near Las Vegas, approximately 16 miles north of the alignment is 4.19 inches (U.S. Climate Data, 2018). The rainfall total for the 2020-2021 rainfall year (July-June) in Las Vegas was 0.91 inches, approximately 22 percent of the average (NOAA, 2021).

5.2 Habitat and Land Use

The Nevada segment of the Project Area is located within the southern portion of Clark County, NV, while the California segment is in the northeast to southwest portion of San Bernardino County, CA. Site elevations range from approximately 920 to 4,830 feet amsl. Topography ranges from relatively flat dry lake beds, playas, and open desert to rolling desert foothills and steep mountain slopes. Within the Project Area, desert washes and alluvial fans convey flows into dry lakes and the Mojave River.

Most of the Project Area is located on lands administered by the BLM and consists of natural and Offhighway Vehicle (OHV) areas. Areas of residential and commercial development (agricultural areas) are located within the portions of the Project Areas located near the Cities of Barstow and Victorville. Most of the Project Area is accessible to the public and provides aesthetic and recreational value to the community. The Clark Mountains are considered an important ecological resource in the region and provides habitat for resident and migratory wildlife species as well as many rare plant species. The Project Area provides habitat for special status plants and wildlife documented to occur within the vicinity.

Land uses adjacent to the Project Area are like those identified within the Project Area and includes OHV areas, natural areas, renewable energy generation facilities, agriculture, and commercial and residential areas. Agricultural land borders the Project Area near the Mojave River east of the City of Barstow. Portions of the California segment of the Project Area are located within the Stoddard Valley OHV Area south of the City of Barstow. The Victorville Landfill is located to the south of the Project Area along Stoddard Wells Road. Commercial development is located along the southern end of the Study near the Victorville Switching Station and in the Nevada segment near Primm. Renewable energy facilities including Ivanpah Solar Electric Generating System, State line Solar, Silver State North Solar and the Silver State South Solar are located near the northeastern portion of the Project Area. Private residences are located along the Project Area north of Dale Evans Parkway east of the City of Victorville.

5.3 Vegetation

Vegetation within the Project Area is determined by biotic and abiotic factors including elevation, aspect, proximity to water, and landforms or soil types. Generally, these vegetation communities can be classified into riparian and upland communities. Vegetation communities were mapped using *A Manual of California Vegetation* (Sawyer et al, 2009). A few areas do not fall within a community described by Sawyer et al, such as areas subject to disturbance and maintenance, or in areas that have little to no vegetation. These areas have been listed as 'other cover types' and are fully described in section 5.3.1 Vegetation Types.

Riparian habitats are biologically productive and diverse and are habitat for several special-status wildlife species. Many species are dependent on riparian habitats throughout their life cycles, while others may use these habitats during certain seasons or life phases.

In an otherwise arid landscape, primary productivity in riparian habitats is higher due to increased soil moisture. High plant productivity leads to increased habitat structural diversity and increased food availability for herbivorous animals, and in turn, predatory animals (Faber, 1989). During warmer months, large numbers of insects provide a prey base for diverse bird fauna. Structural diversity is also much more evident in riparian systems than those of most regional uplands.

Upland plant communities consist of plant species that are adapted to drier conditions and typically require only seasonal precipitation to obtain adequate water resources for growth and reproduction. Away from these water sources and onto adjacent slopes, the vegetation transitions to upland vegetation dominated by various shrublands.

During the 2021 and 2024 surveys, a total of 27 vegetation and cover types were identified within the Project Area. A total of 18 distinct vegetation communities and five cover types are present within the California segment; while 11 distinct vegetation communities and two cover types are present within the Nevada segment (see Table 1). A complete list of vegetation and cover types observed is provided below in Table 1. In general, the alignment is vegetated by desert shrubs that are typical for this region. Dominant species include creosote bush (Larrea tridentata), brittle bush (Encelia farinose), white bursage (Ambrosia dumosa), cheesebush (Ambrosia salsola), Joshua tree (Yucca brevifolia) and Mohave yucca (Yucca schidigera).

5.3.1 Vegetation Types

Vegetation and habitats in the Project Area are dominated by xeric and desert communities with scattered agricultural lands in the western portion of the Project Area. Vegetation communities and land cover types occurring within the Project Area are presented in Table 1 and illustrated in Attachment A, Figure 3.

Vegetation and Land Cover Types	Type ¹	Acres CA	Acres NV	Total Acres	Percentage of Total Acreage (%)
Acton's and Virgin River brittle brush - net-veined goldeneye scrub	Upland	0.65	0.00	0.65	0.02
Allscale scrub	Upland	19.40	11.98	31.38	0.96
Black brush scrub	Upland	2.51	0.00	2.51	0.08
Buckhorn cholla/big galleta grass scrub	Upland	0.00	24.20	24.20	0.74
Catclaw acacia - desert lavender - chuparosa scrub	Riparian	5.41	0.81	6.22	0.19
Cheesebush - sweetbush scrub	Riparian	9.11	6.84	15.95	0.49
Creosote bush - brittle bush scrub	Upland	0.00	19.25	19.25	0.59
Creosote bush scrub	Upland	1,429.73	16.96	1,446.69	44.35
Creosote bush - white bursage scrub	Upland	302.50	344.84	647.34	19.85
Death Valley joint fir scrub	Upland	0.00	1.25	1.25	0.04
Desert almond - Mexican bladdersage scrub	Riparian	0.50	0.00	0.50	0.02
Desert holly scrub	Upland	1.16	0.00	1.16	0.04
Rigid spineflower-hairy desert sunflower	Upland	14.83	0.00	14.83	0.45
Fremont's smokebush – Nevada smokebush scrub	Riparian	0.15	0.00	0.15	0.00
Fremont cottonwood forest and woodland	Riparian	0.16	0.00	0.16	0.00
Joshua tree woodland	Upland	172.22	0.00	172.22	5.28
Mojave yucca scrub	Upland	133.77	16.16	149.93	4.60
Needleleaf rabbitbrush scrub	Upland	4.99	0.00	4.99	0.15
Nevada joint fir - Anderson's boxthorn - spiny hop sage scrub	Upland	4.88	10.06	14.94	0.46

Vegetation and Land Cover Types	Type ¹	Acres CA	Acres NV	Total Acres	Percentage of Total Acreage (%)
Tamarisk thickets	Riparian	2.58	0.00	2.58	0.08
Teddy bear cholla patches	Upland	0.00	0.16	0.16	0.00
White bursage scrub	Upland	10.53	0.00	10.53	0.32
Other Cover Types ²					
Agriculture		15.15	0.00	15.15	0.46
Developed/disturbed		539.30	125.88	665.18	20.39
Dry lakebed		5.16	1.75	6.91	0.21
Open Water		0.04	0.00	0.04	0.00
Sparsely vegetated wash		6.96	0.00	6.96	0.21
Total		2,693.20	580.14	3261.83	100

Table 1. Summary of Vegetation and Cover Types in Project Area

1. Some Vegetation and Cover Types designated as riparian include broad alluvial fans, arroyos, desert washes.

2. These communities/land cover types are not defined in Sawyer et al. (2009) or Holland (1986) but are included in this table for acreage calculation purposes.

Acton's and Virgin River brittle brush - net-veined goldeneye scrub (*Encelia* [actonii, virginensis] - Viguiera reticulata Shrubland Alliance)

Acton's and Virgin River brittle brush - net-veined goldeneye scrub is characterized by a mixture of Acton's brittle bush (*Encelia actonii*), Virgin River brittle bush (*Encelia virginensis*) or net-veined goldeneye (*Viguiera reticulata*) as dominants or co-dominants within the shrub layer with Virgin River brittle bush having more than two percent absolute cover in the shrub canopy. Additional species observed within the community are Dorr's sage (*Salvia dorrii*), white bursage, cheesebush, California croton (*Croton californicus*) and wire lettuce (*Stephanomeria pauciflora*). This community was observed within the northeastern portion of the California segment along a desert wash from Line 1 Tower 32-5 to Tower 33-1. Acton's and Virgin River brittle brush - net-veined goldeneye scrub is recognized as sensitive by CDFW (2024) and with a CNPS rank of S3.

Allscale scrub (Atriplex polycarpa Shrubland Alliance)

Allscale scrub is characterized by the dominance of allscale (*Atriplex polycarpa*) comprising more than two percent absolute cover or more of the absolute cover in the shrub canopy. Additional species such as cheesebush (*Ambrosia salsola*), and fourwing saltbush (*Atriplex cansescens*) are present within the community. Within the Project Area, the community occupies areas of sandy soils within alluvial fans and along the shores of dry lake beds and washes within the California and Nevada segments. It is also fairly disturbance tolerant and easily invaded; when this alliance occurred near I-15, railroads, or agricultural lands, Russian thistle (*Salsola tragus*) and saltlover (*Halogeton glomeratus*) were often abundant.

Black brush scrub (Coleogyne ramosissima Shrubland Alliance)

Black brush scrub is characterized by the presence of black brush (*Coleogyne ramosissima*) comprising two percent or more of the absolute cover in the shrub canopy. Additional species such as fourwing saltbush, needleleaf rabbitbrush (*Ericameria teretifolia*), California buckwheat (*Eriogonum fasciculatum*), California barrel cactus (*Ferocactus cylindraceus*), creosote bush, and Mohave yucca are present within the community. This community is found on rocky slopes at Line 1 Tower 33-3 within the California segment.

Buckhorn cholla/big galleta grass scrub (*Cylindropuntia acanthocarpa/Pleuraphis rigida* Shrubland Alliance)

Buckhorn colla/big galleta grass scrub is characterized by the presence of buckhorn cholla (*Cylindropuntia acanthocarpa*), Cooper's goldenbush (*Ericameria cooperi*), rayless goldenhead (*Acamptopappus sphaera-cephala*) with Cooper's goldenbush comprising more than 50 percent or more relative cover the shrub layer. An open to intermittent herb layer with seasonal annuals is usually present. Additional species observed within the community include creosote bush, Mohave yucca, Nevada joint-fir, California barrel cactus, and brittlebush. This community was observed in mountainous areas of the Nevada portion of the line, with big galleta (*Pleuraphis [Hilaria] rigida*) appearing more dominant in small arroyos and washes.

Catclaw acacia – desert lavender – chuparosa scrub (*Senegalia greggii – Hyptis emoryi – Justicia californica* Shrubland Alliance)

Catclaw acacia – desert lavender – chuparosa scrub is a desert wash vegetation community that is characterized by catclaw acacia (*Senegalia greggii*) with more than two percent absolute cover and more than 50 percent relative cover in the tall shrub or low tree canopy. Additional species observed within the community includes cheesebush, sweetbush, buck horn cholla (*Cylindropuntia acanthocarpa*), Nevada joint fir (*Ephedra nevadensis*), beavertail (*Opuntia basilaris*) and Mohave yucca. This community was observed within arroyos and washes located in the western portion of the Ivanpah Valley in the California segment, as well as in arroyos and washes of McCullough Pass in Nevada.

Cheesebush – sweetbush scrub (Ambrosia salsola – Bebbia juncea Shrubland Alliance)

Cheesebush – sweetbush scrub is a desert wash community characterized by a mixture cheesebush and sweetbush (*Bebbia juncea*) with more than two percent absolute cover of cheesebush in the shrub canopy. Additional species observed within the community include creosote bush, beavertail, silver cholla (*Cylindropuntia echinocarpa*), and California buckwheat. This community was observed within arroyos and washes present within the Ivanpah Valley of the California segment and within larger desert washes in the Nevada segment. Additionally, cheesebush is a successful disturbance colonizer, and several sites were noted that were cheesebush dominated and robust enough to not be considered disturbed and developed, like construction tailings and revegetated roads and properties.

Creosote bush – brittle bush scrub (Larrea tridentata – Encelia farinose Shrubland Alliance)

Creosote bush – brittle bush scrub is characterized by a mixture of creosote bush and brittle bush dominant with more than one percent absolute cover of each in the shrub canopy. Other species observed within the community include white bursage, desert trumpet (*Eriogonum inflatum*), wire lettuce and California barrel cactus. This community is found on upper slopes and steep hillsides of the McCullough Range at Line 1 Tower 8-1 and Line 2 Tower 8-2 within the Nevada segment.

Creosote bush scrub (Larrea tridentata Shrubland Alliance)

Creosote bush scrub is an upland vegetation type that is characterized by creosote bush which is the dominant shrub with white bursage and brittle bush absent or less than one percent absolute cover in the shrub layer. Other species observed within the community include white bursage, brittle bush, fourwing saltbush, Nevada joint fir and Anderson thornbush (*Lycium andersonii*) are also present but in much lower numbers. The community is present within the uplands along much of the Project Area within the California segment, and on south-facing slopes of the McCullough Range within the Nevada segment.

Creosote bush - white bursage scrub (Larrea tridentata - Ambrosia dumosa Shrubland Alliance)

Creosote bush–white bursage scrub is an upland vegetation that is characterized by creosote bush and white bursage which co-dominate with more than one percent absolute cover of each in the shrub canopy. Additional species observed within the community include cheesebush, fourwing saltbush, allscale, brittle bush and Anderson thornbush. This community was observed within alluvial fans and upland slopes along the much of the Project Area in both the California and Nevada segments.

Death Valley joint fir scrub (Ephedra funerea Shrubland Alliance)

Death Valley joint fir scrub is an upland community characterized by a Death Valley joint fir which is the dominate or co-dominate shrub with more than 30 percent relative cover with other shrubs. Additional species observed within the community include white bursage, creosote, and littleleaf rhatany (*Krameria erecta*). This community was only observed on south facing limestone slopes northeast of Primm, Nevada. Death Valley joint fir scrub is considered sensitive with a CNPS rank of S3.

Desert almond – Mexican bladdersage scrub (*Prunus fasciculata – Salazaria mexicana* Shrubland Alliance)

Desert almond – Mexican bladdersage scrub is a desert wash community characterized by a mixture of co-dominant desert almond (*Prunus fasciculata*) and Mexican bladdersage with more than two percent absolute cover of desert almond in the shrub canopy. Additional species observed within the community include cheesebush, fourwing saltbush, creosote bush, Anderson thornbush and Mohave yucca. This community was observed within arroyos and washes at Line 1 Towers 33-4 and 33-5 and Line 2 32-5 of the Nevada segment.

Desert holly scrub (Atriplex hymenelytra Shrubland Alliance)

Desert holly scrub is characterized by desert holly with more than one percent absolute cover with no other species with equal or higher cover and withesert holly or honey sweet (*Tidestromia oblongifolia*) with more than 30% relative cover in the shrub canopy. Additional species observed within the community include white bursage (*Ambrosia dumosa*), shadscale (*Atriplex confertifolia*), downy dalea (*Dalea mollissima*), brittlebush (*Encelia farinosa*), and creosote bush (*Larrea tridentata*). This community was observed north of Afton and east of Fort Irwin, where it was present in dry arroyos and washes.

Rigid spineflower-hairy desert sunflower (*Chorizanthe rigida – Geraea canescens* Desert Pavement Sparsely Vegetated Alliance)

Rigid spineflower-hairy desert sunflower is characterized by dominance of *Chorizanthe rigida* and/or *Geraea canescens* which are usually present in the herbaceous layer. Additional species such as pebble pincushion (*Chaenactis carphoclinia*), desert plantain (*Plantago ovata*), and desert heron's bill (*Erodium texanum*) are also present in low numbers. This vegetation is sparse and seasonal, depending on the amount of seasonal precipitation. The substrate in these areas is distinct and is covered with closely packed, interlocking angular or rounded rock fragments of pebble and cobble size. This vegetation pavement is found on level or gently sloping desert flats, fans, or bajadas and lake and river terraces. Within the Project Area a large area of rigid spineflower-hairy desert sunflower is located near Alvord Mountain Road in the California segment.

Fremont's smokebush – Nevada smokebush scrub (*Psorothamnus fremontii - Psorothamnus polydenius* Shrubland Alliance)

Fremont's smokebush – Nevada smokebush scrub is characterized by the presence of Fremont's smokebush (*Psorothamnus fremontii*), Mojave indigo bush (*Psorothamnus arborescens*) orNevada smokebush (*Psorothamnus polydenius*). Additional species such as catclaw acacia, cheesebush, sweetbush, winter fat (*Krascheninnikovia lanata*), and Mojave cottonthorn (*Tetradymia stenolepis*) are also present. This community was only observed in a wash in the central Clark Mountains in California. Fremont's smokebush – Nevada smokebush scrub is recognized as sensitive by a CNPS rank of S3.

Fremont cottonwood forest and woodland (*Populus fremontii - Fraxinus velutina - Salix gooddingii* Forest & Woodland Alliance)

Fremont cottonwood forest and woodland is characterized by a dominance of Freemont cottonwood (*Populus fremontii*). Additional species such as sandbar willow (*Salix exigua*), polished willow (*Salix laevigata*), mule fat (*Baccharis salicifolia*), and tule (*Schoenoplectus acutus* var. *occidentalis*) are also present. This community was observed along the Mojave River just northeast of the Victorville Substation, within the California segment. Fremont cottonwood forest and woodland is recognized as sensitive by CDFW (2024) with a State Rarity rank of S3.2.

Joshua tree woodland (Yucca brevifolia Woodland Alliance)

Joshua tree woodland is characterized by a dominance of Joshua tree evenly distributed at greater than one percent cover and less than one percent juniper (*Juniperus* spp.) and/or pines (*Pinus* spp.) in the tree canopy. Additional species observed within the community include white bursage, cheesebush, California barrel cactus, California buckwheat and Mohave yucca. This community was observed within alluvial fans, ridges, and slopes in the Clark Mountains west to Excelsior Mine Road within the California segment. Joshua tree woodland is recognized as sensitive by CDFW (2024).

Mojave yucca scrub (Yucca schidigera Shrubland Alliance)

Mojave yucca scrub is characterized by a dominance of Mojave yucca with more than two percent absolute cover in the shrub or small tree canopy. Additional species observed within the community include white bursage, black brush, buck horn cholla, brittle bush, and creosote bush. This community was observed within alluvial fans and rocky slopes within the western Ivanpah Valley, Clark Mountains and within the Granite Mountains of the California segment. Within the Nevada segment this community was observed on west-facing slopes of the McCullough Range.

Needleleaf rabbitbrush scrub (Ericameria teretifolia Shrubland Alliance)

Needleleaf rabbitbrush scrub is characterized by dominance of needleleaf rabbitbrush (*Ericameria teretifolia*) within the shrub canopy. Additional species observed within the community include buck horn cholla, California buckwheat, desert almond, desert mallow (*Sphaeralcea ambigua*) and Mexican bladder-sage. This community is found on rocky slopes on the southwestern portion of the California segment at Line 1 Towers 156-2 to 156-3 and Line 2 Towers 155-2 to 155-3.

Nevada joint fir - Anderson's boxthorn - spiny hop sage scrub (*Ephedra nevadensis - Lycium andersonii - Grayia spinosa* Shrubland Alliance)

Nevada joint fir - Anderson's boxthorn - spiny hop sage scrub is characterized by a dominance of Nevada joint fir (*Ephedra nevadensis*), hop sage (*Grayia spinosa*) and Anderson boxthorn with more than two percent absolute cover in the shrub canopy, and usually a strong dominant with more than two-times the

cover than other species. Additional species observed within the community include spiny desert olive (*Menodora spinescens*), cheesebush, black bush, California buckwheat and Mexican bladdersage. This community was observed within arroyos and washes within the western Ivanpah Valley at Line 1 Towers 33-5 to 34-1 and Line 2 Towers 33-1 to 33-2 in the California segment. Within the Nevada segment the community is located on rocky slopes within the Spring Mountains. This vegetation community is recognized as sensitive by CDFW (2024) and a CNPS rank of S3.

Tamarisk thickets (Tamarix spp. Shrubland Semi-Natural Alliance)

Tamarisk thickets is characterized by a mixture of tamarisk (*Tamarix ramosissima*) or another *Tamarix* species is dominant in the tree canopy within three percent absolute cover, and more than 60 percent relative cover compared to other microphyllous trees or shrubs. Additional species observed within the community were limited to California croton and Russian thistle (*Salsola tragus*). This community was observed within the dry riverbed of the Mojave River in the California segment.

Teddy bear cholla patches (Cylindropuntia bigelovii) Shrubland Alliance

Teddy bear cholla patches is characterized by dominance of teddy bear cholla with more than 50% relative cover within the shrub layer. Additional species observed within the community include creosote, white bursage, California barrel cactus, buck horn cholla, and littleleaf rhattany, but were sparse due to the dense clonal nature of teddy bear cholla. This community was mostly found along the line in the eastern McCullough Pass but are not restricted to Nevada. Teddy bear cholla patches were not found in California but are considered sensitive with a CNPS rank of S3.

White bursage scrub (Ambrosia dumosa Shrubland Alliance)

White bursage scrub is characterized by a dominance of white bursage with more than one percent of absolute cover and less than one percent of creosote bush absolute cover within the shrub layer. Additional species observed within the vegetation community consists of black brush, brittle bush, creosote bush, beavertail, and buck horn cholla. This community was observed within alluvial fans and rocky hills at Line 1 Towers 105-1 & 105-6 and Line Towers 104-2 & 105-1 within the California segment.

Other Cover Types

Agriculture

Consists of fallow agricultural fields located within the developed areas on the southern side of the Mojave River near Barstow in the California segment. Native vegetation within these areas has been removed and vegetation observed consists of non-native annuals including red stemmed filaree (*Erodium cicutarium*), Russian thistle, London rocket (*Sisymbrium irio*) and Arabian schismus (*Schismus arabicus*).

Developed/Disturbed

Developed or disturbed consists of existing access roads, public roads, private residences, railroad ROW that are located along the Project Area. This cover type is located along the entire Project Areas of both the California and Nevada segments.

Dry lakebed

Dry lakebed consists of dry lakes and playas and are largely devoid of vegetation. Vegetation present generally consists of non-native annuals including red stemmed filaree, mustards and annual grasses. Dry lakebeds present in the California segment are Silver Lake and playas located to the west of BLM C203. In the Nevada segment dry lakebeds are present at Roach Lake at Line 1 Towers 25-5 and 25-6.

Open Water

Open water consists of area covered with freshwater that largely lack vegetation. This type of cover is present at the Mojave River, just northeast of the Victorville Substation, within the California segment. Vegetation such as chairmaker's bulrush (*Schoenoplectus americanus*), tall cyperus (*Cyperus eragrostis*), bur marigold (*Bidens laevis*), and seaside heliotrope (*Heliotropium curassavicum*) may be present in the late summer and fall when flows become reduced.

Sparsely vegetated wash

Sparsely vegetated wash is used to map areas that are largely unvegetated washes with scattered shrubs such as sweetbush and cheesebush. Seedling shrubs may be present but in very low numbers. These washes have a high abundance of spring annuals. This cover type was observed within the dry riverbed of the Mojave River in the California segment at Line 1 Tower 123-2 and Line 2 Tower 122-2.

5.4 Plant Species Observed

More than 300 genera, species, subspecies, or varieties of plants were observed within the Project Area during the 2021 surveys. Nineteen of these are non-native species to California and Nevada and are discussed further in Section 5.4.1, Noxious Weeds. The remaining genera, species, subspecies, or varieties are native to California or Nevada and include common species, uncommon species, and rare species recognized as special-status species and addressed in Section 5.5.2, Special-Status Plants. Attachment C provides a list of all plants detected in the Project Area.

5.4.1 Noxious Weeds

Noxious weeds are plants that can directly or indirectly cause problems for agriculture, natural resources, wildlife, recreation, navigation, public health, or the environment (CDFA, 2021). The California Department of Food and Agriculture (CDFA) (CDFA, 2021), California Invasive Plant Council (Cal-IPC) (Cal-IPC, 2021) and the Nevada Department of Agriculture (NDA) (NDA, 2024) and the U.S. Department of Agriculture (USDA) (USDA, 2010) have rated noxious weeds in California and Nevada based on the threat these species pose to the natural landscape. In addition, Table 2 provides the CDFA, Cal-IPC, NDA and USDA ratings for the species detected within the Project Area.

Noxious weeds are defined as species rated on the California Invasive Plant Inventory Database, published by the California Invasive Plant Council, California Department of Food and Agriculture and CCR 4500 Noxious Weeds, or included in the weed lists of the U.S. Department of Agriculture and Nevada State Department of Agriculture. Table 2 below provides a list of noxious weeds observed within the Project Area for both the California and Nevada segments. It should be noted that surveys were being conducted during a period of significant drought and noxious weeds identified was based on desiccated plant material in portions of the Project Area. Noxious weeds will likely be more widely distributed within the Project Area during a year with average rainfall. Several species were observed during field surveys but were not mapped and are on one or more noxious weed list. The species are tumbleweed (*Amaranthus* sp.), short-pod mustard (*Hirschfeldia incana*), mustard (*Sisymbrium* sp.), Paulsen's Russian thistle (*Salsola paulsenii*), field bindweed (*Convolvulus arvensis*), horse nettle (*Solanum* elaeagnifolium), Bermuda grass (*Cynodon dactylon*), foxtail barley (*Hordeum murinum*), Mediterranean grass (*Schismus* sp.), common wheat (*Triticum aestivum*), herb Sophia (*Descurainia sophia*), and slender oat grass (*Avena barbata*). A detailed distribution of noxious weeds across the Project Area is provided in Attachment A, Figure 4.

Noxious Weed Species	Noxious Weed Ranking	Distribution	Number of Observations CA/NV	
Brassica tournefortii Saharan mustard	Cal IPC- High CDFA: C NDA: B USDA: none	CA Seg: Baker, Cima, Mojave River to Victorville NV Seg: L2 T1-3 AR, L1 T18-3	89/2	
<i>Bromus rubens</i> Red brome	Cal IPC: High CDFA: none NDA: none USDA: none	CA Seg: Ivanpah Valley to Baker, Stoddard Wells Road to Wild Wash Road NV Seg: n/a	45/	
Bromus tectorum cheat grass	Cal IPC: High CDFA: C NDA: none USDA: none	CA Seg: L1 T104-2 NV Seg: L1 T19-3, L2 T25-2	1/2	
<i>Erodium cicutarium</i> Red stemmed filaree	Cal IPC: Limited CDFA: none NDA: none USDA: none	CA Seg: Ivanpah Valley, Manix to Victorville Switching Station NV Seg: n/a	111/	
<i>Halogeton glomeratus</i> Salt lover	Cal IPC: Moderate CFDA: C/NW NDA: none USDA: none	CA Seg: n/a NV Seg: L1,26-1; L1-25-6; L1, 25-5	0/2	
Oncosiphon pilulifer Stinknet	Cal-IPC: High CDFA: Q NDA none USDA none	CA Seg : Fallow Ag field west of Daggett under the current line. Note found during 2024 surveys. NV Seg; n/a	1/0	
<i>Salsola tragus</i> Russian thistle	Cal IPC Limited CDFA: C/NW NDA: none USDA: none	CA Seg: Cima, Baker, Yermo, Victorville Switching Station NV Seg: n/a	15/	
Schismus arabicus Arabian schismus	Cal IPC: Limited CDFA: none NDA: none USDA: none	CA Seg: L1 T45-4, T46-1 L2 T45-1, T45-2 NV Seg: n/a	4/	
<i>Sisymbrium irio</i> London rocket	Cal IPC: Moderate CDFA: none NDA: none USDA: none	CA Seg: L2 T120-5 NV Seg: n/a	26/	
Tamarix spp. Salt cedar	Cal IPC: High CDFA: NW NDA: C USDA: none	CA Seg: L1 T93-5, T123-2 L2 T111-5, T122-2, T122-3 NV Seg: n/a	6/0	

Table 2. Noxious Weed Species Observations

General references: Cal-IPC 2021; NDA 2024; USDA 2020; CDFA 2021

Cal-IPC Rankings:

High: These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate: These species have substantial and apparent, but generally not severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited: These species are invasive, but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

California Department of Food and Agriculture Rankings:

Category C: A pest of known economic or environmental detriment and, if present in California, it is usually widespread. C rated organisms are eligible to enter the state if the commodities with which they are associated conform to pest cleanliness standards when found in nursery stock shipments. If found in the state, they are subject to regulations designed to retard spread or to suppress at the discretion of the individual county agricultural commissioner. There is no state enforced action other than providing for pest cleanliness.

"NW" CCR 4500 Food and Agriculture Code - Noxious Weed list

Nevada Department of Agricultural Rankings:

Category B: Weeds are weeds that are generally established in scattered populations in some counties of the State. Category C: Weeds that are generally established and generally widespread in many counties of the State.

5.4 Common Wildlife Species

This section describes common wildlife species that were documented during the 2021 surveys or have the potential to occur in the Project Area. These include some species that have been designated as "watch list" species by CDFW, or NDNH or as "special animals" by CDFW. These designations do not typically warrant protections under the ESA, CESA, or other federal, state, or local regulations. Special-status species are discussed in Section 5.5.3, Special-Status Wildlife. Species that were detected during the 2021 surveys were either observed directly or identified indirectly through vocal cues or trace evidence, such as burrows, scat, tracks, or skeletal remains.

The Project Area supports a wide variety of common wildlife that use upland vegetation communities. Upland communities occur in drier areas and are the dominant vegetation type in the region. Upland communities provide critical foraging, breeding, and refugia habitat for many species. Leaf litter, organic and coarse woody debris, natural tree cavities, rocky pilings, dense woodlands, and open woodlands, among others, are all important habitat features for various terrestrial species. Common wildlife was routinely observed in these areas during the surveys, and the region supports a diverse assemblage of species. Attachment D provides a list of all the wildlife species that were detected in the Project Area.

Invertebrates

The Project Area provides microhabitats for a wide variety of terrestrial insects, and other invertebrates. General surveys of the Project Area detected a wide variety of common and nonnative invertebrates. Some of the orders identified in the Project Area included Hemiptera (true bugs), Coleoptera (beetles), Diptera (flies), Lepidoptera (moths and butterflies), and Hymenoptera (wasps, bees, and ants). Invertebrates identified to species are included in Attachment D.

Fish

Aquatic or riparian habitats are rare within the Mojave Desert and are limited within the Survey Area to the Mojave River. A portion of the Mojave River which has perennial water is located approximately 350 feet from the Line 1 Tower 162-2 and does provide habitat for fish species. No fish were identified in the Project Area during 2021 surveys.

Amphibians

Frogs, toads, newts, and salamanders all require a source of standing or flowing water to complete their life cycle. Generally, the larval and juvenile stages occur within the same aquatic habitat. No aquatic or riparian habitats required for breeding and larval development are present within the Project Area. A portion of the Mojave River which has perennial water is located approximately 350 feet from Line 1 Tower 162-2. Upland dispersal of juvenile, sub-adult, and adult amphibians from the Mojave River riparian corridor into the surrounding uplands in the Survey Area is unlikely.

Amphibians that have documented to within the Mojave River and Mojave Desert include western toad (*Anaxyrus boreas*), arroyo toad (*Anaxyrus californicus*), red-spotted toad (*Anaxyrus punctatus*), Baja California treefrog (*Pseudacris hypochondriaca*), and American bullfrog (*Lithobates catesbeianus*). No amphibians were identified in the Project Area during 2021 surveys.

Reptiles

Most reptile species, even if present in an area, are difficult to detect because they are cryptic and their life history characteristics (i.e., foraging, and thermoregulatory behavior) limit their ability to be observed during most surveys. Further, many species are only active within relatively narrow thermal limits, avoid-ing both cold and hot conditions, and most take refuge in microhabitats that are not directly visible to the casual observer, such as rodent burrows, in crevices, under rocks and boards, and in dense vegetation where they are protected from unsuitable environmental conditions and predators.

Reptiles were commonly observed during surveys of the Project Area, in both disturbed and natural areas. Great Basin fence lizard (*Sceloporus occidentalis longipes*), western side-blotched lizard (*Uta stansburiana elegans*), desert iguana (*Dipsosaurus dorsalis*), Great Basin collared lizard (*Crotaphytus bicinctores*), long-nosed leopard lizard (*Gambelia wislizenii*), common chuckwalla (*Sauromalus ater*), western zebra-tailed lizard (*Callisaurus draconoides rhodostictus*), southern desert horned lizard (*Phrynosoma platyrhinos calidiarum*), yellow-backed spiny lizard (*Sceloporus uniformis*), Great Basin whiptail (*Aspidoscelis tigris tigris*), red racer (*Coluber flagellum piceus*) and southwestern speckled rattlesnake (*Crotalus mitchellii Pyrrhus*) were observed within the Project Area. Reptiles identified in the California and Nevada segments are included in Attachment D. Special-status reptiles are further discussed below under special-status wildlife.

Birds

Thirty-three species of common and sensitive birds were identified in the Project Area during the 2021 surveys (refer to Attachment D for a complete list of birds). It is likely that many other birds use the site either as wintering habitat, seasonal breeding, or as occasional migrants. Special-status species are further discussed below under special-status wildlife.

Birds were identified by sight and sound and were observed throughout the Project Area. The diversity of birds within the Project Area is a function of the large size of the site and the wide variation in plant communities that provide habitat for different groups of birds.

Bird use of the Project Area was low to moderate and included a variety of songbirds, raptors, and vultures. Ash-throated flycatcher (*Myiarchus cinerascens*), black-throated sparrow (*Amphispiza bilineata*), cactus wren (*Campylorhynchus brunneicapillus*), mourning dove (*Zenaida macroura*), common raven (*Corvus corax*), ladder-backed woodpecker (*Dryobates scalaris*) and northern flicker (*Colaptes auratus*) are among the common species within the Project Area. These common species are excluded from the Special-Status Wildlife Occurrence Probabilities in the Project Area (Table 5). Several raptors, including red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), burrowing owl (*Athene cunicularia*), golden eagle (*Aquila chrysaetos*), barn owl (*Tyto alba*) and great horned owl (*Bubo virginianus*) were observed either soaring overhead (red-tailed and Cooper's hawks, golden eagle) or their sign whitewash (burrowing owl) and feathers (barn owl, great horned owl), or nesting (red-tailed hawk) in the Project Area. Juveniles of many of these species were also observed.

Red-tailed hawks were observed either soaring over the site, nesting, or foraging in the Project Area. Twelve nests in various stages of activity were observed on Project towers along the entire alignment, and one additional nest was in a tower in a nearby alignment. These nesting locations are provided in Attachment A, Figure 5.

Several exotic species including the house sparrow (*Passer domesticus*), and Eurasian-collared dove (*Streptopelia decaocto*) were also observed.

Mammals

The Project Area is largely situated in natural areas within low to moderate levels of disturbance. Generally, the distribution of mammals is associated with the presence of such factors as access to perennial water, topographical and structural components (i.e., rock piles, vegetation, and stream terraces) that provide for cover and support prey base, and the presence of suitable soils for fossorial mammals (i.e., sandy areas on the large stream terrace).

The detection of mammals in the Project Area during surveys included direct observation and evidence of use, including tracks, scat, burrows, or other signs. Small mammals or their sign were commonly observed during most of the surveys primarily in the areas around the bases of large shrubs. Species detected or observed included round-tailed ground squirrel (*Xerospermophilus tereticaudus*), white-tailed antelope squirrel (*Ammospermophilus leucurus*), kangaroo rat (*Dipodomys* spp.) and desert woodrat (*Neotoma lepida*).

Mid-size mammals including black-tailed jackrabbit (*Lepus californicus*), striped skunk (*Mephitis mephitis*) and coyote (*Canis latrans*) were detected or observed within the Project Area. Most of these species were detected by the presence of tracks, scat and burrows observed within the Project Area. While not detected during the 2021 surveys, western spotted skunk (*Spilogale gracilis*), gray fox (*Urocyon cinereoargenteus*), and bobcat (*Lynx rufus*) have the potential to occur within the Project Area.

Large mammals including desert bighorn sheep (*Ovis canadensis*), mule deer (*Odocoileus hemionus*) and feral burro (*Equus asinus*) were detected within the Project Area during the 2021 surveys. These species were most frequently detected in the Nevada and the eastern portion of the California segments. Mountain lion (*Puma concolor*) also are known from the Project Area.

Because the majority of the Project Area overlaps with Essential Connectivity Areas, many far-ranging migrant individuals or herds are likely to frequent the Project Area (Spencer et al., 2020). Various ungulates (deer and bighorn sheep) and many mammalian predators (foxes to mountain lions) will use these corridors to access foraging and breeding areas.

Foraging bats were detected on several occasions during the 2021 surveys, many bat species are known to occur within the Project Area and the Mojave Desert. Bats are likely to forage over most of the Project Area and along desert washes, where they prey on small insects, moths, and other invertebrates. These may include species designated as "special animals" by CDFW and NDNH, such as pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), hoary bat (*Lasiurus cinereus*), and Mexican free-tailed bat (*Tadarida brasiliensis*).

5.5 Special-Status Species, Vegetation, and Habitat

Plants or wildlife may be ranked as special-status species due to declining populations, vulnerability to habitat change, or restricted distributions. Certain species have been listed as threatened or endangered under state or federal Endangered Species Acts. Others have not been listed, but declining populations or habitat availability cause concern for their long-term viability. These appear on lists compiled by resource agencies or private conservation organizations. In this report, "special-status species" is used to include all plants and animals listed as threatened or endangered, plants listed as rare by the state, recognized by the BLM sensitive, or identified by the CDFW and the NDNH. Tables 3 and 4 represent special-status species and their potential to occur within the segment.

This section of the report provides information on special-status plants and animals observed within the Project Area or with a potential to be present. The specific habitat requirements and the locations of known occurrences of each special-status species were the principal criteria used for inclusion in the lists of special-status species potentially occurring within the Project Area. For this document, special-status species include the following designations:

- Listed, proposed for listing, or candidates for listing as threatened or endangered under the FESA,
- Listed, or candidates for listing as threatened or endangered under the CESA,
- Designated as sensitive by the California and Nevada BLM (BLM, 2019 and 2023),
- Designated as special status by CDFW (CDFW, 2021b, 2021c),
- Designated as special status by NDNH (NDNH, 2021a, 2021b),
- Plants assigned a California Rare Plant Rank (CRPR) by California Native Plant Society (CNPS),
- Plants listed as rare under the California Native Plant Protection Act,
- Plants protected under the Western Joshua Tree Conservation Act,
- Plants considered special-status species in local or regional plans, policies, or regulations.

This section also provides an overview of sensitive vegetation types and other land cover types present in the Project Area. Last, it provides information on habitats within the Project Area that support special-status species.

5.5.1 Sensitive Natural Communities

Sensitive natural communities are defined as communities that are of limited distribution within a state or within a county or region and are often vulnerable to environmental effects of projects. These communities may or may not contain special-status species or their habitats.

Sensitive vegetation communities are defined by CDFW (2010) as, "...communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects." More recently CDFW stated that sensitive natural communities with state ranks of S1–S3 (S1=critically imperiled; S2=imperiled; S3=vulnerable) should be addressed in the environmental review processes of CEQA and its equivalents (CDFW, 2021b, 2021c).

The literature review identified two sensitive vegetation community recorded in the vicinity: mesquite bosque and crucifixion thorn woodland (CDFW, 2024). Neither community is present within the alignment. Five sensitive natural communities were identified within the Project Area which include: Acton's and Virgin River brittle brush - net-veined goldeneye scrub, Fermont's smokebush – Nevada smokebush scrub, Fremont cottonwood forest and woodland, Nevada joint fir - Anderson's boxthorn - spiny hop sage scrub and Joshua tree woodland. These communities are recognized as sensitive vegetation communities

by CDFW, although CNDDB does not report it in the vicinity (CDFW, 2024). Currently the BLM and state of Nevada do not maintain a sensitive natural communities list.

A total of five sensitive natural communities were identified within the California Segment (see Attachment A, Figure 3:

- Acton's and Virgin River brittle brush net-veined goldeneye (S3 Vulnerable Ranking)
- Fremont's smokebush Nevada smokebush scrub (S3 Vulnerable Ranking)
- Fremont cottonwood forest and woodland (S3.2 Vulnerable Ranking)
- Nevada joint fir Anderson's boxthorn spiny hop sage scrub (S3S4 Vulnerable Ranking)
- Joshua tree woodland (S3 Vulnerable Ranking)

5.5.2 Special-status Plants

Based upon review of the literature, databases, and 2021 and 2024 surveys, a list of special-status plant species that are known to occur in the Project Area and/or broader Study Area was compiled (see Attachment A, Figure 5). The locations of special-status plants observed in the Project Area during the 2021 and 2024 surveys were also recorded and mapped (see Attachment A, Figure 6). Several of the special-status plants identified during the literature review have no potential to be present in the Project.

Table 3 and Attachment A Figure 6, identify the special-status plant species reported within a five-mile buffer surrounding the Project Area. One State or federally listed plant, Western Joshua tree (*Yucca brevifolia* var. *brevifolia*) was observed during the surveys within the California segment. As well as one State or federally listed plant, blue diamond cholla (*Cylindropuntia multigeniculata*) was observed during the surveys within the Nevada segment. No other State or federally listed plants were observed or have potential to be present.

Sixteen additional special-status plant species were observed within the Project Area and are discussed below.

- Clark Mountain agave (Agave utahensis var. nevadensis, CRPR 4.2)
- Tidestrom's milkvetch (Astragalus tidestromii, CRPR 2B.2)
- Black grama (*Bouteloua eriopoda*, CRPR 4.2)
- Three-awned grama (*Bouteloua trifida*, CRPR 2B.3)
- Desert pincushion (Coryphantha chlorantha, CRPR: 2B.1)
- Viviparous foxtail cactus (*Coryphantha vivipara* var. *rosea*, NDH CY, CRPR 2B.2)
- Ashen forget me not (*Cryptantha costata*, CRPR 4.3)
- Harwood's eriastrum (*Eriastrum harwoodii*, BLM CA:S, CRPR 1B.2)
- Clark Mountain buckwheat (*Eriogonum heermannii* var. *floccosum*, CRPR 4.3)
- Parish's club-cholla (*Grusonia parishii*, CRPR 2B.2)
- Polished/ elegant blazing star (*Mentzelia polita*, BLM CA & NV:S, CRPR 1B)
- Utah mortonia (Mortonia utahensis, CRPR 4.3)
- Cespitose evening-primrose (*Oenothera cespitosa* ssp. *crinite*, CRPR 4.2)
- Rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*, BLM CA & NV:S, CRPR 1B.1)
- Mojave fish hook cactus (*Sclerocactus polyancistrus*, NDH CY, CRPR 4.2)
- Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*, BLM CA:S CRPR 1B.2)

In addition, 17 special-status plant species recognized by the BLM or ranked by the CNPS and have at least a moderate potential to be present on the California segment. These include several plants ranked as

CRPR 2 species and CRPR 4 species. In addition, one special status plant species recognized by the BLM has a moderate potential to be present on the Nevada segment.

Table 3 lists the remaining special-status plants identified during the literature search and/or observed in the Project Area during the 2021 and 2024 surveys, and summarizes their habitat, distribution, conservation status, and probability of occurrence in the Project Area (based on geographic and elevational ranges, habitat conditions, and proximity to known locations). Detailed descriptions of special-status plants that were observed or have at least a moderate potential to be present are discussed in the table.

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur
Acleisanthes nevadensis desert wing-fruit	Perennial herb; rocky slopes and shale outcrops in Joshua tree woodland and Mojavean desert scrub; about 2,600–3,800 ft. elev.; Kingston Range, southeast Inyo County to southwestern Utah, and northwestern Arizona.	Jun-Sep	FED: none BLM CA: none BLM NV: none CA: S1 NV: none CRPR: 2B.1	CA Seg: High -Suitable habitat and recent records present within Project Area. NV Seg: Suitable habitat present, not considered sensitive in NV.
<i>Agave utahensis</i> var. <i>nevadensis</i> Clark Mountain agave	Perennial herb or shrub; limestone or volcanic slopes and cliffs; Joshua tree woodland; about 2,900-5,200 ft. elev.; eastern desert mountains (Ivanpah and Clark Mountains, and Kingston range).	May-Jul	FED: none BLM CA: none BLM NV: S CA: S3 NV: S3 CRPR: 4.2	CA Seg: Present - Observed during surveys. NV Seg: Moderate - Suitable habitat present. Records within Nevada are east of I-15, outside the Project Area.
Ageratina herbacea Desert ageratina	Perennial herb.; rocky sites within pinyon/juniper woodland; about 5,000–6,700 ft. elev.; Clark, New York and Providence Mountains to Colorado, western Texas, and northern Mexico.	Jul-Oct	FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR: 2B.3	Not Likely to occur: No suitable habitat present in Project Area. Project Area is outside of the elevation range of species.
<i>Aliciella triodon</i> Coyote gilia	Annual herb; open, sandy, or rocky areas within on flats and slopes, with blackbrush, Joshua tree woodland, sagebrush scrub and juniper woodland; about 3,900–5,600 ft. elev.; eastern desert mountains (Clark Mountain Range) to Colorado and New Mexico.	Apr-Jun	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.2	CA Seg: Low - Suitable habitat present. Records within Project Area. Recent records within vicinity of Project Area. NV Seg: Suitable habitat present, not considered sensitive in NV.
Allium nevadense Nevada onion	Perennial herb (bulb); sandy or gravelly slopes in desert mountains within pinyon/juniper woodland and Mojavean desert scrub; about 4,200–5,600 ft. elev.; desert mountains within San Bernardino and Inyo Counties to Oregon, Idaho, Colorado, and Arizona.	Apr-May	FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR: 2B.3	CA Seg: High - Suitable habitat present. Records within Project Area. No recent records within vicinity of Project Area. NV Seg: Suitable habitat present, not considered sensitive in NV.

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area Special Status Status

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur
Androstephium breviflorum Small-flowered androstephium	Perennial herb (bulb); open desert scrub, sandy to rocky soil within Mojavean desert scrub and desert dunes; about 300–5,300 ft. elev.; south Mojave Desert and north Sonoran Desert to western	Mar-Apr	FED: none BLM CA: none BLM NV: none CA: S2	CA Seg: Low - Suitable habitat present. Records within Project Area. No recent records within vicinity of Project Area. NV Seg: Suitable habitat present, not
	Colorado.		NV: none CRPR: 2B.2	considered sensitive in NV.
Arctomecon merriamii White bear poppy	Perennial herb; rocky slopes, calcareous soil, loose shale, or sandy washes within chenopod scrub and Mojavean desert scrub; about 2,600–5,300 ft. elev.; northeast Mojave Desert within San Bernardino and Inyo Counties to southern Nevada.	Apr-May	FED: none BLM CA: none BLM NV: S	CA Seg: Moderate- Marginal habitat present within Project Area. Recent records within vicinity of Project Area.
			CA: S3 NV: S3, T CRPR: 2B.2	NV Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area.
Asclepias nyctaginifolia Mojave milkweed	Perennial herb; arroyos and dry slopes within Mojavean desert scrub and pinyon/juniper woodland; about 3,300–5,600 ft. elev.; Mojave Desert in San Bernardino County to Nevada and New Mexico.	May-Jun	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.1	CA Seg: High - Suitable habitat present within Project Area. Recent records within vicinity of Project Area.
				NV Seg: Suitable habitat present, not considered sensitive in NV.
Astragalus mohavensis var. mohavensis	Annual or perennial herb, generally occurs on limestone substrates within Mojavean desert scrub;	Apr-Jun	FED: none BLM CA: none	CA Seg: Suitable habitat present, not considered sensitive in CA.
Mojave milkvetch	about 2,400-7,500 ft. elev.; within Mojave Desert of Inyo and San Bernardino Counties to southern Nevada.		BLM NV: none CA: none NV: S2S3, W CRPR: none	NV Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area.
Astragalus tidestromii Tidestrom's milkvetch	Perennial herb; washes in sandy or calcareous gravel, within Mojavean desert scrub; about 1,900–5,300 ft. elev.; Mojave Desert (Cushenbury Canyon) within San Bernardino and Inyo Counties to southern Nevada.	Apr-Jul	FED: none BLM CA: none BLM NV: none CA: S2 NV: S3 CRPR: 2B.2	CA Seg: Present- Observed during surveys.
				NV Seg: Suitable habitat present, not considered sensitive in NV.

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area Special Status Status

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur
Astrolepis cochisensis ssp. cochisensis Scaly cloak fern	 Fern; limestone slopes, crevices in desert mountains within Joshua tree woodland and pinyon/juniper woodland; about 3,300–5,300 ft. elev.; Mojave 	Apr-Oct	FED: none BLM CA: none BLM NV: none	CA Seg: High - Suitable habitat present within Project Area. Recent records within vicinity of Project Area.
	Desert within San Bernardino County.		CA: S2 NV: none CRPR: 2B.3	NV Seg: Suitable habitat present, not considered sensitive in NV.
Bahia neomexicana Many-flowered bahia	Annual herb; dry, sandy soils, desert scrub and pinyon/juniper woodland; about 4,900–7,600 ft. elev.; se desert mountains (Clark, New York Mountains) in Inyo and San Bernardino Counties to Colorado, Texas, and northern Mexico.	Aug-Oct	FED: none BLM CA: none BLM NV: none CA: S2S3 NV: none CRPR: 2B.3	Not Likely to occur : Project Area is outside of the geographic and elevation range of the species.
Blepharidachne kingii King's eyelash grass	Perennial grass like herb; rocky benches and alluvial fans usually on limestone in pinyon/juniper woodland and Great Basin scrub; about 2,900-7,100 ft. elev.; eastern desert mountains in Inyo and San Bernardino Counties to Idaho, Nevada, and Utah.	Мау	FED: none BLM CA: none BLM NV: none CA: S2 NV: S4 CRPR 2B.3	CA Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area.
				NV Seg: Suitable habitat present, not considered sensitive in NV.
Bouteloua eriopoda Black grama	Perennial grass, Joshua tree woodland and pinyon/juniper woodland; about 2,900 – 6,200 ft.	May-Oct	FED: none BLM CA: none	CA Seg: Present- Observed during surveys.
	elev.; eastern desert mountains in San Bernardino County to Wyoming, Oklahoma, and northern Mexico.		BLM NV: none CA: S4 NV: none CRPR: 4.2	NV Seg: Suitable habitat present, not considered sensitive in NV.
Bouteloua trifida Three-awned grama	Perennial grass; dry, rocky, generally calcareous slopes, crevices, washes within Mojavean desert scrub; about 600-5,300 ft. elev.; north and east Mojave Desert (mostly desert mountains) to Utah, Texas, and central Mexico.	Мау-Ѕер	FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR: 2B.3	CA Seg: Present - Observed during surveys.
				NV Seg: Suitable habitat present, not considered sensitive in NV.

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur
Canbya candida White pygmy-poppy	Annual herb, gravelly; sandy, granitic places within Joshua tree woodland, Mojavean desert scrub and pinyon/juniper woodland; about 2,000-4,400 ft. elev.; western Mojave Desert and adjacent Sierra Nevada foothills.	Mar-Jun	FED: none BLM CA: none BLM NV: none CA: S3S4 NV: none CRPR: 4.2	CA Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area. NV Seg: Outside of geographical range, not considered sensitive in NV.
<i>Castela emoryi</i> Emory's crucifixion thorn	Perennial shrub; fine sand or silt, slopes, washes, plains, non-saline bottomland within Mojavean desert scrub, Sonoran Desert scrub and playas; about 350–2,100 ft. elev.; California deserts to Arizona Baja and Sonora.	Jun-Jul	FED: none BLM CA: none BLM NV: none CA: S2S3 NV: S3 CRPR: 2B.2	CA Seg: High- Suitable habitat present within Project Area. Recent records within vicinity of Project Area. NV Seg: Suitable habitat present, not considered sensitive in NV.
<i>Cirsium arizonicum</i> var. <i>tenuisectum</i> Desert mountain thistle	Perennial herb; washes, rocky slopes, disturbed areas; often on roadsides within Joshua tree woodland, Mojavean desert scrub and pinyon/juniper woodland; about 5,200-7600 ft. elev.; Mojave Desert mountains (Clark and New York Mountains) to southern Nevada.	Jun-Nov	FED: none BLM CA: none BLM NV: S CA: S2 NV: S2 CRPR: 1B.2	Not Likely to occur : Project Area is outside of the elevation range of the species.
<i>Coryphantha chlorantha</i> Desert pincushion	Perennial herb (stem succulent); calcareous substrates, rocky and gravelly sites within Mojavean desert scrub, Joshua tree woodland and pinyon/juniper woodland; about 3,300-7,900 ft. elev.; Mojave Desert in eastern San Bernardino County to southwestern Utah and northwestern Arizona.	Apr-Sep	FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR: 2B.1	CA Seg: Present - Observed during surveys. NV Seg: Present - Observed during surveys, not considered sensitive in NV.
Coryphantha vivipara var. rosea Viviparous foxtail cactus	Perennial herb (stem succulent); gravelly limestone or volcanic slopes and brushy hillsides within Mojavean desert scrub and pinyon/juniper woodland; about 4,900-8,900 ft. elev.; desert mountains in northeast San Bernardino County to southern Nevada and northwestern Arizona.	May-Jun	FED: none BLM CA: none BLM NV: none CA: S1 NV: S3, CY CRPR: 2B.2	CA Seg: Present- Observed during surveys. NV Seg: Present- Observed during surveys.

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area Special Status Status

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur
<i>Cryptantha costata</i> Ashen forget me not	Annual herb; sandy areas within sandy desert dunes, Mojavean desert scrub and Sonoran Desert scrub; about -200-1,600 ft. elev.; eastern Mojave Desert and Sonoran Desert to southern Nevada, Arizona, and Baja California.	Feb-May	FED: none BLM CA: none BLM NV: none CA: S4 NV: none CRPR: 4.3	CA Seg: Present- Observed during surveys. NV Seg: Suitable habitat observed, not considered sensitive in NV.
Cryptantha tumulosa New York Mountains catseye	Perennial herb; limestone, occasionally granitic gravel, or clay soils, generally pinyon/juniper woodland; about 4,600-6,900 ft. elev.; desert mountains of Inyo and San Bernardino Counties to southwest Nevada.	Apr-June	FED: none BLM CA: none BLM NV: none CA: S4 NV: S2, W CRPR: 4.3	CA Seg: High- Suitable habitat present within Project Area. Recent records within vicinity of Project Area. NV Seg: Low- Suitable habitat present. Records within Project Area. No recent records within vicinity of Project Area.
Cylindropuntia multigeniculata Blue diamond cholla	Perennial herb (stem succulent); rocky limestone, basalt, granite, and rhyolite substrates between in desert scrub communities; about 3,400-4,600 ft. elev.; in the northeastern Mojave Desert of southern Nevada and northwestern Arizona.	May	FED: none BLM CA: none BLM NV: S CA: none NV: S2, CE, CY, T CRPR: none	Ca Seg: Area is outside of the elevation range of the species. NV Seg: Present- Observed during surveys.
Cymopterus gilmanii Gilman's cymopterus	Perennial herb; limestone, gypsum slopes within Mojavean desert scrub; about 2,900-6,600 ft. elev.; desert mountains of Inyo and San Bernardino Counties to Nevada.	Apr-May	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.3	Ca Seg: High - Suitable habitat present within Project Area. Recent records within vicinity of Project Area. NV Seg: Suitable habitat observed, not considered sensitive in NV.
<i>Cymopterus multinervatus</i> Purple-nerve cymopterus	Perennial herb; sandy and rocky slopes within Mojavean desert scrub and pinyon/juniper woodland; about 2,066-5,905 ft. elev.; Mojave Desert in Inyo, Riverside and San Bernardino Counties to Utah and New Mexico.	Mar-Apr	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.2	CA Seg: High- Suitable habitat present within Project Area. Recent records within vicinity of Project Area. NV Seg: Suitable habitat observed, not considered sensitive in NV.

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur
Diplacus mohavensis Mojave monkeyflower	Annual herb; dry sandy or rocky washes along the Mojave River within Joshua tree woodland and Mojavean desert scrub; about 1,900-3,300 ft. elev.; Mojave Desert in western San Bernardino County.	Apr-Jun	FED: none BLM CA: S BLM NV: none CA: S2 NV: none CRPR: 1B.2	CA Seg: High- Suitable habitat present within Project Area. Recent records within vicinity of Project Area. NV Seg: Suitable habitat observed, not considered sensitive in NV.
<i>Elymus salina</i> Salina Pass wild rye	Perennial grass like herb; rocky sites on north-facing slopes of pinyon/juniper woodland; about 4,400- 9,400 ft. elev.; desert mountains within Inyo and San Bernardino Counties to Idaho, western Colorado, and northern Arizona.	Jun-Aug	FED: none BLM CA: none BLM NV: none CA: S2S3 NV: none CRPR: 2B.3	Not Likely to occur : No suitable habitat present within the Project Area.
<i>Enceliopsis nudicaluis</i> var. <i>nudicaulis</i> Naked stemmed daisy	Perennial herb or shrub; found in Great Basin and Mojavean desert scrub in areas of rocky volcanic and carbonate substrate on stony hillsides and canyons; about 4365 to 6595 ft. elev; found in California and Nevada and elsewhere in western North America.	April-May	FED: none BLM CA: BLM NV: none CA: S3 NV: none CRPR: 4.3	 CA Seg – High: Suitable habitat present; records of species in Clark Mountains; and Mesquite Wilderness along transmission line. NV Seg: Observed during surveys; not considered sensitive in NV.
<i>Enneapogon desvauxii</i> Nine-awned pappus grass	Perennial grass like herb; rocky slopes, crevices in decomposed granite, or in gravelly limestone soils within pinyon/ juniper woodland; about 4,100-6,000 ft. elev.; eastern Mojave Desert in San Bernardino County to Colorado, western Texas, and northern Mexico.	Aug-Sep	FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR: 2B.2	CA Seg: High- Suitable habitat present within Project Area. Recent records within vicinity of Project Area. NV Seg: Suitable habitat observed, not considered sensitive in NV.
<i>Eremothera boothii</i> ssp. <i>boothii</i> Booth's evening-primrose	Annual herb; sandy flats, steep loose slopes, Joshua tree woodland and pinyon/juniper woodlands; about 2,900-7,900 ft. elev.; foothills of mountains of southern California to Washington and northwestern Arizona.	Jun-Aug	FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR: 2B.3	Not Likely to occur : No suitable habitat present within the Project Area.

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area Special Status Status

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur
Eriastrum harwoodii Harwood's eriastrum	Annual herb; sandy soils and desert dunes in creosote-bush scrub; about 410 – 3,000 ft. elev.; in	May-Jun	FED: none BLM CA: S	CA Seg: Present- Observed during surveys.
	the Mojave and Sonoran Desert.		BLM NV: none CA: S2 NV: none CRPR: 1B.2	NV Seg: Suitable habitat observed, not considered sensitive in NV.
<i>Erigeron uncialis</i> var. <i>uncialis</i> Limestone daisy	Perennial herb; rocky slopes, crevices of limestone cliffs within Great Basin scrub, subalpine coniferous forest, and pinyon/juniper woodland; about 6,900- 9,500 ft. elev.; Mojave Desert in Inyo and San Bernardino Counties to central Nevada.	May-Jul	FED: none BLM CA: S BLM NV: none CA: S2 NV: none CRPR: 1B.2	Not Likely to occur : Project Area is outside of the elevation range of the species.
<i>Eriogonum bifurcatum</i> Forked buckwheat	Annual herb; rocky slopes, sandy areas, saline flats and rolling hills with fourwing saltbush and shadscale; about 1,900-2,600 ft. elev.; Mojave Desert in southern Inyo and northeast San Bernardino Counties to southern Nevada.	May-Jun	FED: none BLM CA: S BLM NV: S CA: S3 NV: S2 CRPR: 1B.2	CA Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area.
				NV Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area.
Eriogonum heermannii var. floccosum	Shrub; carbonate soils within pinyon/juniper woodland; about 2,955 – 7,875 ft. elev.; desert		FED: none BLM CA: none	CA Seg: Present- Observed during surveys.
Clark Mountain buckwheat	mountains in San Bernardino to northwestern Arizona and southern Nevada.		BLM NV: none CA: S4 NV: none CRPR: 4.3	NV Seg: Suitable habitat observed, not considered sensitive in NV.
<i>Eriogonum mensicola</i> Pinyon Mesa buckwheat	Perennial herb; rocky slopes within pinyon/juniper woodland, Great Basin scrub and upper montane coniferous forest; about 5,900-8,900 ft. elev.; Inyo Mountains and Panamint, Coso Ranges of southern California to southwestern Nevada.	Jul-Sep	FED: none BLM CA: S BLM NV: none CA: S4 NV: S2 CRPR: 1B.3	Not Likely to occur : Project Area is outside of the elevation range of the species.

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area Special Status

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur
Eriogonum umbellatum var. juniporinum Juniper sulphur-flowered buckwheat	Perennial herb; sandy or gravelly soils within pinyon/juniper woodland and Mojavean desert scrub.; about 4,300-7,500 ft. elev.; desert mountains in eastern San Bernardino County to Nevada, southwestern Utah, northwestern Arizona.	July-Oct	FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR: 2B.3	Not Likely to occur : No suitable habitat present within the Project Area.
<i>Erioneuron pilosum</i> Hairy erioneuron	Perennial grass like herb; rocky or gravelly places within pinyon/juniper woodland; about 4,200-6,600 ft. elev.; eastern Mojave Desert in San Bernardino County to Kansas, Texas, and Mexico.	May-Jun	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.3	Not Likely to occur : No suitable habitat present within the Project Area.
<i>Eriophyllum mohavense</i> Barstow woolly sunflower	Annual herb; open, silty, or sandy areas with saltbush scrub, or creosote bush scrub, barren ridges, or margins of playas; about 1,600-2,600 ft. elev.; Mojave Desert in Kern, Los Angeles, and San Bernardino Counties.	April-May	FED: none BLM CA: S BLM NV: none CA: S2 NV: none CRPR: 1B.2	CA Seg: Low- Suitable habitat present. Records present in Project Area. No recent records within vicinity of Project Area. NV Seg: Suitable habitat observed, not considered sensitive in NV.
<i>Euphorbia exstipulata</i> var. <i>exstipulata</i> Clark Mountain spurge	Annual herb; rocky slopes within Mojavean desert scrub; about 5,900-6,600 ft. elev.; desert mountains (Clark Mountain Range and New York Mountains) in San Bernardino County.	Sep-Oct	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.1	Not Likely to occur : Project Area is outside of the elevation range of the species.
Frasera albomarginata var. induta Clark Mountain green- gentian	Perennial herb; dry, open woodland within pinyon/juniper woodland; about 4,900-7,200 ft. elev.; desert mountains (Clark Mountains) in San Bernardino County to southern Nevada.	May-Jul	FED: none BLM CA: none BLM NV: S CA: S1 NV: S2 CRPR: 1B.2	Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area Special-Status Special-Status

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur
Galium proliferumAnnual herb; rocky banks, limestone ledges withinDesert bedstrawJoshua tree woodland, Mojavean desert scrub, and pinyon/juniper woodland; about 3,600-4,700 ft. elev.; desert mountains in San Bernardino County to Arizona and Mexico.		Apr-May	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.2	CA Seg: Moderate- marginal habitat present within Project Area. Recent records within the vicinity of Project Area. NV Seg: Suitable habitat observed, not considered sensitive in NV.
Galium wrightiiPerennial herb; dry, open woodland withinWright's bedstrawpinyon/juniper woodland; about 4,900-7,200 ft. elev.;desert mountains (Clark Mountain Range) in SanBernardino County to southern Nevada.		Jun-Oct	FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR: 2B.3	Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.
<i>Glossopetalon pungens</i> Pungent glossopetalon			FED: none BLM CA: S BLM NV: none CA: S1 NV: S2 CRPR: 1B.2	Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.
Grimmia vaginulataMoss; openings; rocky, boulder and rock walls, carbonate soils within chaparral; about 2,200-3,700 ft. elev.; desert mountains in eastern San Bernardino County.		n/a	FED: none BLM CA: S BLM NV: none CA: S1 NV: none CRPR: 1B.1	Not Likely to occur : No suitable habitat present. Project is outside of geographical range of species.
irusonia parishiiShrub (stem succulent); sandy, gravelly flats generally in Mojavean desert scrub, Sonoran Desert scrub and Joshua tree woodland; about 1,000-3,900 ft. elev.; desert mountains in Riverside and San Bernardino Counties to southern Nevada and western Arizona.		May-Jun	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.2	CA Seg: Present- Observed during surveys. NV Seg: Present- Observed during surveys, not considered sensitive in NV.

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area Special Status

Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur	
Aymenopappus filifolius rar. eriopodusPerennial herb; limestone soils within pinyon/juniper woodland; about 5,200-5,600 ft. elev.; desert mountains (Clark Mountains and New York Mountains) in San Bernardino County to southern Nevada and southwestern Utah.		May-Jun	FED: none BLM CA: none BLM NV: none CA: S2S3 NV: none CRPR: 2B.3	Not Likely to occur : No suitable habita present. Project Area is outside of the elevation range of the species.	
<i>Ivesia jaegeri</i> Jaeger's ivesia			FED: none BLM CA: S BLM NV: S CA: S1 NV: S2 CRPR: 1B.3	Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.	
affueliobryum wrightii Moss; openings; dry openings, rock crevices, carbonate soils within alpine dwarf scrub, pinyon/juniper woodland and Mojavean desert scrub; about 500-8,600 ft. elev.; desert mountains in eastern San Bernardino County to southern Nevada.		n/a	FED: none BLM: none CA: S2S3 NV: none CRPR: 2B.3	CA Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area. NV Seg: Suitable habitat observed, not considered sensitive in NV.	
noted rush Perennial grass like herb; restricted to seeps, streambanks, lakeshores, wet meadows; below 5,600 ft. elev.; Inyo and San Bernardino Counties to Alaska, Texas, Virginia, Maine, eastern Canada, and Mexico.		Jul-Sep	FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR: 2B.3	Not Likely to occur: No suitable habitat present.	
<i>Linum puberulum</i> Plains flax	Annual herb; rocky, sandy areas within pinyon/juniper woodland, Great Basin scrub, Joshua tree woodland and Mojavean desert scrub.; about 3,200-6,600 ft. elev.; desert mountains in San Bernardino County to Wyoming, Nebraska, Texas, and northern Mexico.	May-Jul	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.3	CA Seg: Low- Suitable habitat present. Records in Project Area. No recent records within vicinity of Project Area. NV Seg: Suitable habitat observed, not considered sensitive in NV.	

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area Special-Status Special-Status

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur	
Acmispon argyraeus var.Perennial herb; granite or volcanic substrate, sometimes sandy flats within pinyon/juniper woodland; about 4,200-7,300 ft. elev.; within the New York Mountains in San Bernardino County to 		Apr-Jun	FED: none BLM CA: S BLM NV: S CA: S2 NV: S1, T CRPR: 1B.3	CA Seg: Low - Calfora and iNaturalist records are within the Clark Mountains approximately 10 or more miles south of Project Area. However, project is within species range (Calfora). NV Seg: Low - No recent records.	
<i>Menodora scabra</i> var. <i>scabra</i> Rough menodora	Shrub; rocky or sandy soils within pinyon/juniper woodland, Joshua tree woodland and Mojavean desert scrub; about 3,200-6,800 ft. elev.; desert mountains (Clark, Eagle, New York Mountains) in San Bernardino County to New Mexico and northern Mexico.	May-Jun	FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR: 2B.3	Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.	
<i>Mentzelia polita</i> elegant blazing star/polished blazing star	Annual herb; washes, limestone, white gypsum-rich soils within Mojavean desert scrub; about 3,900- 5,000 ft. elev.; desert mountains (Clark Mountain Range) in Inyo and San Bernardino Counties to southern Nevada.	May-Jun	FED: none BLM CA: S BLM NV: S CA: S2 NV: S2, T CRPR: 1B.2	CA Seg: Present- Observed during surveys. NV Seg: Low -Suitable habitat observed. No recent records within vicinity of Project Area.	
Mentzelia pterosperma wing-seed blazing star	Annual herb; white gypsum-rich soils within Mojavean desert scrub; about 3,200-4,000 ft. elev.; Mojave Desert in Inyo and San Bernardino Counties to Colorado and northwestern Arizona.	Apr-Jun	FED: none BLM CA: none BLM NV: none CA: S1S2 NV: none CRPR: 2B.2	CA Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area. NV Seg: Suitable habitat observed, not considered sensitive in NV.	
<i>Mentzelia puberula</i> Argus blazing star/Darlington's blazing star	ng habitat Mojavean desert scrub; bases of steep cliffs in		Fed: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.2	CA Seg: High – No observations in CA segment during surveys. Species has been documented in CA. NV Seg: High – Observation documents in surveys in NV only.	

Special-Status <u>Plant Species</u>	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur
<i>Mentzelia tridentata</i> Creamy blazing star	Annual herb; creosote-bush scrub; about 2,200-4,300 ft. elev.; southern California deserts to Colorado and	Apr-May	FED: none BLM CA: S	CA Seg: Present- Observed during surveys.
	northwestern Arizona.		BLM NV: none CA: S3 NV: none CRPR: 1B.3	NV Seg: Suitable habitat observed, not considered sensitive in NV.
<i>Monardella eremicola</i> Clark Mountain monardella	Mountain outcrops, canyons, slopes, wash margins within		FED: none BLM CA: S BLM NV: none CA: S3 NV: none CRPR: 1B.3	Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.
<i>Mortonia utahensis</i> Utah mortonia	Shrub; limestone slopes, canyon bottoms within Joshua tree woodland, Mojavean desert scrub and	Mar-May	FED: none BLM CA: none	CA Seg: Present- Observed during surveys.
	pinyon/juniper woodland; about 2,495 – 6,890 ft. elev.; northern Mojave Desert in Inyo and San Bernardino Counties to southwestern Utah.		BLM NV: none CA: S3 NV: none CRPR: 4.3	NV Seg: Suitable habitat observed, not considered sensitive in NV.
Muhlenbergia arseneiPerennial grass like herb; limestone rock outcrops, slopes within pinyon/juniper woodland; about 4,500- 6,100 ft. elev.; desert mountains (Clark Mountain Range) in San Bernardino County to southeastern Utah, northern New Mexico, and northern Baja California.		Aug-Sep	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.3	Not Likely to occur : No suitable habitat present.
Muhlenbergia fragilisPerennial grass like herb; limestone rock outcrops, slopes within pinyon/juniper woodland; about 5250 ft. elev.; desert mountains (Clark Mountain Range, New York Mountains) in San Bernardino County to western Texas and Mexico.		Oct	FED: none BLM CA: none BLM NV: none CA: S2 NV: S1 CRPR: 2B.3	Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area Special Status Status

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur
Munroa squarrosaAnnual grass like herb; open, sandy, gravelly, or rocky places within pinyon/juniper woodland; about 4,900- 5,900 ft. elev.; desert mountains (Clark Mountain Range) in San Bernardino County to Great Plains, 		Aug-Oct	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.2	Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.
Oenothera cavernae Cave evening-primrose			FED: none BLM CA: none BLM NV: none CA: S1 NV: S1S2 CRPR: 2B.1	CA Seg: High- Suitable habitat present within Project Area. Recent records within vicinity of Project Area. NV Seg: Suitable habitat observed.
Oenothera cespitosa ssp. crinita Cespitose evening- primrose	woodland, Sonoran desert scrub; about 3,700 to		FED: none BLM CA: none BLM NV: none CA:S4 NV: none CRPR: 4.2	CA Seg: High - Observed during surveys. NV Seg: Suitable habitat observed, not considered sensitive in NV.
<i>Pediomelum castoreum</i> Beaver dam breadroot			FED: none BLM CA: S BLM NV: S CA: S2 NV: S2 CRPR: 1B.2	CA Seg: Low- Suitable habitat present. Records within Project Area. No recent records within vicinity of Project Area. NV Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area.
Penstemon albomarginatus White margined beardtongue	ned scrub and desert dunes; about 1,800-3,510 ft. elev.;		FED: none BLM CA: S BLM NV: S CA: S1 NV: S2, T CRPR: 1B.1	CA Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area. NV Seg: High- Suitable habitat present within Project Area. Recent records within vicinity of Project Area.

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area Special Status Status

Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur	
Penstemon bicolor ssp. bicolor	Perennial herb; calcareous or carbonate soils in washes, roadsides, rock crevices, outcrops within	May	FED: none BLM CA: none	CA Seg: Project Area is outside of the geographical range of the species.	
Yellow two-tone beardtongue	ow two-tone creosote-bursage, blackbrush, mixed-shrub, and		BLM NV: S CA: none NV: S2 CRPR: none	NV Seg: Low- Suitable habitat present within Project Area. Records within Project Area. No recent records within vicinity of Project Area.	
Penstemon bicolor ssp. roseus	Perennial herb; rocky or gravelly sites within Joshua tree woodland and Mojavean desert scrub	May	FED: none BLM CA: S	CA Seg: Present- Observed during surveys.	
Rosy two-tonedcommunities about 2,800-4,900 ft. elevation in the Clark Mountains in San Bernardino County and southern Nevada.			BLM NV: S CA: S3 NV: S3 CRPR: 1B.1	NV Seg: Present- Observed during surveys.	
Penstemon thompsoniae Thompson's beardtongue	•		FED: none BLM CA: none BLM NV: none CA: S1 NV: S4 CRPR: 2B.3	Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.	
Penstemon utahensis Utah beardtongue	Perennial herb; white calcareous soil in pinyon/juniper woodland; about 3,900-5,900 ft. elev.; desert mountains (Kingston Range, New York	Apr-May	FED: none BLM CA: none BLM NV: none	CA Seg: Low- Marginal habitat present within Project Area. No recent records within vicinity of Project Area.	
	Mountains) in San Bernardino County to Utah and Arizona.		CA: S2 NV: none CRPR: 2B.3	NV Seg: Suitable habitat observed, not considered sensitive in NV.	
<i>Phacelia anelsonii</i> Aven Nelson's phacelia	Annual herb; shady places in rich soil, base of sandstone or limestone cliffs, among rocks or in washes within Joshua tree woodland and	Mar-May	FED: none BLM CA: none BLM NV: none CA: S2 NV: S1 CRPR: 2B.3	CA Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area.	
	pinyon/juniper woodland; about 3,900-4,900 ft. elev.; desert mountains (New York Mountains) in San Bernardino County to southwestern Utah.			NV Seg: Low- Suitable habitat present within Project Area. Recent records within vicinity of Project Area.	

Table 3. Special-Status Plant Occurrence Probabilities in the Project Area Special-Status Special-Status

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur	
Phacelia barnebyanaAnnual herb; limestone scree within pinyon/juniper woodland and Great Basin scrub; about 5,200-8,900 ft. elev.; desert mountains (Clark Mountain Range) in Inyo and San Bernardino County to western Nevada.		May-Jul	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.3	Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.	
<i>Phacelia coerulea</i> Sky-blue phacelia			FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.3	CA Seg: High- Suitable habitat present within Project Area. Recent records within vicinity of Project Area. NV Seg: Suitable habitat observed, not considered sensitive in NV.	
<i>Phacelia parishii</i> Parish's phacelia	Annual herb; open, alkaline flats and slopes or on clay soils within Mojavean desert scrub and playas; about 1,700-4,000 ft. elev.; Mojave Desert in Inyo and San Bernardino County to Nevada and Arizona.	Apr-Jun	FED: none BLM CA: S BLM NV: S CA: S1 NV: S3 CRPR 1B.1	CA Seg: High- Suitable habitat present within Project Area. Recent records within vicinity of Project Area.	
				NV Seg: Low- Suitable habitat present within Project Area. Recent records within vicinity of Project Area.	
<i>Phacelia perityloides</i> var. <i>jaegeri</i> Jaeger's phacelia	calcareous slopes within pinyon/juniper woodland;		FED: none BLM CA: S BLM NV: none CA: S2 NV: none CRPR 1B.3	Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.	
Physalis lobata Lobed ground-cherry	Perennial herb; decomposed granite soil, alkaline dry lakes within Mojavean desert scrub and playas; about 1,600-2,700 ft. elev.; Mojave Desert and Sonoran Desert in Riverside and San Bernardino Counties to Kansas, Texas, and northern Mexico.	Sep-Jan	FED: none BLM CA: none BLM NV: none CA: S1S2 NV: none	CA Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area. NV Seg: Suitable habitat observed, not considered sensitive in NV.	

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur	
Physaria chambersii Chambers' physariaPerennial herb; limestone soils; rocky sites within pinyon/juniper woodland; about 4,900-8,200 ft. elev.; desert mountains (Clark and Grapevine Mountains) in 		Apr-Jul	FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR: 2B.3	Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.	
Plagiobothrys parishii Parish's popcornflower			FED: none BLM CA: S BLM NV: S CA: S1 NV: none CRPR 1B.1	Not Likely to occur : Suitable habitat present. Only record in the vicinity of the Project Area is extirpated.	
<i>Sanvitalia abertii</i> Abert's sanvitalia	······································		FED: none BLM CA: none BLM NV: none CA: S2S3 NV: S1 CRPR: 2B.2	CA Seg: High- Suitable habitat present within Project Area. Recent records within vicinity of Project Area. NV Seg: suitable habitat present, not considered sensitive in NV.	
Sclerocactus johnsoniiShrub (stem succulent); granitic slopes and plainsJohnson's bee-hive cactuswithin Mojavean desert scrub; about 1,600-4,000 ft.elev.; Mojave Desert in Inyo and San BernardinoCounties to southwestern Utah and northwesternArizona.		Apr-May	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.2	CA Seg: Low- Suitable habitat present within Project Area. No recent records within vicinity of Project Area. NV Seg: Observed during surveys, not considered sensitive in NV.	
<i>Sclerocactus</i> <i>polyancistrus</i> Mojave fish hook cactus	Shrub (stem succulent); well-drained soil, on rocky gravelly mesas, slopes & outcrops; Joshua tree woodland, Mojavean desert scrub and Great Basin scrub; about 2,100-7,600 ft. elev.; desert mountains in Kern, Inyo, and San Bernardino Counties to Nevada.		FED: none BLM CA: none BLM NV: none CA: S3 NV: CY, S2 CRPR: 4.2	CA Seg: High- Observed during surveys. NV Seg: Present- Observed during surveys.	

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur	
Scutellaria bolanderi ssp.Perennial herb; gravelly soils, stream banks in oak or pine woodland within chaparral, cismontane woodland, and lower montane coniferous forest.; about 2,000-6,600 ft. elev.; in Riverside, San 		Jun-Jul	FED: none BLM CA: S BLM NV: none CA: S3 NV: none CRPR: 1B.2	Not Likely to occur : No suitable habitat present.	
Senna covesii Cove's senna			FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR: 2B.2	CA Seg: Low - Suitable habitat present within Project Area. No records within vicinity of Project Area. NV Seg: Present -Observed during surveys, not considered sensitive in NV.	
Sphaeralcea rusbyi var. eremicola Rusby's desert-mallow	Perennial herb; carbonate soils; sometimes in washes within creosote bush scrub, blackbush scrub and Joshua tree woodland; about 3,300-4,900 ft. elev.; in Inyo County and Clark Mountain Range in San Bernardino County.	Мау	FED: none BLM CA: S BLM NV: none CA: S2 NV: none CRPR: 1B.2	CA Seg: Present- Observed during surveys. NV Seg: Present- Observed during surveys, not considered sensitive in NV.	
Stipa arida Mormon needle grass			FED: none BLM CA: none BLM NV: none CA: S3 NV: none CRPR 2B.3	CA Seg: High- Suitable habitat present within Project Area. Recent records within vicinity of Project Area. NV Seg: Suitable habitat observed, no considered sensitive in NV.	
<i>Stipa divaricata</i> Small-flowered rice grass	Perennial grass like herb; gravel benches, rocky slopes, creek banks within pinyon/juniper woodland; about 2,600-10,200 ft. elev.; desert mountains in Inyo, Mono, San Bernardino Counties to British Columbia, Manitoba, North Dakota, and Texas.	Jun-Sep	FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.3	Not Likely to occur: No suitable habitat present.	

Special-Status Plant Species	Habitat and Distribution	Flower Season	Conservation Status	Potential to Occur
SymphyotrichumPerennial herb; vernally mesic grassland or near ditches, streams, and springs; disturbed areas in meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and 		Jul-Nov	FED: none BLM CA: S BLM NV: none CA: S2 NV: none CRPR: 1B.2	Not Likely to occur : No suitable habitat present.
<i>Tortella alpicola</i> Alpine crisp-moss	Moss; openings; volcanic rock within cismontane woodland; about 3,300 ft. elev.; desert mountains in San Bernardino County.	n/a	FED: none BLM CA: none BLM NV: none CA: S1 NV: none CRPR: 2B.3	Not Likely to occur : No suitable habitat present.
Wislizenia refracta ssp. refracta Jackass-clover	Annual herb; sandy washes, roadsides, alkaline flats within playas, desert dunes, Mojavean desert scrub, Sonoran Desert scrub.; about 300-3,800 ft. elev.; southern Mojave Desert and northern Sonoran Desert in Riverside San Bernardino Counties to Utah,	Apr-Oct	FED: none BLM CA: none BLM NV: none CA: S1 NV: none	CA Seg: Low- Suitable habitat present. Records within Project Area, but none are recent. No recent records within vicinity of Project Area. NV Seg: Suitable habitat observed, not
<i>Woodsia plummerae</i> Plummer's woodsia			CRPR: 2B.2 FED: none BLM CA: none BLM NV: none CA: S2 NV: none CRPR: 2B.3	considered sensitive in NV. Not Likely to occur : No suitable habitat present. Project Area is outside of the elevation range of the species.
Yucca brevifolia var. brevifolia Western Joshua tree	Tree; desert flats and slopes within Joshua tree woodland, montane chaparral, pinyon and juniper woodland, Sonoran and Mojavean desert scrub; about 2,400-7,300 ft. elev.; Mojave Desert from north slopes of the San Bernardino and San Gabriel Mountain ranges, and Antelope Valley.	Apr-May	FED: none BLM CA: S BLM NV: none CA: CAN THR NV: S3S4 CRPR: n/a	Present: Observed in the western portion of Project Area. NV Seg: Outside of geographical range of species, not considered sensitive in NV.

General references: Baldwin et al., 2012; BLM, 2023; CDFW, 2021; CNPS, 2021; CCH, 2021; NDCNR 2021b

Bureau of Land Management (BLM)

Sensitive: Species recognized by the BLM as sensitive.

State designations (CA): (CESA, CDFW) CAN THR: State Candidate, threatened. State of Nevada Protection and Designations CE: Critically Endangered Plant CY: Protected as a cactus, yucca, or Christmas tree T: Tracked Species

California and Nevada: Applied to special-status species; where correct category is uncertain two categories or question marks are used.

- S1: Fewer than 6 occurrences or fewer than 1000 individuals or less than 2000 acres.
- S2: 6-20 occurrences or 1000-3)000 individuals or 2000-10,000 acres (decimal suffixes same as above).
- S3: 21-100 occurrences or 3000-10,000 individuals or 10,000-50,000 acres (decimal suffixes same as above).
- S4: Apparently secure in California; this rank is clearly lower than S3, but factors exist to cause some concern, i.e., there is some threat or somewhat narrow habitat. No threat rank.

California Rare Plant Rank designations. Note: According to the California Native Plant Society (http://www.cnps.org/cnps/rareplants/ranking.php), plants ranked as CRPR 1A, 1B, and 2 meet definitions as threatened or endangered and are eligible for state listing. That interpretation of the state Endangered Species Act is not in general use.

- 1B: Plants rare and endangered in California and throughout their range.
- 2B: Plants rare, threatened or endangered in California but more common elsewhere in their range.
- 4: Plants of limited distribution; a watch list.
- California Rare Plant Rank Threat designation extensions:

.1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

- .2 Fairly endangered in California (20-80% occurrences threatened)
- .3 Not very endangered in California (<20% of occurrences threatened, or no current threats known)

Definitions of occurrence probability: Estimated occurrence probabilities are based on literature sources cited earlier, field surveys, and habitat analyses reported here.

Present: Observed on the site by qualified biologists.

- High: Both a documented recent record (within 10 years) exists of the taxa within the Project Area or immediate vicinity (approximately 5 miles) and the environmental conditions (including soil type) associated with taxa are present within the Study Area.
- Moderate: Both a documented recent record (within 10 years) exists of the taxa within the Study Area, or the immediate vicinity (approximately 5 miles) and the environmental conditions associated with taxa presence are marginal and/or limited within the Study Area, or the Study Area is located within the known current distribution of the taxa and the environmental conditions (including soil type) associated with taxa presence occur within the Study Area.
 - Low: A historical record (over 10 years) exists of the taxa within the Study Area or general vicinity (approximately 10 miles) and the environmental conditions (including soil type) associated with taxa presence are marginal and/or limited within the Study Area.
- Not Likely to Occur. No suitable habitat on the site; or well outside the species' known elevational or geographic ranges; or the species was not detected during focused survey(s) covering 100% of all suitable habitat, completed during the appropriate season and during a year of appropriate rainfall.

Listed Threatened or Endangered Plants

One California state listed Candidate Threatened species, Western Joshua tree, and one Nevada state Critically Endangered Plant, blue diamond cholla, species are present within the Project Area. No other state or federally listed plants has been reported within the vicinity of the alignment and has a potential to be present within the Project Area.

Blue diamond cholla (Cylindropuntia multigeniculata). Blue diamond cholla is a Nevada state Critically Endangered Plant and Protected Cactus and Nevada BLM Sensitive species. It is a perennial herb (stem succulent) in the cactus (Cactaceae) family that blooms in May. It occurs in a variety of soils, including those derived from rocky limestone, basalt, granite, and rhyolite substrates. Soil textures where the species occurs generally consists of sandy-loam, gravel, coarse cobbled soils, silty alluvial fan terraces, decomposed granite and schist, or clays of volcanic origin (Baker, 2005). The species occurs within Mojave Desert scrub communities dominated by creosote bush, white bursage, black brush and Joshua trees about 3,400-4,600 ft. elevation amsl; in the northeastern Mojave Desert of southern Nevada and northwestern Arizona.

The NDNH database contains three records of blue diamond cholla within five miles of the Project Area (NDNH, 2021c). They are dated from 2002 and 2003. There are no iNaturalist observations of this species within five miles of the Project Area. A single blue diamond cholla was observed during focused surveys. The blue diamond cholla was observed at Line 1 Tower 10-1 within the McCullough Range of the Nevada segment (see Attachment A, Figure 6).

Western Joshua Tree (Yucca brevifolia var. brevifolia). Western Joshua tree is a California state Candidate Threatened plant. In July 2023, the Western Joshua Tree Conservation Act was enacted which prohibits the take of any western Joshua tree. The act authorizes CDFW to issue permits for the incidental take of Joshua trees. The surveys conducted in 2021 and 2024 provide a baseline survey of Joshua trees but additional surveys and data collection are anticipated prior to potential permit application under the Western Joshua Tree Conservation Act.

It is a tree in the asparagus (Asparagaceae) family that blooms from April through May (CNPS, 2021). It occurs in desert flats and slopes within Joshua tree woodland, montane chaparral, pinyon, and juniper woodland, Mojavean desert scrub communities of the Mojave Desert from the north slopes of the San Bernardino and San Gabriel Mountain ranges, and the Antelope Valley.

Western Joshua trees were observed during the focused surveys. A total of 23 trees were observed on the southwest portion of the alignment, south of Dale Evans Parkway and northwest of the North D Street in the California segment (Attachment A, Figure 6). Table 4 below provides the data of each tree observed within the Project Area. Since the western Joshua tree is a California state candidate species, there are no CNDDB records of the species within the CNDDB. There are 45 iNaturalist record of western Joshua trees located within five miles of the Project Area dated from 2003 through 2021.

Table 4. Wester	n Joshua Tree Observed	within the Project Area	l	
Tree ID	Number of Trunks	Height Class (feet)	Number of Branches	Vigor
AR/JT-1	3	4	0	Good
L2,157-4/JT-1	1	3	0	Good
L2,157-5/JT-1	2	5	0	Fair
L2, 161-3/JT-1 ¹	3	6	6	Good
L2, 161-3/JT-1 ¹	1	1	1	Good
L2, 161-3/JT-1 ¹	1	1	1	Good

Table 4.	Western Joshua Tree Observed within the Project Area

Tree ID	Number of Trunks	Height Class (feet)	Number of Branches	Vigor
L1,156-1/JT-1	1	7	1	Good
L1,156-2/JT-1	1	7	1	Good
L1,156-5/JT-1	1	4	1	Fair
L1,156-5/JT-2	5	9	4	Good
L1,156-5/JT-3	5	8	4	Good
L1,156-5/JT-4	1	1	1	Good
L1,158-3/JT-1	3	1	1	Poor
L1,158-5/JT-1	2	8	1	Good
L1,159-3/JT-1	1	3	1	Fair
L1,159-3/JT-2	1	6	1	Excellent
L1,159-4/JT-1	2	3	1	Good
L1,159-6/JT-1	1	2	1	Good
L1,159-6/JT-2	1	2	1	Excellent
L1,160-5/JT-1	1	12	3	Fair
L1,161-2/JT-1	2	2	1	Excellent
L1,161-2/JT-2	3	3	1	Fair
L1, 162-2/JT-1	1	3	3	Good

Table 4. Western Joshua Tree Observed within the Project Area

BLM Sensitive Plants

The BLM in California and Nevada maintain a list of sensitive plant species, including species that are rare, declining, or dependent on specialized habitats. The list includes plants ranked by CNPS as CRPR 1B and 2B or sensitive by the NDNH. The BLM manages sensitive species to provide protections comparable to species that may become listed as threatened or endangered (i.e., candidate species for federal listing).

Fourteen plants recognized by the BLM in California and Nevada as sensitive have at least some potential to be present within the Project area. Of these, five were observed during the 2021 surveys and four additional species have at least a moderate potential to be present and are discussed below. It should be noted that the 2021 surveys were conducted during a period of extended drought, Aspen anticipates that additional species and additional locations of rare plants will be present within the Survey Area in a year of average rainfall.

Nine plants that are designated as BLM-sensitive species were identified during the literature review and/or observed in the Project Area during the 2021 and/or 2024 surveys, including:

- White bear poppy (Arctomecon merriamii) Mojave monkeyflower (Diplacus mohavensis)
- Harwood's eriastrum (Eriastrum harwoodii)
- Polished blazing star (Mentzelia polita)
- Creamy blazing star (Mentzelia tridentata)
- White margined beardtongue (Penstemon albomarginatus).
- Rosy two-toned beardtongue (Penstemon bicolor ssp. roseus)
- Parish's phacelia (Phacelia parishii)
- Rusby's desert-mallow (Sphaeralcea rusbyi var. eremicola)

White bear poppy (Arctomecon merriamii). White bear poppy is recognized as a sensitive species by the Nevada BLM and is a Nevada State Tracked species, and has a CRPR 2B.2. It is a perennial herb in the

poppy (Papaveraceae) family, and it blooms during April and May. It occurs on rocky slopes, calcareous soil, loose shale, or sandy washes within chenopod scrub and Mojavean desert scrub communities about 2,600–5,300 ft. elevation in the Clark Mountains and the Kingston Range within San Bernardino County and in Inyo County to southern Nevada.

White bear poppy was not observed during the survey of the alignment. Suitable habitat is present within the California and Nevada segments. The CNDDB contains 13 records, the NDNH database contains one record of white bear poppy within five miles of the Project Area (CDFW, 2021a, NDNH 2021c). They are dated from 1978 through 2013. There are iNaturalist observations of this species within five miles of the Project Area, north of the Project area, within Nevada near the State line. A recent CNDDB record is located two miles north of the Line 1 Tower 29-3 Project Area within the Clark Mountains of the California segment. Based on the presence of suitable habitat and recent nearby records; white bear poppy has a moderate potential to be present within the California and low potential to be present in the Nevada segment in a year with average rainfall.

Mojave monkeyflower (Diplacus mohavensis). Mojave monkeyflower is recognized as a sensitive species by the California BLM and has a CRPR of 1B.2. It is an annual herb in the lopseed (Phrymaceae) family, and blooms in the spring from April to June. It occurs in dry, sandy, or rocky washes along the Mojave River within Joshua tree woodland and Mojavean desert scrub communities from about 1,900-3,300 ft. elevation in the Mojave Desert of western San Bernardino County (CCH, 2021). It is found in several locations near Barstow and Lucerne Valley.

Mojave monkeyflower was not observed during the survey of the alignment. Due to a lack of precipitation, the species may have remained dormant during 2021. Suitable habitat is present within the California segment from Daggett to the Victorville Switching Station. The CNDDB contains 40 records of Mojave monkeyflower within five miles of the Project Area (CDFW, 2021a). They are dated from 1978 through 2011. There are iNaturalist records of Mojave monkeyflower within five miles of the Project Area (CDFW, 2021a). They are dated from 1978 through 2011. There are iNaturalist records of Mojave monkeyflower within five miles of the Project Area. A recent CNDDB record is located approximately 2.6 miles to the east of Line 2 Tower 129-1 south of Interstate 40. Based on the presence of suitable habitat and recent nearby records; Mojave monkeyflower has a high potential to be present in a year with average rainfall.

Harwood's eriastrum (*Eriastrum harwoodii***).** Harwood's eriastrum is recognized as a sensitive species by the California BLM and has a CRPR of 1B.2. It is an annual herb in the phlox (Polemoniaceae) family and blooms May to June. It occurs in areas with sandy soils and desert dunes in creosote-bush scrub; about 410 - 3,000 ft. elevation in the Mojave and Sonoran Deserts throughout southern California.

Harwood's eriastrum was observed at two locations during the survey. Harwood's eriastrum was observed on the north side of the Mojave River east of Barstow at Line 1 Tower122-5 and Line 2 Tower 121-4 (see Attachment A, Figure 6). The CNDDB and iNaturalist do not contain any records of Harwood's eriastrum within five miles of the Project Area. Based on presence of suitable habitat and observations during the 2021 surveys, Harwood's eriastrum has high potential to occur on the California segment of the Project Area.

Polished blazing star (*Mentzelia polita***).** Polished blazing star is recognized as a sensitive species by the California and Nevada BLM, and is a Nevada State Tracked, and has a CRPR 1B.2. It is an annual herb in the loasa (Loasaceae) family and blooms in the spring from May to June. It occurs in washes and in areas with limestone or white gypsum-rich soils within Mojavean desert scrub communities from about 3,900-5,000 ft. elevation in the Clark Mountain Range in Inyo and San Bernardino Counties and to southern Nevada.

A single location of 12 individual polished blazing stars was observed along the access road to Line 1 Tower 34-3 (see Attachment A, Figure 6). The CNDDB contains nine records of polished blazing star within five miles of the Project Area (CDFW, 2021a). They are dated from 1977 through 2013. The NDNH database contains five records of polished blazing star within five miles of the Project Area (NDNH, 2021a). These records are dated from 1999 through 2009. There are no iNaturalist observations of this species within five miles of the Project Area. It is likely that additional populations of are polished blazing star are present within the California and Nevada segments during a year with average rainfall. Based on the presence of suitable habitat, recent nearby records, and observed during surveys, the polished blazing star has a high potential to occur in the California segment and low potential to occur within the Nevada Segment.

Creamy blazing star (*Mentzelia tridentata***).** Creamy blazing star has a CRPR 1B.3. It is an annual herb in the loasa family, and it blooms from April to May. It generally occurs within Mojavean desert scrub communities dominated by creosote bush about 2,200-4,300 ft. elevation in southern California deserts to Colorado and northwestern Arizona.

Creamy blazing star was observed during the survey of the alignment. Due to a lack of precipitation, the species may have remained dormant during 2021; however, it was observed in the 2024 surveys (see Attachment A, Figure 6). The CNDDB contains records of creamy blazing star within five miles of the Project Area (CDFW, 2021b). There are iNaturalist observations of this species within five miles of the Project Area. A recent record is located within the Project Area at Line 2 Tower 132-2. Based on the presence of suitable habitat, recent records, and observation during surveys, creamy blazing star has a high potential to occur in the California of the Project Area in a year with average rainfall.

White margined beardtongue (*Penstemon albomarginatus*). White margined beardtongue is recognized as a sensitive species by the California and Nevada BLM, and is a Nevada State Tracked, and has a CRPR 1B.1. It is a perennial herb in the plantain (Plantaginaceae) family and blooms in the spring from March to May. It occurs in washes and along roadsides within Mojavean desert scrub and desert dunes with deep stabilized desert sand; about 1,800-3,500 ft. elevation in San Bernardino County California to Nevada and Arizona.

White margined beardtongue was not observed during the survey of the alignment. There are no CNDDB or iNaturalist observations of this species within five miles of the Project Area. There are five NDNH database records observations of this species within five miles of the Project Area (NDNH 2021a). These records are dated from 1993 through 2011. Recent records are in the Line 1 Tower 21-2 Project Area of the Nevada segment. Additional historic records are located along the Line 1 Project Area between Line 1 Tower 20-1 and 22-1. Based on the presence of suitable habitat and recent nearby records; white margined beardtongue has a high potential to be present within the Nevada segment but low potential within the California segment.

Rosy two-toned beardtongue (*Penstemon bicolor ssp. roseus***).** Rosy two-toned beardtongue is recognized as a sensitive species by the California and Nevada BLM and has a CRPR 1B.1. It is a perennial herb in the plantain family and blooms in May. It occurs on rocky or gravelly sites within Joshua tree woodland and Mojavean desert scrub communities about 2,800-4,900 ft. elevation in the Clark Mountains in San Bernardino County and southern Nevada.

A total of 134 individual rosy two-toned beardtongue were observed within the California Segment of the alignment. Rosy two-toned beardtongue was observed in the Clark Mountains and the Ivanpah Valley portions of the Project Area. The CNDDB contains six records of rosy two-toned beardtongue within five miles of the Project Area (CDFW, 2021a). They are dated from 1959 through 2015. There are no iNaturalist observations of this species within five miles of the Project Area. Based on the occurrences from the 2021

surveys, rosy two-toned beardtongue has a high potential to occur within the California segment of the Project Area.

Within the Nevada segment of the alignment, a total of 56 individuals were observed within the Project Area. The species was observed within the McCullough Range and the Ivanpah Valley portions of the Project Area (see Attachment A, Figure 6). The NDNH database contains 14 records of rosy two-toned beardtongue within five miles of the Project Area (NDNH, 2021a). They are dated from 1960 through 1998. There are no iNaturalist observations of this species within five miles of the Project Area. Based on the occurrences from the 2021 surveys, rosy two-toned beardtongue has a high potential to occur within the Nevada segment of the Project Area.

Parish's phacelia (*Phacelia parishii***).** Parish's phacelia is recognized as a sensitive species by the California and Nevada BLM and has a CRPR 1B.1. It is an annual herb in the borage (Boraginaceae) family and blooms in the spring from April to June. It occurs in open areas, alkaline flats, and slopes with clay soils within Mojavean desert scrub, playa communities about 1,700-4,000 ft. elevation within the Mojave Desert in Inyo and San Bernardino Counties to Nevada and Arizona.

Within the California segment, Parish's phacelia was not observed during the survey of the Project Area. Due to a lack of precipitation, the species may have remained dormant during 2021. The CNDDB contains two records of Parish's phacelia within five miles of the Project Area (CDFW, 2021a). They are dated from 1992 through 2017. There are no iNaturalist observations of this species within five miles of the Project Area. Recent records are located approximately 600 feet north of Line 1 Tower 112-4 in the California segment. In addition, several historic records are located along the Project alignment near Barstow. Based on the presence of suitable habitat and recent records, Parish's phacelia has a high potential to occur along the California segment.

Within the Nevada segment, Parish's phacelia was not observed during the survey of the Project Area. There are no NDNH database or iNaturalist records of Parish's phacelia within five miles of the Project Area. Based on the presence of suitable habitat and a lack of records, Parish's phacelia has a low potential to occur along the Nevada segment.

Rusby's desert-mallow (Sphaeralcea rusbyi var. eremicola). Rusby's desert-mallow is recognized as a sensitive species by the California BLM and has a CRPR 1B.2. It is a perennial herb in the mallow (Malvaceae) family and blooms in May. It occurs on carbonate soils and washes within creosote bush scrub, blackbush scrub and Joshua tree woodland communities about 3,300-4,900 ft. elevation in the Clark Mountain range in Inyo and San Bernardino Counties.

A total of 285 Rusby's desert-mallow was observed during the survey of the California segment in 2021. Within the California segment a total of 61 locations were identified within the Clark Mountains and the Ivanpah Valley (see Attachment A, Figure 6). In addition, this species was observed during surveys in 2024. One additional population was observed within the Nevada segment at Line 2 Tower 25-5, but Rusby's desert-mallow is not considered sensitive by the Nevada BLM or the state of Nevada. The CNDDB contains 38 records of Rusby's desert-mallow within five miles of the Project Area (CDFW, 2021a). They are dated from 1978 through 2013. There are no iNaturalist observations of this species within five miles of the Project Area. Based on the present of suitable habitat, recent records, and observations during the 2021 and 2024 surveys, Rusby's desert-mallow has a high potential to occur with the Project Area.

Other Special-status Plants

Several other special-status plant species ranked by the State of Nevada, or CNPS have at least a moderate potential to be present or were observed during the 2021 or 2024 surveys. These include several plants

ranked as CRPR 2 species and CRPR 4 species or NDNH Sensitive, Watch List and Tracking List. These species, with at least a moderate potential to be present are described below.

Twenty-seven plants with special-status rankings were identified during the literature review and/or detected in the Project Area during the 2021 and 2024 surveys. Those with a CRPR of 1 or 2 that have at least a moderate potential to be present in the Project Area or were observed during 2021 or 2024 surveys are discussed further. Those with a CRPR of 4 are species with a limited distribution in California and are not addressed any further, although those observed within the Project Area are shown in Attachment A, Figure 6.

- Clark Mountain agave (Agave utahensis var. nevadensis)
- Desert wing-fruit (*Acleisanthes nevadensis*)
- Nevada onion (Allium nevadense)
- Mojave milkweed (Asclepias nyctaginifolia)
- Tidestrom's milkvetch (Astragalus tidestromii)
- Scaly cloak fern (*Astrolepis cochisensis* ssp. *cochisensis*)
- Black grama (Bouteloua eriopoda)
- Three-awned grama (Bouteloua trifida)
- Emory's crucifixion thorn (*Castela emoryi*)
- Desert pincushion (*Coryphantha chlorantha*)
- Viviparous foxtail cactus (*Coryphantha vivipara* var. *rosea*)
- Ashen forget me not (*Cryptantha costata*)
- New York Mountains catseye (*Cryptantha tumulosa*)
- Gilman's cymopterus (Cymopterus gilmanii)
- Purple-nerve cymopterus (*Cymopterus multinervatus*)

- Naked-stemmed daisy naked-stemmed daisy (*Enceliopsis nudicaluis* var. *nudicaulis*)
- Nine-awned pappus grass (Enneapogon desvauxii)
- Clark Mountain. buckwheat (Eriogonum heermannii var. floccosum)
- Desert bedstraw (Galium proliferum)
- Parish's club-cholla (*Grusonia parishii*)
- Argus blazing star/Darlington's blazing star (*Mentzelia puberula*)
- Utah mortonia (*Mortonia utahensis*)
- Cave evening-primrose (Oenothera cavernae)
- Caespitos evening-primrose (*Oenothera cespitosa* spp. *crinite*)
- Sky-blue phacelia (Phacelia coerulea)
- Abert's sanvitalia (Sanvitalia abertii)
- Mojave fishhook cactus (*Sclerocactus polyancistrus*)
- Mormon needle grass (Stipa arida)

Desert wing-fruit (*Acleisanthes nevadensis***).** Desert wing-fruit has a CRPR 2B.1. It is a perennial herb in the four o'clock (Nyctaginaceae) family and it blooms during the summer from June to September. It occurs on rocky slopes and shale outcrops within Joshua tree woodland and Mojavean desert scrub about 2,500–3,800 ft. elevation in the Kingston Range to southwestern Utah and northwestern Arizona.

Desert wing-fruit was not observed during the survey of the alignment. The CNDDB contains four records of desert wing-fruit within five miles of the Project Area (CDFW, 2021a). They are dated from 2011 through 2012. There are no iNaturalist observations of this species within five miles of the Project Area. Recent records are located along Excelsior Mine Road approximately 1.4 miles north of Line 1 Tower 45-5 on the California segment. Based on the presence of suitable habitat and recent nearby records; desert wing-fruit has a high potential to be present within the California segment.

Nevada onion (Allium nevadense). Nevada onion has a CRPR 2B.3. It is a perennial herb in the onion (Alliaceae) family, and it blooms during the summer from April to May. It occurs on sandy or gravelly slopes in desert mountains within pinyon/juniper woodland and Mojavean desert scrub; about 4,200–5,600 ft. elev.; desert mountains within San Bernardino and Inyo Counties to Oregon, Idaho, Colorado, and Arizona.

Nevada onion was not observed during the survey of the alignment. The CNDDB contains two records of Nevada onion within five miles of the Project Area (CDFW, 2021a). These records are dated from 1949

through 2013. There are no iNaturalist observations of this species within five miles of the Project Area. A recent record is located along the Project Area approximately 300 feet south of Line 2 Tower 56-2 on the California segment. Based on the presence of suitable habitat and recent nearby records; Nevada onion has a high potential to be present within the California segment.

Mojave milkweed (*Asclepias nyctaginifolia***).** Mojave milkweed has a CRPR 2B.1. It is a perennial herb in the dogbane (Apocynaceae) family, and it blooms from May to June. It occurs in arroyos and on dry slopes within Mojavean desert scrub and pinyon/juniper woodland communities about 3,200–5,600 ft. elevation within the Clark and New York Mountains in San Bernardino County to Nevada and New Mexico.

Mojave milkweed was not observed during the survey of the alignment. Due to a lack of precipitation, the species may have remained dormant during 2021. The CNDDB contains 40 records of Mojave milkweed within five miles of the Project Area (CDFW, 2021a). These records are dated from 2008 through 2013. There is one iNaturalist observation of this species within five miles of the Project Area from 2019 (iNaturalist, 2021). Recent records are located along the Project alignment approximately 350 feet from the Line 2 Tower 32-3 in the California segment. Based on the presence of suitable habitat and recent nearby records; Mojave milkweed has a high potential to be present within the Project Area in the California segment.

Tidestrom's milkvetch (*Astragalus tidestromii***).** Tidestrom's milkvetch has a CRPR 2B.2. It is a perennial herb in the legume (Fabaceae) family, and it blooms from April to July. It occurs within washes with sandy or calcareous gravel in Mojavean desert scrub communities about 1,900–5,300 ft. elevation; occurs primarily in the Mojave Desert Near Cima within San Bernardino County to Inyo County and southern Nevada.

Tidestrom's milkvetch was observed during the survey of the alignment. A total of 25 individuals were observed at 10 locations within the California segment of the Project Area. All observations were restricted to the east-facing slopes of the Clark Mountains and within the Kingston Range (see Attachment A, Figure 6). The CNDDB contains 26 records of Tidestrom's milkvetch within five miles of the Project Area (CDFW, 2020a). These records are dated from 1933 through 2013. There are iNaturalist observations of this species within five miles of the Project Area. Based on the presence of suitable habitat, recent nearby records, and observations during the 2021 surveys, Tidestrom's milkvetch has a high potential to be present within the Project Area.

Scaly cloak fern (*Astrolepis cochisensis* ssp. *cochisensis***).** Scaly cloak fern has a CRPR: 2B.3. It is a moss in the maidenhair fern (Pteridaceae) family, and it blooms from April to October. It occurs on slopes and in crevices within areas of limestone substrate of desert mountains. The scaly cloak fern generally occurs in Joshua tree woodland and pinyon/juniper woodland vegetation communities; about 3,300–5,300 ft. elevation amsl of the Mojave Desert within San Bernardino County.

Scaly cloak fern was not observed during the survey of the alignment. Due to a lack of precipitation, the species may have remained dormant during 2021. The CNDDB contains 10 records of scaly cloak fern within five miles of the Project Area (CDFW, 2021a). They are dated from 1940 through 2008. There are iNaturalist observation of this species within five miles of the Project Area. A recent record is located approximately two miles southeast of the Line 2 Tower 34-4 Project Area on the California segment. Based on the presence of suitable habitat and recent nearby records, scaly cloak fern has a high potential to be present in the Project Area

Three-awned grama (*Bouteloua trifida***).** Three-awned grama has a CRPR 2B.3. It is a perennial grass like herb in the grass (Poaceae) family, and it blooms during the summer from May to September. It occurs on dry, rocky, generally calcareous slopes, crevices, or washes within Mojavean desert scrub communities

about 600-5,300 ft. elevation within the northern and eastern portions of Mojave Desert (mostly desert mountains) to Utah, Texas, and central Mexico.

Three-awned grama was observed during the survey of the alignment. A total of 43 individuals were observed at five locations within the California segment of the Project Area. All observations were restricted to the east-facing slopes of the Clark Mountains and the Ivanpah Valley (see Attachment A, Figure 6). The CNDDB contains eight records of three-awned grama within five miles of the Project Area (CDFW, 2021a). They are dated from 1978 through 2013. There are iNaturalist observation of this species within five miles of the Project Area. Based on the presence of suitable habitat, recent nearby records, and observations during the 2021 surveys, three-awned grama has a high potential to be present in the Project Area.

Emory's crucifixion thorn (*Castela emoryi***).** Emory's crucifixion thorn has a CRPR 2B.1. It is a shrub in the quassia (Simaroubaceae) family, and it blooms during the summer from June to July. It occurs in areas of fine sand or silt, within slopes, washes, plains, and non-saline bottomland within Mojavean desert scrub, and playas; about 350–2,100 ft. elevation in the Mojave and Sonoran Deserts to Arizona and Baja California.

Emory's crucifixion thorn was not observed during the survey of the alignment. The CNDDB contains three records of Emory's crucifixion thorn within five miles of the Project Area (CDFW, 2021a). They are dated from 1947 through 2012. There are recent iNaturalist observations of this species within five miles of the Project Area. A recent record is located approximately 3.6 miles southeast of the Line 2 Tower 83-3 Project Area. Based on the presence of suitable habitat and recent nearby records, Emory's crucifixion thorn has a high potential to be present in the California segment.

Desert pincushion (*Coryphantha chlorantha***).** Desert pincushion has a CRPR 2B.1. It is a perennial herb (stem succulent) in the cactus family, and it blooms from April to September. It occurs on calcareous substrates within rocky and gravelly sites in Mojavean desert scrub, Joshua tree woodland, and pinyon/ juniper woodland communities about 3,200-7,900 ft. elevation primarily in the Clark Mountains and the Kingston Range in eastern San Bernardino County.

Desert pincushion was observed during the survey of the alignment. A total of 315 induvial cacti were identified within the California segment of the Project Area. All observations were restricted to the Clark Mountains, Kingston Range, and the Ivanpah Valley (see Attachment A, Figure 6). Additional observations of the species occurred within the Nevada segment, but the species is not considered sensitive by the Nevada BLM or the state of Nevada. The CNDDB contains 41 records of Emory's crucifixion thorn within five miles of the Project Area (CDFW, 2021a). They are dated from 1961 through 2013. There are iNaturalist observations of this species within five miles of the Project Area within the California segment. These records are from 2016 through 2023. Based on the presence of suitable habitat, recent nearby records, and observations during the 2021 surveys, desert pincushion has a high potential to be present in the Project Area.

Viviparous foxtail cactus (*Coryphantha vivipara* **var.***rosea***).** Viviparous foxtail cactus is considered a state of Nevada Sensitive Cactus and has a CRPR 2B.2. It is a perennial herb (stem succulent) in the cactus family, and it blooms during the summer from May to June. This species occurs on gravelly limestone or volcanic slopes and brushy hillsides within Mojavean desert scrub and pinyon/juniper woodland communities about 4,900-8,900 ft. elevation within the Clark and New York Mountains in eastern San Bernardino County and southern Nevada.

Viviparous foxtail cactus was observed during the survey of the California segment of the Project Area. A total of 253 individuals were identified within the California segment in 2021. All observations were

restricted to the Clark Mountains, Kingston Range, and the Ivanpah Valley (see Attachment A, Figure 6). The CNDDB contains four records of Viviparous foxtail cactus within five miles of the Project Area (CDFW, 2021a). They are dated from 1980 through 2005. There are no iNaturalist observations of this species within five miles of the Project Area. Based on the presence of suitable habitat, recent nearby records, and observations during the 2021 surveys, viviparous foxtail cactus has a high potential to be present in the Project Area.

Within the Nevada segment, a total of 153 individual Viviparous foxtail cactus were observed along the Project Area (see Attachment A, Figure 6). There are no NDNH database or iNaturalist records within five miles of the Project Area. Based on the presence of suitable habitat and observations during the 2021 surveys, viviparous foxtail cactus has a high potential to be present in the Project Area.

Gilman's cymopterus (*Cymopterus gilmanii***).** Gilman's cymopterus has a CRPR 2B.3 It is a perennial herb in the parsley (Apiaceae) family, and it blooms from April to May. The species occurs on limestone and gypsum slopes within Mojavean desert scrub communities about 2,900-6,600 ft. elevation primarily in the Clark Mountains of San Bernardino County and desert mountains of Inyo County and Nevada.

Gilman's cymopterus was not observed during the survey of the alignment. Due to a lack of precipitation, the species may have remained dormant during 2021. The CNDDB contains 11 records of Gilman's cymopterus within five miles of the Project Area (CDFW, 2021a). They are dated from 1973 through 2013. There are no iNaturalist observations of this species within five miles of the Project Area. Recent records are located approximately 1.5 miles to the north of the Line 1 Tower 29-4 Project Area in the California segment. Based on the presence of suitable habitat and recent nearby records; Gilman's cymopterus has a high potential to be present in a year with higher-than-average rainfall.

Purple-nerve cymopterus (*Cymopterus multinervatus***).** Purple-nerve cymopterus has a CRPR 2B.2. It is a perennial herb in the parsley family, and it blooms during the spring from March to April. It occurs on sandy and rocky slopes within Mojavean desert scrub and pinyon/juniper woodland communities about 2,000-5,900 ft. elevation within desert mountains of Inyo, Riverside and San Bernardino Counties. Within the vicinity of the Project Area occurrences primarily occur within the Clark and Rodman Mountains.

Purple-nerve cymopterus was not observed during the survey of the alignment. Due to a lack of precipitation, the species may have remained dormant during 2021. The CNDDB contains four records of purplenerve cymopterus within five miles of the Project Area (CDFW, 2021a). They are dated from 2010 through 2015. There are no iNaturalist observations of this species within five miles of the Project Area. Recent records are located along Excelsior Mine Road approximately 4.3 miles north of the Line 1 Tower 45-5 Project Area in the California segment. Based on the presence of suitable habitat and recent nearby records, purple-nerve cymopterus has a high potential to be present within the Project Area in a year with average rainfall.

Nine-awned pappus grass (Enneapogon desvauxii). Nine-awned pappus grass has a CRPR 2B.2. It is a perennial grass like herb in the grass family and it blooms during the late summer from August to September. This species is found on rocky slopes and crevices in decomposed granite, or in gravelly limestone soils within pinyon/juniper woodland about 4,100-6,000 ft. elevation primarily in the Clark and New York Mountains of the eastern Mojave Desert in San Bernardino County.

Nine-awned pappus grass was not observed during the survey of the alignment. Due to a lack of precipitation, the species may have remained dormant during 2021. It should be noted that surveys were conducted outside of the known blooming period for the species. The CNDDB contains 24 records of nineawned pappus grass within five miles of the Project Area (CDFW, 2021a). These records are dated from 1977 through 2013. There are no iNaturalist observations of this species within five miles of the Project Area. Recent records are located within the Line 1 Tower 43-3 Project Area east of Excelsior Mine Road within the California segment. Based on the presence of suitable habitat and recent nearby records; nine-awned pappus grass has a high potential to be present in a year with average rainfall.

Desert bedstraw (*Galium proliferum***).** Desert bedstraw has a CRPR 2B.2. It is an annual herb in the madder (Rubiaceae) family, and it blooms during the spring from April to May. It occurs on rocky banks and limestone ledges within Joshua tree woodland, Mojavean desert scrub and pinyon/juniper woodland communities about 3,600-4,600 ft. elevation; primarily within the Clark and New York Mountain in San Bernardino County.

Desert bedstraw was not observed during the survey of the alignment. The CNDDB contains four records of desert bedstraw within five miles of the Project Area (CDFW, 2021a). These records are dated from 2003 through 2013. There are no iNaturalist observations of this species within five miles of the Project Area. A recent record is located approximately 1.8 miles north of the Line 1 Tower 34-3 Project Area in the Clark Mountains in the California segment. Based on the presence of suitable habitat and recent nearby records, desert bedstraw has a moderate potential to be present in a year with average rainfall.

Parish's club-cholla (*Grusonia parishii***).** Parish's club-cholla has a CRPR 2B.2. It is a perennial herb (stem succulent) in the cactus family, and it blooms from May to June. The species occurs in sandy soils or gravelly flats generally in Mojavean desert scrub and Joshua tree woodland communities about 900-4,000 ft. elevation; primarily within desert mountains in Riverside and San Bernardino County, within the vicinity of the Project Area the species primarily occurs within the Clark and New York Mountains and Nevada.

Parish's club-cholla was observed during the survey of the alignment in both 2021 and 2024. A total of 40 individuals were identified within the California segment of the Project Area. All observations were restricted to the Ivanpah Valley and west of the Clark Mountains (see Attachment A, Figure 6). Additional observations of the species occurred within the Nevada segment, but the species is not considered sensitive by the BLM Nevada or the state of Nevada. The CNDDB contains eight records of Parish's club-cholla within five miles of the Project Area (CDFW, 2021a). These records are dated from 2007 through 2013. There are iNaturalist observations of this species within five miles of the California segment of the Project Area. Based on the presence of suitable habitat, recent nearby records, and observations during the 2021 and 2024 surveys, Parish's club-cholla has a high potential to be present in the Project Area.

Argus blazing star/Darlington's blazing star (*Mentzelia puberula***).** Arugus blazing star has a CRPR 2b.2; however, this species is not sensitive in Nevada. This perennial herb species blooms March to May. It generally occurs in Mojavean desert scrub about 295-4200 feet elevation. Found at bases of steep cliffs in crevices granite, limestone, steep gravelly and sand slopes, sandy washes.

Argus blazing star was observed in Nevada only. The species is not considered sensitive in Nevada; however, it is considered sensitive in California. Several observations occur in California including an observation on BLM land in Clark Mountains area along a powerline road on the north side of the range (part of Herbarium of Rancho Santa Ana Botanic Garden 2016) (Calfora 2024). Argus blazing star is present in Nevada and has a high potential to occur in the California segment of the Project Area.

Cave evening-primrose (*Oenothera cavernae***).** Cave evening-primrose has a CRPR 2B.1. It is a perennial herb in the evening primrose (Onagraceae) family, and it blooms from April to May. This species generally occurs on gravelly, often calcareous substrate within Great Basin scrub, Joshua tree woodland and Mojavean desert scrub communities about 6,200-7,600 ft. elevation; within the vicinity of the Project Area the species occurs within the Clark Mountains in San Bernardino County and southern Nevada.

Cave evening-primrose was not observed during the survey of the alignment. The CNDDB contains six records of cave evening-primrose within five miles of the Project Area (CDFW, 2021a). These records are dated from 2007 through 2013. There are no iNaturalist observations of this species within five miles of the Project Area. Recent records are located 2.5 miles north of the Line 1 Tower 32-1 Project Area within the Clark Mountains. Based on the presence of suitable habitat and recent nearby records; Cave evening-primrose has a high potential to be present in the California segment in a year with average rainfall.

Sky-blue phacelia (*Phacelia coerulea***).** Sky-blue phacelia has a CRPR 2B.3. It is an annual herb in the borage (Boraginaceae) family, and it blooms from April to May. The species occurs in open areas with sandy to rocky substrates within pinyon/juniper woodland and Mojavean desert scrub communities about 4,500-6,600 ft. elevation within the Mojave Desert to Utah, Texas, and northern Mexico. Within the vicinity of the Project Area the species occurs within the Clark and New York Mountains of eastern San Bernardino County and southern Nevada.

Sky-blue phacelia was not observed during the survey of the alignment. The CNDDB contains two records of sky-blue phacelia within five miles of the Project Area (CDFW, 2021a). They are dated from 2010 through 2013. Recent records are located 2.4 miles north of the Line 1 Tower 32-5 Project Area within the Clark Mountains in the California segment. Based on the presence of suitable habitat and recent nearby records; sky-blue phacelia has a high potential to be present in the California segment in a year with average rainfall.

Abert's sanvitalia (*Sanvitalia abertii***).** Abert's sanvitalia has a CRPR 2B.2. It is an annual herb in the aster (Asteracear) family, and it blooms from August through October. The species occurs in rocky limestone slopes and washes within pinyon/juniper woodland and blackbrush scrub; about 4,700-5,800 ft. elevation within the desert mountains (Clark, Mescal, and New York Mountains) in San Bernardino County to Texas and northern Mexico.

Abert's sanvitalia was not observed during the survey of the alignment. The CNDDB contains eight records of Abert's sanvitalia within five miles of the Project Area (CDFW, 2021a). These records are dated from 1950 through 2012. There are no iNaturalist observations of this species within five miles of the Project Area. A recent record is located one mile south of the Line 2 Tower 34-3 Project Area within the Clark Mountains in the California segment. Based on the presence of suitable habitat and recent nearby records; Abert's sanvitalia has a high potential to be present in the California segment.

Mojave fishhook cactus (*Sclerocactus polyancistrus***).** Mojave fishhook cactus is a state of Nevada Protected Cactus and has a CRPR 4.2. It is a shrub (stem succulent) in the cactus (Cactaceae) family, and it blooms from April to July. It occurs on well-drained soil, on rocky gravelly mesas, slopes & outcrops in Joshua tree woodland, Mojavean desert scrub and Great Basin scrub about 2,100-7,600 ft. elevation within desert mountains in Kern, Inyo, and San Bernardino Counties to Nevada.

A single Mojave fishhook cactus was observed during the survey of the alignment at Line 2 Tower 157-4 within the California segment of the Project Area (see Attachment A, Figure 6). A single Mojave fishhook cactus was also observed within the Nevada segment of the Project Area at the Line 2 Tower 9-4 Project Area. Suitable habitat and recent records are present within the California and Nevada segments of the Project Area. The CNDDB and NDNH database do not contain records of fishhook cactus within five miles of the Project Area. There is a recent iNaturalist observation of this species within five miles of the Project Area. This record is located within the California segment and is from 2020. Based on the presence of suitable habitat, recent nearby records, and observations during the 2021 surveys, Parish's club-cholla has a high potential to be present in the California and Nevada segments of the Project Area.

Mormon needle grass (Stipa arida). Mormon needle grass has a CRPR 2B.3. It is a perennial grass like herb in the grass family and it blooms from May to August. It occurs on rocky, limestone ridges within pinyon/juniper woodland and Joshua tree woodland communities about 3,600-6,100 ft. elevation primarily within the Clark and New York Mountains as well as within the Kingston Range.

Mormon needle grass was not observed during the survey of the alignment. The CNDDB contains 10 records of Mormon needle grass within five miles of the Project Area (CDFW, 2021a). They are dated from 1959 through 2015. There is one iNaturalist observation of this species within five miles of the Project Area (iNaturalist, 2024). This record is dated from 2020. Recent records are located approximately 1.5 miles north of the Line 1, Tower 34-1 Project Area in the Clark Mountains. Based on the presence of suitable habitat and nearby recent records, Mormon needle grass has a high potential to be present in the California segment of the Project Area.

California Rare Plant Rank 4 Species. Seven special-status plants with a CRPR of 4 (watch list) are known from the vicinity of the alignment: Ashen forget me not, naked-stemmed daisy, black grama, Clark Mountain buckwheat, Clark Mountain agave, Cespitose evening-primrose, and Utah mortonia and ranked as CRPR 4 species (i.e., a "watch list," not indicating rarity) and none are listed as threatened or endangered. These species were observed within the Project Area and has a high potential of occurrence along the route, although the species is not recognized as BLM Sensitive or as regionally rare. The exception is Clark Mountain agave, which is on the Nevada Bureau of Land Management Special Status Species List but was not seen in Nevada during surveys and records are outside the Project Area in Nevada.

5.4.2 Special-status Wildlife Species

Based upon review of the literature, databases, and surveys a list of special-status wildlife species that are known to occur in the Project Area and/or broader Study Area was compiled (see Attachment A, Figure 5 & Figure 7). The locations of special-status animals observed in the Project Area during the 2021 surveys were also recorded and mapped (see Attachment A, Figure 7).

Table 5 list the special-status wildlife species reported within a five-mile buffer surrounding the Project area that were identified during the literature review and/or detected in the Project Area during the 2021 surveys and summarizes their habitat, distribution, conservation status, and probability of occurrence in the Project Area (based on geographic ranges, habitat conditions, and proximity to known locations) in both the California and Nevada segments. Several special-status species or their sign were observed in the alignment during the surveys. Several special-status wildlife species could be present (see Table 5); those species with at least a moderate potential to be present are described below. Species accounts for special-status wildlife that were either detected during the 2021 surveys or with at least a moderate potential to occur in the Project Area are included.

Special-Status	is Wildlife Occurrence Probabilities in the Project	Activity	Conservation	
Wildlife Species	Habitat and Distribution	Season	Status	Potential to Occur
INVERTEBRATES				
<i>Bombus crotchii</i> Crotch bumble bee	Occurs in open grassland and scrub habitats. This species is a ground nesting species. Occurs in coastal California east to the Sierra-Cascade crest and south into Mexico.	Colony Active Period February - October	FED: none BLM CA: none BLM NV: none CA: CAN, S1S2 NV: none	CA Seg: Moderate- Species not observed during surveys. Suitable habitat present. Species is known from one recent iNaturalist records near Victorville. NV Seg: Suitable habitat is present; species is not considered sensitive in Nevada.
<i>Bombus morrisoni</i> Morrison bumble bee	Requires thistles, bladderpods, sunflower, lupines, rabbitbrush and clovers as food sources. Occurs from the Sierra-Cascade ranges eastward across the intermountain west.	Active during flight season March -	FED: none BLM CA: none BLM NV: none CA: SA, S1S2 NV: none	CA Seg: Moderate- Species not observed during surveys. Suitable habitat present. Species is known from historic records within the vicinity of the Project Area. NV Seg: Suitable habitat is present; species is not
		October		considered sensitive in Nevada.
Helminthoglypta mohaveana Victorville shoulderband	Found among granite boulders and at the base of rocky cliffs. Known only from along the Mojave River in San Bernardino County.	Year-round	FED: none BLM CA: none BLM NV: none CA: SA, S1 NV: none	CA Seg: Present Observed during surveys in 2024. Occurrence of this species is documented in the Mojave River adjacent to the Survey Area.
				NV: Seg: Not likely to occur because outside of range.
<i>Miloderes mercuryensis</i> Mercury weevil	This species is a sand dune obligate. Only Seven known specimens of this beetle. One at the type locality in Mercury and 6 others in similar habitats but further south in Clark County.	n/a	FED: none BLM CA: none BLM NV: S CA: none NV: S1, T	Not Likely to occur. This species is dependent upon sand dunes habitats, which are not found in the Project Area in the Nevada segment.
Plebulina emigdionis San Emigdio blue butterfly	Found in desert canyons & along riverbeds in Inyo, Kern, Los Angeles, and San Bernardino Counties. Host plant is fourwing saltbush and American bird's	Apr-Sep	FED: none BLM CA: none BLM NV: none CA: SA, S1S2 NV: none	CA Seg: High- Species not observed during surveys. Suitable habitat present. Species is known from recent records within the vicinity of the Project Area
	foot trefoil.			NV Seg: Outside of geographical range of the species.
FISH				
Siphateles bicolor mohavensis Mohave tui chub	Endemic to the Mojave River basin. Requires deep pools, ponds, or slough-like areas and vegetation for spawning.	Year-round	FED: END BLM CA: S BLM NV: none CA: END, FP, S1 NV: none	Not Likely to occur. This species is dependent upon aquatic habitats, which are not found within the Project Area.

Special-Status Wildlife Species	Habitat and Distribution	Activity Season	Conservation Status	Potential to Occur
AMPHIBIANS				
Anaxyrus californicus Arroyo toad	Found in semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian and desert wash. Requires sandy banks with willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range. Found in the southern Coast Ranges from northern San Luis Obispo County south to Baja California.	Mar-Jul	FED: END BLM CA: none BLM NV: none CA: CSC, S2S3 NV: none	CA: Seg: Low The species was not observed. CNDDB records include the Mojave River south of the Project Area from Highway 15 to Highway 18. No iNaturalist records in the Project Area. USFWS range map includes the Mojave River south and approximately 7 miles north of the Project Area. NV Seg: Not likely to occur outside of range.
Rana draytonii California red-legged frog	Occurs in lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation; requires 11-20 weeks of permanent water for larval development; must have access to aestivation habitat. Occurs along the Coast Ranges from Mendocino County south and in portions of the Sierra Nevada and Cascades ranges.	Year-round	FED: THR BLM CA: none BLM NV: none CA: CSC, S2S3 NV: none	CA Seg: Not Likely to occur. This species is dependent upon permanent deep water and riparian habitats. No recent records (iNaturalist or CNDDB). California Red-legged Frog Predicted Habitat is low to high along the Mojave River near the Victorville Switching Station, but unsuitable habitat and barriers exist between river and Switching station. NV Seg: Not likely to occur . Outside of known range.
REPTILES			•	
Crotaphytus bicinctores Great Basin collared lizard	Occurs mainly in xeric, sparsely vegetated rocky areas, on alluvial fans, lava flows, hillsides, rocky plains, and in canyons; from about sea level to about	Spring-Fall	FED: none BLM CA: none BLM NV: S	CA Seg: Present- Observed during surveys, not considered sensitive in California. NV Seg: High- Suitable habitat is present; recent
	7,500 ft		CA: none NV: WL, S4	record within Project Area.
Diadophis punctatus regalis Regal ringneck snake	Found near moist microhabitats such as springs and intermittent streams in higher elevation desert mountains. Known from the Clark, Providence, and Grapevine Mountain ranges.	Spring-Fall	FED: none BLM CA: none BLM NV: none CA: CSC, S2S3 NV: none	Not Likely to occur. This species is dependent upon springs and intermittent drainages, which are not found in the Project Area.
Dipsosaurus dorsalis Desert iguana	Inhabits hummocks of loose sand and patches of firm ground with scattered rocks and desert washes	Spring-Fall	FED: none BLM CA: none	CA Seg: Present- Observed during surveys, not considered sensitive in California.
	creosote bush scrub from below sea level to 3,300 ft.		BLM NV: S CA: none NV: WL, S3	NV Seg: Present- Suitable habitat present within the Project Area. Species not observed during surveys. Recent records present within vicinity of Project Area.

Special-Status	us Wildlife Occurrence Probabilities in the Project	Activity	Conservation	
Wildlife Species	Habitat and Distribution	Season	Status	Potential to Occur
<i>Emys marmorata</i> Western pond turtle	Inhabits permanent or nearly permanent bodies of water in various habitat types; requires basking sites. Occurs in the California, west of the Sierra- Cascade crest Mojave Desert along the Mojave River and its tributaries.	Year- around	FED: none BLM CA: S BLM NV: S CA: CSC, S3 NV: WL, S2	 CA Seg: Moderate – Species not observed during surveys. CNDDB occurrence of species within the Mojave River. No iNaturalist occurrences in Project Area. NV Seg: Not likely to occur. Outside of geographic range of the species.
Gambelia wislizenii Long-nosed leopard		FED: none BLM CA: none	CA Seg: Present- Observed during surveys, not considered sensitive in California.	
lizard	sagebrush, creosote bush with abundant small mammal burrows; from about sea level to approximately 6,000 ft. across the western U.S.		BLM NV: none CA: none NV: WL, S4	NV Seg: Present- Species was observed during surveys.
Gopherus agassizii Desert tortoise	Inhabits, gravelly desert washes, canyon bottoms and rocky hillsides. Associated plant species includes	Spring-Fall	FED: THR BLM CA: S	CA Seg: Present- Species and suitable burrows observed along alignment.
	creosote bush, Joshua tree, cheesebush, saltbush, grasses, and cacti. Occurs only in California, extreme southern Nevada, extreme southwest Utah, and extreme northwest Arizona.		BLM NV: S CA: THR, S2S3 NV: TR, S2S3	NV Seg: Present- Species and suitable burrows observed along alignment.
Heloderma suspectum cinctum Banded Gila monster	Inhabits the lower slopes of rocky canyons and arroyos and desert flats among scrub and succulents. Eggs are laid in soil in excavated nests; soil must be sandy or friable. Inhabits the eastern	Spring-Fall	FED: none BLM CA: S BLM NV: S CA: CSC, S1	CA Seg: High- Suitable habitat present within the Project Area. Species not observed during surveys. Recent records present within vicinity of Project Area.
	Mojave and Colorado Deserts.		NV: PR, S2	NV Seg: Low- Suitable habitat present within the Project Area. Species not observed during surveys. No recent records present within vicinity of Project Area.
Phrynosoma blainvillii Coast horned lizard	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate zones; prefers friable, rocky, or shallow sandy soils; requires native ant food source. Pacific coast to the deserts and the Sierra Nevada, north to the Bay Area, and south into Baja California.	Spring-Fall	FED: none BLM CA: S BLM NV: none CA: CSC, S3S4 NV: none	Not Likely to occur. No suitable habitats present within Project Area. Records within area are historic On edge of geographic range of species.

Special-Status Wildlife Species	Habitat and Distribution	Activity Season	Conservation Status	Potential to Occur
Phrynosoma platyrhinos	Inhabits open sandy areas in deserts, chaparral, grassland, often near ant hills. Occurs across the	Spring-Fall	FED: none BLM CA: none	CA Seg: Observed during surveys, not considered sensitive in California.
Desert horned lizard	western U.S.		BLM NV: none CA: none NV: WL, S4	NV Seg: High- Suitable habitat is present; no recent records within Project Area.
<i>Sauromalus ater</i> Common chuckwalla	Inhabits rocky desert; lava flows, hillsides, and outcrops, with creosote bush; individuals seek	Spring-Fall	FED: none BLM CA: none	CA Seg: Present- Observed during surveys, not considered sensitive in California.
	shelter in rock crevices; occurs across the southwestern U.S.		BLM NV: S CA: S4 NV: WL, S3	NV Seg: Present- Species was observed during surveys.
<i>Uma scoparia</i> Mojave fringe-toed lizard	Requires fine, loose, wind-blown sand in sand dunes, dry lakebeds, riverbanks, desert washes, sparse alkali scrub and desert scrub. Shrubs or annual plants may be necessary for arthropods found in the diet. Occurs in desert regions of Inyo,	Mar-Oct	Mar-Oct FED: none BLM CA: S BLM NV: none CA: CSC, S3S4	CA Seg: Low- Species not observed during surveys. Suitable habitats present within isolated portions of the Project Area. Historic records adjacent to Project Area.
	San Bernardino, Los Angeles, and Riverside counties Elevational range extends from near sea level up to 3,000 ft.		NV: none	NV Seg: Outside of geographical range of the species.
BIRDS				
Accipiter cooperii Cooper's hawk	Woodland, chiefly of open, interrupted, or marginal type; nest sites mainly in riparian growths of	Year-round	FED: none BLM CA: none	Moderate (Nesting): No nests, or suitable nesting habitat observed within Project Area.
	deciduous trees. Breeds in southern Sierra Nevada foothills, New York Mts., Owens Valley, and other local areas in southern California AND Nevada.		BLM NV: none CA: WL, S4 NV: S5	Present (Foraging): Species observed during survey within Nevada. No observations or recent records present within Project Area. Suitable wintering habitat present throughout Project Area.
Agelaius tricolor Tricolored blackbird	Highly colonial species, requires open water, protected nesting substrate, and foraging areas with insect prey within a few kilometers of colony. Occurs throughout Central Valley and in coastal	Year- around	FED: BCC BLM CA: S BLM NV: none CA: THR, CSC,	Low (Nesting): No nests, or suitable nesting habitat observed within Project Area, but suitable nesting habitat is present within 500' of Survey Area in the Mojave River.
	districts from Sonoma County south.		S1S2 NV: S1B	High (Foraging): No suitable foraging habitat present within the Project Area, but suitable habitat is present within 500' of Survey Area. Records of species in the Mojave River.

Special-Status		Activity	Conservation	
Wildlife Species	Habitat and Distribution	Season	Status	Potential to Occur
Aquila chrysaetos Golden eagle	Nests in remote trees and cliffs; but will use also use transmission line towers. Forages over shrublands and grasslands; breeds throughout western North	Year-round	BED: BGEPA, BCC BLM CA: S	High (Nesting): No nests observed during surveys, suitable nesting habitat present in mountainous area of Project Area.
	America, winters to east coast.		BLM NV: S CA: FP, WL, S3 NV: WL, S4	Present (Foraging): Observed during surveys within California. Suitable foraging habitat throughout Project Area.
<i>Athene cunicularia</i> Burrowing owl	Nests mainly in wildlife burrows, usually in open grassland or shrubland communities; forages in open habitats. Occurs in California through western U.S. and Mexico.	Year-round	FED: BCC BLM CA: S BLM NV: S CA: CSC, S3 NV: S3B	Present : One burrowing owl burrow observed within the Project Area during surveys within California. Suitable year-round habitat is present within the entire Project Area.
Auriparus flaviceps Verdin	Occur in desert scrub or chaparral with thorny trees along washes with catclaw, paloverde, mesquite, tamarisk, juniper, ironwood, creosote bush, hackberry, smoke tree, desert lavender, willows, or oaks are present. In Permanent residents of arid habitats in Mexico and deserts of the southwest of the U. S.	Year-round	FED: none BLM CA: none BLM NV: S CA: none NV: TL, S3	High (Nesting): No nests observed during surveys, suitable nesting habitat and recent records present in the vicinity of the Project Area within Nevada segment.
				High (Foraging): Suitable foraging habitat present in the Project Area. suitable nesting habitat and recent records present in the vicinity of the Project Area.
Buteo swainsoni	Forages in open grasslands, agricultural areas,	Spring and	FED: BCC	Absent (Nesting): Does not breed within region.
Swainson's hawk	sparse shrublands, and small open woodlands. Nests in Western Antelope, San Joaquin, and Owens Valleys in scattered trees within grasslands, shrublands, or agricultural landscapes.	Fall BLM CA: S BLM NV: S CA: THR, S3 NV: WL, S3B	Fall BLM CA: S BLM NV: S CA: THR, S3	High (Migration): Foraging habitat present, known to migrate through region. Species observed during surveys within Nevada.
<i>Calypte costae</i> Costa's hummingbird	Inhabits Mojave Desert scrub, chaparral, sage scrub, deciduous forest, desert scrub and streams with	Year-round	FED: BCC BLM CA: none	High (Nesting): No nests observed, suitable nesting habitat observed within entire Project Area.
	cottonwoods, brittlebush, fourwing saltbush, and other species from near sea level to 4,000 ft. elev. Breeds in SW North America from central California, southern Nevada, and southwestern Utah. Winters Baja California and coastal Mexico.	ving saltbush, and BLM NV: none el to 4,000 ft. elev. CA: S4 om central California, NV: S3 stern Utah. Winters	Present (Foraging): Species observed during survey within California. Suitable foraging habitat present throughout Project Area.	

Special-Status Wildlife Species	Habitat and Distribution	Activity Season	Conservation Status	Potential to Occur
Coccyzus americanus occidentalis Western yellow-billed cuckoo	Nests along broad, lower flood-bottoms of larger river systems; also nests in riparian forests of willow often mixed with cottonwoods, with an understory of blackberry, nettles, or wild grape. Occurs across	May-Sep	FED: THR, BCC BLM CA: S BLM NV: S CA: END, S1	Low (Nesting): No nests or suitable nesting habitat observed within the Project Area., but suitable nesting habitat is present within 500' of Survey Area in the Mojave River.
	western U.S. Within the vicinity of the Project Area occurs along the Mojave River.		NV: SB, S1B	High (Foraging): Suitable foraging habitat present within the Survey Area. Record of species within the Mojave River. iNaturalist record near Clark Mountain over one mile from Project Area.
Colaptes chrysoides Gilded flicker	Occurs in desert riparian, desert wash, and Joshua tree habitats with large mature trees for nesting. Occurs in SE California, NE Baja California, and	Year-round	FED: BCC BLM CA: S BLM NV: S	High (Nesting): Suitable nesting habitat present on eastern end of Project Area in the Clark Mountains and Ivanpah Valley.
	central Arizona south to southern Baja California and through Sonora to northern Sinaloa.		CA: END, S1 NV: S1	High (Foraging): Suitable foraging habitat present on eastern end of Project Area in the Clark Mountains and Ivanpah Valley. Recent records within vicinity of Project Area.
<i>Empidonax traillii</i> <i>extimus</i> Southwestern willow flycatcher	Occurs in riparian woodlands in southern California. Breeding range includes southern California, southern Nevada, southernmost Utah, southernmost Colorado, Arizona, New Mexico, and	Apr-Sep	FED: END BLM CA: none BLM NV: S CA: END, S1 NV: EB, S1B	Low (Nesting): No nests or suitable nesting habitat observed within the Project Area, but suitable nesting habitat is present within 500' of Survey Area in the Mojave River.
	western Texas.			High (Foraging): No suitable foraging habitat present within the Project Area, but suitable nesting habitat is present within 500' of Survey Area in the Mojave River. Records of species within the Mojave River. No suitable habitat around the tower locations or Switching station.
Falco mexicanus Prairie falcon	Nests along cliff faces or rocky outcrops, forages over open spaces, agricultural fields. Occurs throughout arid western U.S. and Mexico.	Year-round	FED: BCC BLM CA: none BLM NV: none	Low (Nesting): No nests observed, marginal nesting habitat present within most of the Project Area. Could occur in Mountainous Areas.
		CA:	CA: WL, S4 NV: S4	High (Foraging): Suitable foraging habitat throughout Project Area. Multiple eBird records within vicinity.

Special-Status Wildlife Species	Habitat and Distribution	Activity Season	Conservation Status	Potential to Occur
<i>Falco peregrinus</i> Peregrine falcon	Occurs near wetlands, lakes, rivers, or other water; nests on cliffs, banks, dunes, mounds; also, human- made structures. Occurs across North America.	Year-round	FED: D, BCC BLM CA: none BLM NV: S	Low (Nesting): No nests observed, marginal nesting habitat present within most of the Project Area. Could occur in Mountainous Areas.
			CA: FP, S3S4 NV: EB, S3	High (Foraging): Suitable foraging habitat throughout Project Area. Multiple eBird records within vicinity.
<i>Icteria virens</i> yellow-breasted chat	Inhabits riparian thickets of willow and other brushy tangles near water courses; nests in low, dense riparian vegetation; nests and forages within 10 feet of ground. Widespread in North America.	May- August	FED: none BLM CA: none BLM NV: none CA: CSC, S3	Low (Nesting): No nests or suitable nesting habitat observed within Project Area. Suitable nesting habitat is present within approximately 500' of Survey Area in the Mojave River.
		NV: S3	High (Foraging): No suitable foraging habitat present within the Project Area, but suitable habitat is present within 500' of Survey Area. Records of species within the Mojave River. No suitable habitat around the tower locations.	
Junco hyemalis caniceps gray-headed junco	Inhabits white fir association at 7,300 ft (Clark Mountain); also, from dense pinyons above 6,700 ft	Apr-Oct	FED: none BLM CA: none	Not Likely to occur (Nesting): No nests or suitable nesting habitat observed within Project Area.
	elev. (Grapevine Mountains). Summer resident of Clark Mountain and Grapevine Mountains.		BLM NV: none CA: WL, S1 NV: none	Not Likely to occur (Foraging): No suitable foraging habitat present within Project Area.
Lanius ludovicianus Loggerhead shrike	Occurs in broken woodland, savannah, pinyon- juniper woodland, Joshua tree woodland, riparian	Year-round	FED: BCC BLM CA: none	High (Nesting): Suitable nesting habitat observed across Project Area.
	woodland, desert oases, scrub, and washes; prefers open areas for foraging. Nesting widespread in North America.		BLM NV:S CA: CSC, S4 NV: SB, S3	Present (Foraging): Suitable foraging habitat present throughout the entire Project Area. Shrike larder observed during surveys in California.
<i>Leiothlypis virginiae</i> Virginia's warbler	Occurs in arid, shrubby, mixed-conifer, pinyon/juniper, montane-chaparral from 7,000-	May-Aug	FED: BCC BLM CA: none	Not Likely to occur (Nesting): No nests or suitable nesting habitat observed within Project Area.
	9,000 ft. elev. Nests on arid slopes with stands of tall shrubs/scattered trees, riparian thickets of willow/wild rose along streams. Occurs across western U.S.		BLM RV: S CA: WL, S2 NV: S3	Not Likely to occur (Foraging): No suitable foraging habitat present within Project Area.

Special-Status		Activity	Conservation	
Wildlife Species	Habitat and Distribution	Season	Status	Potential to Occur
Phainopepla nitens Phainopepla	Occurs in desert, riparian woodlands, and chaparral and open woodlands of oaks and other small trees;	Year-round	FED: none BLM CA: none	Not Likely to occur (Nesting): No nests or suitable nesting habitat observed within Project Area.
	associated with mistletoe berries. Relies on mistletoe berries as a primary food source; occurs across the southwestern U.S.		BLM NV: S CA: none NV: WL, S3	High (Foraging): Observed in the drainages located in the western Ivanpah Valley in California, suitable habitat along Nevada segment.
Piranga flava hepatic tanager	Occurs in white fir-pinyon forest on desert peaks, 5,300-8,100 ft. elev. With an understory of	April-Aug	FED: none BLM CA: none	Not Likely to occur (Nesting): No nests or suitable nesting habitat observed within Project Area.
	xerophytic shrubs. Usually nests high in conifer or deciduous tree, on outer end of branch, 4.5-15 m above ground.		BLM NV: none CA: WL, S1 NV: none	Not Likely to occur (Foraging): No suitable foraging habitat present with Project Area.
Piranga rubra Summer tanager	Requires cottonwood-willow riparian for nesting and foraging; prefers older, dense stands along	Apr-Sep	FED: none BLM CA: none	Not Likely to occur (Nesting): No nests or suitable nesting habitat observed within Project Area.
	streams. Summer resident across much of the U.S.		BLM NV: none CA: CSC, S1 NV: S2	Not Likely to occur (Foraging): No suitable foraging habitat present within Project Area.
<i>Pyrocephalus rubinus</i> vermilion flycatcher	Inhabits desert riparian adjacent to irrigated fields, irrigation ditches, pastures, and other open, mesic areas. Breeds across the southwest into middle America.	Year-round	FED: none BLM CA: none BLM NV: none CA: CSC, S2S3	High (Nesting): no nests observed, marginal nesting habitat observed within Project Area. Multiple eBird records within vicinity of Project Area during breeding season
			NV: S2	High (Foraging): marginal foraging habitat through- out. Project Area. Multiple eBird records within vicinity of Project Area near Barstow.
<i>Setophaga petechia</i> yellow warbler	Occurs in riparian plant associations; prefers willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging. Widespread across North America.	Apr-Aug	FED: BCC BLM CA: none BLM NV: none CA: CSC, S3S4	Low (Nesting): No nests or suitable nesting habitat observed within Project Area. But suitable nesting habitat is present within approximately 500' of Survey Area in the Mojave River.
			NV: 53	High (Foraging): No suitable foraging habitat present within the Project Area, but suitable habitat is pre- sent within 500' of Survey Area. Records of species within the Mojave River. Reports of species within Mojave Narrows Regional Park downstream of the Project Survey Area. No suitable habitat around the tower locations.

Special-Status Wildlife Species	Habitat and Distribution	Activity Season	Conservation Status	Potential to Occur	
Toxostoma bendirei Bendire's thrasher	Occurs in flat areas of desert succulent shrub/Joshua tree habitats in Mojave Desert. Nests in cholla, yucca, palo verde. Occurs primarily across the	Feb-Aug	FED: BCC BLM CA: S BLM NV: S	High (Nesting): Suitable nesting habitat observed within portions of the Project Area in California and Nevada.	
	southwest U.S.		CA: CSC, S3 NV: TL, S1B	High (Foraging): Multiple eBird records within vicinity of Project Area	
Toxostoma crissale Crissal thrasher	Resident of southeastern deserts in desert riparian and desert wash habitats Nests in dense vegetation	Year-round	FED: none BLM CA: S	High (Nesting): No nests observed, suitable nesting habitat observed within Project Area.	
	along streams/washes; mesquite, screwbean mesquite, ironwood, catclaw, acacia, and willow. Occurs across southwestern North America to central Mexico.		BLM NV: S CA: CSC, S3 NV: WL, S3	High (Foraging): Suitable foraging habitat present within Project Area in California and Nevada. Multiple eBird records within vicinity of Project Area	
<i>Toxostoma lecontei</i> Le Conte's thrasher	Occurs in sparse desert scrub such as creosote bush, Joshua tree, and saltbush scrubs, or sandy-soiled	Year-round	FED: BCC BLM CA: none	High (Nesting): No nests observed, suitable nesting habitat observed within the entire Project Area.	
cholla-dominated vegetation. Nests in dense, spiny shrubs or densely branched cactus in desert wash habitat. Mojave and Colorado deserts, east to Nevada, Utah, and Arizona.		BLM NV: S CA: CSC, S3 NV: TL, S2	Present (Foraging): Species observed foraging within Project Area within California. Suitable foraging habitat present within Project Area in California and Nevada.		
least Bell's vireohabitats in vicinity of water or dry riverfound below 2,000 ft. elev.; nests placed	Summer resident of southern Calif. in low riparian habitats in vicinity of water or dry river bottoms; found below 2,000 ft. elev.; nests placed along margins of bushes or on twigs projecting into	Mar-Sep	BLM CA: nor BLM NV: S	BLM CA: none	Low (Nesting): No nests or suitable nesting habitat observed within Project Area. But suitable nesting habitat is present within 500' of Survey Area in the Mojave River. No iNaturalist records.
	pathways, usually willow, and mesquite. Breeds in Central Valley south to the south to Baja California.		NV: none	High (Foraging): Least Bell's Vireo Habitat Suitability Model shows low to very high along the Mojave River within approximately 500' Project Survey Area. Records of species within the Mojave River within approximately 1,000 feet of the Project Area (CNDDB).	
Vireo vicinior gray vireo	Dry chaparral; west of desert, in chamise-dominated habitat; mountains of Mojave Desert, associated	Mar-Sep	FED: BCC BLM CA: S BLM NV: none CA: CSC, S2 NV: WL, S3B	Not Likely to occur (Nesting): No nests or suitable nesting habitat observed during surveys.	
	with juniper & sagebrush. Found across the southwest portion of North America.			Low (Foraging): Marginal foraging habitat through- out. Project Area. eBird records within vicinity of Project Area.	

Special-Status	s Wildlife Occurrence Probabilities in the Project	Activity	Conservation	
Wildlife Species	Habitat and Distribution	Season	Status	Potential to Occur
Xanthocephalus	Occurs in wetlands in prairies, mountain meadows,	Spring-Fall	FED: none	Absent (Nesting): Does not breed within region.
xanthocephalus Yellow-headed blackbird	quaking aspen parklands, and shallow areas of marshes, ponds, and rivers. Breeds across N North American and winters in California south to Central America.		BLM CA: none BLM NV: none CA: CSC NV: none	High (Migration): Foraging habitat present, known to migrate through region. eBird records within vicinity of Project Area. Observed during surveys in California.
MAMMALS				
Antrozous pallidus Pallid bat	Occurs in desert, grassland, shrubland, woodland, forest; most common in open, dry habitats with	Spring-Fall	FED: none BLM CA: S	Low (Roosting): Marginally suitable roosting habitat present within Project Area.
	rocky areas for roosting; very sensitive to disturbance of roosting sites., below about 6,000 ft. elev.; hibernates in winter. Occurs in southwest U.S.		BLM NV: S CA: CSC, S3 NV: PM, S3	High (Foraging): Suitable foraging habitat present within Project Area. No recent records within the Project Area.
Bassariscus astutus Ringtail	Rocky outcrops, canyons, or talus slopes in deserts, chaparral; woodlands of oak, pinyon pine, and juniper; montane conifer forests; and especially riparian for the abundant prey. From sea level up to	Year-round	FED: none BLM CA: none BLM NV: none CA: FP NV: none	CA Seg: High- Suitable habitat observed within the Project Area during surveys. Species requires access to perennial water sources which limits the distribu- tion of this species in the right of way.
	9,500 ft. (2,900 m) but most common below 4,600 ft. Nest in rock recesses, logs, tree hollows, and man-made enclosures. Found throughout northwestern California.			NV Seg: High -Suitable habitat observed within the Project Area during surveys.
Chaetodipus fallax pallidus Pallid San Diego pocket	Occurs in desert scrub, desert succulent scrub, pinyon and juniper woodland; prefers sandy, herbaceous areas, association with rocks or coarse	Year-round	BLM CA: none BLM V: none	CA Seg: Low- Suitable habitat observed within the Project Area during surveys. No recent records within the vicinity of the Project Area.
mouse	gravel. Occurs in portions of Riverside and San Bernardino counties.	CA: CSC, S3S4 NV: none		NV Seg: Outside of geographical range of species, not considered sensitive in Nevada.
<i>Chaetodipus penicillatus</i> Desert pocket mouse	Occupy sandy desert-scrub habitats across the Mojave and Sonoran Deserts. Prefer open areas with sparse vegetation in desert succulent shrub, desert scrub, and alkali desert scrub with sandy, or silty soils along desert washes, and valleys.	Year-round	FED: none BLM CA: none BLM NV: S	CA Seg: Suitable habitat observed within the Project Area during surveys. Species not considered sensitive in California.
			CA: none NV: S1S2, T	NV Seg: Low- Suitable habitat observed within the Project Area during surveys. No recent records within the Project Area.

	is Wildlife Occurrence Probabilities in the Project			
Special-Status Wildlife Species	Habitat and Distribution	Activity Season	Conservation Status	Potential to Occur
Corynorhinus townsendii	Occurs in many habitats, day roosts in caves, tunnels, mines, feeds primarily on moths. Range	Year- around	FED: none BLM CA: S	Low (Roosting): Marginally suitable roosting habitat within the Project Area.
Townsend's big-eared bat	includes western North America from southern British Columbia south to the Isthmus of Tehuantepec (Mexico).		BLM NV:S CA: CSC, S2 NV: SM, S2	High (Foraging): Suitable foraging habitat present within the and recent records in California segment Project Area. Low potential to occur in Nevada Segment.
<i>Erethizon dorsatum</i> North American porcupine	Forested habitats in the Sierra Nevada, Cascade, and Coast ranges, with scattered observations from forested areas in the Transverse Ranges. Widely distributed across northern North America	Year- around	FED: none BLM CA: none BLM NV: none CA: SA, S3 NV: S5	Not Likely to occur: No suitable habitat observed within the Project Area.
<i>Lasiurus cinereus</i> hoary bat	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense medium to large trees. Feeds primarily on moths and require water. Widespread across North America.	Feb-Nov	FED: none BLM CA: none BLM NV: S CA: SA, S4 NV: TL, S2S3	Not Likely to occur (Roosting): no suitable roosting habitat present in Project Area.
er tr				Low (Foraging): Suitable foraging habitat present within Project Area
<i>Microtus californicus mohavensis</i> Mohave river vole	Occurs only in weedy herbaceous growth in wet areas along the Mojave River. May be found in some irrigated pastures	Year-round	FED: none BLM CA: none BLM NV: none CA: CSC, S1 NV: none	CA Segment: Low: No suitable riparian habitat with- in the Project Area. May occur in riparian habitat along the Mojave River. There is one iNaturalist record of this species from 2020 near the Mojave Narrows Regional Park.
				NV Seg: Not Likely to occur. Outside of range.
Ovis canadensis nelsoni Desert bighorn sheep	Open, rocky, steep areas with available water and herbaceous forage Desert shrublands to conifer forest, intermountain west, and southwestern	Year-round	Ind FED: none BLM CA: S BLM NV:S	CA Seg: Present- Scat and remains were observed during surveys. Suitable habitats present within Project Area.
	regions, as well as northwestern Mexico.		CA: FP, S3 NV: GM, S4	NV Seg: Present- Individuals were observed during surveys. Suitable habitats present within Project Area.
Puma concolor Mountain lion	Mountain lions will utilize many habitats within their range including riparian, scrub, chaparral, grassland, and woodland habitats. Known from the urban	Year-round	FED: none BLM CA: none BLM NV: none	CA Seg: High - Suitable habitat observed within the Project Area during surveys. Species was not observed during surveys.
	wilderness interface.		CA: CAN (ESU) NV: none	NV Seg: High - Suitable habitats present within Project Area. Individuals were not observed during surveys.

Special-Status Wildlife Species	Habitat and Distribution	Activity Season	Conservation Status	Potential to Occur
Tadarida brasiliensis Mexican free-tailed bat	Occupy a wide variety of habitats, ranging from desert communities through pinion-juniper woodland and pine-oak forests at elevations from sea level to 9,000 ft. elev. Occurs across the U.S. into southern Canada.	Spring-Fall	FED: none BLM CA: none BLM NV: S CA: none	CA Seg: Low (Roosting): Marginally suitable roosting habitat present within Project Area. No recent records within vicinity of Project Area. Could occur in Mountainous areas.
			NV: PM, S4	CA Seg: High (Foraging): Suitable foraging habitat present within Project Area. No recent records within vicinity of Project Area.
<i>Taxidea taxus</i> American badger	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils; require sufficient food source, friable soils, and open, uncultivated ground; prey on burrowing rodents. Widespread throughout California and North America.	Year-round	FED: none BLM CA: none BLM NV: none CA: CSC, S3 NV: S4	CA Seg: High - Suitable habitats present and recent records within Project Area.
				NV Seg: Present - Remains and diggings were observed during surveys. Suitable habitats present within Project Area., not considered sensitive in Nevada.
<i>Vulpes macrotis arsipus</i> Desert kit fox	Arid areas with grasslands, agricultural lands, or scrub areas with scattered shrubby vegetation. Requires open, level areas with loose-textured, sandy loamy soils for digging dens. Found in southwest U.S. and Mexico.	Year-round	FED: none BLM CA: none BLM NV: none CA: SA NV: FM, S4	CA Seg: Present- Natal den complexes were observed during surveys. Suitable habitats present within Project Area.
				NV Seg: Present- Natal den complexes were observed during surveys. Suitable habitats present within Project Area.
<i>Xerospermophilus mohavensis</i> Mohave ground squirrel	Occurs in the Mojave Desert in desert scrub and Joshua tree woodlands with winterfat and hopsage. Occur in the Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo counties.	Mar-Aug	FED: none BLM CA: S BLM NV: none CA: THR, S2S3 NV: none	CA Seg: Moderate- Suitable habitat observed within the Project Area near Victorville. No recent records within the vicinity of the Project Area.
				NV Seg: Not likely to occur - Outside of geographical range of species.

References: American Ornithologists Union, 1998 (including supplements through 2013); Barbour and Davis, 1969; BLM, 2019; BLM 2023; CDFW, 2021a; Feldhammer et al., 2003; Garrett and Dunn, 1981; Hall, 1981; Jennings and Hayes, 1994; Stebbins, 2003; Wilson and Ruff, 1999. Conservation Status and Occurrence Probability defined in footnote to Table 1.

Federal designations (Fed): (federal ESA, USFWS).

- END: Federally listed, endangered.
- THR: Federally listed, threatened.
- BGEPA: Bald and golden eagle protection act. BCC: Birds of conservation concern.
- - D: Delisted

Bureau of Land Management (BLM) Sensitive: Species recognized by the BLM as sensitive.

State designations (CA): (CESA, CDFW)

- END: State listed, endangered.
- THR: State listed, threatened.
- CAN State listed, candidate.
- CSC: California Species of Special Concern. Considered vulnerable to extinction due to declining numbers, limited geographic ranges, or ongoing threats.
- WL: Species that were either previously listed as SC and have not been state listed under CESA; or were previously state or federally listed and now are on neither list; nor are on the list of "Fully Protected" species.
- FP: Fully protected. May not be taken or possessed without permit from CDFG.
- SA: Special animal. Tracked by the CNDDB as species of conservation concern.

Nevada Division of Natural Heritage:

- TR: Threatened Reptile (NAC 503.080.2)
- PR: Protected Reptile (NAC 503.080.1)
- SM: Sensitive Mammal (NAC 503.030.3)
- SB: Sensitive Birds (NAC 503.050.3)
- GM: Game Mammal (NAC 503.020)
- FM: Fur-bearing Mammal (NAC 503.025)
- EB: Endangered Birds (NAC 503.050.2)
- WL: Watch List Species
- TL: Tracking List Species

California and Nevada State Designations: Applied to special-status species; where correct category is uncertain two categories or question marks are used.

- S1: Fewer than 6 occurrences or fewer than 1000 individuals or less than 2000 acres.
- S2: 6-20 occurrences or 1000-3000 individuals or 2000-10,000 acres (decimal suffixes same as above).
- S3: 21-100 occurrences or 3000-10,000 individuals or 10,000-50,000 acres (decimal suffixes same as above).
- S4: Apparently secure in California; this rank is clearly lower than S3, but factors exist to cause some concern, i.e., there is some threat or somewhat narrow habitat. No threat rank.

Nevada State Designations: Applied to special-status species; where correct category is uncertain two categories or question marks are used.

- S1: Critically Imperiled At very high risk of extirpation in the jurisdiction due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.
- S2: Imperiled At high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
- S3: Vulnerable At moderate risk of extirpation in the jurisdiction due to a restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- S4: Apparently Secure At fairly low risk of extirpation in the jurisdiction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern because of local recent declines, threats, or other factors.
- S5: Secure At very low or no risk of extirpation in the jurisdiction due to a very extensive range, abundant populations, or occurrences, with little to no concern from declines or threats.
- B: Breeding Conservation status refers to the breeding population of the element in the nation or state/province

A total of 14 special-status wildlife species were detected in the Project Area during the 2021 surveys (see Attachment A, Figure 7). An additional 16 special-status wildlife taxa have a moderate to high potential to occur within, or immediately adjacent to, the Project Area (see Table 5). Special-status wildlife that were detected during the 2021 surveys included:

- Desert tortoise (Gopherus agassizii, FT, ST, BLM CA: S, BLM NV: S, NDNH TR),
- Desert Iguana (Dipsosaurus dorsalis, BLM NV: S, NDNH WL),
- Long-nosed leopard lizard (Gambelia wislizenii, BLM NV: S, NDNH WL),
- Common chuckwalla (Sauromalus ater, BLM NV: S, NDNH WL),
- Golden eagle (Aquila chrysaetos, BGEPA, BLM CA: S, BLM NV: S, FP, NV WL, BCC),
- Burrowing owl (*Athene cunicularia*, BLM CA: S, BLM NV: S, CSC),
- Swainson's hawk (Buteo swainsoni, FBCC, ST, BLM CA&NV:S, NV WL),
- Costa's hummingbird (Calypte costae, USFWS BCC),
- Loggerhead shrike (Lanius Iudovicianus, BLM NV: S, CSC),
- Le Conte's thrasher (Toxostoma lecontei, BLM NV: S, CSC),
- Yellow-headed blackbird (*Xanthocephalus xanthocephalus*, CDFW CSC),
- Desert bighorn sheep (Ovis canadensis nelson, BLM CA: S, BLM NV:S, FP, GM),
- American badger (Taxidea taxus, CSC); and
- Desert kit fox (Vulpes macrotis arsipus, SA, FM).

Federally Listed Threatened or Endangered Wildlife

There are five species that are designated under the ESA as threatened, endangered that were considered during the development of this analysis (see Table 5). Four federally listed species which were either observed in the Project Area during the 2021 surveys or were determined to have a moderate to high potential to occur are discussed on the following pages:

Desert tortoise (*Gopherus agassizii***).** They are a state and federally Threatened species and is recognized as Sensitive by the California and Nevada BLM, California, and Nevada, as well as Nevada State Threatened Reptile. The desert tortoise is a large, long-lived, herbivorous reptile that can feed on a variety of herbaceous annual grasses, forbs, and flowers. In addition, they can occur in nearly every desert habitat. For example, they can occupy creosote bush scrub dominated by creosote bush and white bursage at lower elevations to rocky slopes in blackbrush scrub and juniper woodland ecotones at higher elevations (Germano et al., 1994). However, tortoises are more likely to occur in habitats with friable, well-drained, sandy soils to allow for burrow and nest excavation (USFWS, 1994). These preferred habitats also typically provide sufficient cover, as desert tortoises will burrow beneath shrubs, rock formations, or man-made objects. Desert tortoises are also known to excavate burrows in the open (CDFW, 2000). Although desert tortoises do require access to freestanding water, adult tortoises can survive for more than a year without it (Henen et al., 1998).

During surveys, a total of two live adult desert tortoise (>180 mm) were documented within the California segment of the Project Area. In addition, 642 burrows, one piece of scat, seven carcasses, three pallets and two drinking depressions were also observed within the Project Area (Table 6). Desert tortoise sign was observed throughout much of the California segment Project Area with the largest concentration of tortoise sign being observed east of the City of Yermo to the Nevada state line (see Attachment A, Figure 7).

Within the Nevada segment, a total of two live adult desert tortoise (>180 mm) were documented within the Project Area. In addition, 320 burrows, four pieces of scat, one carcass were observed within the Project Area. Desert tortoise sign was observed throughout much of the Project Area with the largest

Sign Type	Class 1		Class 2		Class 3		Class 4		Class 5		Total Observed	
	CA	NV	CA	NV	СА	NV	СА	NV	CA	NV	СА	NV
Burrows	11	14	133	50	255	165	120	31	123	60	642	320
Scat	0	0	0	0	1	0	0	0	1	3	1	4
Carcass	0	0	0	0	3	0	0	1	4	0	7	1
Pallet	0	0	2	0	0	0	0	0	1	0	3	0
Drinking Depression	-	-	-	-	-	-	-	-	-	-	2	0

concentration of tortoise sign being observed near the McCullough Substation and in the Ivanpah Valley (see Attachment A, Figure 7).

Western yellow-billed cuckoo (Coccyzus americanus occidentalis). The western yellow-billed cuckoo is Federally endangered, Nevada and BLM Sensitive, and California state endangered. particularly cottonwood-willow riparian woodlands (66 FR 38611-38626; as cited in USACE and CDFG, 2010). Laymon and Halterman (1989; as cited in USACE and CDFG, 2010) proposed that the suitable habitat for the western yellow-billed cuckoo for California be defined as habitat classified as willow-cottonwood with a patch size greater than 80 hectares (198 acres) and width greater than 600 meters (1,270 feet). It prefers dense riparian thickets with dense low-level foliage near slow-moving water sources.

The western yellow-billed cuckoo's range is considered to be where it formerly bred from southwestern British Columbia, western Washington, northern Utah, central Colorado, and western Texas south and west to southern Baja California, Sinaloa, and Chihuahua in Mexico (Hughes, 1999; as cited in USACE and CDFG, 2010). In California, the western yellow-billed cuckoo's breeding distribution is now thought to be restricted to isolated sites in the Sacramento, Amargosa, Kern, Santa Ana, and Colorado river valleys (Laymon and Halterman, 1987; as cited in USACE and CDFG, 2010). Nests are constructed in willows on horizontal branches in trees, shrubs, and vines, but cottonwoods (Populus spp.) are used extensively for foraging and humid lowland forests are used during migration (Hughes, 1999; as cited in USACE and CDFG, 2010).

The western yellow-billed cuckoo is a long-distance migrant, though details of its migration patterns are not well known (Hughes, 1999; as cited in USACE and CDFG, 2010). It is a relatively late spring migrant, arriving on the breeding grounds starting mid- to late May (Franzreb and Laymon, 1993; as cited in USACE and CDFG, 2010). The migratory route of western yellow-billed cuckoos is not well known because few specimens collected on wintering grounds have been ascribed to the western or eastern subspecies. The western yellow-billed cuckoo likely moves down the Pacific Slope of Mexico and Central America to northwestern South America (Hughes, 1999; as cited in USACE and CDFG, 2010).

Yellow-billed cuckoos generally forage for caterpillars and other large insects by gleaning (Hughes 1999; as cited in USACE and CDFG, 2010). They occasionally prey on small lizards, frogs, eggs, and young birds as well (Zeiner et al., 1990a; as cited in USACE and CDFG, 2010). Foraging occurs extensively in cottonwood riparian habitat (Hughes, 1999).

Western yellow-billed cuckoo not observed during surveys, but suitable breeding habitat is located along the Mojave River. Suitable habitat is located within 500 feet of the Project Area near the Victorville Switching Station along the Mojave River. Within the Victorville Switching Station footprint and other Project Areas, the habitat is dry upland habitat. Between the Mojave River and Victorville Switching Station railroad tracks and roads exist that imped wildlife movement. The CNDDB contains two records along the Mojave River, including a historic record in the Upper Narrows Area. An iNaturalist record is

near Clark Mountain that is approximately two miles from the Project Area. Based on the presence of suitable habitat within 500 feet of the Project Area and the lack of recent records, the western yellow-billed cuckoo has low potential to breed but a high potential to forage within the California segment of the Project Area.

Southwestern willow flycatcher (Empidonax traillii extimus). The southwestern willow flycatcher is a federally endangered, Nevada BLM Sensitive, California state endangered, and NDNH endangered bird. This species is a riparian obligate, typically occurring in areas of dense vegetation and flowing water, or in areas with high soil moisture. Vegetation characteristics typical of breeding habitat includes dense tree or shrub cover that has a minimum height of 10 feet with dense twig structure and leaf density. Southwestern willow flycatchers have been documented to use a variety of riparian habitat types for breeding ranging from monotypic stands of willow (*Salix* spp.) to mixed stands of native broadleaf trees and shrubs or mixtures of native broadleaf trees and shrubs cottonwood (Populus spp., willows, boxelder (*Acer negundo*), ash (*Fraxinus* spp.), alder (*Alnus* spp.), and buttonbush (*Cephalanthus* spp.).Vegetation in the herbaceous plant layer include very dense areas of sedges, rushes, nettles, and other riparian or wetland species (USGS, 2010).

Vegetation surrounding the riparian area can range from open meadow to agricultural lands, to pines or upland shrub. Breeding occurs across a wide elevational range ranging from sea level to 8,500 feet amsl. Breeding range includes southern California, southern Nevada, southernmost Utah, southernmost Colorado, Arizona, New Mexico, and western Texas. In southern California and Nevada southwestern willow flycatchers generally arrive to their breeding grounds in April and remain until September when migration to overwintering begins (USGS, 2010).

Southwestern willow flycatcher was not observed during surveys, but suitable breeding habitat is located along the Mojave River. Suitable riparian habitat is located within 500 feet of the Project Area near the Victorville Switching Station along the Mojave River. Within the Victorville Switching Station footprint and other Project Areas, the habitat is dry upland habitat. Between the Mojave River and Victorville Switching Station barriers to impede wildlife movement include railroad tracks and roads. The CNDDB contains one record of southwestern willow flycatchers within five miles of the Project Area (CDFW, 2021a). This record is dated from 1990. No NDNH for southwestern willow flycatchers are present within five miles of the Project Area. There are no iNaturalist observations of this species within five miles of the Project Area. Recent eBird records for the species are present along the Mojave River in Victorville (eBird, 2024). Based on the presence of suitable habitat within 500 feet of the Project Area and the presence of recent records, the southwestern willow flycatcher has low potential to breed but a high potential to forage along the Mojave River in the California portion of the Project Area.

Least Bell's vireo (Vireo bellii pusillus). The least Bell's vireo is a federally Endangered, State of California Endangered and California BLM Sensitive species. The species is a summer resident, which breeds in riparian scrub and woodland habitats along drainages or near water, including ponded surface water or where moist soil conditions may occur (Rosenberg et al., 1991). They generally occur within early successional riparian communities but is also known to nest in riparian woodlands dominated by willow and cottonwood (Kus et al., 2010). Suitable breeding habitat generally consists of dense, well-defined vegetative strata, or layers varying from two to ten feet above ground (Goldwasser 1981). Individuals may forage in woodlands or scrub habitat near suitable nesting habitat but will also forage in upland vegetation adjacent to riparian corridors late in season. The species breeds in Central Valley south to the south to Baja California; and arrive in southern California as early as mid-March, begin nesting in early April, and remain on the breeding-grounds through September before leaving for its wintering grounds in Baja California.

Least Bell's vireo was not observed during surveys, but suitable breeding habitat is located along the Mojave River. Suitable riparian habitat is located within 500 feet of the Project Area near the Victorville Switching Station along the Mojave River. Within the Victorville Switching Station footprint and other Project Areas, the habitat is upland dry habitat. Between the Mojave River and Victorville Switching Station railroad tracks and roads exist that imped wildlife movement. The CNDDB contains seven records of least Bell's vireos within five miles of the Project Area (CDFW, 2021a), including records are dated from 2005 through 2013. There are a few iNaturalist observations of this species within five miles of the Project Area on the presence of suitable habitat within 500 feet of the Project Area and the presence of recent records, the least Bell's vireo has a low potential to breed but a high potential forage in the Project Area.

State Candidate, Threatened or Endangered Wildlife

There are 10 species that are designated under the California ESA as threatened, endangered, proposed for listing as threatened, or candidate for listing as either endangered, or as Nevada state Endangered Bird or Threatened Reptile under section NAC 503.050.2 and NAC 503.080.2 that were considered during the development of this analysis (see Table 5). This includes three species which are designated as Threatened or Endangered under the ESA and which have previously been assessed. The state candidate or listed species that have a moderate to high potential to occur are discussed below.

Crotch bumble bee (Bombus crotchii). Crotch bumble bee is a candidate for listing under the California Endangered Species Act (CESA). In October 2018, the Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and the Center for Food Safety submitted a petition to the California Fish and Game Commission to list Crotch bumble bee, Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as endangered under CESA (Xerces et al., 2018). Following an internal review of the petition, CDFW recommended to the California Fish and Game Commission that each of these species be designated as candidates for listing, while CDFW reviews the status of each species. On June 12, 2019, the Fish and Game Commission designated these four bumble bees as candidate species, affording them the full protections of listing under CESA until a final determination could be made (Hatfield and Jepsen, 2021). The candidacy determination was challenged in court and candidacy was temporarily stayed beginning in February 2021. Although the Third District Court of Appeal reversed the previous court decision, candidacy for Crotch bumble bee was reinstated on September 30, 2022 (CDFW, 2023a).

Crotch bumble bee is a large bee with a short head and large eyes. The head is predominantly black with a small patch of yellow sometimes appearing at the back. The upper side of the thorax is yellow, merging with the small patch on the head. The lower side of the thorax is black and merges with the first abdominal segment. The most distinguishing characteristic is the broad band of yellow that is present on the second to fourth abdominal segments. The terminal abdominal segments can vary between two different color variations, including completely black or a reddish orange (Williams et al., 2014).

The current geographic range is not well understood but is currently defined from Baja California to Shasta County (CDFW, 2023b). Similarly, little is known about specific habitat requirements of the species as they can be found in a variety of vegetation communities broadly including grassland, scrub, chaparral, and woodlands. It appears that suitable habitats include grasslands and shrub communities that provide native foraging resources. Crotch bumble bees prefer smaller flowers that are abundant with pollen and nectar, such as milkweed (*Asclepias* spp.), chaenactis (*Chaenactis* spp.), deerweed (*Acmispon glaber*), buckwheat (*Eriogonum fasciculatum*), lupines (*Lupinus* spp.), clovers (*Medicago* spp.), phacelias, and sages (*Salvia* spp.) (Williams et al., 2014).

Crotch bumble bees exhibit social behavior, creating colonies of related individuals that cooperate to maintain the health and survival of the colony. Colonies consist of a caste system which includes queens, workers, and reproductive males. New queens emerge during colony establishment, growing season, or reproductive stage. These life stages are defined as the Colony Active Period by CDFW. During each life stage, the colony exhibits different behaviors, including nesting, foraging, and overwintering. The height of the Colony Active Period for Crotch bumble bee occurs between February and October; however, the timing of a singular nest can be dependent on climate conditions. For example, a nest at lower elevation with an earlier blooming period will likely be active before a nest with later blooming floral resources at higher elevation (Williams et al., 2014).

No Crotch bumble bees were observed during surveys. Suitable habitat is found within both California and Nevada segment of Project Area. No iNaturalist observations of Crotch bumble bee is recorded within five miles of the Project area, however there is one record from Victorville near Side winder Mountain. Based on the suitable habitat and recent observations there is a moderate potential for this species to occur within the Project Area.

Tricolored blackbird (Agelaius tricolor). Tricolored blackbird is listed as Threatened under the California ESA and is recognized as sensitive by the BLM in California and is a USFWS BCC. This species is primarily a permanent resident across its range in California and occurs throughout the Central Valley and in coastal districts from Sonoma County south to Baja California. The tricolored blackbird breeds near fresh water, preferably in emergent wetland with tall dense cattails (Typha spp.) or tules, but also in thickets of willows, blackberry, wild rose, and tall herbs (Shuford and Gardali, 2008). This species forages primarily in grassland and cropland habitats.

No tricolored blackbirds were observed during surveys. CNDDB records include an observation in the Mojave River within 0.5 mile of the Project Area. Two iNaturalist records are shown south of I-15 with one record being within five miles of the Project Area. Between the Victorville Switching Station and the Mojave River roads and railroad are in current use that create a barrier for species movement. Suitable habitat is not found in the upland areas near the Victorville Switching Station or around towers. Based on the presence suitable foraging habitat along the Mojave River and historic CNDDB records, tricolored blackbirds have a low potential to breed but a high potential to occur within the Project Area.

Swainson's hawk (Buteo swainsoni). Swainson's hawk is listed as Threatened by CDFW and is recognized as sensitive by the California and Nevada BLM, Nevada Watch List species and is USFWS Bird of Conservation Concern (BCC). It preys on small mammals, birds, large insects, reptiles, and amphibians. Swainson's hawks usually hunt from perches such as fence posts and low trees, or from vantage points on the ground. This species is commonly found over open plains and prairies in the Great Plains and relatively arid areas of western North America. It builds rather flimsy nests in shrubs and trees along wetlands and drainages and in windbreaks in fields and around farmsteads. It nests in the San Joaquin, Owens, and western Antelope Valleys of California and its primary wintering grounds is in Argentina. Swainson's hawks migrate through the southwest every spring and fall. Suitable migration-season foraging habitat is present throughout the Study Area.

Swainson's hawks were observed within Nevada during surveys. The Project Area is located outside of the breeding range of the species. As result Swainson's hawks are not expected to nest within the Project Area. Suitable foraging habitat for migrating Swainson's hawks is present within the Project Area. The CNDDB contains three records of Swainson's hawks within five miles of the Project Area (CDFW, 2021a). The records are dated from 1920 through 1939. There are no NDNH database records of this species within five miles of the Project Area. Species observed near Mojave Narrows Regional Park southeast of the Project area based on iNaturalist records. The Project area is located outside the current breeding

range of the Swainson's hawk, there is no potential for the species to breed within the Project Area on either segment. Swainson's hawks have a high potential to forage along both segment of the Project Area.

Gilded flicker (*Colaptes chrysoides***).** Gilded flicker is listed as Endangered under the California ESA and is recognized as sensitive by the California BLM and is a USFWS BCC. This species is found within Sonoran, Yuma, and eastern Colorado Desert regions of southeastern California and Arizona south to southern Baja California and through Sonora to northern Sinaloa, Mexico. Gilded flickers occur in desert riparian, desert wash, and Joshua tree habitats and require soft wood of snag or dead branches of cottonwoods (*Populus spp.*), willow (*Salix spp.*), Joshua tree, or saguaro cactus (*Carnegiea gigantea*) and man-made structures (i.e., wooden power pole) for nesting. It feeds on insects and cacti fruits (Rosenberg et al., 1991).

Gilded flickers were not observed during the surveys, but suitable habitat is present within the Joshua tree woodland community located near the Ivanpah Valley in the foothills of the Clark Mountains within the California segment. The CNDDB contains three records of Gilded flickers within five miles of the Project Area (CDFW, 2021a). The records are dated from 1939 through 2012. There are several recent eBird records within the Ivanpah Valley and in the foothills of the Clark Mountains (eBird, 2024). Based on the presence suitable nesting and foraging habitat and presence of nearby recent CNDDB and eBird records, gilded flickers have a high potential to occur within the Project Area.

Peregrine Falcon (*Falco peregrinus***).** The peregrine falcon is a Nevada Endangered Bird, California Full Protected Species, USFWS BCC and Nevada BLM Sensitive species. In North America the species occurs from the Arctic tundra through Canada, United State, and Mexico with birds migrating into south America. Peregrine falcons forage near wetlands, lakes, rivers, or other bodies of water where they primarily feed on birds. Nesting generally occur on cliffs, banks, dunes, mounds; also, human-made structures including electrical transmission towers, quarries, silos, skyscrapers, churches, and bridges. In places without cliffs, Peregrines may use abandoned common raven or red-tailed Hawk nests. Nest are located on a ledge that is typically around a third of the way down the cliff face about 25–1,300 feet high (Cornell Lab of Ornithology, 2021).

Peregrine falcons were not observed during the surveys, but suitable nesting and foraging habitat is present within the mountains of the McCullough Range and on manmade structures located along the Nevada and California segments. The NDNH database contains three records of peregrine falcons within five miles of the Project Area (NDNH, 2021c). The records are dated from 2010 through 2012. There are no CNDDB or iNaturalist observations of this species within five miles of the Project Area. There are multiple recent eBird records for the species along both the California and Nevada segments (eBird, 2024). Based on the presence of the suitable habitat and recent records peregrine falcons have a high potential to nest and foraging within the Project Area within the Nevada segment. Due to a lack of nesting records within the California segment of the Project Area, peregrine is only likely to forage within the Project Area.

Mohave ground squirrel (Xerospermophilus mohavensis). The Mohave ground squirrel is listed as Threatened under the California ESA and is recognized as sensitive by the California BLM. The Mohave ground squirrel's range is limited to the western Mojave Desert, generally from Palmdale to Lucerne Valley and east to the Avawatz Mountains and to Cartago in Inyo County (Gustafson 1993). The species occurs in a variety of habitats, including saltbush scrub, creosote bush scrub, Joshua tree woodland, shadscale scrub, blackbrush scrub, and sagebrush scrub communities up to 5,600 feet amsl. Mohave ground squirrel feed primarily on the leaves and seeds of spiny hopsage (*Grayia spinosa*), winterfat (*Krascheninnikovia lanata*) and saltbush (*Atriplex* sp.) especially in early spring when forbs are unavailable, (Leitner and Leitner 1998). Recent studies have also indicated that MGS feed on freckled milkvetch (*Astragalus lentiginosus*), Mojave lupine (*Lupinus odoratus*), buckwheat (*Eriogonum* sp.), fiddleneck (*Amsinckia 73essellate*), Russian thistle, desert pincushion (*Chaenactis* sp.), desert dandelion (*Malacothrix glabrata*), phacelia

(*Phacelia* sp.), wire lettuce (*Stephanomeria* sp.), Anderson's desert thorn, and Joshua tree (Leitner and Leitner 2017).

Mohave ground squirrels are active seasonally. Emergence from hibernation varies by location and generally occurs mid-March (Leitner and Leitner 1998), but in the southern portion of their range, they may emerge as early as mid-January (Recht 1977). They estivate during the summer generally starting in August.

No Mohave ground squirrels, or their burrows were documented within the Survey Area during the 2021 surveys. The Project area is located outside of all identified Mohave ground squirrels core areas as well as potential movement corridors. The project is largely located outside of the current range of the species, with the Project Areas being located along the eastern extent of the Mohave ground squirrel's range. The portion of the Project Area located from the Victorville Landfill to the Victorville Switching Station is located within the known range of the species. The Project Area is located inside California Wildlife Habitat Relationship predicted habitat which extends from Death Valley Road (State Route 127) southwest to five miles south of Interstate 40 and from the Mojave River to the Victorville Switching Station. The modeled habitat quality within these areas varies from low quality habitat throughout the northeast of portion of the predicted habitat to medium and high-quality habitat areas south of Interstate 40 and from the Victorville Switching Station.

No trapping data is available along the Project Area from the CNDDB, trapping data available is restricted to the Victorville area to the north and west of the Project Area. A total of six CNDDB records are present within five miles of the Project Area, four of which are considered historic and range from 1919 through 1984 (CNDDB 2021a). Two more recent records are present along the Project Area and are from 2005 and 2007(CNDDB 2021a). All records presume that the populations are extant as these areas have not been developed. CNDDB occurrence #12 is located approximately 900 feet east of the Project Area near Line 2 Tower 159-6 and is located south of the Victorville Landfill. CNDDB occurrence # 343 is located 3.6 miles northwest of the Project Area near Line 1 Tower 136-6. No additional CNDDB or iNaturalist records are present along the Project area east of Barstow. The CNDDB records indicate the vegetation community present at the site where Mohave ground squirrels were observed consists of creosote bush scrub dominated by widely spaced creosote, white bursage, cheesebush, saltbush and ephedra in areas with gentle topography 1-2 percent slopes with scattered rocks and sandy soils. Similar site conditions are present within the Project Area located near the Victorville switching Station and in the Stoddard Valley.

Based on the presence of suitable habitat, medium and high quality, nearby records, there is a moderate potential for Mohave ground squirrel to occur within the Project Area near the Victorville Switching Station from Line 1 Tower 154-2 Line 2 Tower 153-3 to Line 1 Tower 137-4 and Line 2 Tower 136-5 and in the Stoddard Valley from Line 1 Tower 154-2 Line 2 Tower 153-3 to Line 1 Tower 139-5 and Line 2 Tower 139-1. Outside of these areas, there is low potential for the species to occur because of a lack of records and low-quality habitat.

Ringtail (Bassariscus astutus). Ringtails occur in a variety of habitats, including chaparral, desert, coastal sage scrub, riparian scrub, oak woodlands, and riparian woodlands. This species prefers habitats in proximity to permanent water. This species nests in rock recesses, hollow trees, logs, snags, abandoned burrows, or woodrat nests and breeding typically occurs between February and May. Ringtails are opportunistic feeders, but primarily prey on rodents, rabbits, birds, bird eggs, reptiles, and invertebrates (Zeiner et al., 1990b). There are several iNaturlaist accounts of potential ringtail scat observations in the desert regions along the transmission line alignment and mountainous regions near Barstow and granite mountains. It is likely other occurrences occur where the animals have access to perennial water.

BLM Sensitive Species

The California and Nevada BLM also maintain a list of sensitive wildlife species identified as sensitive throughout their range. Some of these species are also state or federally listed and were discussed previously. BLM-sensitive species that have already been discussed because of state or federal listing include:

- Desert tortoise
- Gilded flicker
- Least Bell's vireo
- Peregrine falcon

- Southwestern willow flycatcher
- Swainson's hawk
- Mohave ground squirrel

The remaining 16 BLM-sensitive species that were detected within the Project Area during the 2021 surveys or have a moderate to high potential to occur include:

- Great Basin collared lizard (Crotaphytus bicinctores)
- Desert iguana (Dipsosaurus dorsalis)
- Western pond turtle (*Emys marmorata*)
- Long-nosed leopard lizard (*Gambelia wislizenii*)
 Banded Gila monster (*Heloderma suspectum*)
- cinctum)Desert horned lizard (*Phrynosoma platyrhinos*)
- Common chuckwalla (Sauromalus ater)
- Golden eagle (Aquila chrysaetos)

- Burrowing owl (Athene cunicularia)
- Loggerhead shrike (Lanius ludovicianus)
- Phainopepla (Phainopepla nitens)
- Bendire's thrasher (Toxostoma bendirei)
- Crissal thrasher (Toxostoma crissale)
- Le Conte's thrasher (Toxostoma lecontei)
- Townsend's big-eared bat (*Corynorhinus* townsendii)
- Desert bighorn sheep (*Ovis canadensis nelson*)

Great Basin collard lizard (*Crotaphytus bicinctores***).** The Great Basin collard lizard is recognized as a sensitive species by the Nevada BLM and is a Nevada Watch List species. The species is found in the Great Basin Desert in the far northeast and east of the Sierras, throughout the Mojave Desert, and in the Sonoran Desert in southern California and ranges north through most of Nevada to southeast Oregon, southern Idaho, through western Utah and northern and western Arizona (Nafis, 2021). The Great Basin collard lizard occurs mainly in arid rocky hilly deserts with sparse vegetation, on alluvial fans, lava flows, hillsides, rocky plains, and in canyons; and are found from sea level to about 7,500 ft (Nafis, 2021).

Within the Nevada segment, no Great Basin collard lizards were observed within the Project Area. Suitable habitat is present throughout the Project Area within the Nevada segment. The species was observed at Line 2 tower 29-1 within the California segment approximately 1.4 miles to the west of the Nevada state line. There are no NDNH database or iNaturalist observations of this species within five miles of the Project Area. Based on the observation near Line 2 tower 29-1 and the presence of suitable habitat, Great Basin collard lizards have a high potential to occur within the Nevada segment of the Project Area. The species was observed along the California segment, but the species is not considered sensitive in California.

Desert Iguana (*Dipsosaurus dorsalis***).** The desert Iguana is recognized as a sensitive species by the Nevada BLM and a Nevada Watch List species. Desert iguanas occurs in southern California mountains, and the eastern Sierra Nevada mountains in the Owens Valley, to Arizona, Nevada, and Baja California. The species inhabits creosote bush dominated vegetation communities from below sea level to 3,300 ft. elevation. It prefers hummocks of loose sand and patches of firm ground with scattered rocks as well as, desert washes dunes, washes, streambeds, and floodplains (NDOW, 2024).

Suitable habitat is present throughout the Project Area within the Nevada segment. A recent record NDNH is located approximately 3.3 miles to the west of Line 1 Tower 19-3 (NDNH, 2021c). The NDNH database contains one record of desert Iguanas within five miles of the Project Area (NDNH, 2021c). The records are dated from 2005 through 2009. In addition, there are iNaturalist observations of this species within five miles of the Project Area. Based on the presence of recent records and suitable habitat, desert Iguanas have a high potential to occur within the Nevada segment of the Project Area. The species was also ob-

served at Line 1 Tower 40-3 within California segment of the alignment, but the species is not considered sensitive in California.

Western pond turtle (*Emys marmorata***).** The southwestern pond turtle is a CDFW Species of Special Concern and BLM sensitive. This taxon is not federally, or State listed as threatened or endangered; however, the USFWS has proposed to list the southwestern pond turtle as threatened under the ESA. This subspecies occurs from northwestern Baja California north through western California to the central region of the state, where it intergrades with the northwestern pond turtle (*C. m. marmorata*) (Seeliger, 1945; Bury, 1970).

Southwestern Pond turtles inhabit permanent or nearly permanent bodies of water in a wide variety of habitat types. Suitable basking sites, such as partially submerged logs, vegetation mats, or open mud banks are a required element for this subspecies. The southwestern pond turtle is a subspecies of western pond turtle (*C. marmorata*) which represent the only abundant native turtles in California. This species is thoroughly aquatic and possesses a low carapace typically olive, brown, or blackish in color (Stebbins, 2003). The subspecies usually lays a clutch of 3 to 14 eggs between April and August as females may move overland up to over 300 feet to find suitable nesting sites. Nests have been observed in many soil types from sandy to very hard and soils must be at least four inches deep for nesting (CDFW, 2008). Most activity is diurnal, but some crepuscular and nocturnal behavior has been observed (CDFW, 2008). Southwestern pond turtles feed on aquatic plants, insects, worms, fish, amphibian eggs and larvae, crayfish, and carrion (Stebbins, 2003).

The eastern limits of western pond turtle range is along the Mojave River near Afton Canyon; however, the Western Pond Turtle Predicted Habitat indicates limited low and moderate habitat with very limited high habitat in Mojave Valley near Harvard Road and Yermo (CDFW 2024). This species is found along the Mojave River including the area near Victorville. There are several CNDDB records of occurrences of this species found in or near the Mojave River, including Afton Canyon. Based on records of occurrence, presence of limited suitable habitat, western pond turtle has a moderate potential to occur within the California segment of the Project Area in discrete locations.

Long-nosed Leopard lizard (*Gambelia wislizenii***).** The long-nosed leopard lizard is recognized as a sensitive species by the Nevada BLM and is a Nevada Watch List species. This species ranges throughout California deserts, from the eastern base of the Peninsular and the northern edge of the Transverse mountains, into the Great Basin Desert east of the Sierra Nevada and throughout Nevada and the western U.S. (Nafis, 2021). The species is found in sandy and gravelly desert and semidesert areas with scattered shrubs or other low plants (e.g., bunch grass, alkali bush, sagebrush, creosote bush) especially areas with abundant rodent burrows; prefers flat areas with open space for running, avoiding densely vegetated areas. Occurs from sea level to approximately 6,500 ft. elevation (Nafis, 2021)

Within the Nevada segment a single long-nosed leopard lizard was observed within the Line 2 Tower 19-5 Project Area. There are no NDNH database observations of this species within five miles of the Project Area. There are iNaturalist observations of this species within five miles of the Project Area. Based on observations from the Aspen 2021 surveys, presence of suitable habitat and recent records, long-nosed leopard lizard have a high potential to occur within the Nevada segment of the Project Area.

Banded Gila monster (Heloderma suspectum cinctum). The banded Gila monster is recognized as a sensitive species by the California and Nevada BLM, Nevada Protected Reptile, and is a CDFW Species of Special Concern. The banded Gila monster's range extends from the southwest corner of Utah south through southeastern Nevada into eastern Riverside and San Bernardino Counties in California, south through Arizona to southwestern New Mexico and south into Sonora Mexico (Nafis, 2021). They inhabit the lower slopes of rocky canyons and arroyos with deeply incised topography and are associated with

large and relatively high mountain ranges but are also found on desert flats among scrub and succulents. They prefer rocky areas in desert scrub and semi-desert grassland. Found in lower mountain slopes, rocky bajadas, canyon bottoms, and arroyos (Nafis, 2021). Eggs are laid in soil in excavated nest in sandy or friable soils.

The banded Gila monster was not observed in either segment during the surveys. The NDNH database contains 24 records of banded Gila monster within five miles of the Project Area (NDNH, 2021c). The records are dated from 1977 through 2019. The CNDDB contain three records of banded Gila monster within five miles of the Project Area (CDFW, 2021a). The records are dated from 1962 through 2012. There are no iNaturalist observations of this species within five miles of the Project Area. A recent CNDDB record is approximately 4 miles north of Line 1 Tower 13-1 on the California segment. Based on the presence of suitable habitat and recent records, the banded Gila monster has a high potential to be present within the California segment of the Project Area. Multiple historic records are located along the Project Area within the McCullough Range of the Nevada segment. Based on the presence of suitable habitat and a lack of recent records, the banded Gila monster has a low potential to be present within the Nevada segment of the Project Area.

Desert horned lizard (*Phrynosoma platyrhinos calidiarum***).** The desert horned lizard is Nevada BLM Sensitive species and is a Nevada Watch List species. They are found in arid lands including sandy flats, at the edges of sand dunes, alluvial fans, and dry washes in desert communities dominated by creosote, salt bush, cacti, other small shrubs (Nafis, 2021). They require areas with native ants as they comprise 90% of the diet. They are generally active in the spring through fall. The desert horned lizard is found mostly in the Sonoran and Mojave Deserts, but can also be found in California, Nevada, western Arizona Utah, Idaho and Mexico, northwestern Sonora, and northeastern Baja California (Nafis, 2021).

No desert horned lizards were observed during the 2021 surveys of the Nevada segment. Three desert horned lizards were during the 2021 surveys of the California segment. Suitable habitat is present throughout the Nevada segment. There are no NDNH records within five miles of the Project area. There are iNaturalist records within five miles of the Project Area. Based on the presence of suitable habitat and recent nearby records there is a high potential for desert horned lizards to occur within the Nevada segment of the Project Area

Common chuckwalla (*Sauromalus ater***).** The common chuckwalla is recognized as a sensitive species by the Nevada BLM and is a Nevada Watch List species. The common chuckwalla ranges from southern California south into Baja California, and east of California into southern Nevada and Utah, through eastern Arizona and south into Sonora, Mexico (Nafis, 2021). The species occurs in rocky flats and hillsides, lava flows, and large outcrops in the Mojave and Colorado Deserts in vegetation communities dominated by creosote bush. Although primarily associated with natural rock crevices, chuckwallas have also been observed inhabiting atypical places such as burrows in dirt, piles of railroad ties, and artificial rip rap will also be used for cover.

Within the Nevada segment a single common chuckwalla was observed within the Line 1, Tower 27-3 Project Area. Suitable habitat is present within rocky slopes present within the Project Area of the Nevada segment. There are no NDNH database or iNaturalist observations of this species within five miles of the Project Area. Based on observation from the 2021 surveys and presence of suitable habitat, the common chuckwalla has a high potential to occur within the Nevada segment of the Project Area.

Golden eagle (Aquila chrysaetos). Golden eagle is federally protected under the Bald and Golden Eagle Protection Act, recognized as sensitive species by the California and Nevada BLM, fully protected species in California, Nevada Watch List Species and is USFWS BCC. Golden eagles are year-round residents throughout most of their range in the western U.S. In the southwest, they are more common during winter

when eagles that nest in Canada migrate south into the region. They breed from late January through August, mainly during late winter and early spring in the California deserts. In the desert, they generally nest in steep, rugged terrain, often on sites with overhanging ledges, cliffs, or large trees that are used as cover. Golden eagles are wide-ranging predators, especially outside of the nesting season, when they have no need to return daily to tend eggs or young at their nests. Foraging habitat consists of open terrain including grasslands, deserts, savanna, and early successional forest and shrubland habitats. They prey primarily on rabbits and rodents, but will take other mammals, birds, reptiles, and some carrion.

Golden eagle home ranges in the Mojave Desert range from 1.7 to 1,369 square miles, and averaged 119 square miles (Braham et al., 2015). In any given year, golden eagles may initiate nesting behavior at one nest, without any activity at the other nests. Eagles may complete breeding by laying eggs and raising chicks or may abandon the nest without successfully raising young. In any given year, all or most nests in a territory may be inactive, but eagles may return in future years to nest at previously inactive sites.

No suitable natural nesting habitat is present within the Project Area. Golden eagles within the vicinity of the Project alignment have been documented to use artificial nesting sites such as electrical transmission towers for nesting in the California segment. Suitable foraging habitat is present throughout California and Nevada segments and there is a high potential for golden eagles to forage on the route. A golden eagle was observed foraging within the Project Area at Line 1 Tower 109-1 east of the City of Yermo on the California segment. The CNDDB contains 19 records of golden eagles within five miles of the Project Area (CDFW, 2021a). The records are dated from 1977through 2019. The NDNH database contains three records of golden eagle within five miles of the Project Area (NDNH, 2021c). The records are dated from 2008 through 2011. There are no iNaturalist observations of this species within five miles of the Project Area. Based on the presence of suitable nesting and foraging habitat, golden eagles have a potential to occur on both the California and Nevada segment of the Project Area.

Burrowing owl (*Athene cunicularia***).** Burrowing owl is a CDFW Species of Special Concern and recognized as sensitive by the California and Nevada BLM. It inhabits arid lands throughout much of the western U.S. and southern interior of western Canada (Poulin et al., 2011). In this portion of its range, some owls are migratory, while some are year-round residents. Burrowing owls prefer flat, open annual or perennial grassland or gentle slopes and sparse shrub or tree cover. However, they are routinely found in desert shrub communities, including those that are present along the pipeline route and surrounding area. Burrowing owls are unique among the North American owls in that they nest and roost in abandoned burrows, especially those created by ground squirrels, kit fox, desert tortoise, and other wildlife. Burrowing owls have a strong affinity for previously occupied nesting and wintering habitats. Burrowing owls often return to burrows used in previous years, especially if they were successful at reproducing there in previous years (Gervais et al., 2008). The breeding season in southern California and southern Nevada generally occurs from February to August with peak breeding activity from April through July (Poulin et al., 2011).

In California, no burrowing owls were observed during surveys. A burrowing owl burrow was observed within the Project Area at Line 1 Tower 151-2 (see Attachment A, Figure 7). The burrow did not appear to be active (i.e., no feathers or pellets observed at burrow entrance). It is likely that the burrow was used for over wintering. The CNDDB contains 29 records of burrowing owls within five miles of the Project Area (CDFW, 2021a). The records are dated from 1891 through 2017. There are iNaturalist observations of this species within five miles of the Project Area. Multiple recent eBird records are present along the Project Area. Breeding, overwintering, and foraging habitat is present throughout the segment. Burrowing owls have high potential to nest in the Project Area and a high potential for it to forage or winter there.

In Nevada, no burrowing owls or their sign were observed during surveys. Breeding, overwintering, and foraging habitat is present throughout the segment. The NDNH database contains one record of

burrowing owls within five miles of the Project Area (NDNH, 2021c). The record is dated from 2009. There are no iNaturalist observations of this species within five miles of the Project Area. Multiple recent eBird records are present along the Project Area. Burrowing owls have a high potential to nest in the Project Area and a high potential to forage or winter there.

Loggerhead shrike (*Lanius ludovicianus***).** The loggerhead shrike is recognized as a sensitive species by the Nevada BLM and is a CDFW Species of Special Concern. It is widespread in the United States and throughout California and Nevada. It prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. It most often occurs in open-canopied forest and woodland habitats. It nests in well-concealed microsites in densely foliaged trees or shrubs (Miller, 1931; Bent, 1950). It feeds on large insects, but will also take small birds, mammals, amphibians, reptiles, fish, carrion, and various invertebrates. Loggerhead shrikes often impale their prey on thorns, barbed wire, or other sharp objects.

Within the California segment of the Project Area a loggerhead shrike was heard calling and a shrike larder was observed during the survey at Line 1 Towers 44-2 and 121-2 (see Attachment A, Figure 7). The CNDDB contains four records of loggerhead shrikes within five miles of the Project Area (CDFW, 2021a). The records are dated from 2005 through 2009. In addition, there are iNaturalist observations of this species within five miles of the Project Area. The records are dated from 2015 through 2020. Based on the presence of shrike observations, suitable nesting and foraging habitat, and recent records, the species high potential to occur in the California segment of the Project Area.

No Loggerhead shrikes were observed within the Nevada segment of the Project Area during the 2021 surveys. There are no NDNH database or iNaturalist observations of this species within five miles of the Project Area. eBird contains multiple recent observations along the alignment. The records are dated from 1994 through 2021. Based on the presence of recent records and suitable habitat, loggerhead shrikes have a high potential to forage or nest within the Nevada segment of the Project Area.

Phainopepla (*Phainopepla nitens***).** The phainopepla is recognized as a sensitive species by the Nevada BLM and is a Nevada Watch List species. The phainopepla is a summer resident of California and Nevada east to west Texas and is present within the Project Area between May and September. The species occurs in a wide variety of habitat types including sparse palm oasis, desert wash, and desert riparian habitats; as well as hardwood-conifer, mixed chaparral, and orchard-vineyard habitats. Phainopeplas are heavily dependent on mistletoe berries growing on mesquite, acacia, ironwood, cottonwood, and oaks as a food source. Nests are usually placed in the fork of a tree or inside a mistletoe plant.

Within the Nevada segment, no phainopeplas were observed within the Project Area. Suitable nesting and foraging habitat are present within the desert wash habitats within the Project Area of the Nevada segment. There is one NDNH database observation of this species within five miles of the Project Area (NDNH, 2021c). The records are dated from 2020. There are iNaturalist observations of this species within five miles of the Project Area. Multiple recent eBird records are located along the Nevada segment. These records are dated from 2021 (eBird, 2021).

Based on the presence of nearby recent observations and the presence of suitable habitat, phainopeplas have a high potential to occur within the Nevada segment of the Project Area. The species was observed at Line 1 Towers 33-4, 33-4 access road and Line 2 Tower 34-5 within California segment of the alignment; however, the species is not considered sensitive in California.

Bendire's thrasher (*Toxostoma bendirei***).** Bendire's thrasher is recognized as a sensitive species by the California and Nevada BLM, CDFW Species of Special Concern, Nevada Tracked Species and USFWS BCC. The species primarily occurs in San Bernardino, western Kern Counties, southern Nevada and within the Colorado Desert between February and August. It occurs within flat areas of desert succulent shrub/

Joshua tree habitats. The species nests in cholla, yucca, thorny shrubs, or small trees, usually 0.5 to 20 feet above ground.

No Bendire's thrashers or their nests were observed during surveys. Suitable nesting and foraging habitat were observed within the Joshua tree woodland and desert scrub communities present within the California and Nevada segments of the Project Area. The CNDDB contains seven records of Bendire's thrashers within five miles of the Project Area (CDFW, 2021a). The records are dated from 1986. There are no NDNH or iNaturalist observations of this species within five miles of the Project Area. Recent eBird records are present along the five miles of the Project Area in both the California and Nevada segments. Based on the presence of suitable nesting habitat and recent eBird records. There is a high potential for the to forage or nest within either segment of the Project Area.

Crissal thrasher (*Toxostoma crissale***).** Crissal thrasher is recognized as a sensitive species by the California and Nevada BLM and is a CDFW Species of Special Concern. The crissal thrasher is resident of southeastern deserts in desert riparian and desert wash habitats. The species southeastern California, southern Nevada, southwestern Utah, northwestern and central Arizona, central New Mexico, and western Texas south to northeastern Baja California, central Sonora, and central Chihuahua, south locally to central Mexico. The species nests in dense vegetation along streams/washes.

No crissal thrashers or their nests were observed during surveys. Suitable nesting and foraging habitat observed within both segments of the Project Area. There is a nearby record approximately 1.5 miles south of the alignment on the California segment at Line 2 Tower 32-1. The CNDDB contains two records of crissal thrashers within five miles of the Project Area (CDFW, 2021a). The records are dated from 2014. There are no NDNH or iNaturalist observations of this species within five miles of the Project Area. In addition, there are recent eBird around the Ivanpah Valley, Clark Mountains, and the McCullough Range (eBird 2021). Based on the presence of suitable nesting habitat and recent eBird records, there is a high potential for crissal thrashers to forage or nest within either segment of the Project Area.

Le Conte's thrasher (*Toxostoma lecontei*). Le Conte's thrasher is recognized as a sensitive species by the California and Nevada BLM and is a CDFW Species of Special Concern. The species is year-round resident of the Mojave and Colorado deserts, southwest Central Valley, Owens Valley, east to Nevada, Utah, and Arizona. Le Conte's thrashers occur in sparse desert scrub such as creosote bush, Joshua tree, and saltbush scrubs, or sandy-soiled cholla-dominated vegetation. The species nests in dense, spiny shrubs or densely branched cactus in desert wash habitats.

Le Conte's thrashers were observed foraging within the Project Area during surveys within the California segment at Line 1 Towers 146-5 and 151-2 (see Attachment A, Figure 7). The CNDDB contains five records of Le Conte's thrashers within five miles of the Project Area (CDFW, 2021a). The records are dated from 1911 through 2017. In addition, there are iNaturalist observations of this species within five miles of the Project Area. Based on the presence of individuals, suitable foraging and nesting habitat and recent records, Le Conte's thrashers have a high potential to forage or nest within the Project Area.

Le Conte's thrashers were not observed during surveys in the Nevada segment. Breeding and foraging habitat is present throughout the segment. Suitable foraging and nesting are present throughout the segment. A record of Le Conte's is present 100 feet to the south of the Line 2 Tower 16-3 Project Area. The NDNH database contains two records of Le Conte's thrashers within five miles of the Project Area (NDNH, 2021c). The records are dated from 2006 through 2011. There are no iNaturalist observations of this species within five miles of the Project Area. Based on the presence of suitable habitat and recent nearby records, there is a high potential for the species to forage or nest within the Project Area.

Townsend's big-eared bat (*Corynorhinus townsendii***).** The Townsend's big-eared bat is a USFS-sensitive species and a BLM-sensitive species and a CDFW species of special concern. Townsend's bats are most

common in mesic habitats, such as coastal sites and riparian areas, but habitat associations are still quite varied (WBWG, 2017). More sensitive to disturbance than other species, the distribution of the Townsend's big-eared bat may be affected by presence of suitable roosting habitat, which is primarily, though not exclusively, undisturbed caves and mines.

Within the California segment, no Townsend's big-eared bats were observed within the Project Area. Suitable foraging habitat are present within the Project Area of the. In the California segment there are seven CNDDB records of this species within five miles of the Project Area (CDFW, 2021a). These records are dated between 1930 and 2011. There are no recent observations of this bat from 2015 to 2019 within five miles of the Project Area (iNaturalist, 2021). Based on the presence of suitable foraging habitat and record records, Townsend's big-eared bat has high potential to forage along the California segment of the Project Area.

Within the Nevada segment, no Townsend's big-eared bats were observed within the Project Area. Suitable foraging habitat are present within the Project Area. There is one NDNH record of this species within five miles of the Project Area (NDNH, 2021c). This record is dated from 1964. There are no recent observations of this species within five miles of the Project Area (iNaturalist, 2021). Based on the presence of suitable foraging habitat and a lack record records, Townsend's big-eared bat has low potential to forage along the Nevada segment of the Project Area.

Desert bighorn sheep (*Ovis canadensis nelson***).** Desert bighorn sheep live in mountains of California, Nevada, northern Arizona, and Utah deserts. Populations in eastern San Bernardino County and Nevada are considered Sensitive by the California and Nevada BLM recognized by CDFW are fully protected under the state Fish and Game Code. In the Nevada, desert bighorn sheep are considered a Game Mammal under Nevada Administrative Code 503.020. Desert bighorn sheep inhabit open, rocky, steep areas with available water and herbaceous forage within a variety of habitats ranging from desert shrublands to conifer forest within the intermountain

In the California segment, a horn fragment was observed within the Project Area at Line 1 Tower 93-5 near the Soda Mountains where desert bighorn sheep have been documented to occur (see Attachment A, Figure 7). Within the California segment desert bighorn sheep are documented to occur within the Clark, Soda, and Newberry Mountains. There is one CNDDB record of this species within five miles of the Project Area (CDFW, 2021a). This record is dated from 1986. There are multiple iNaturalist records of this species within five miles of the Project Area. Based on the remains observed during the 2021 surveys, suitable habitat and nearby recent records, desert bighorn sheep have a high potential to occur within the Project Area.

A herd of desert bighorn sheep were observed during the focused survey of the Project Area near Line 1 Tower 10-3 within the McCullough Range in the Nevada segment. Suitable habitat is present within the McCullough Range of the Project Area. There are no NDNH records of this species within five miles of the Project Area (NDNH, 2021c). Several iNaturalist records of this species are documented within five miles of the Project Area. Based on the presence of suitable habitat, observations during the 2021 surveys and recent records, desert bighorn sheep has high potential to forage along the Nevada segment of the Project Area.

Other Special-status Wildlife

In addition to listed or proposed species the State of California and Nevada have non-listed designations for special-status wildlife. These include species designated as CDFW SSC, California FP, watch list fur bearing mammals and species identified as migratory birds. In Nevada these designations include Tracking and Watch Species, furbearing mammal, and migratory birds. The USFWS also have non-listed

designations migratory birds, Bird of Conservation Concern. Each of these designations provides different measures of protection.

Some of the species with a state of California and Nevada, or USFW designations (see Table 5), also have other state or federal listing designations. Those species with state or federal listings were previously evaluated and include:

- Common chuckwalla
- Desert horned lizard
- Desert iguana
- Great-basin collard lizard
- Long-nosed leopard lizard
- Bendire's thrasher

Burrowing owlCrissal thrasher

- Golden eagle
- Le Conte's thrasher
- Loggerhead shrike
- Peregrine falcon
- Phainopepla
- Swainson's hawk
- Desert bighorn sheep
- Townsend's big-eared bat

The remaining 13 species were detected within the Project Area during the 2021 or 2024 surveys or have a moderate to high potential to occur include:

- San Emigdio blue butterfly (*Plebulina emigdionis*)
- Victorville shoulderband (*Helminthoglypta mohaveana*)
- Cooper's hawk (Accipiter cooperii)
- Costa's hummingbird (*Calypte costae*)
- Prairie falcon (*Falco mexicanus*)
- Yellow-breasted chat (Icteria virens)

- Vermilion flycatcher (*Pyrocephalus rubinus*)
- Yellow warbler (Setophaga petechia)
- Yellow-headed blackbird (*Xanthocephalus xanthocephalus*)
- Verdin (Auriparus flaviceps)
- American badger (Taxidea taxus)
- Mountain lion (*Puma concolor*)
- Desert kit fox (Vulpes macrotis arsipus)

San Emigdio blue butterfly (*Plebulina emigdionis***).** San Emigdio blue butterfly is considered a CDFW Special Animal. The San Emigdio blue butterfly is found in desert canyons and along riverbeds in Inyo, Kern, Los Angeles, and San Bernardino counties. The species has a flight period between April and September. Known host plants is fourwing saltbush and possibly American bird's foot trefoil (*Lotus purshianus*).

No San Emigdio blue butterflies were observed during the surveys. The host plant fourwing saltbush was observed within the Project Area and provides suitable foraging habitat and egg deposition locations. There are four CNDDB record of this species within five miles of the Project Area (CDFW, 2021a). These records are dated from 1975 through 2016. A recent CNDDB record is located approximately 1.7 miles from the Victorville Switching Station (CDFW, 2021a). The iNaturalist records of this species within five miles of the Project Area located near the Victorville Switching Station. Based on the presence of host plant and recent nearby records, there is a high potential for the species to occur within the California segment of the Project Area.

Victorville shoulderband (Helminthoglypta mohaveana). Victorville shoulderband snails are considered State Rank 1 and have no federal status. Members of the genus Helminthoglypta are air-breathing, terrestrial snails. Shells are relatively medium to large, with no apertural teeth, but usually with a reflected apertural lip. These snails possess a single dart apparatus with one stylophore (dart sac) and two mucus glands which are utilized to create love darts. Love darts, shaped in many distinctive ways which vary considerably between species, are hard, sharp, calcareous, or chitinous darts that are used as part of the sequence of events during courtship before actual mating takes place (Pilsbry, 1946).

Victorville shoulderband snails were observed during surveys. There is one iNaturalist record in the Mojave River south of the Project Area in the Mojave Narrows Regional Park. There are two historic

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CNDDB records along the banks of the Mojave River. The species was found under loose rocks on dry hillsides. Based on the records from iNaturalist and CNDDB, and the observation during 2024 surveys, there is a high potential for the species to occur within the California segment of the Project Area.

Cooper's hawk (*Accipiter cooperii***).** Cooper's hawk is a CDFW Watch List Species. Cooper's hawks occur in woodland communities, chiefly of open, interrupted, or marginal type. Nest sites mainly in riparian growths of deciduous trees. The species is widespread across North America and is a year-around resident of southern California.

No suitable nesting habitat was observed within the Project Area. The riparian woodland habitat associated with the Mojave River near the Victorville Switching Station is located within 500 of the Project Area. There is one CNDDB record of this species within five miles of the Project Area (CDFW, 2024). This record is dated from 1921. There are iNaturalist records of this species within five miles of the Project Area. Several recent eBird records are present along within the vicinity of the Project Area near the Victorville Switching Station and other locations in both California and Nevada (eBird, 2024). Based on the presence of suitable foraging habitat and proximity to suitable nesting habitat, there is a high potential for the species to occur within the California segment of the Project Area. Cooper's hawk was observed forging in Nevada.

Verdin (*Auriparus flaviceps***).** The verdin is NDNH Tracked species. They are year-round residents of arid habitats in Mexico and deserts of the southwest of the United States. They occur in desert scrub or chaparral with thorny trees along washes with catclaw, paloverde, mesquite, tamarisk, juniper, ironwood, creosote bush, hackberry, smoke tree, desert lavender, willows, or oaks are present.

No verdins were observed during the 2021 surveys. Suitable nesting and foraging habitat are present within the Project Area. There are three NDNH database records within five miles of the Project Area. These surveys are from 2006 through 2011. There a few iNaturalist records within five miles of the Project Area. Multiple recent eBird records are present within five miles of the Project Area. Based on the presence of suitable nesting and foraging habitat and recent records within the Project Area there is a high potential for Verdin to occur within the Project Area.

Costa's hummingbird (*Calypte costae***).** Costa's hummingbird is a USFWS BCC. Costa's hummingbirds occur within Mojave Desert scrub, coastal California chaparral, sage scrub, deciduous forest, desert scrub and streams with cottonwoods, brittlebush, fourwing saltbush, and other species from near sea level to 4,000 ft. elevation. Breeds in southwest North America from central California, southern Nevada, and southwestern Utah. Winters Baja California and coastal Mexico.

A single adult female Costa's hummingbird was observed within the Project Area southwest of State Route 247 near Barstow. No evidence of nesting was observed; however suitable nesting and foraging habitat is present throughout the Project Area. There no CNDDB or NDNH database records of the species within five miles of the Project Area. There are multiple iNaturalist record within five miles within the California segment of the Project Area and within five miles of the Project Area of the Nevada. Multiple recent eBird records are present along both the California and Nevada segments. Based on the presence of suitable nesting and foraging habitat, Costa's hummingbirds have a high potential to occur along both the California and Nevada segments of the Project Area.

Prairie falcon (*Falco mexicanus***).** Prairie falcon is a watch list species in California and is a USFWS BCC. It breeds throughout much of arid western North America. Prairie falcons' prey on a variety of small mammals, birds, reptiles, and some large insects. They nest almost exclusively on ledges of cliffs and rock escarpments or, occasionally, in stick nests built on the ledges by ravens or other raptors. There are a few regional breeding records and nesting prairie falcons may forage over very wide ranges (Johnsgard, 1990).

No prairie falcons were observed during surveys. Suitable nesting habitat is absent from the Project Area. Suitable foraging habitat is present within the Project Area along both segments. There are 14 CNDDB records of the species within five miles of the Project Area (CDFW, 2021a). These records are from 1978 through 2008. There are no iNaturalist records within five miles within the Nevada segment of the Project Area. Multiple recent eBird records are present along both the California and Nevada segments. Based on the presence of suitable foraging habitat and recent records, prairie falcons have a high potential to forage in both the California and Nevada segments of the Project Area.

Yellow-breasted chat (Icteria virens). Yellow-breasted chat is a CDFW Species of Special Concern. Although this species is a widespread summer resident in eastern North America, its distribution is much more fragmented in the west. In California, yellow-breasted chat primarily occurs in the northern portion of the state and is considered scarce in the central and southern portions. In southern California, this species utilizes dense riparian thickets and brushy tangles near watercourses for breeding (Garrett and Dunn, 1981). Similar habitat is used during migration (Dunn and Garrett, 1997). The yellow-breasted chat is the largest member of the warbler family (Parulidae). Its yellow throat and breast, olive underparts and white spectacles distinguish this species from other similar birds. The yellow-breasted chat breeds in April or May through August. Females initiate nest construction, which begins shortly after pair formation, above ground in dense shrubs along a river or stream. Both parents tend to nestlings until they fledge at roughly nine days (Stephenson and Calcarone, 1999).

No yellow-breasted chats were observed during surveys, but suitable breeding habitat is located along the Mojave River. Suitable riparian habitat is located within 500 feet of the Project Area near the Victorville Switching Station along the Mojave River. Within the Victorville Switching Station footprint and other Project Areas, the habitat is upland dry habitat. Railroad tracks and roads are between the Mojave River and the Victorville Switching Station. Suitable habitat has the potential to occur along the Mojave River northward towards Harvard Road per the Yellow-Breasted Chat Predicted Habitat (CDFW, 2024). There are no iNaturalist records within five miles of the Project Area. There is one CNDDB record of the species within the Mojave Narrows Regional Park. Based on the suitable habitat, records along the Mojave River, yellow-breasted chat has a low potential to breed but a high potential forage within the Project area.

Vermilion flycatcher (*Pyrocephalus rubinus*). Vermilion flycatcher is a CDFW Species of Special Concern. It is a year-round resident and summer resident within the Project Area. The species occurs throughout the southern United States and Mexico. It inhabits a variety of open habitats including arid scrublands, farmlands, deserts, parks, and canyon mouths. Within these habitats they are reliant on-stream corridors in areas where willow, sycamore, cottonwood, and mesquite occur.

No vermilion flycatchers were observed within the Project Area. Suitable nesting and foraging habitat are present in the agricultural areas and riparian habitats along the Mojave River of the Project Area. There is one CNDDB record of the species within five miles of the Project Area (CDFW, 2021a). The record is from 1947. There several iNaturalist records within five miles within of the Project Area. In addition, multiple recent breeding season eBird records are present within five miles of the Project Area. Based on the presence of suitable nesting and foraging habitat, vermilion flycatchers have a high potential to occur within the Project Area.

Yellow warbler (Setophaga petechia). The yellow warbler is a CDFW Species of Special Concern, not federal listed, BLM sensitive or on the Plant and Animal Watch List (NDVH 2023). Although this species is primarily a summer resident, some small winter populations remain in the lowlands of southern California (Garrett and Dunn, 1981). Yellow warblers migrate annually between breeding grounds in North America and wintering grounds in the neotropics and are highly territorial on both breeding and wintering grounds

(Lowther et al., 1999). During migration, yellow warblers form flocks and will often join with flocks of other species, including warblers, vireos, and flycatchers.

No yellow warblers were observed within the Project Area. Suitable nesting and foraging habitat are present along the Mojave River. There is one CNDDB record of the species within the Mojave River. There are two iNaturalist records of the species within the Mojave Narrows Regional Park (south of the Project); and two records within five miles of the Project Area near Baker and Zzyzx. Based on the presence of suitable foraging habitat, records within the Mojave River, yellow warbler has a low potential to breed but a high potential forage within the Project Area.

Yellow-head blackbird (*Xanthocephalus xanthocephalus***).** The yellow-headed blackbird is a CDFW Species of Special Concern. It is breeds across northern North American and winters in California south to Central America. Suitable breeding habitat consists of wetlands in prairies, mountain meadows, quaking aspen parklands, and shallow areas of marshes, ponds, and rivers.

A single yellow-headed blackbird was observed within the Project Area at Line 2 tower 47-2. The Project Area is located outside of the breeding range of the species; therefore, they are not expected to nest within the Project Area. Suitable nesting habitat is absent in the Project Area. There are no CNDDB records of the species within five miles of the Project Area. Multiple recent non-breeding season eBird records are present and one iNaturalist record within five miles of the Project Area. Based on the presence of suitable foraging habitat, yellow-headed blackbird has a high potential to occur within the Project Area during migration.

American badger (*Taxidea taxus*). American badger is a CDFW Species of Special Concern. Badger natural history is summarized by Brehme et al. (2012). They were once widespread throughout open grassland habitats of California. They are now uncommon, permanent residents throughout most of the California. They are found in open shrubland, forest, and herbaceous habitats with friable soils. In the southwest, badgers are typically associated with creosote bush and sagebrush shrublands. Badgers are fossorial, digging large burrows in dry, friable soils and use multiple dens and cover burrows within their home range. Badgers move among burrows daily, although they can use a den for a few days at a time. Badger home range sizes are dependent upon prey availability and other habitat characteristics. In general, home ranges are several hundred acres in size. They feed mainly on small mammals, especially ground squirrels, pocket gophers, rats, mice, and chipmunks. Badgers also prey on birds, eggs, reptiles, invertebrates, and carrion. The diet shifts seasonally and yearly depending upon prey availability.

No live American badgers were observed during the 2021 surveys of the California segment. Suitable for aging habitat and denning sites are present throughout the Project Area. There are three CNDDB records of the species within five miles of the Project Area (CDFW, 2021a). These records are from 2015 through 2016. There are iNaturalist records within five miles within of the Project Area. The desert scrub habitat throughout the alignment provides suitable habitat for digging and burrowing, although the proximity to roads, OHV activity may dissuade badgers from using these areas. Based on the observation during the 2021 surveys, presence of suitable habitat, and recent records, American badgers have a high potential to occur within the Project Area. The remains of an American badger and badger sign were observed during the surveys within the Nevada segment, but the species is not considered sensitive in Nevada.

Mountain Lion (*Puma concolor***).** Mountain lion is protected under California Wildlife Protection Act of 1990 as a "specially protected mammal" in California. In addition, the mountain lion within proposed Southern California and Central Coast evolutionarily significant unit (ESU) boundary is a candidate species under CESA. The mountain lion is not on the Plant and Animal Watch list (NDNH, 2023). The mountain lion ESU extends from southern California along the central coast of California and the species range; however, the range of the mountain lion is throughout the America's.

During the evening hours, mountain lions will utilize many habitats within their range to hunt including riparian, scrub, chaparral, grassland, and woodland habitats (Dickson et al., 2005). While hunting, mountain lions prefer to stalk and pursue their prey along canyon bottoms and gentle slopes (Dickson and Beier, 2006). Mountain lions will feed on steeper slopes in habitats with dense understory vegetation for cover (Benson et al. 2016). Although they will travel through open or human-disturbed habitat, they prefer expansive, intact, heterogeneous habitat (Dickson and Beier 2002; Dickson et al., 2005).

The mountain lion is a large solitary felid that is considered both nocturnal and crepuscular but has been observed during daylight hours (Dickson and Beier, 2002; Dickson et al., 2005). Within the State of California, mountain lions can be found in a variety of habitat types between sea level and 10,000 feet in elevation. However, mountain lion habitat, population numbers, and genetic diversity have been declining rapidly, especially within Southern California populations (Yap et al. 2019).

Mountain lions exist at naturally low population densities, but they are very territorial and require large swaths of intact wilderness. Home ranges vary one study found in averaged 372 km2 for adult males and 134 km2 for adult females, which was similar to reported ranges by other researchers (Riley et al., 2021). In southern California, mountain lions have been found to utilize different habitats within a 24-hour period (Dickson and Beier, 2002; Dickson et al., 2005). Mountain lions are mostly active during dusk and dawn, but their peak activity will shift to nocturnal patterns when closer to human developments. During day-light hours, mountain lions were frequently found in riparian habitats, suggesting that they prefer to rest in areas with dense understory vegetation for cover (Dickson and Beier, 2002; Dickson et al., 2005). Mountain lion movement patterns tend to follow the distribution and abundance of deer, a common food source of southern California/Central Coast ESU populations (Grigione et al., 2002). Mountain lions are opportunistic hunters and will also feed on other ungulates (such as bighorn sheep, pronghorns, and domestic livestock), bobcats, coyotes, fox, skunks, raccoons, squirrels, rabbits, rodents, and insects (Currier, 1983).

Mountain lions are typically active year-round and can reproduce at any time of the year, but the timing of reproduction may be influenced by prey abundance and climate. In North America, kitten births are most common between April and September (Currier, 1983; Beier, 1995). Mountain lions will form dens in rocky outcrops, caves, and other natural cavities when rearing young (Yap et al., 2019).

During the surveys in 2021, no mountain lions were observed. Suitable habitat is present throughout the Project Area. There are several observations of mountain lions tracks in the Mojave National Preserve near the border with Nevada, and an observation of one near Hesperia (iNaturalist). Mountain lions have large ranges and are found in many habitats. Based on the presence of suitable habitat, large range used by individual mountain lions, known range of the species, and historical observations the mountain lion has a high potential to be present within the Project Area.

Desert kit fox (*Vulpes macrotis arsipus***).** Desert kit fox is protected under Title 14, Section 460, California Code of Regulations, as well as the California Fish and Game Code (Sections 4000-4012), which defines kit fox as a protected furbearing mammal and is Nevada Fur-bearing Mammal under Nevada Administrative Code NAC 503.025. Both regulations prohibit take of the species. Desert kit fox is an uncommon to rare permanent resident of arid regions of southern California and Nevada. Desert kit foxes occur in annual grasslands, or grassy open, arid stages of vegetation dominated by scattered herbaceous species. They prey on rabbits, ground squirrels, kangaroo rats, and various species of insects, lizards, and birds (Zeiner et al., 1990). Desert kit fox is primarily nocturnal, and inhabits open, flat areas with patchy shrubs. Friable soils are necessary for the construction of dens, which are used throughout the year for cover, thermo-regulation, water conservation, and pup rearing.

During surveys, a total of seven potential kit fox dens, including five natal den locations were observed during the survey of the California segment. Desert kit fox dens and sign were observed throughout the entire length of the Project Area (See Attachment A, Figure 7). Kit fox has a high potential to be present within the Project Area and surrounding area. There are no CNDDB or iNaturalist records of the species within five miles of the Project Area. Based on the presence of suitable habitat, document occurrences during the 2021 surveys, desert kit is known to occur.

During surveys, a total of three potential kit fox dens were observed during the survey of the Nevada segment. Desert kit fox dens and sign were observed throughout the entire length of the Project Area. (See Attachment A Figure 7). There are no NDNH records of the species within five miles of the Project Area. Several iNaturalist records are within five miles of the Project Area. Based on the presence of suitable habitat, document occurrences during the 2021 surveys, desert kit fox has a high potential to be present within the Project Area and surrounding area.

Migratory Birds

Most birds, including their nestlings and eggs, are protected under the California Fish and Game Code Sections 3503, 3503.5, and 3513, Nevada Administrative Code Section 503.050 and the federal Migratory Bird Treaty Act. Most of these species have no other special conservation status. Sixty-eight bird species have been recorded within the Study. Suitable foraging and nesting habitat for protected bird species, as well as "stopover" habitat for migratory songbirds, is found throughout the alignment.

4.4 Designated Critical Habitat and Special Habitat Designations

4.4.1 Designated Critical Habitat

The ESA identifies critical habitat as specific geographic areas that contain features essential to the conservation of an endangered or threatened species that may require special management and protection. Critical habitat may also include areas that are not currently occupied by the species but will be needed for its recovery. The USFWS publish proposals to designate critical habitat in the *Federal Register*, a daily publication of the federal government. Following a public review and comment period, the designation may be refined and then a final critical habitat designation is published. The final designation specifies physical or biological features (i.e., primary constituent elements) essential to the conservation of a listed species and are those features that a species requires to survive and reproduce. General features include: (1) space for individuals and population growth and for normal behavior; (2) food, water, air, light, minerals, or other nutritional requirements; (3) cover or shelter; (4) sites for breeding, reproduction, or rearing offspring; and, generally, (5) habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of this species.

Critical Habitat

The Project area is located within designated critical habitat for desert tortoise (refer to Attachment A, Figure 8). The Project route crosses desert tortoise critical habitat in four sections of the ROW in both California and Nevada. These include the Ivanpah, Superior-Cronese, Ord-Rodman and Piute-Eldorado critical habitat units. In addition, southwestern willow flycatcher critical habitat is located adjacent to Project Area along the Mojave River within the Mohave River Critical habitat unit (refer to Attachment A, Figure 8).

Desert tortoise. Critical habitat was designated for desert tortoise as of February 8, 1994. The designation encompasses more than 6.4 million acres across numerous counties in Arizona, Utah, Nevada, and California. The USFWS defined specific physical and biological features essential to the conservation and recovery of desert tortoise as: sufficient space to support viable populations within each of the six reco-

very units and to provide for movement, dispersal, and gene flow; sufficient quality and quantity of forage species and the proper soil conditions to provide for the growth of these species; suitable substrates for burrowing, nesting, and overwintering, burrows, caliche caves, and other shelter sites; sufficient vegetation for shelter from temperature extremes and predators; and habitat protected from disturbance and human-caused mortality (USFWS, 2024).

Southwestern willow flycatcher. Critical habitat was designated for southwestern willow flycatcher as of February 27, 1995. The revised designation encompasses more than 370,000 acres across numerous counties in Arizona, New Mexico, Utah, Colorado, Nevada, and California. The USFWS defined specific physical and biological features essential to the conservation and recovery of southwestern willow flycatcher as: the riparian vegetation ecosystem within the 100-year floodplain or flood-prone area, including areas where dense riparian vegetation is not present but through succession can be expected to become established in the future. Flycatchers use riparian habitat for feeding, shelter, and cover while breeding and migrating (USFWS, 2005).

4.5 Wildlife Corridors and Special Linkages

An important component to biodiversity and ecosystem health is the ability for plants and wildlife to move among local populations in adjacent areas. In the short term, movement can support demographic stability of small, localized populations. In the longer term, it can maintain genetic diversity among semiisolated local populations. This is accomplished by the movement or dispersal of pollen in the wind, seeds transported by birds or animals to other areas, and the dispersal of animals to adjacent habitat. Development, including clearing ROW or constructing roads, can hinder this process and isolate species from adjacent populations. In many instances this is species specific and depends on the ecology and behavior of the species. However, in some cases cleared ROW can become well established movement areas for larger species or species that thrive in edge areas.

The ability for wildlife to move freely among populations and habitat areas is important to long-term genetic variation and demography. Fragmentation and isolation of natural habitat may cause loss of native species diversity in fragmented habitats. In the short term, wildlife movement may also be important to individual animals' ability to occupy their home ranges if their ranges extend across a potential movement barrier. These considerations are especially important for rare, threatened, or endangered species and for wide-ranging species such as large mammals, which exist in low population densities.

Depending on home ranges, territories, and the needs of a species, habitat patches can lose entire species when they are no longer large enough to support the species' requirements. Some species may persist, but often population sizes are restricted. The smaller the patch size, the greater the loss of biodiversity (number of species inhabiting the patch). For populations that remain, the loss of connectivity to other populations can result in genetic divergence between discrete populations (i.e., isolated populations become more and more different from each other genetically). The result is a population that is less genetically robust and more susceptible to extirpation, or localized extinction, than a population with more genetic diversity. Therefore, development patterns that maintain connectivity and avoid creating isolated patches, particularly small patches, are needed to maintain healthy ecosystems.

Wildlife corridors and functions must be evaluated in the context of individual species and their ecology. For example, low-mobility species including snakes, lizards, and small mammals often have restricted home ranges. Animals in this group reproduce with animals in adjacent habitat and gene flow moves slowly along a region. Conserving open areas and linkages is important to prevent these types of species from becoming isolated from other populations. Wide-ranging species, including mountain lions, have broad territories that require the preservation of wildlife corridors and linkages to natural lands.

4.5.1 Animal Movement in the Project Area

In the Project area, mountain ranges and valleys provide corridors for wildlife movement. One such corridor, or Essential Connectivity Area (ECA), is the Mid Hills/Ivanpah Valley/New York Mountains/Calico Mountains ECA located within the eastern portion of the Project Area. Another ECA within the Project Area is the San Bernardino Mountains/Calico Mountains ECA (refer to Attachment A, Figure 8). Wildlife that use these corridors include large mammals like the desert bighorn sheep and smaller reptiles like the desert tortoise. Migratory birds (such as raptors, wading birds, and flycatchers) that utilize the Pacific Flyway or Audubon Important Birds Areas may find suitable habitat within or near the Project area.

Wildlife corridors are defined as areas that connect suitable habitat for a species in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features (e.g., canyon drainages, ridgelines, or areas with vegetation cover) provide corridors for wildlife travel. Wildlife corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high-population-density areas; and facilitate gene flow between populations. Wildlife corridors are considered sensitive by resource and conservation agencies.

5. Jurisdictional Waters and Wetlands

A jurisdictional delineation was conducted between April and August 2022 (Psomas 2023). The delineation identified approximately 2,800 drainages in the Project Area. These included waters regulated by the CDFW, U.S. Army Corps of Engineers (USACE), State Water Resources Control Board (SWRCB) and Nevada waters of the State regulated by the Nevada Division of Environmental Protection (NDEP). The complete methodology, maps and other data is provided in the jurisdictional delineation report (See Attachment E). Based on the results of the jurisdictional delineation field work, it was determined that the total amount of jurisdictional resources in the survey area includes:

USACE Jurisdictional Waters

- Wetlands: 0.00 acre
- Non-wetland waters: 269.42 acres

SWRCB Jurisdictional Waters

- Wetlands: 0.00 acre
- Non-wetland waters: 269.42 acres
- Non-wetland "isolated" waters: 1,359.99 acres
- Total SWRCB waters: 1,629.41

CDFW Jurisdictional Streambeds

• Streambeds/Riparian Habitat: 1,757.60 acres

NDEP Jurisdictional Waters

• Non-wetland waters: 379.23 acres

5.1 Regulatory Background

Jurisdictional waters, wetlands, and riparian habitat are regulated by the USACE, SWRCB, CDFW, in California and the USACE and NDEP in the Nevada portion of the alignment. The USACE Regulatory Program regulates activities pursuant to Section 404 of the federal Clean Water Act (CWA); the CDFW regulates activities under California Fish and Game Code Section 1600-1607; and the SWRCB regulates activities under Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act. In

Nevada, NDEP's jurisdiction covers areas defined as waters of the State under Nevada Revised Statutes, Title 40, Chapter 445A. The NDEP is responsible for issuing permits related to discharges of pollutants to surface waters consistent with Section 401 of the CWA where "waters of the U.S." are present, and for issuing Water Pollution Control permits consistent with the Nevada Water Pollution Control Law (Psomas 2023).

Section 404 of the Clean Water Act (CWA)

Section 404 of the CWA regulates the discharge of dredged material, placement of fill material, or certain types of excavation within "waters of the U.S." (resulting in more than incidental fallback of material) and authorizes the Secretary of the Army, through the Chief of Engineers, to issue permits for such actions. Permits can be issued for individual projects (individual permits) or for general categories of projects (general permits). The definition of federally jurisdictional wetlands and "waters of the U.S." have changed several times recently and the latest interpretation of the CWA is discussed below. In 2020, the U.S. Environmental Protection Agency (USEPA) updated the CWA and their definition of navigable waters (USACE and USEPA, 2020). The Navigable Waters Protection Rule (NWPR) revised the definition of "Waters of the U.S." to encompass traditional navigable waters; perennial and intermittent tributaries that contribute surface waters flow to such waters; certain lakes, ponds, and impoundments of jurisdictional waters; and wetlands adjacent to other jurisdictional waters. Ephemeral waters were not included in the NWPR definition of "Waters of the U.S." In 2021, the USEPA and USACE were directed by the Biden Administration and the U.S. District Court to vacate the 2020 NWPR and revert to the pre-2020 rule. On January 18, 2023, the USEPA published the "Revised Definition of 'Waters of the United States'" (the January 2023 Rule), with a definition of "Waters of the U.S" that reutilized the 2006 Rapanos ruling's permanent and significant nexus standards (USACE and USEPA, 2023a).

On April 6, 2022, the U.S. Supreme Court issued a stay of the 2021 order by the U.S. District Court for the Northern District of California that vacated the USEPA's 2020 Clean Water Act Section 401 Certification Rule. Therefore, the CWA section 401 certification process is once again governed by the CWA section 401 certification regulations promulgated by USEPA in 2020 (40 CFR 121). On June 1, 2022, the USEPA Administrator signed a proposed rule to improve the CWA section 401 certification process. The proposed rule would replace and update the existing regulations at 40 CFR 121, to be more consistent with the statutory text of the 1972 CWA and clarify elements of section 401 certification practice that has evolved over the 50 years since the 1971 regulation was promulgated. On June 9, 2022, the proposed rule was published in the Federal Register (USEPA, 2022).

The January 2023 Rule exclusions from the definition of "Waters of the U.S." remain the same, including, but not limited to, prior converted cropland and ditches excavated wholly in and draining only dry land not carrying a relatively permanent flow of water.

Most recently on May 25, 2023, the U.S. Supreme Court decision in Sackett v. Environmental Protection Agency concluded that the significant nexus standard is inconsistent with the CWA. On August 29, 2023, the USACE and USEPA (2023b) issued a prepublication of the final rule to amend the January 2023 Rule and define "Waters of the U.S." as follows, once again not including ephemeral waters:

- Traditional navigable waters, the territorial seas, and interstate waters (referred to as "(a)(1) waters").
- Impoundments of "Waters of the U.S.", other than impoundments of waters identified under paragraph (a)(5) (referred to as "(a)(2) waters").

- Tributaries to traditional navigable waters, the territorial seas, and interstate waters that are
 relatively permanent, standing or continuously flowing bodies of water (referred to as "(a)(3)
 waters" or "jurisdictional tributaries").
- Wetlands adjacent to and having a continuous surface connection with (a)(1) waters or relatively permanent, standing or continuously flowing (a)(2) waters (referred to as "jurisdictional adjacent wetlands").
- Intrastate lakes and ponds not identified as (a)(1) through (4) waters that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to (a)(1) or (a)(3) waters. Section 401 of the CWA

Section 401 of the CWA and Porter Cologne Water Quality Control Act

The Regional Water Control Boards (RWQCB) regulate activities affecting 'waters of the State' according to the Porter-Cologne Water Quality Control Act and Section 401 of the federal CWA. The Porter-Cologne Act defines waters of the State as all surface and subsurface waters. The RWQCBs may issue permits (called Waste Discharge Requirements or WDRs) or may issue a waiver for a given application. In addition, the RWQCB recently started to implement a new regulatory program for all waters of the State.

On April 2, 2019, the State Water Resources Control Board (SWRCB) adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. The adopted definitions and procedure allow for the presence of hydric substrates as a criterion for wetland identification (not just wetland soils) and wetland hydrology for an area devoid of vegetation (less than 5 percent cover) to be considered a wetland. Waters of the State are typically delineated based on the ordinary high-water mark (OHWM) in the field as defined by federal guidelines (SWRCB, 2022; see also USACE, 2008a) as the limits of jurisdiction. However, waters of the State include isolated waters and need not have downstream surface connection to federally jurisdictional waters. The new program uses the soils, hydrology, and vegetation criteria to identify wetlands, but may define certain unvegetated sites (e.g., mud flats or playas) as wetlands based on only the soils and hydrology criteria. The definition of "waters of the State" excludes certain types of artificial wetlands greater than or equal to one acre in size, including, but not limited to, those constructed and currently used and maintained for "detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program" (SWRCB, 2022). The project site is within the jurisdictional boundaries of the Colorado River RWQCB. Section 401 of the CWA requires that any applicant for a Federal permit for activities that involve a discharge to 'waters of the State,' shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act. Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the RWQCB. Applications to the RWQCB must include a complete CEQA document (e.g., Initial Study/Mitigated Negative Declaration).

Section 1602 of the California Fish and Game Code

Section 1602 of the California Fish and Game Code requires any person, State or local governmental agency, or public utility which proposes a project that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or use materials from a streambed, or result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake, to first notify the CDFW of the proposed project. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and

watercourses having a surface or subsurface flow that support or have supported riparian vegetation. Based on the notification materials submitted, the CDFW will determine if the proposed project may impact fish or wildlife resources. If the CDFW determines that a proposed project may substantially adversely affect existing fish or wildlife resources, a Lake or Streambed Alteration Agreement (SAA) will be required. A completed CEQA document must be submitted to CDFW before a SAA will be issued.

6.0 Conclusions and Determination

The Project Area supports a broad diversity of special-status plants and wildlife, sensitive or rare natural communities and vegetation. State and federal waters under the jurisdiction of the USACE, CDFW, regional water quality control boards and Nevada Division of Water Resources are present in the Project Area.

More than 300 species of plants were observed during the 2021 and 2024 surveys, including a total of 20 special-status species. One Nevada listed Critically Endangered Plant, blue diamond cholla, and one California State Candidate Species western Joshua tree were observed within the Project Area. An additional four BLM-sensitive plants and 14 additional plants with CNPS rankings and NHDN rankings were also observed in the Project Area during the 2021 and/or 2024 surveys. Federally listed plants were not identified during the literature review or during the 2021 or 2024 surveys. Approximately 21 non-native plant species were observed in the Project Area including several weeds considered noxious or invasive in the region.

There are 50 special-status wildlife taxa that were either detected in the Project Area during the 2021 and/or 2024 surveys and/or have the potential to occur (see Table 5. Special-Status Wildlife Occurrence Probabilities in the Project Areas). This includes 3 invertebrate, 1 amphibian, 10 reptiles, 22 birds, and 12 mammals. Fourteen special status wildlife species were observed during the 2021 and/or 2024 surveys. An additional 26 special-status wildlife species have a moderate to high potential to occur within, or immediately adjacent to, the Project Area. Special-status wildlife and their potential to occur are summarized in Table 5. Focused biological field surveys were conducted from April to June 2021, and April 2024. A total of 27 vegetation and cover types were identified within the Project Area, five Reconnaissance sensitive natural communities were identified within the California Segment. These Reconnaissance included Acton's and Virgin River brittle brush – net-veined goldeneye (S3 Vulnerable Ranking), Fremont's smokebush – Nevada smokebush scrub (S3 Vulnerable Ranking), Fremont cottonwood forest and woodland (S3.2 Vulnerable Ranking), Nevada joint fir – Anderson's boxthorn – spiny hop sage scrub (S354 Vulnerable Ranking), and Joshua tree woodland (S3 Vulnerable Ranking).

Critical habitat has been designated for desert tortoise and southwestern willow flycatcher. Critical habitat for the desert tortoise overlaps with the Project Area (see Attachment A, Figure 8). Southwestern willow critical flycatcher habitat is located outside of the Project Area in the California segment along the Mojave River near the Victorville Switching Station. Figure 8 shows the location of the critical habitat in proximity to the Project Area. Jurisdictional Waters are present across the alignment however no State or federal wetlands were encountered.

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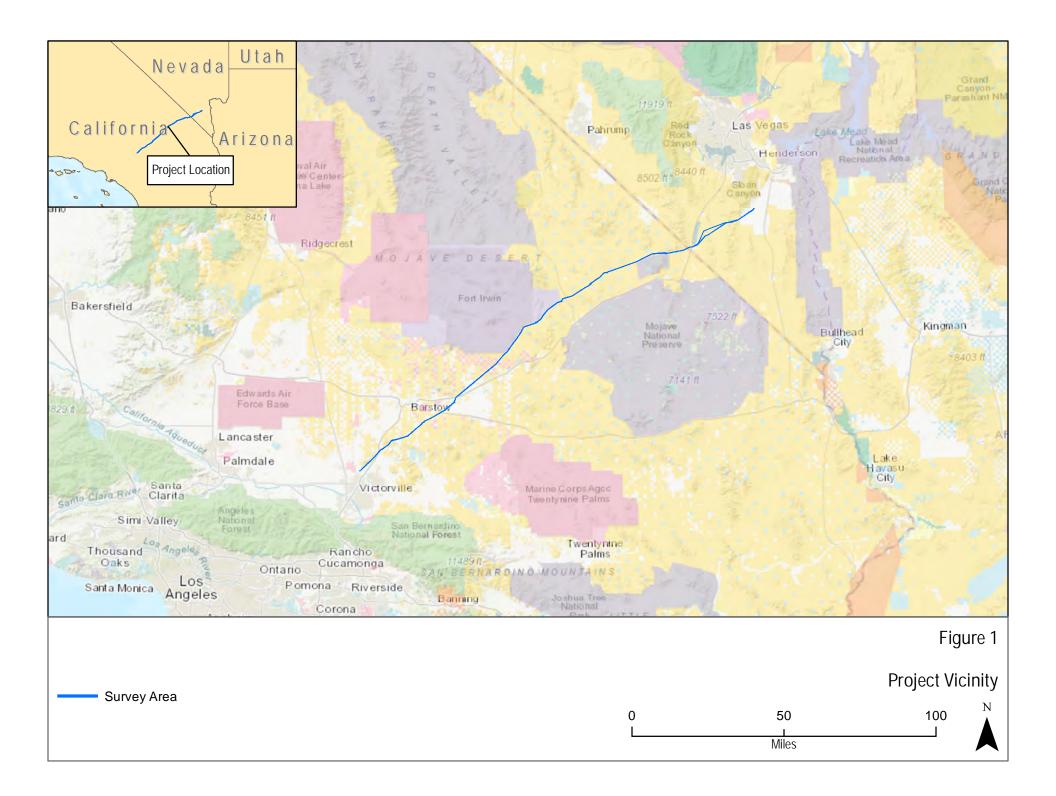
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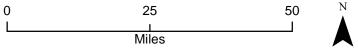
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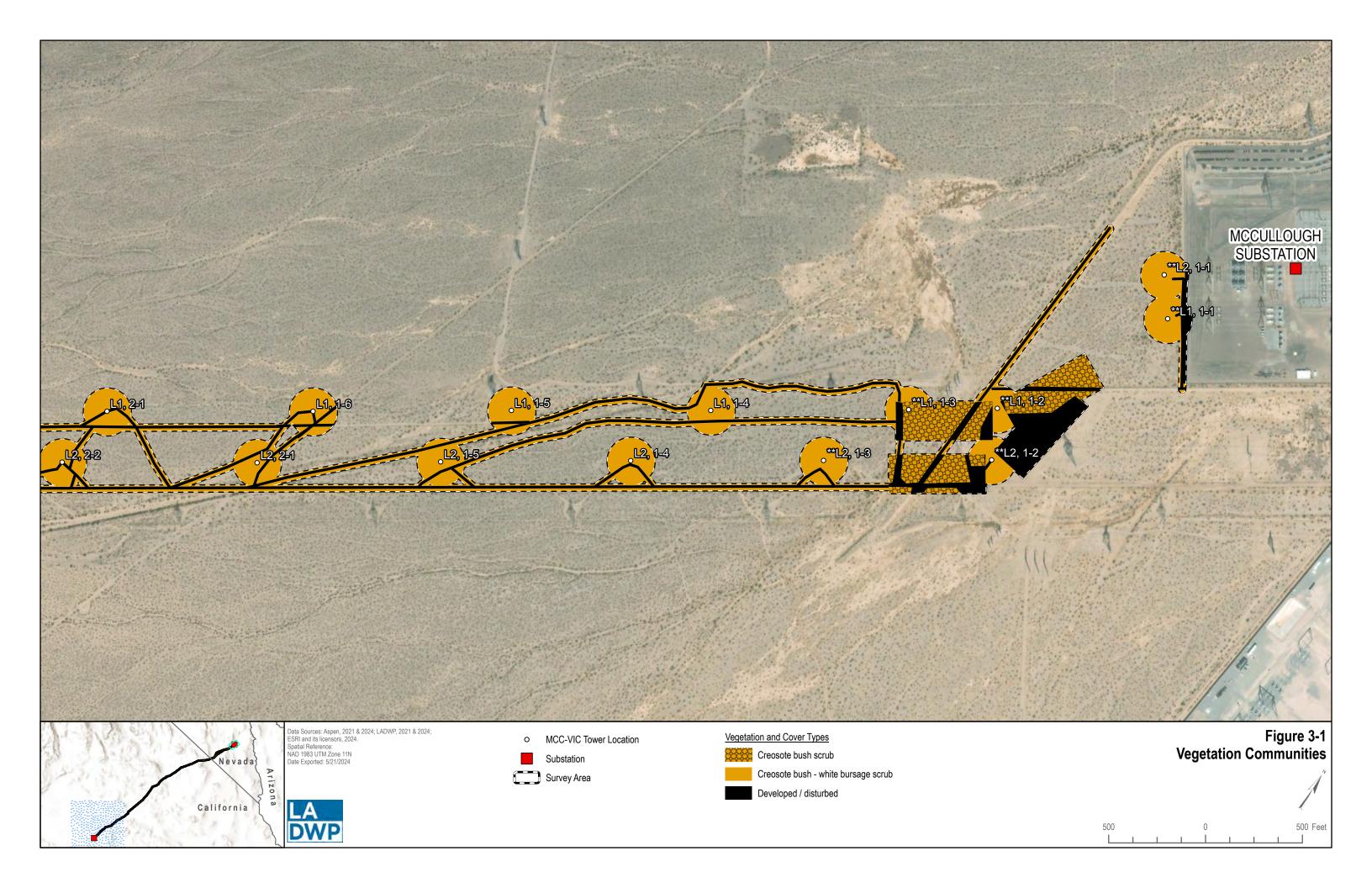
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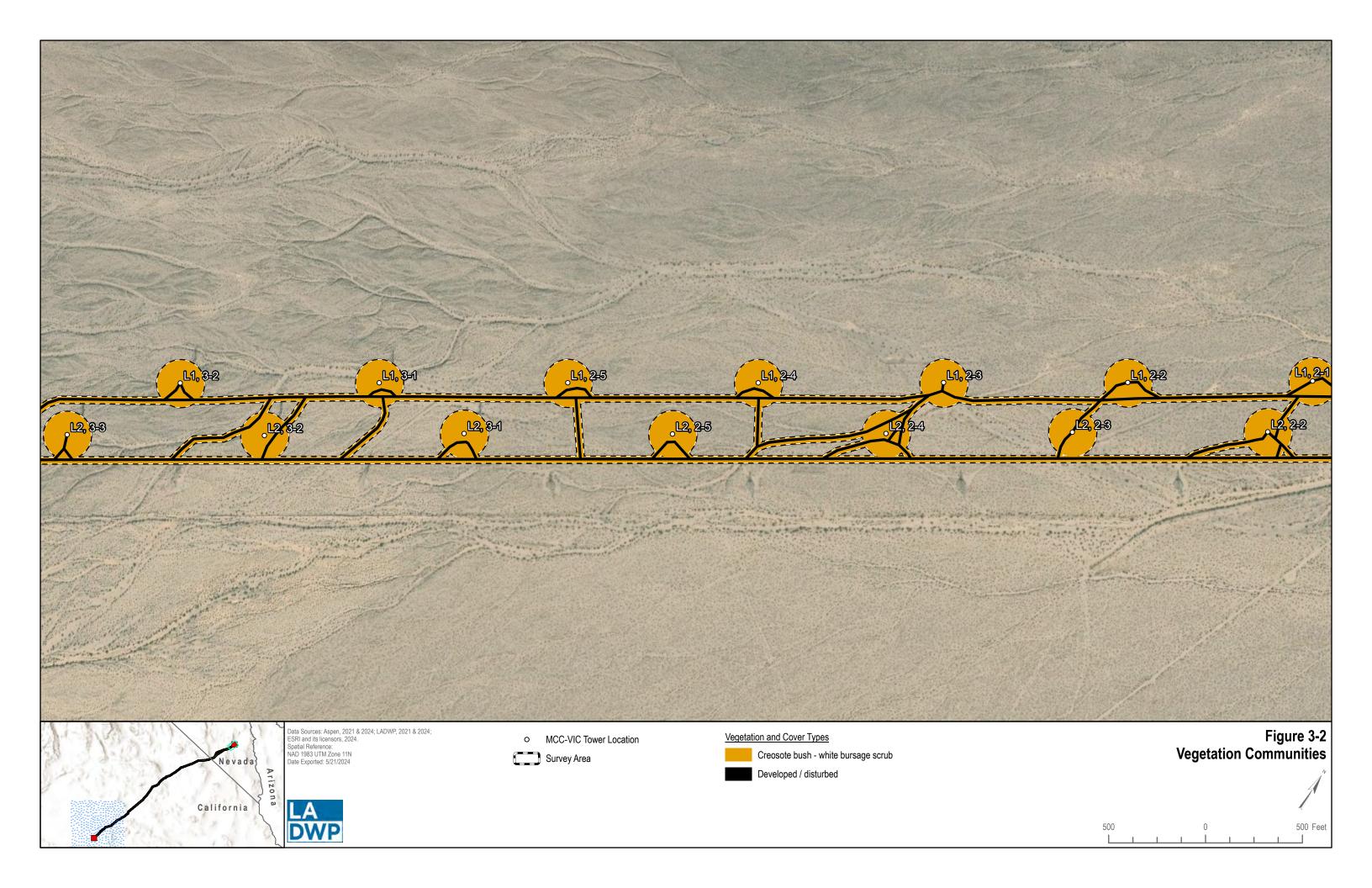
Attachment A - Figures

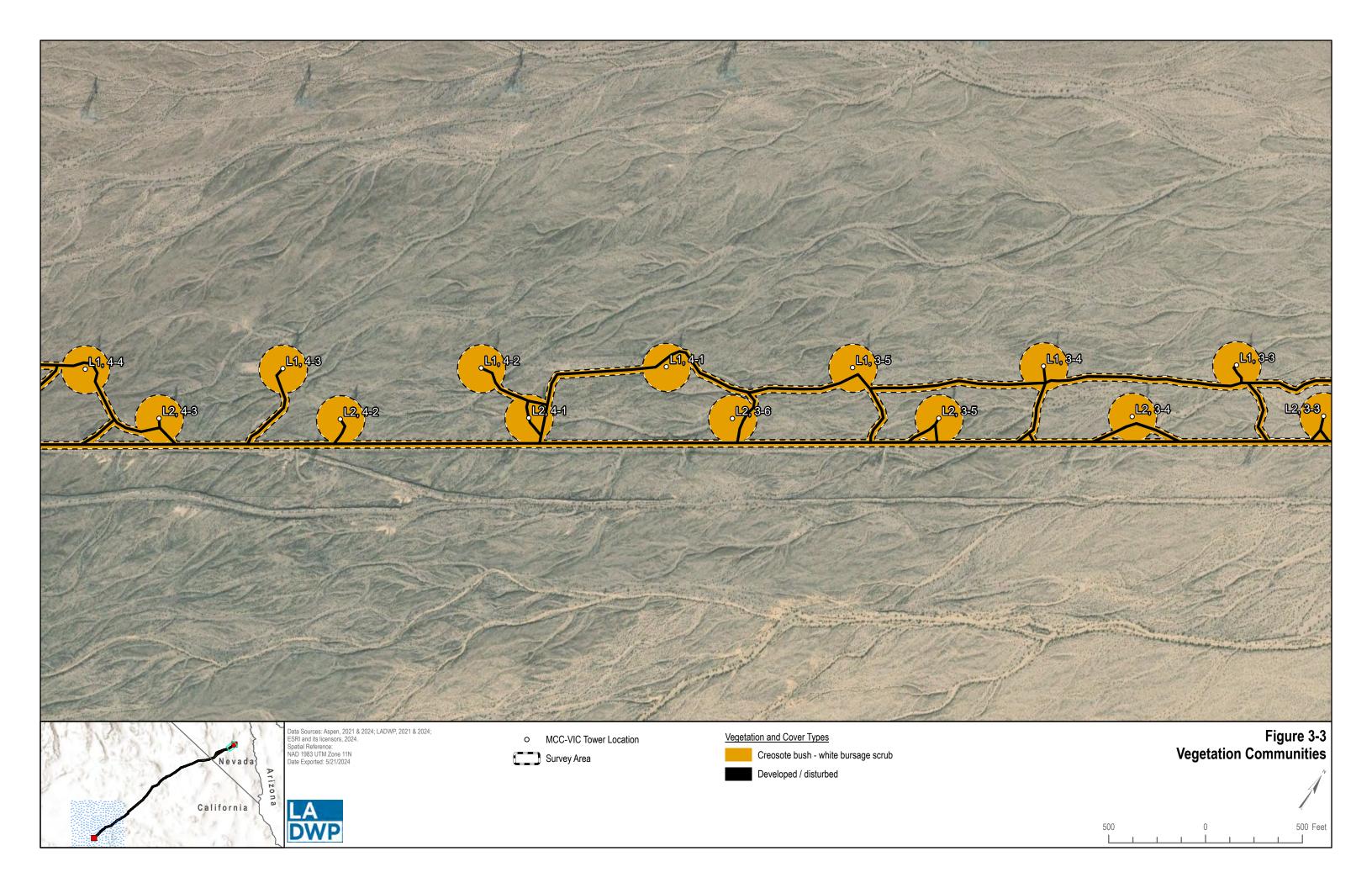


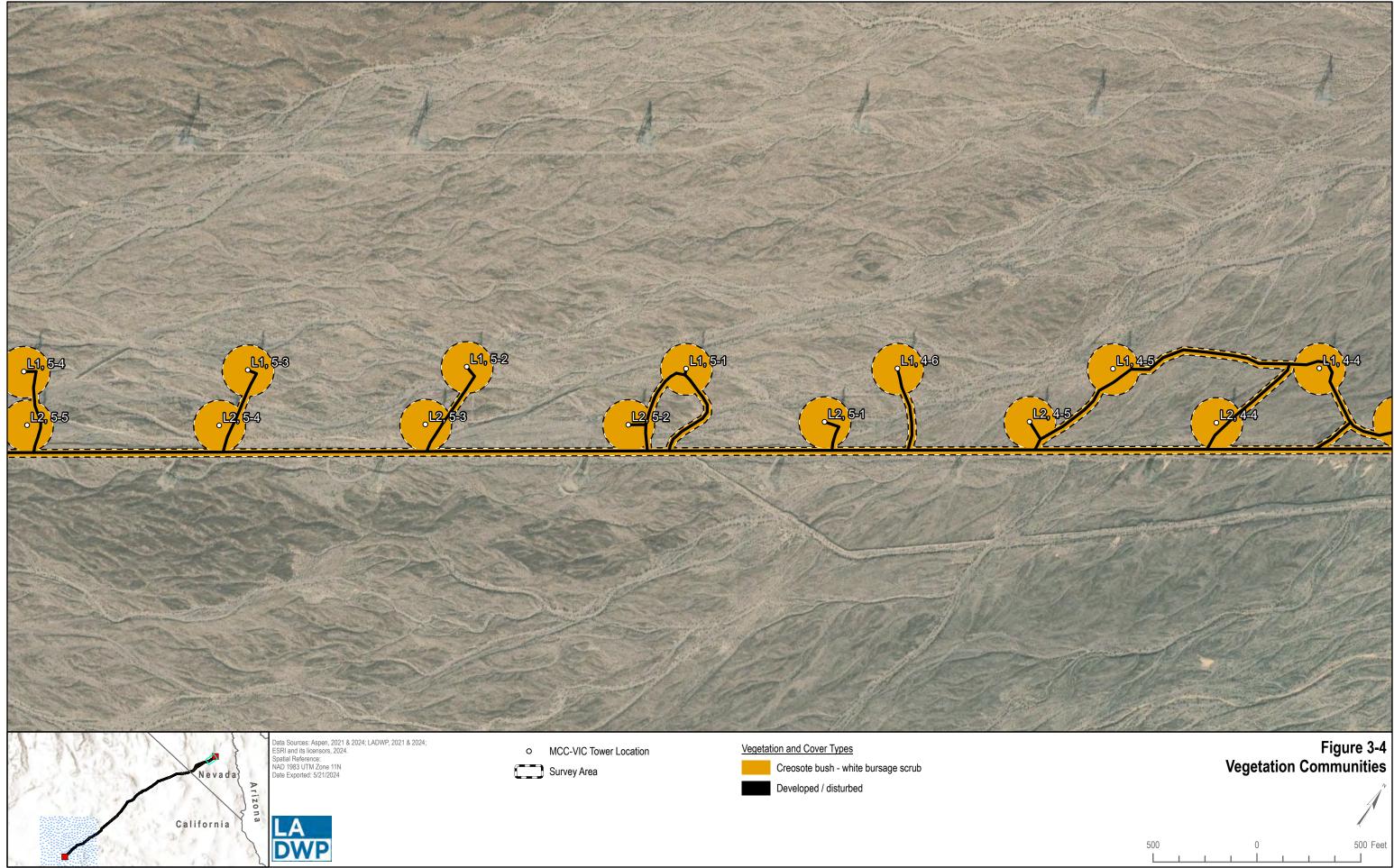


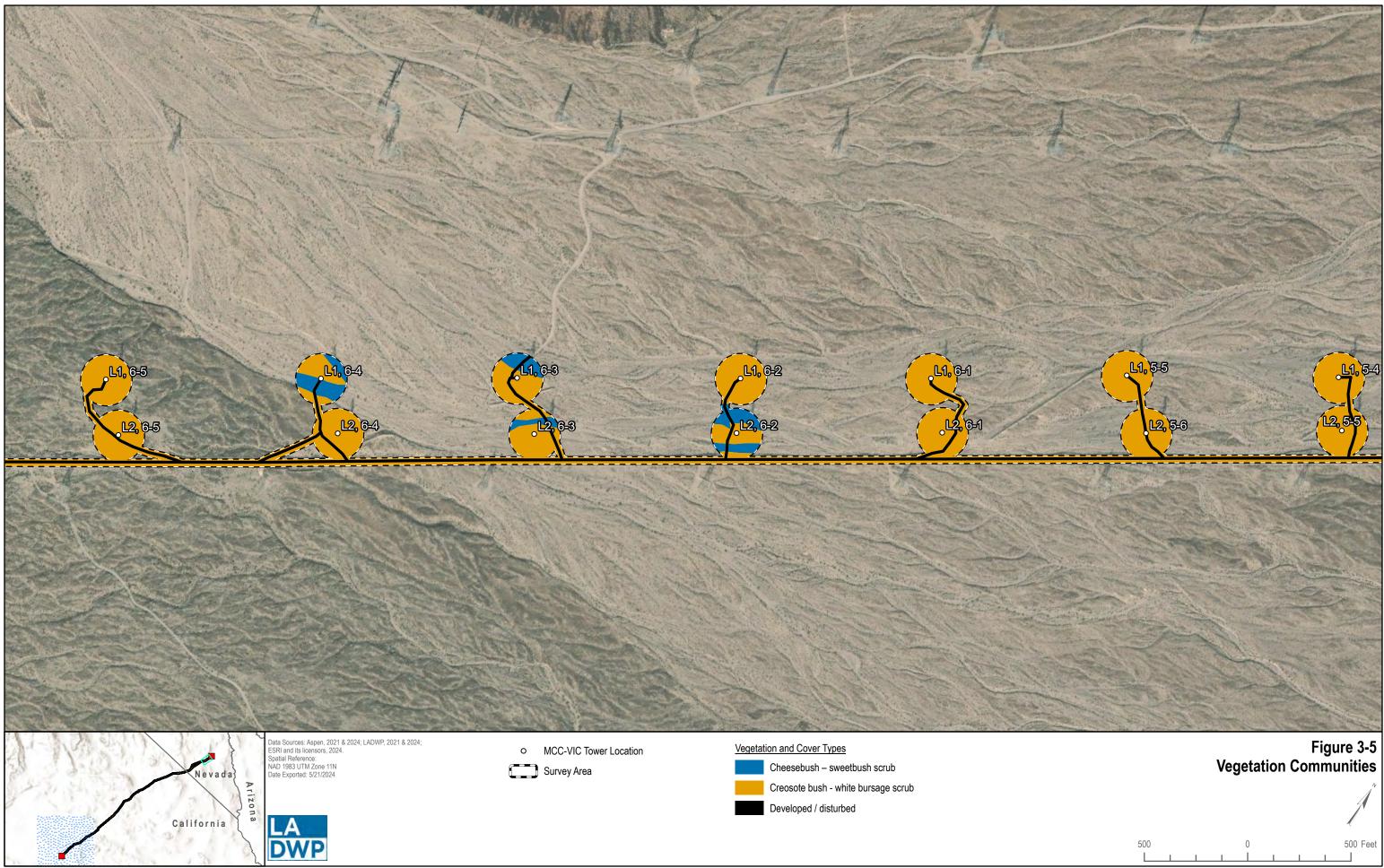


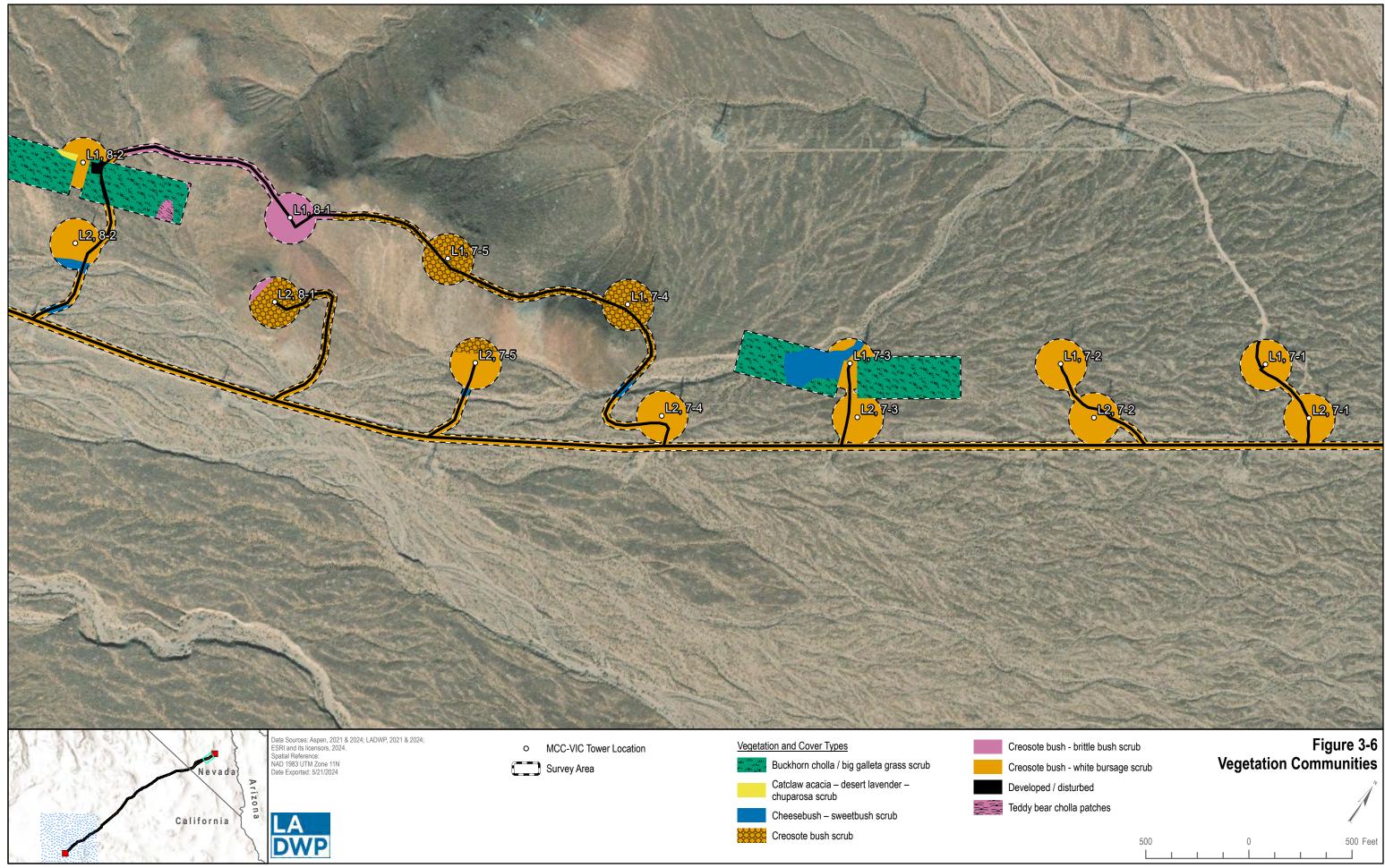


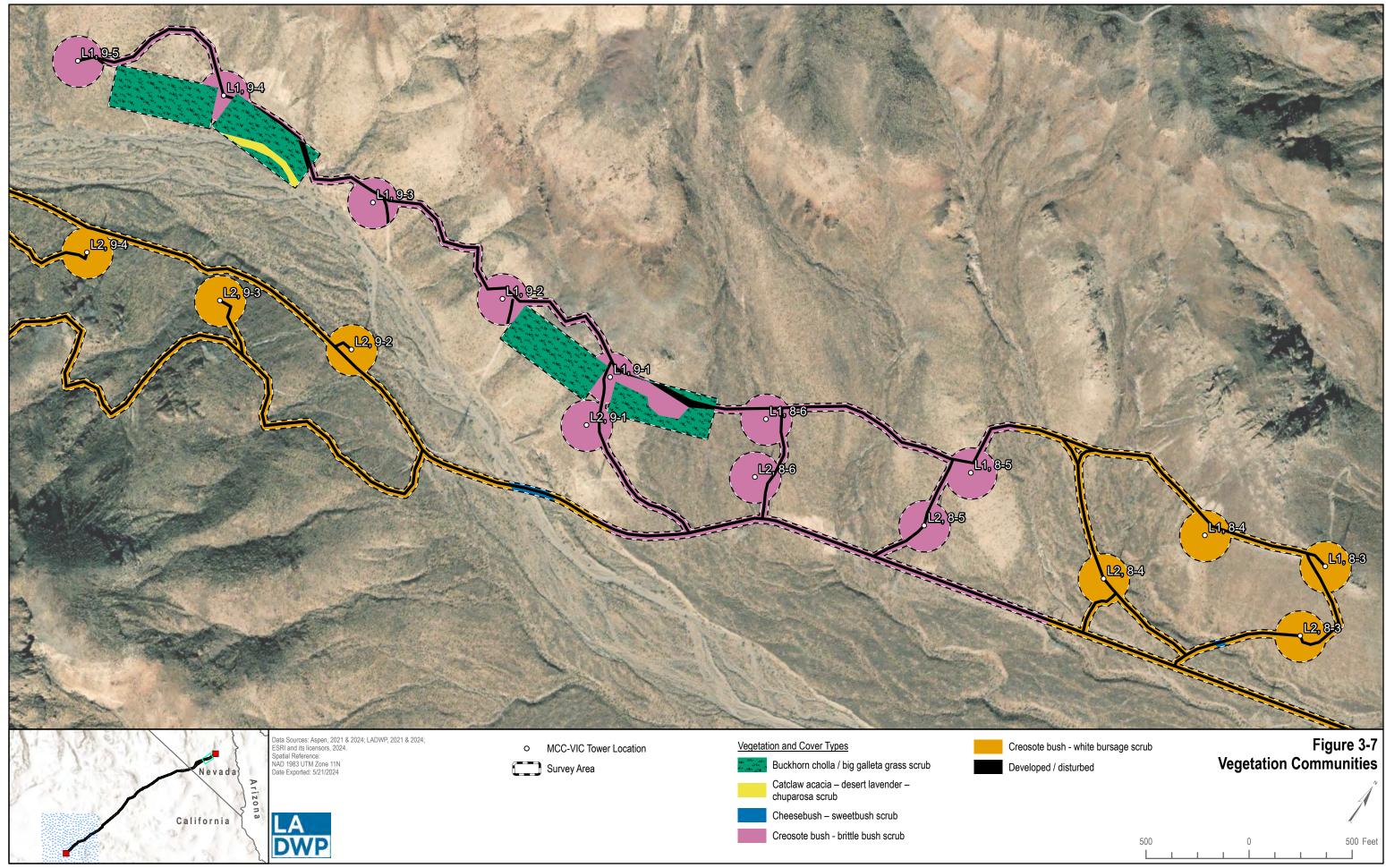


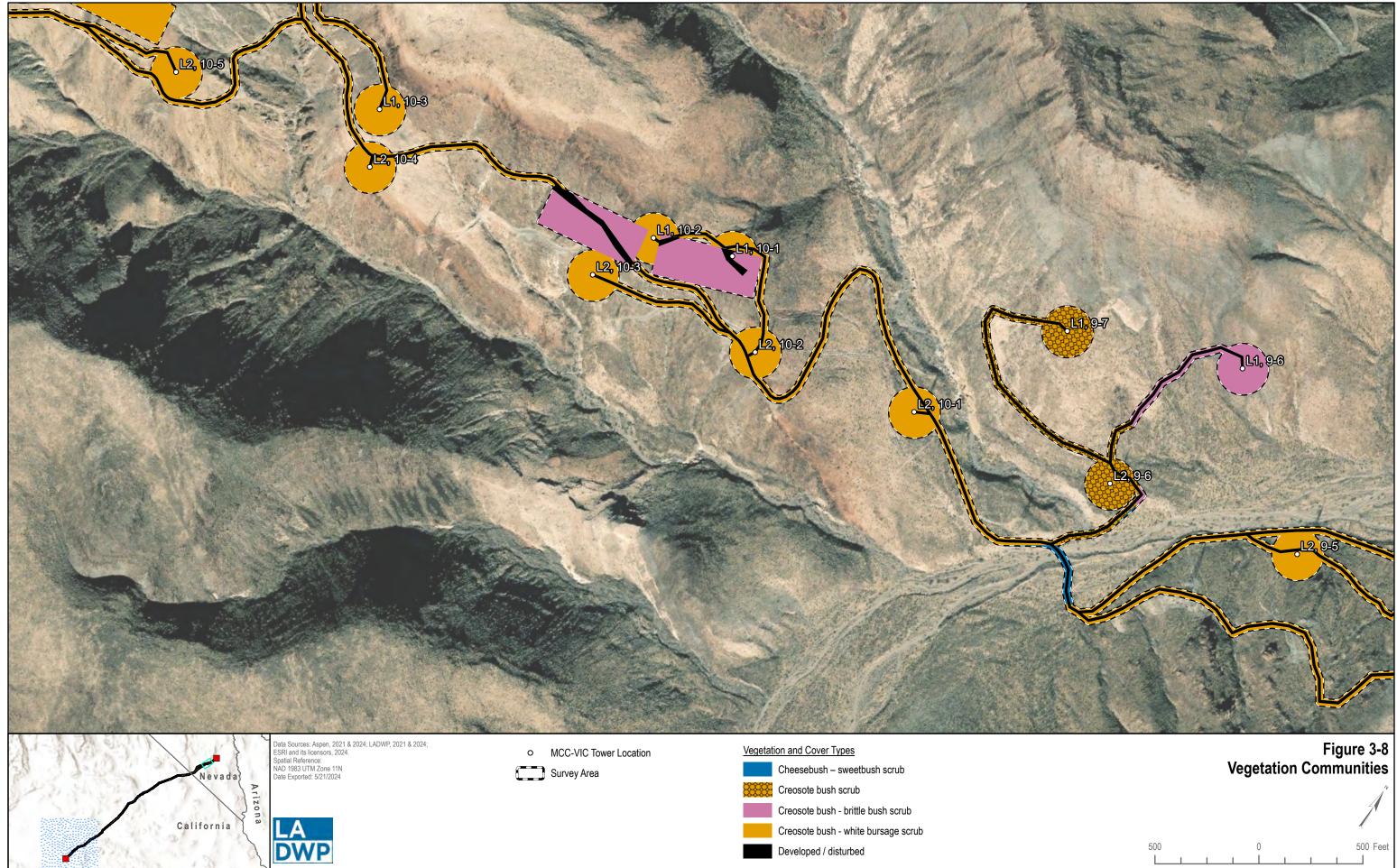


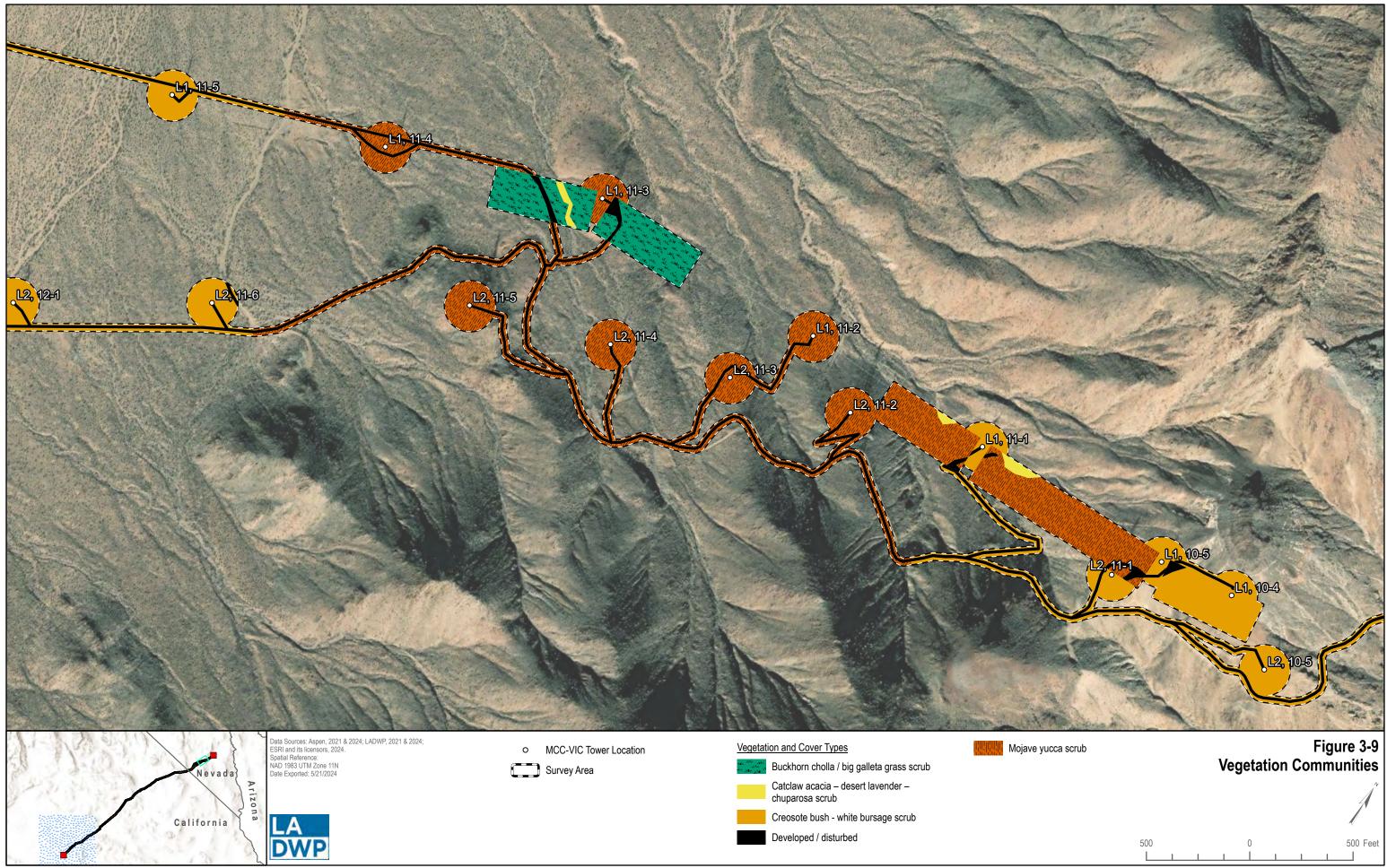


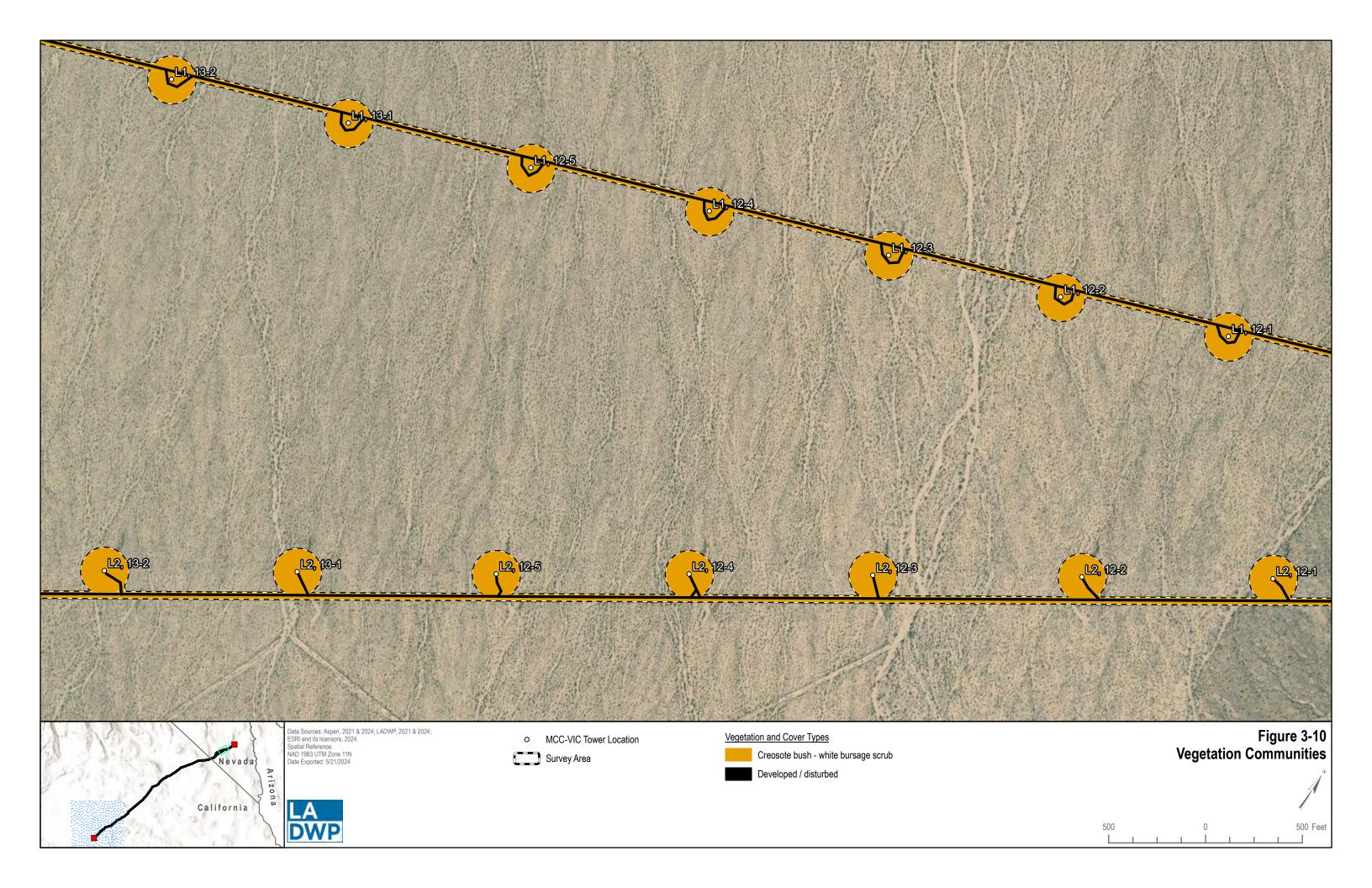


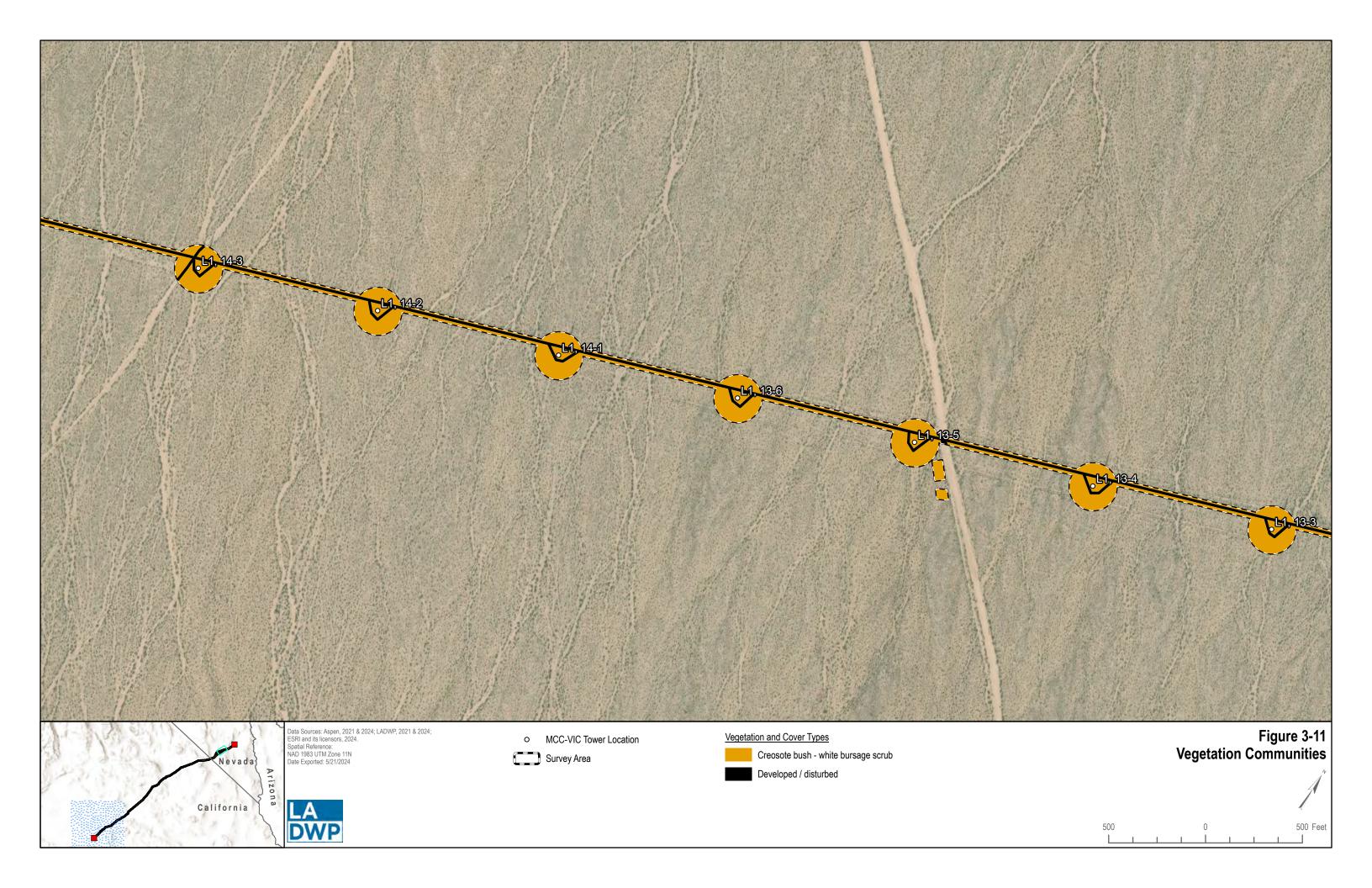


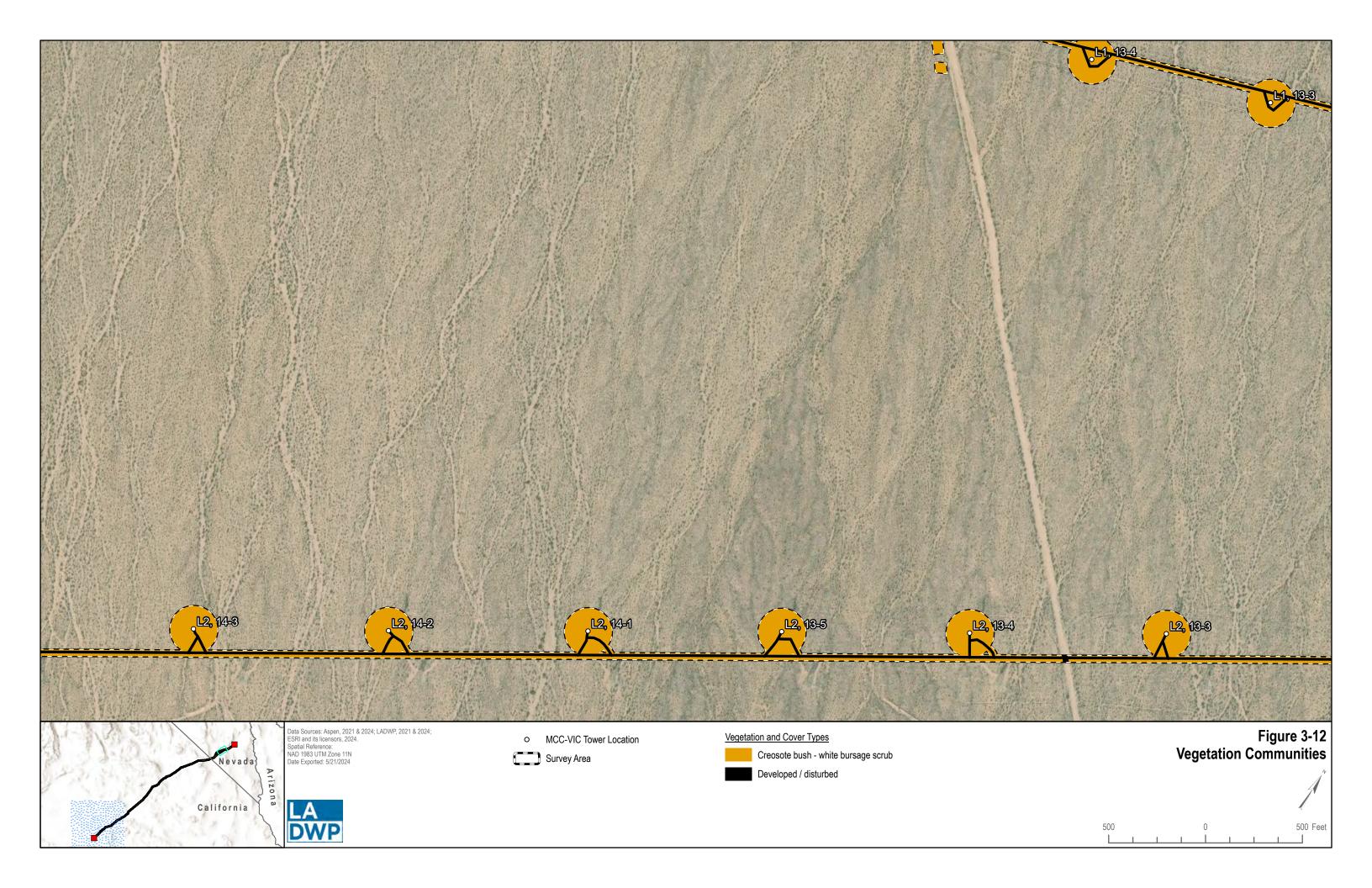














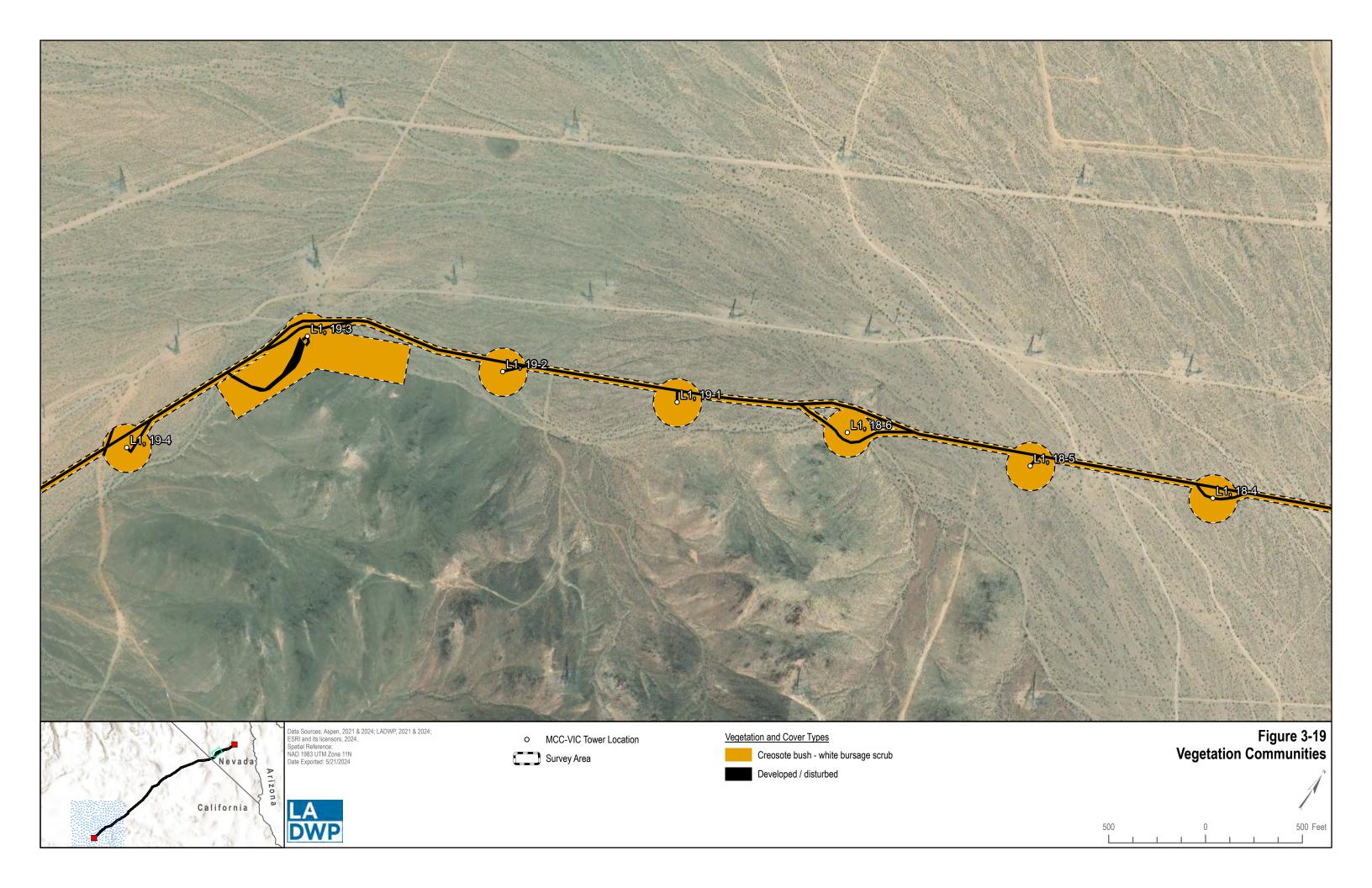


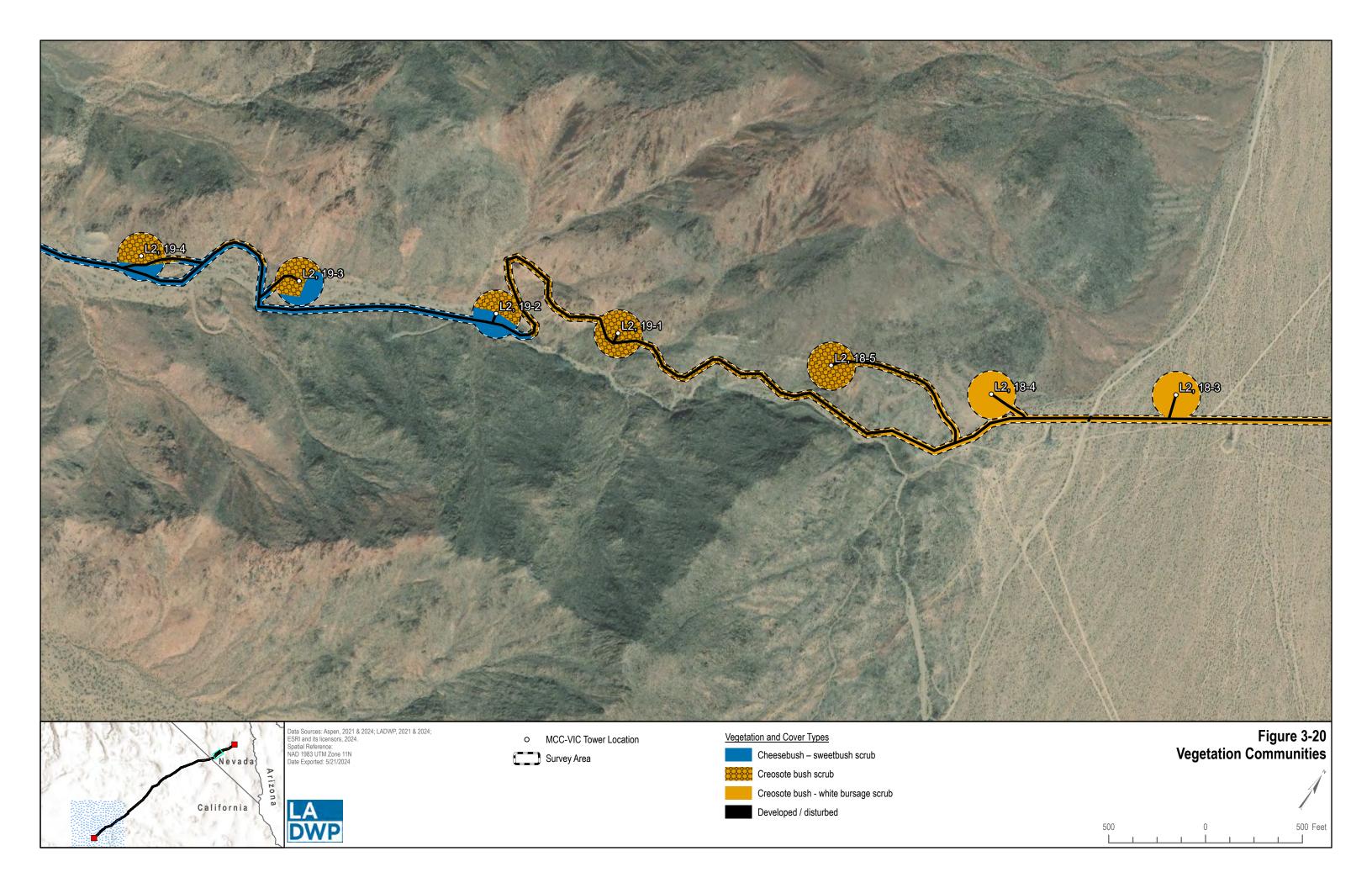


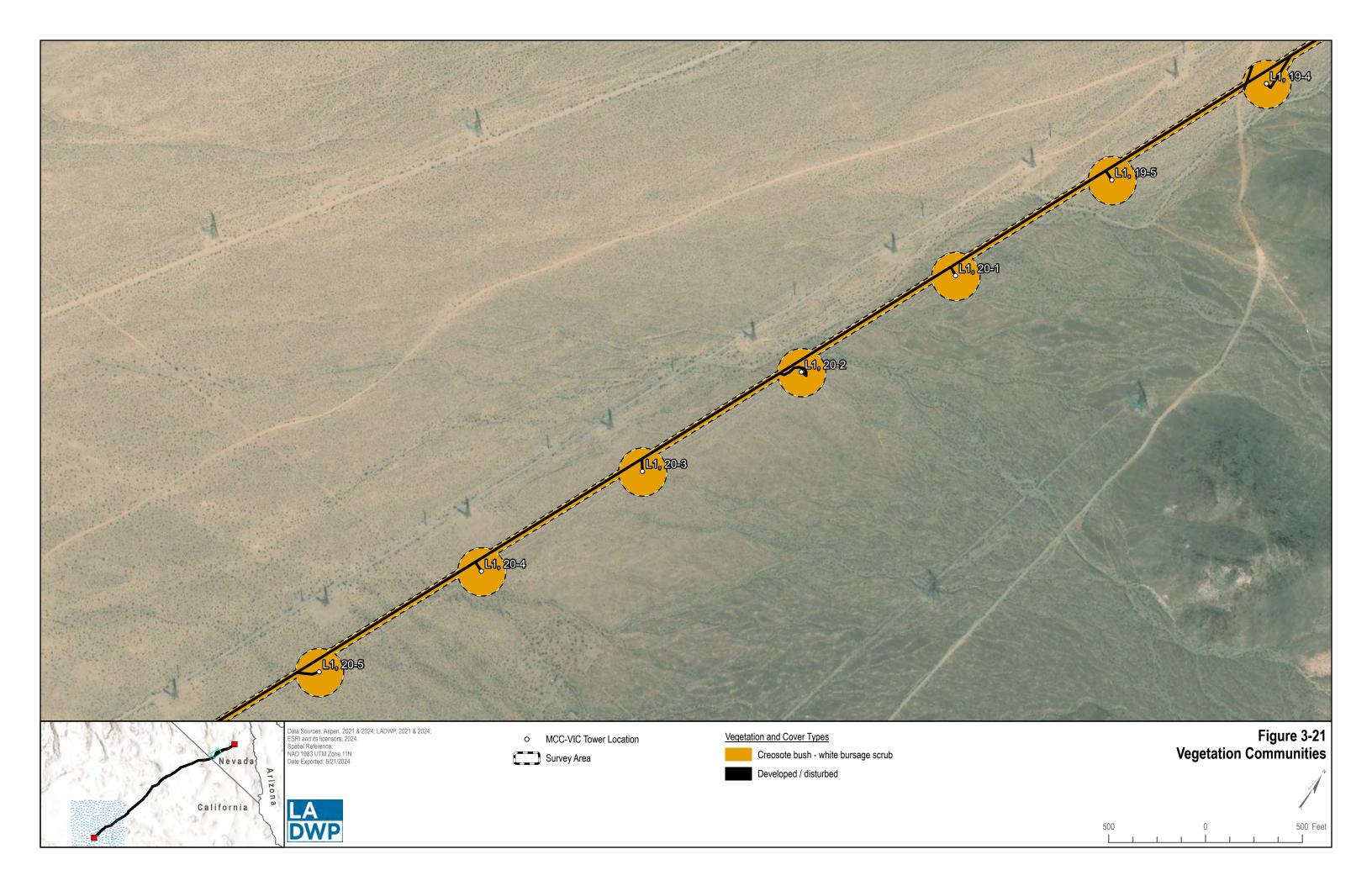




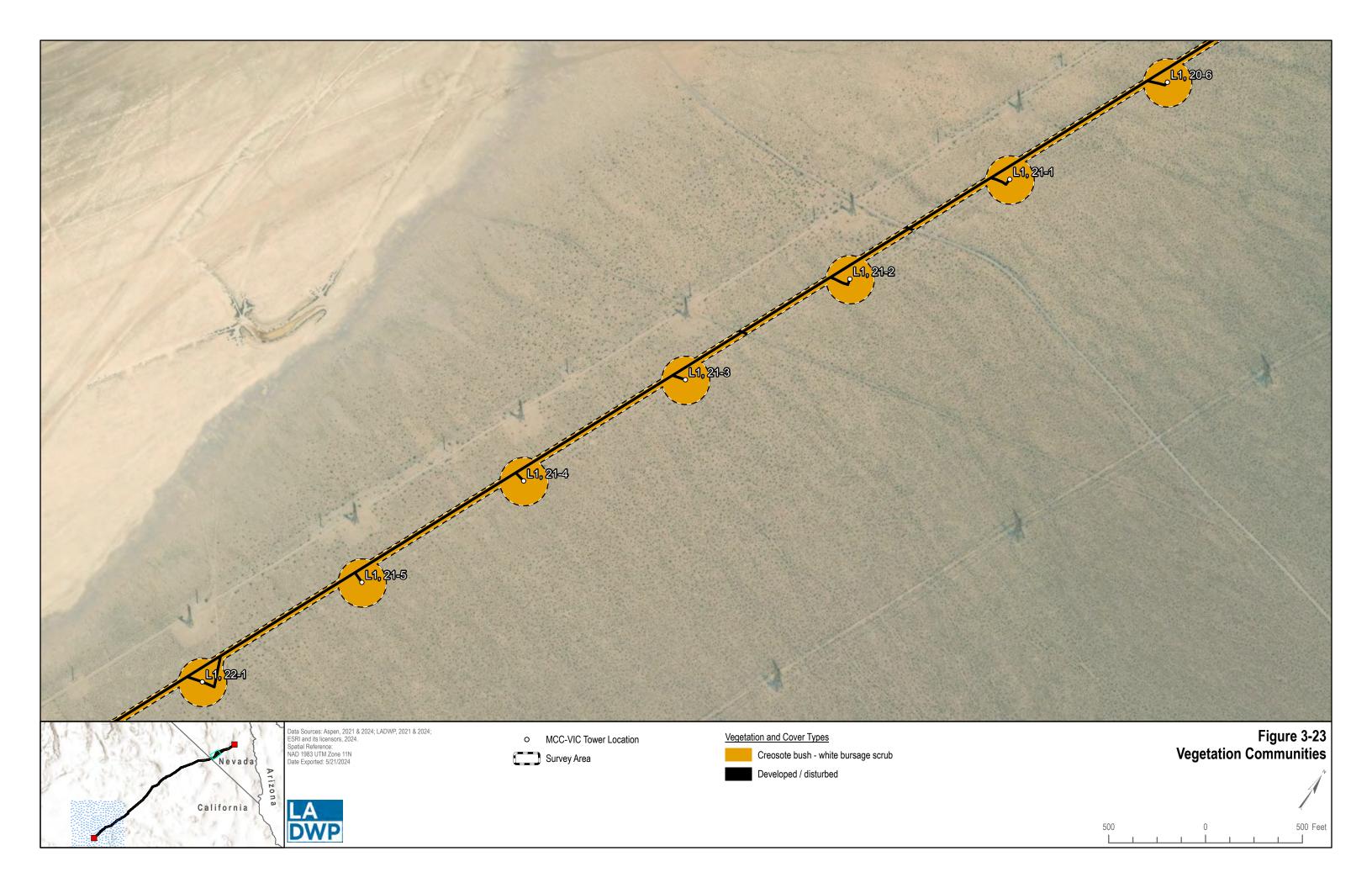




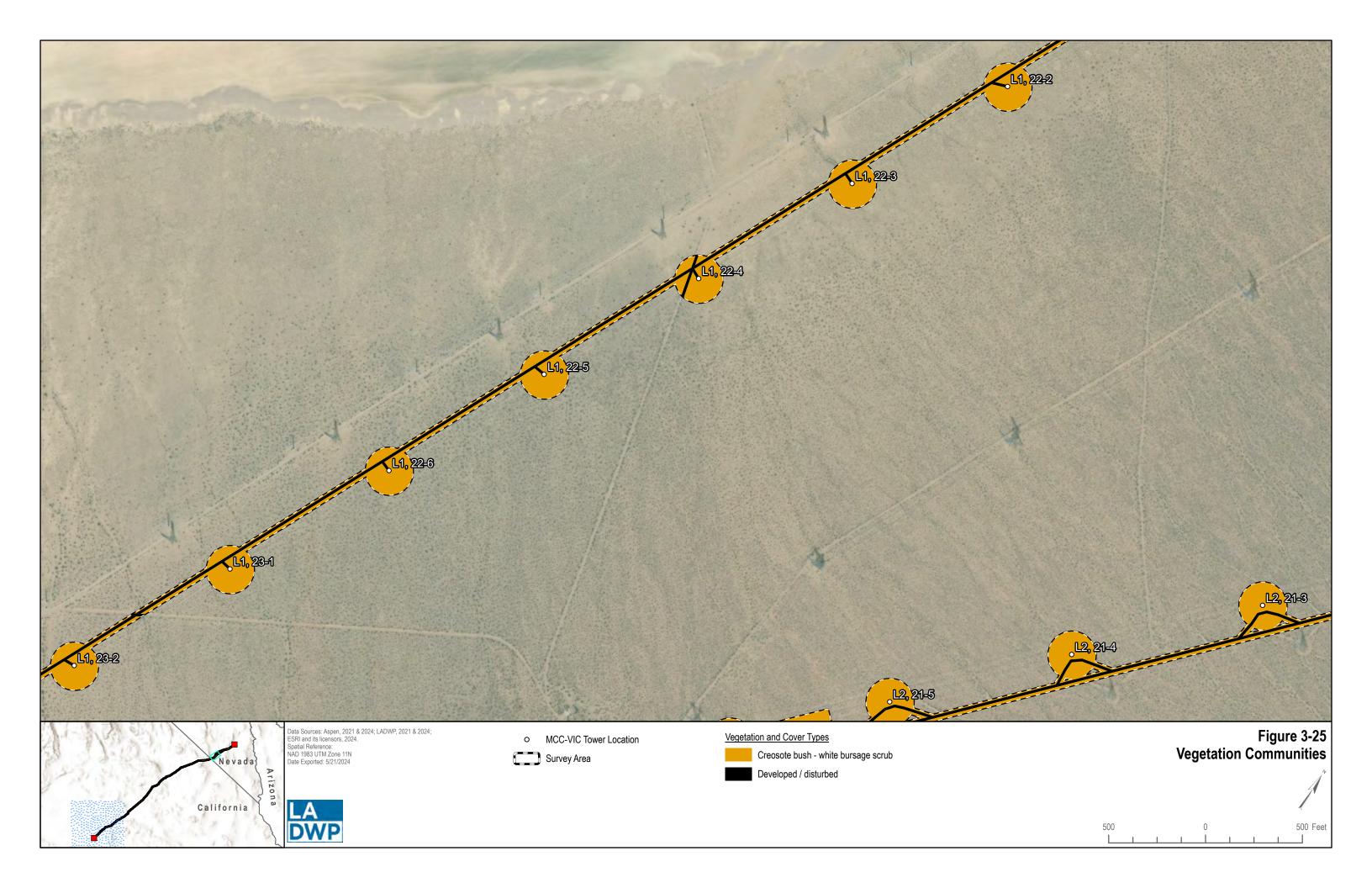


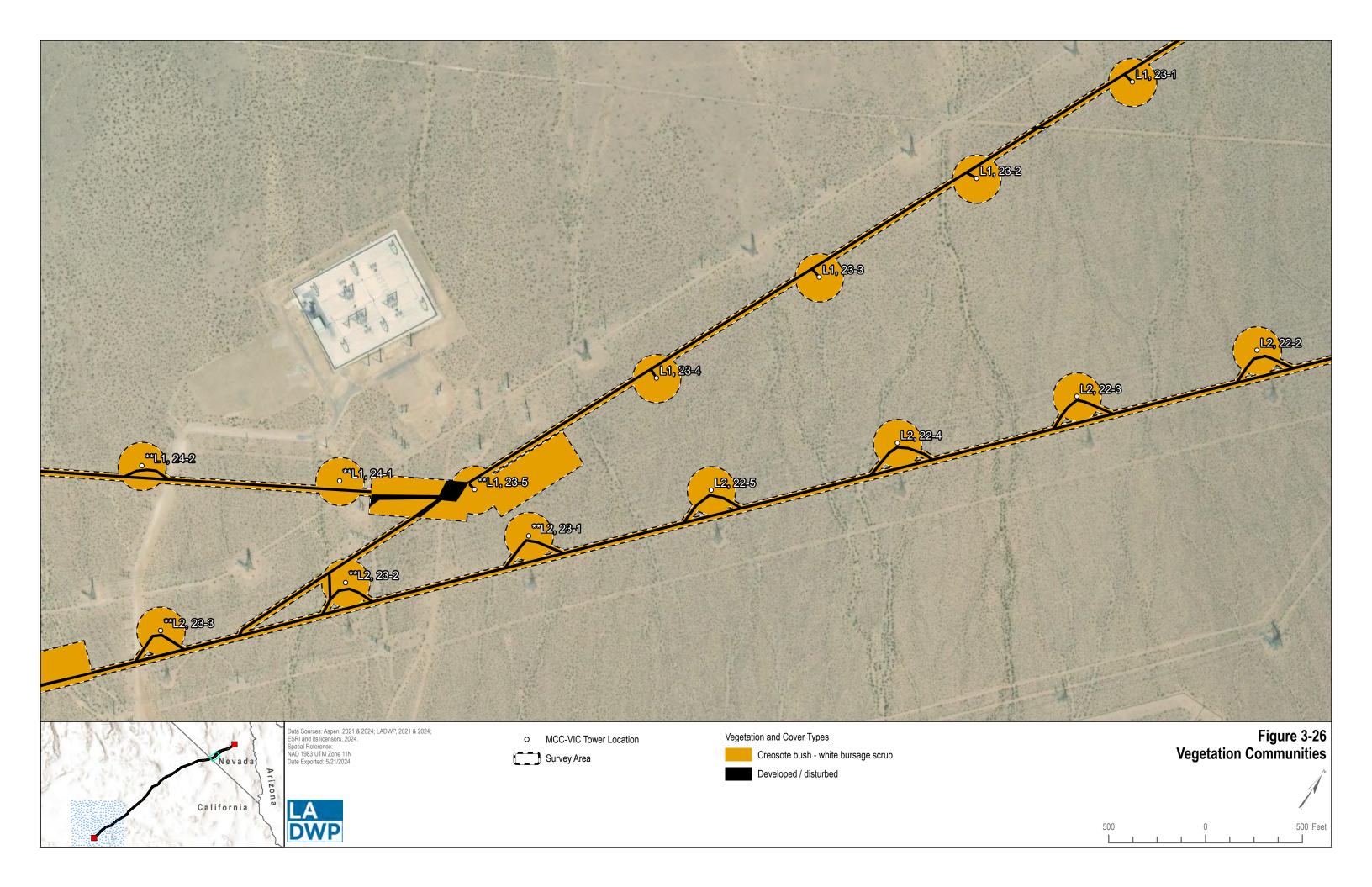


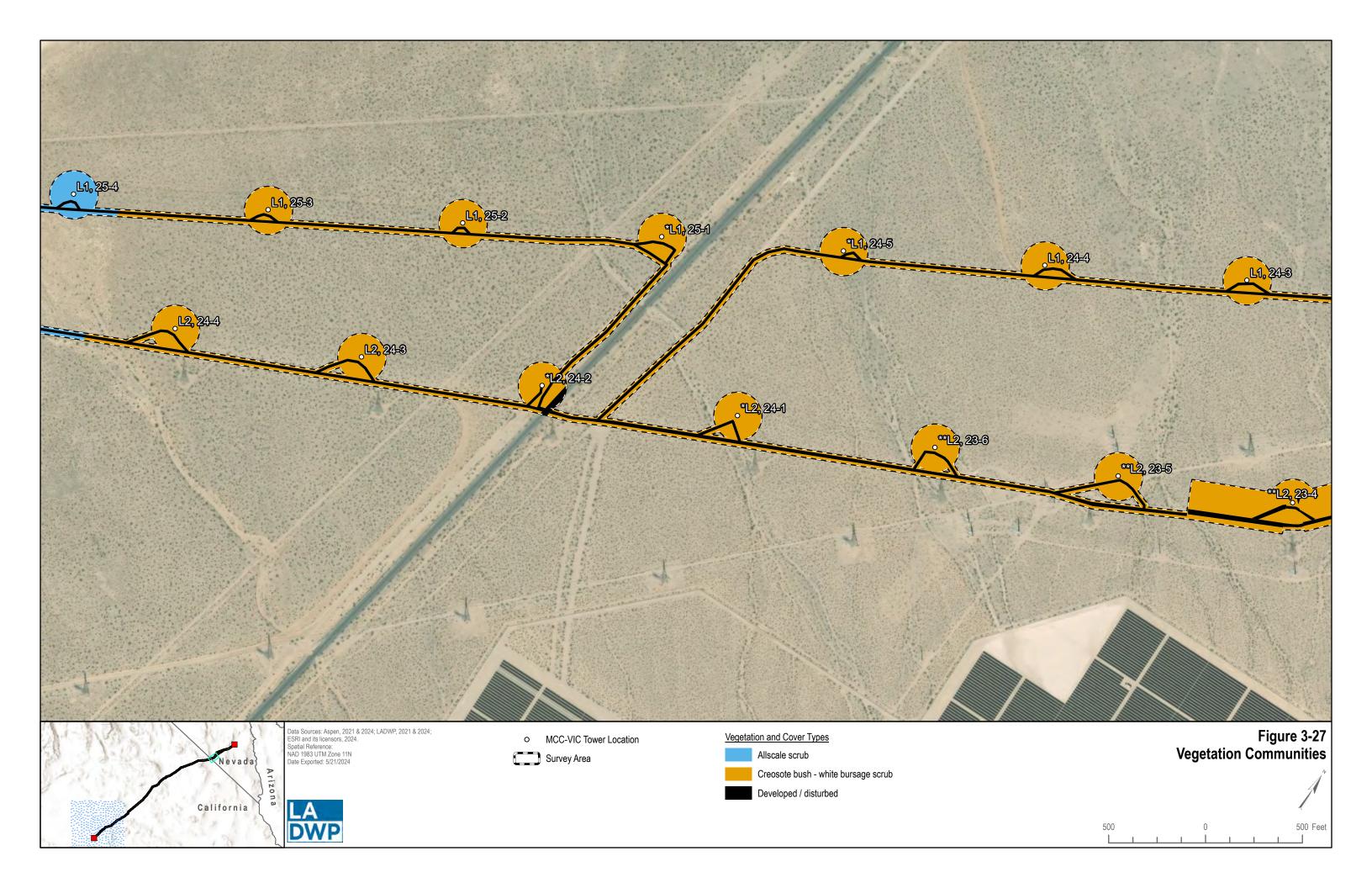


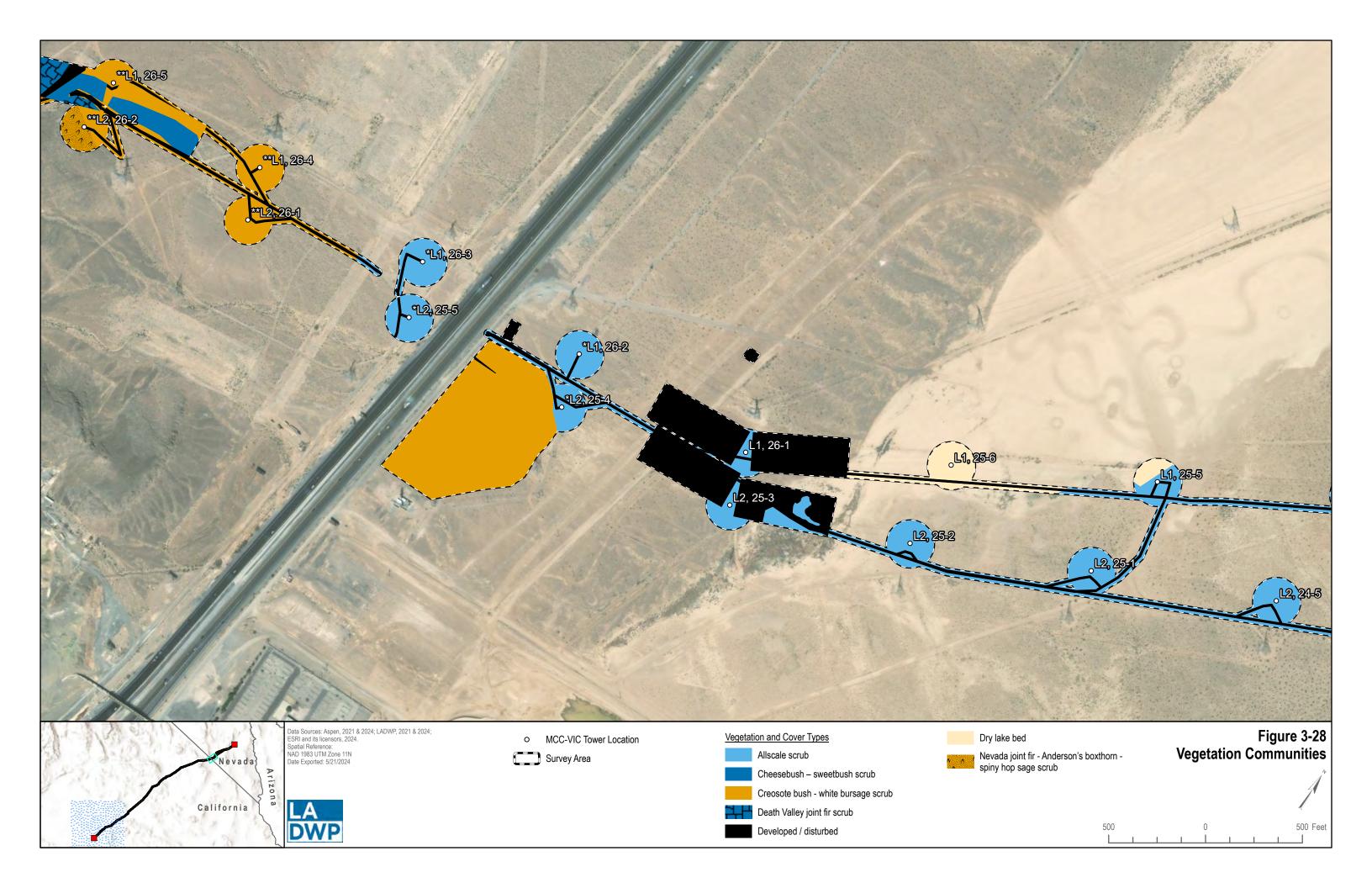


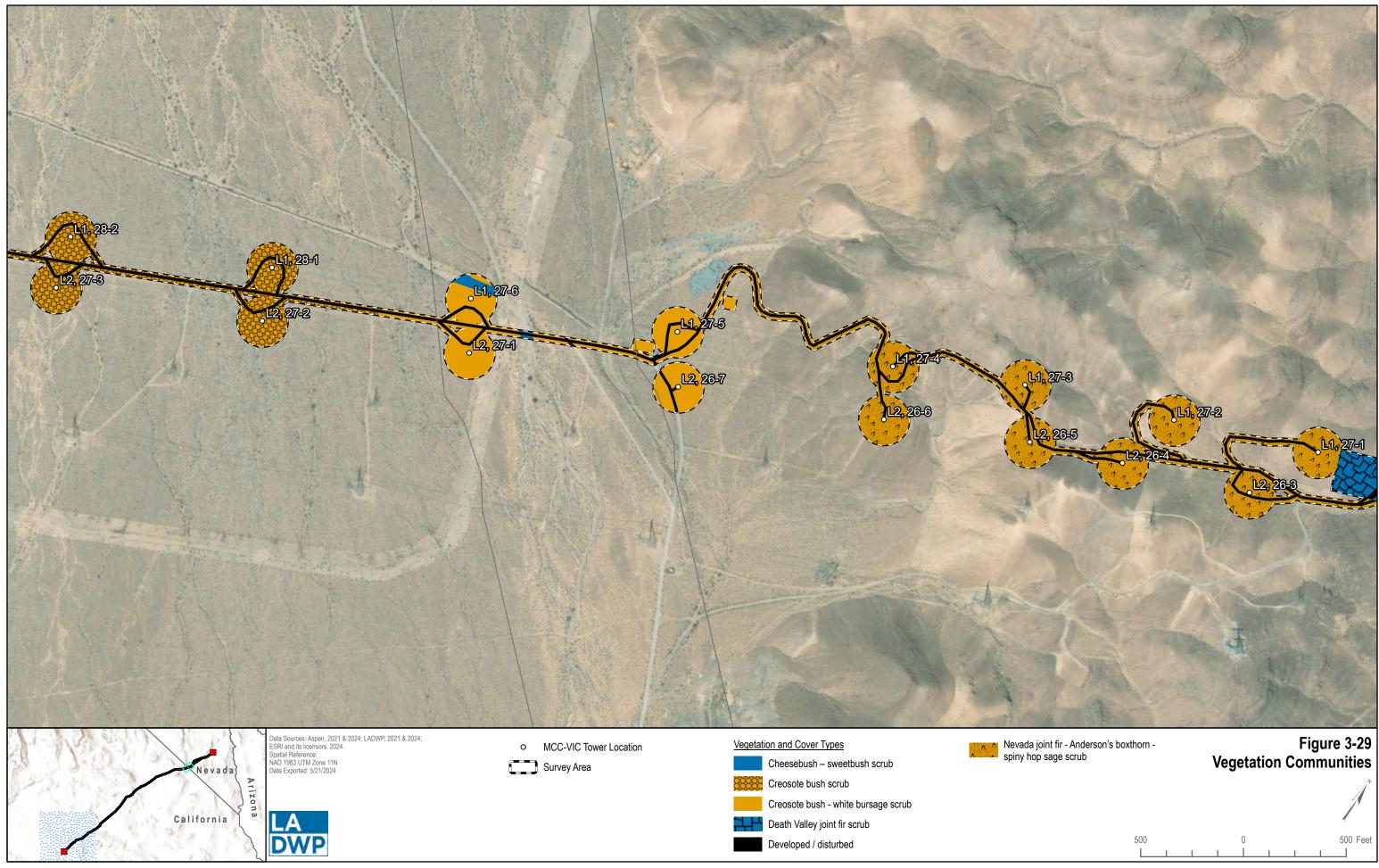




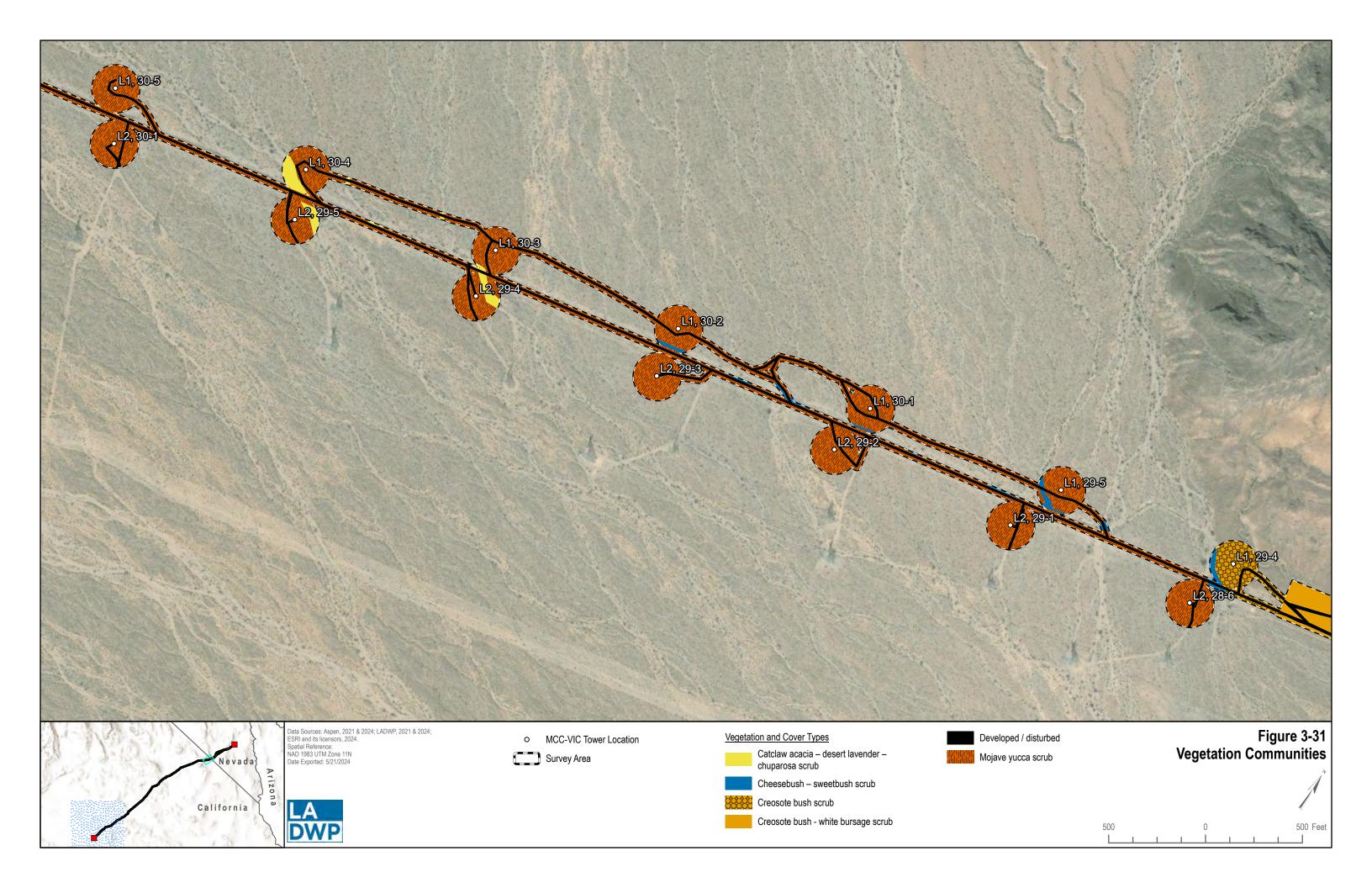


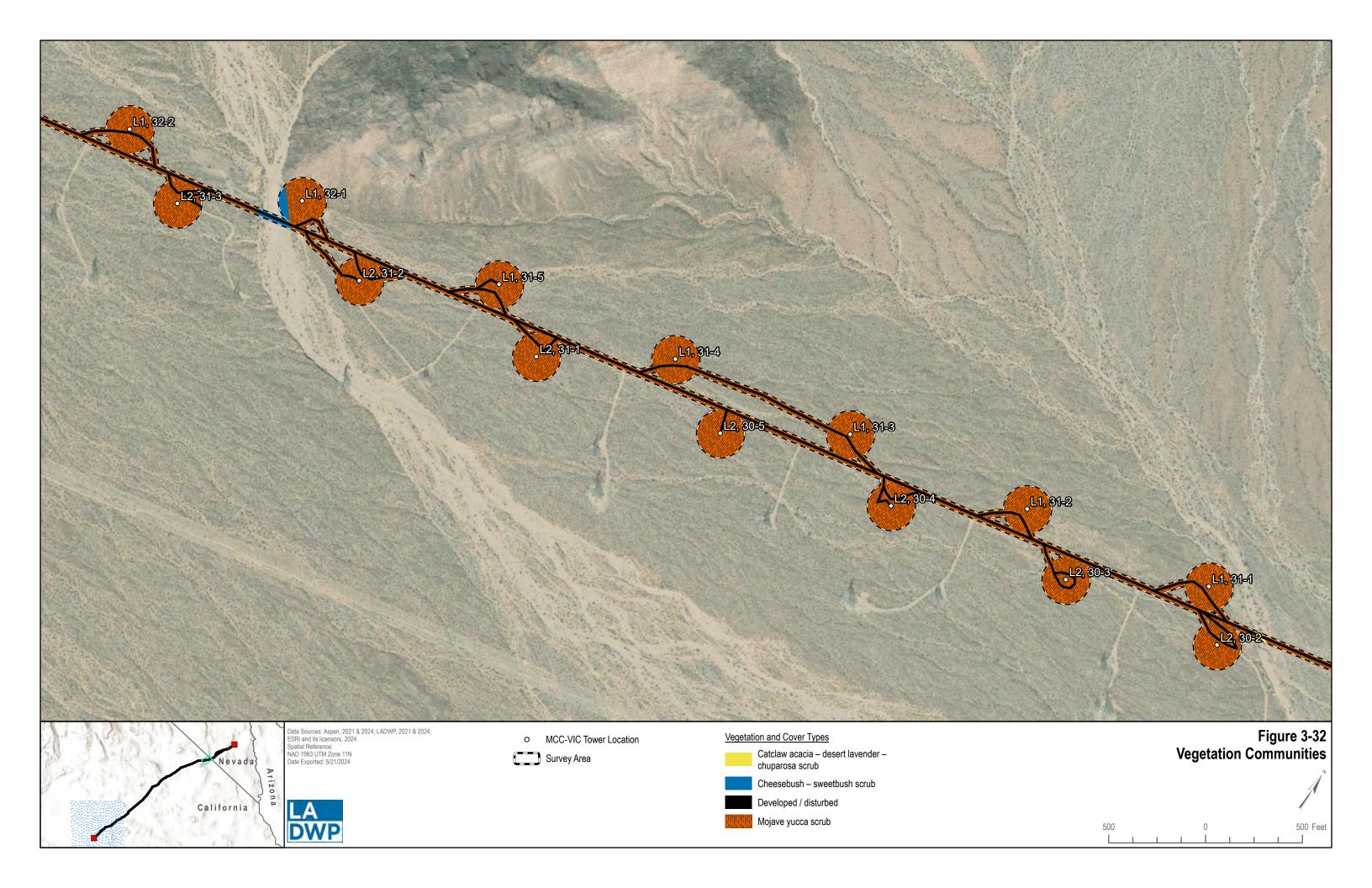


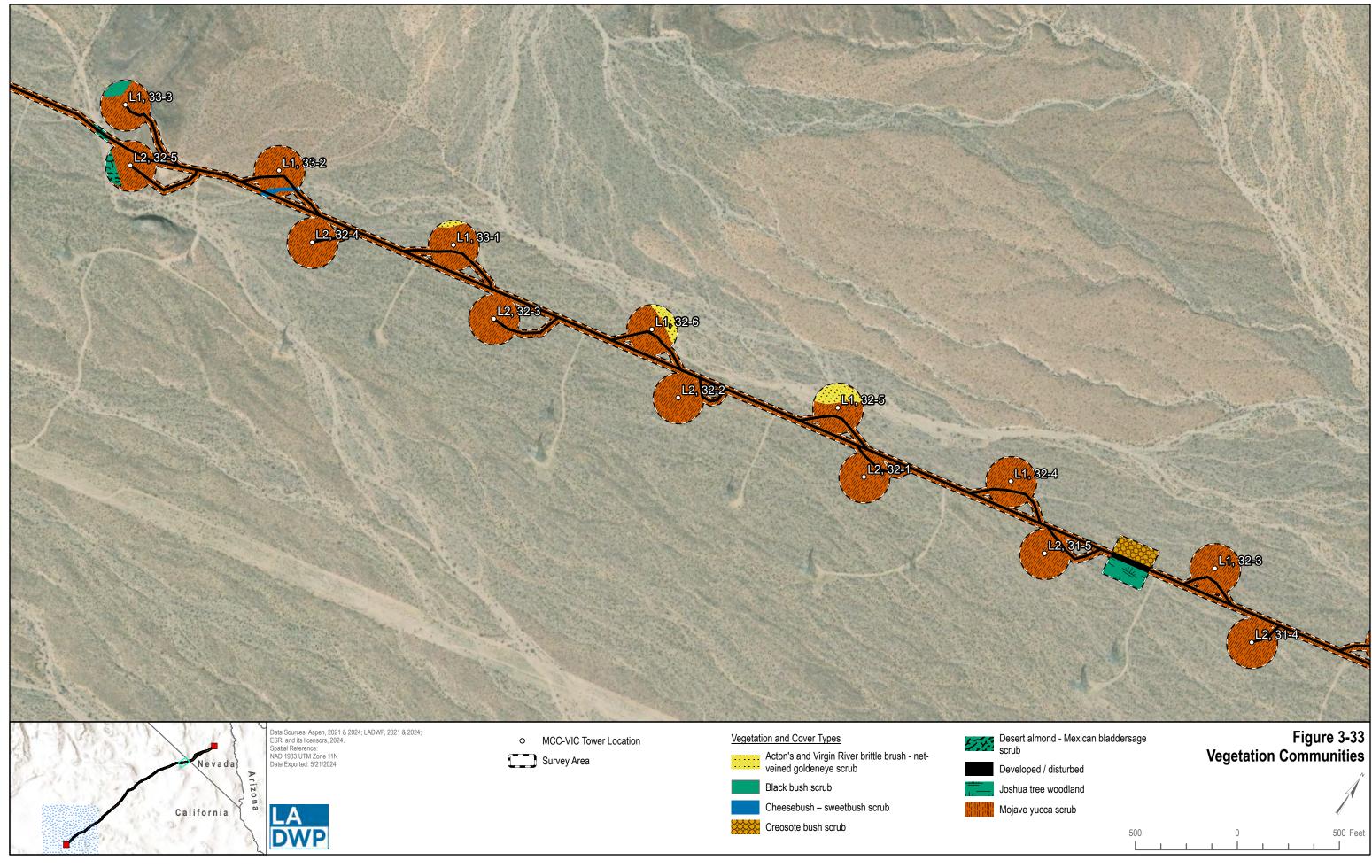


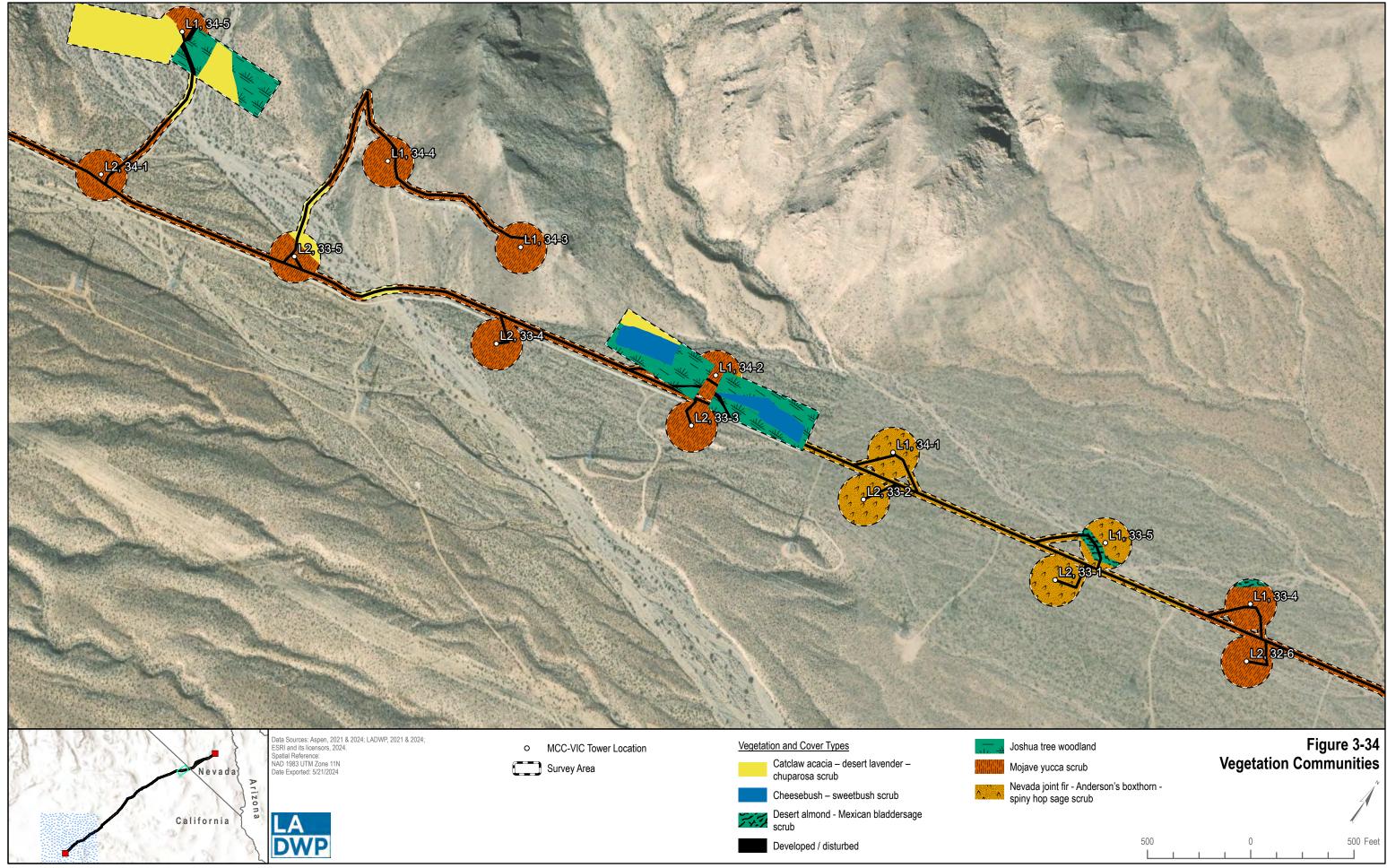


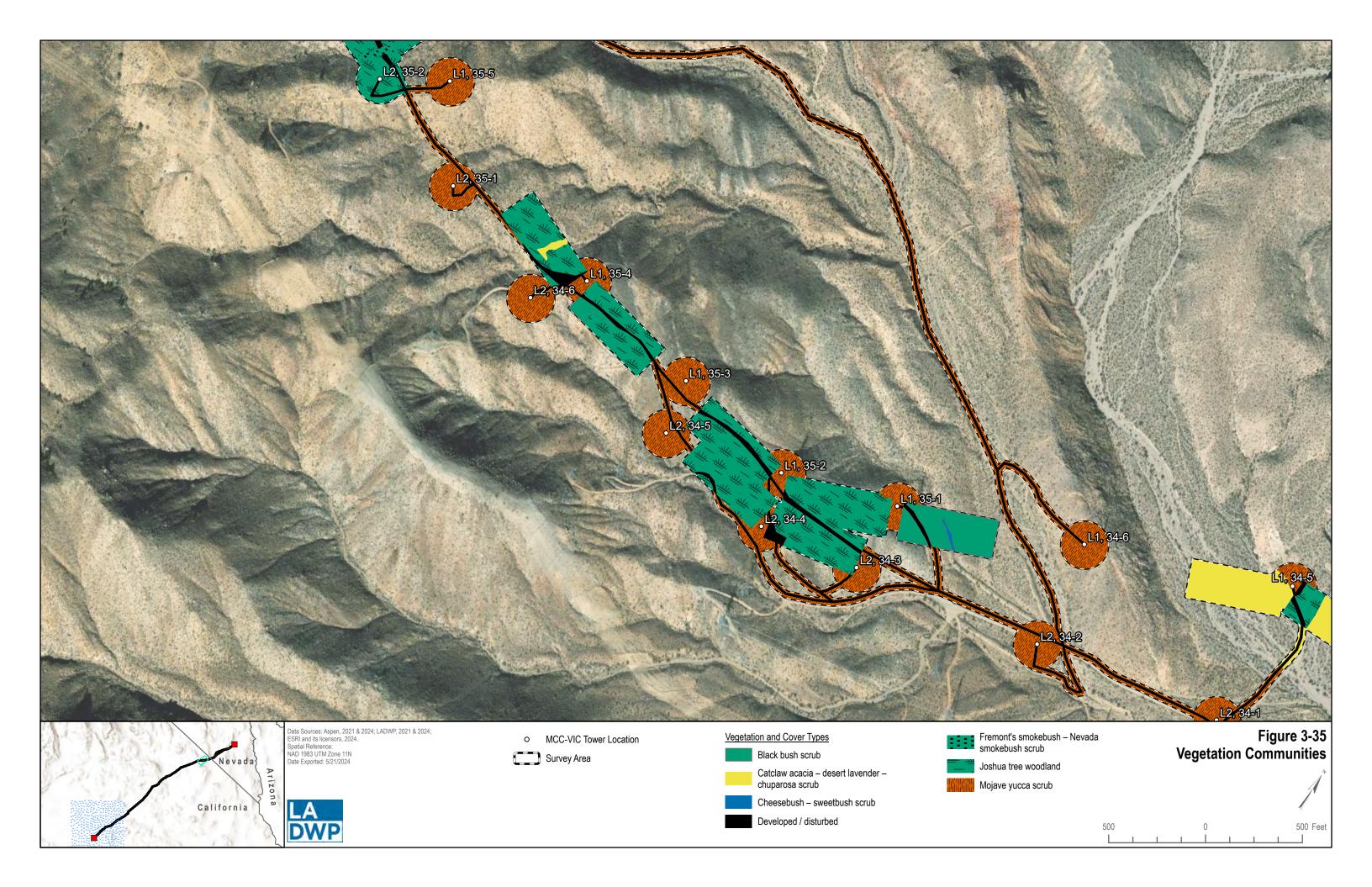


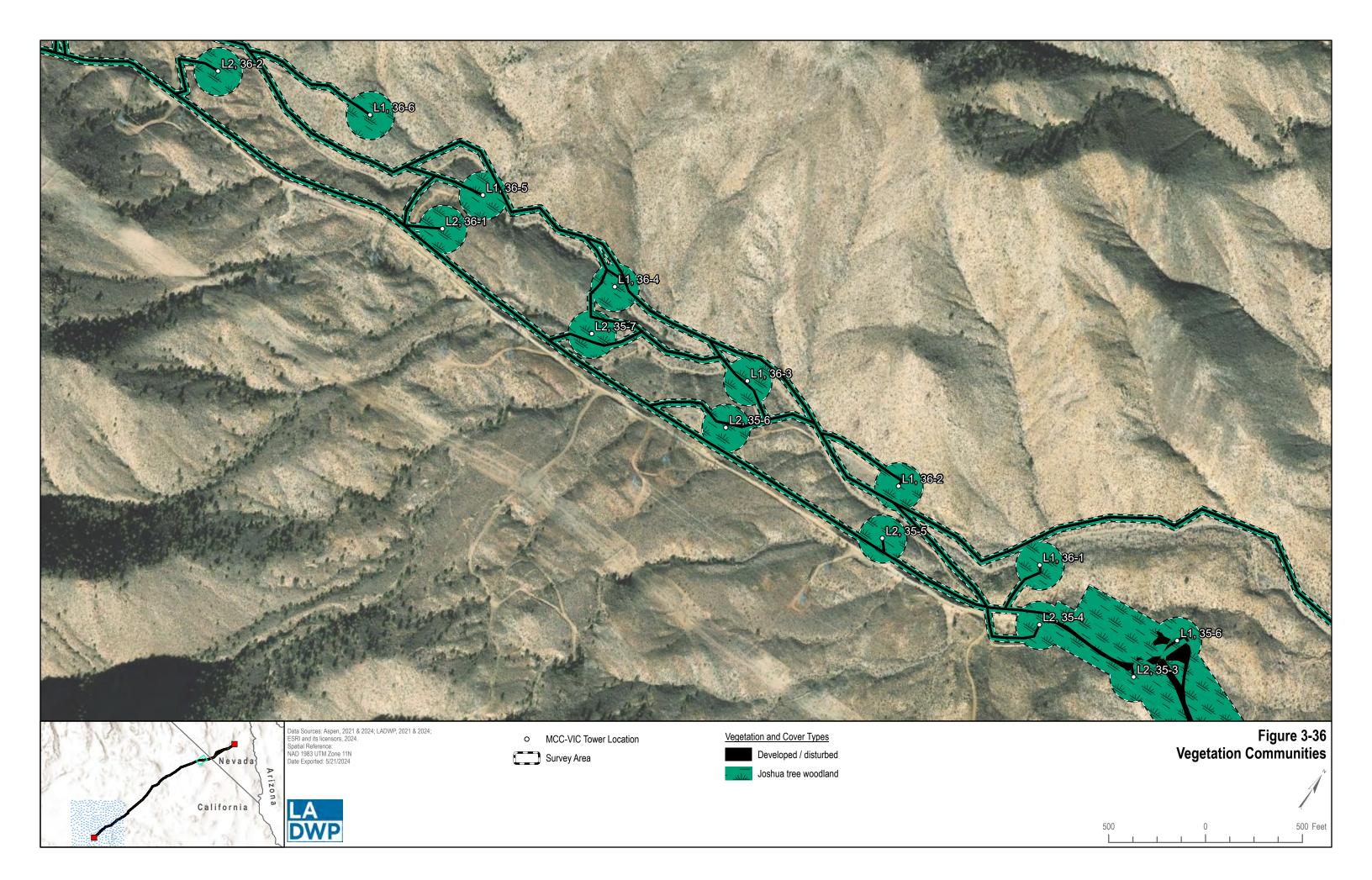




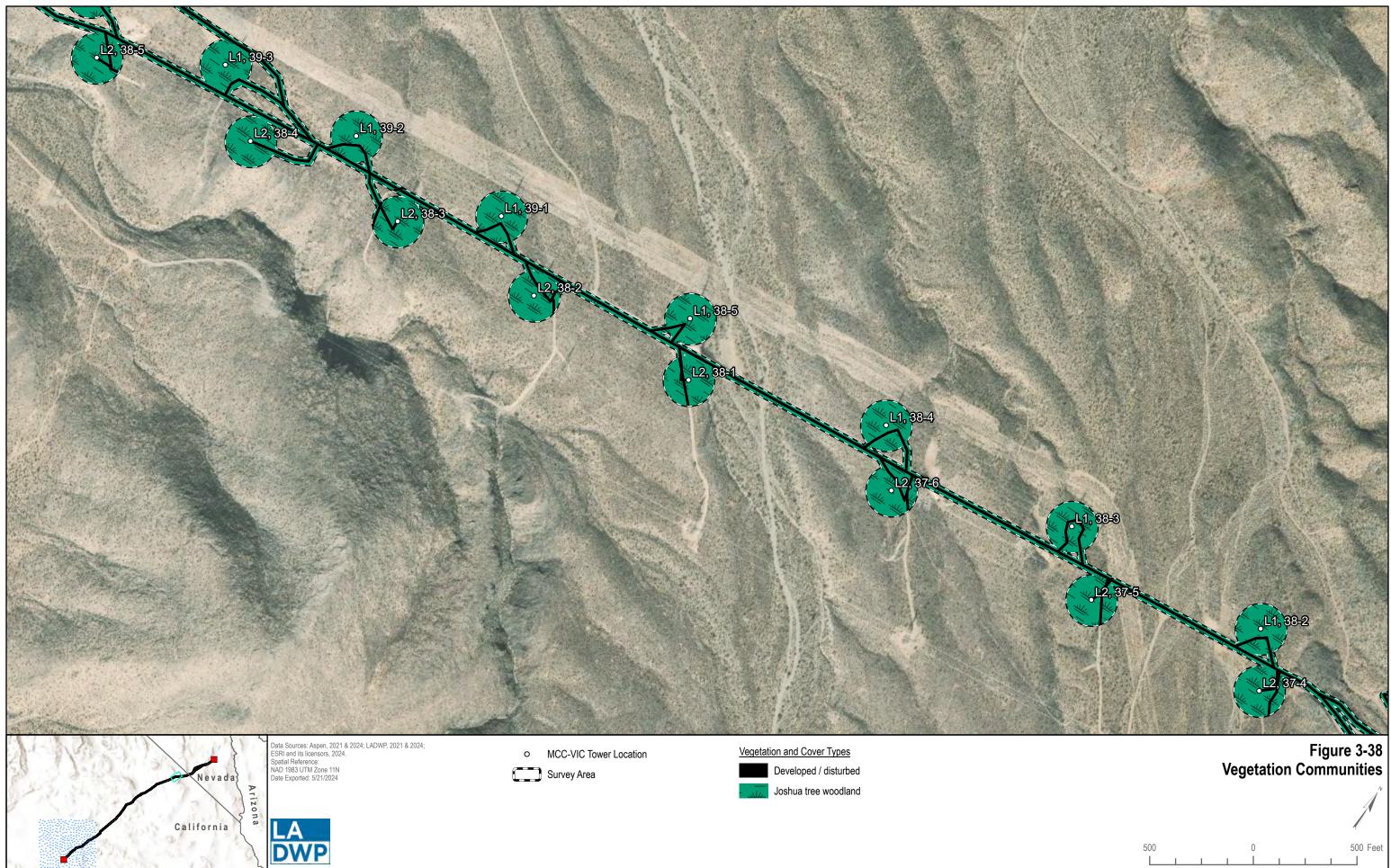


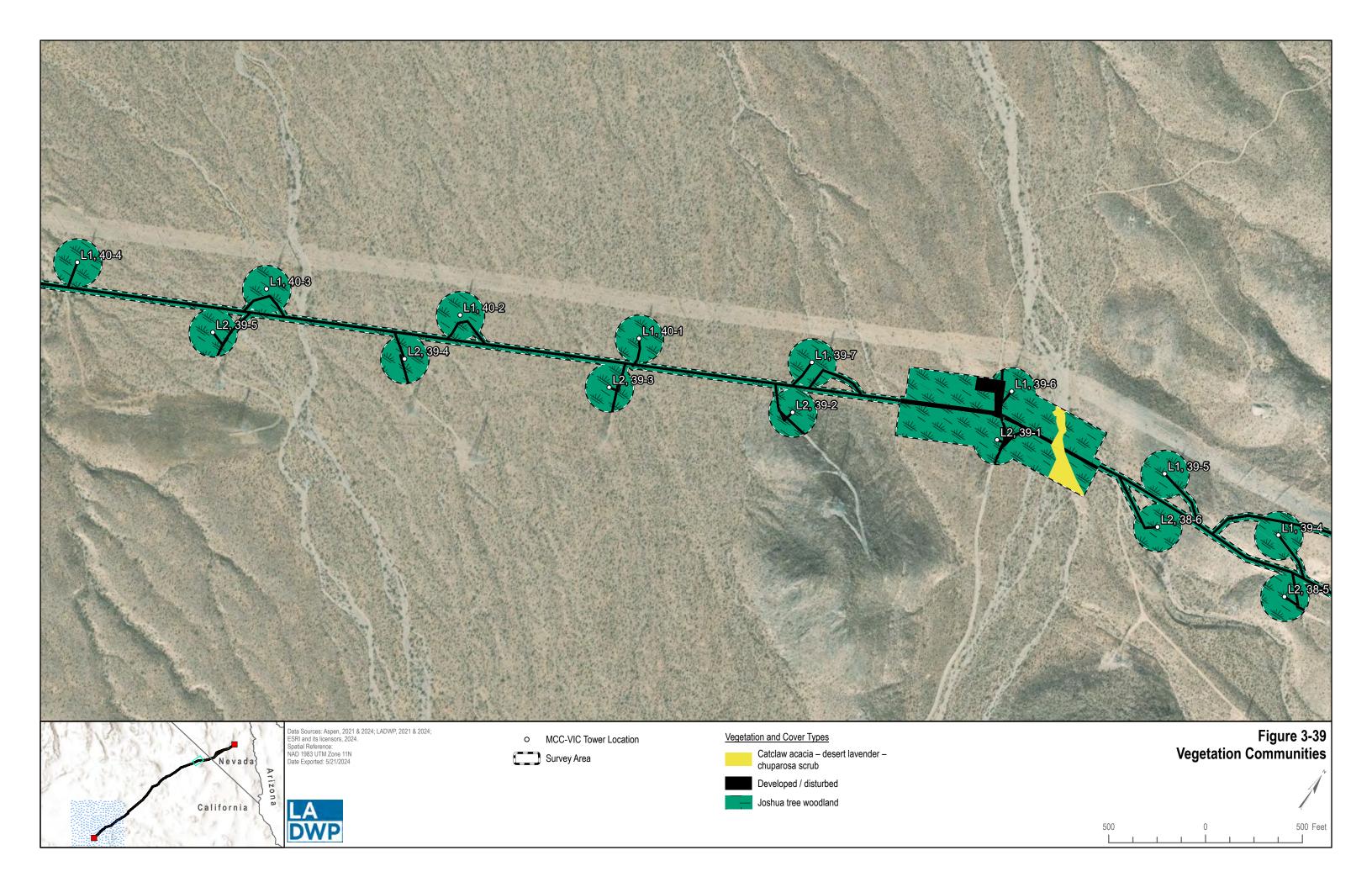






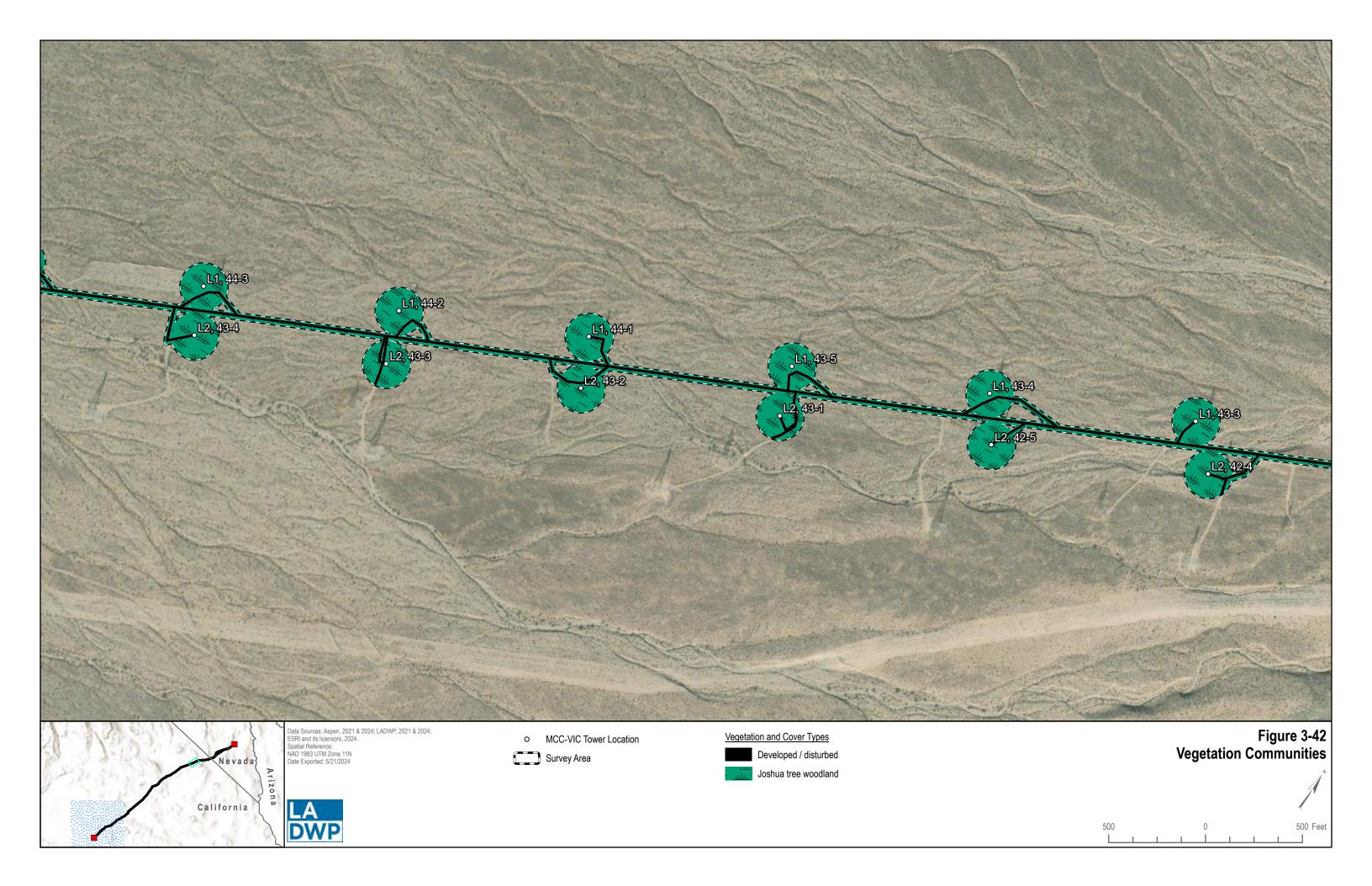


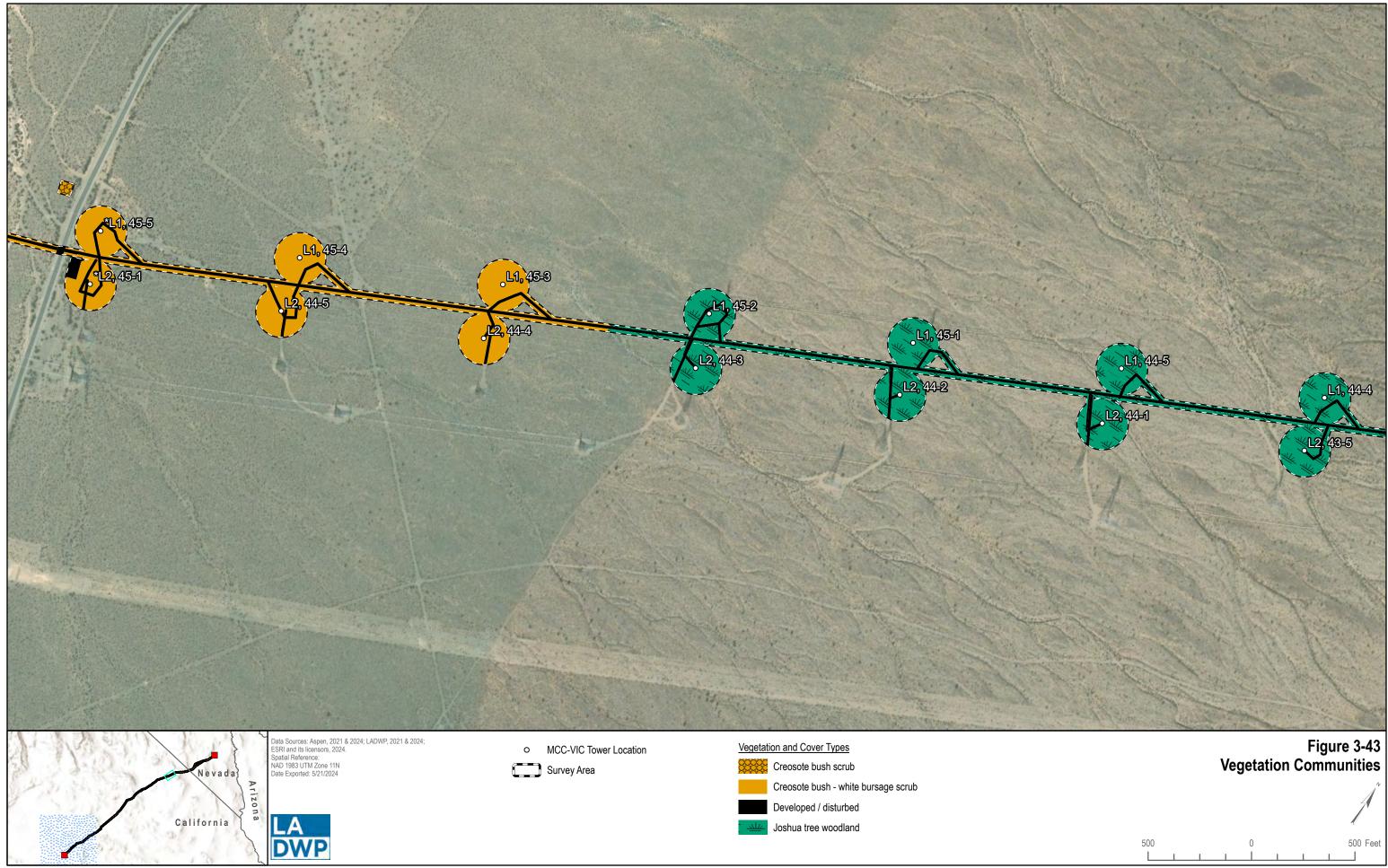




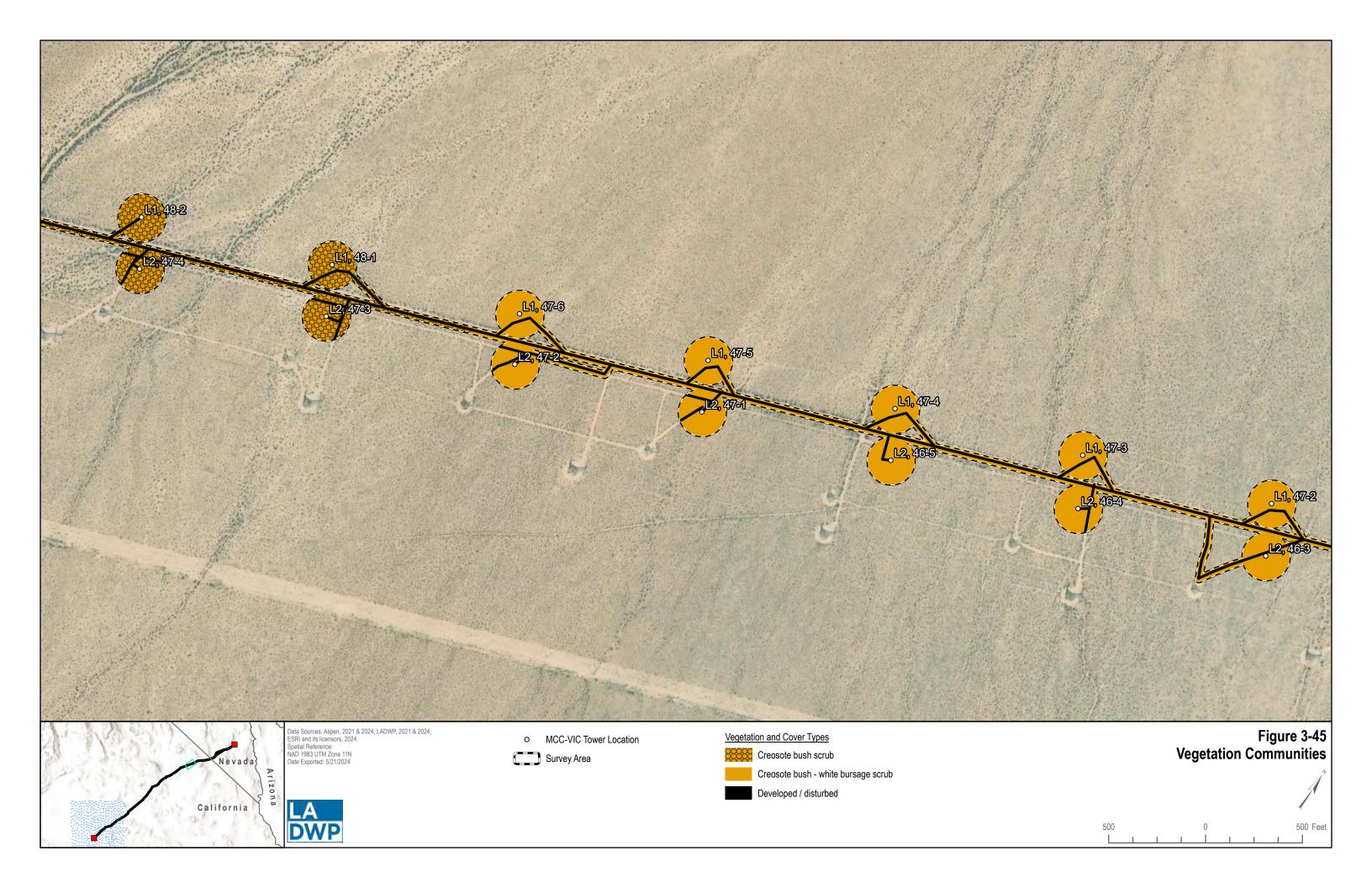


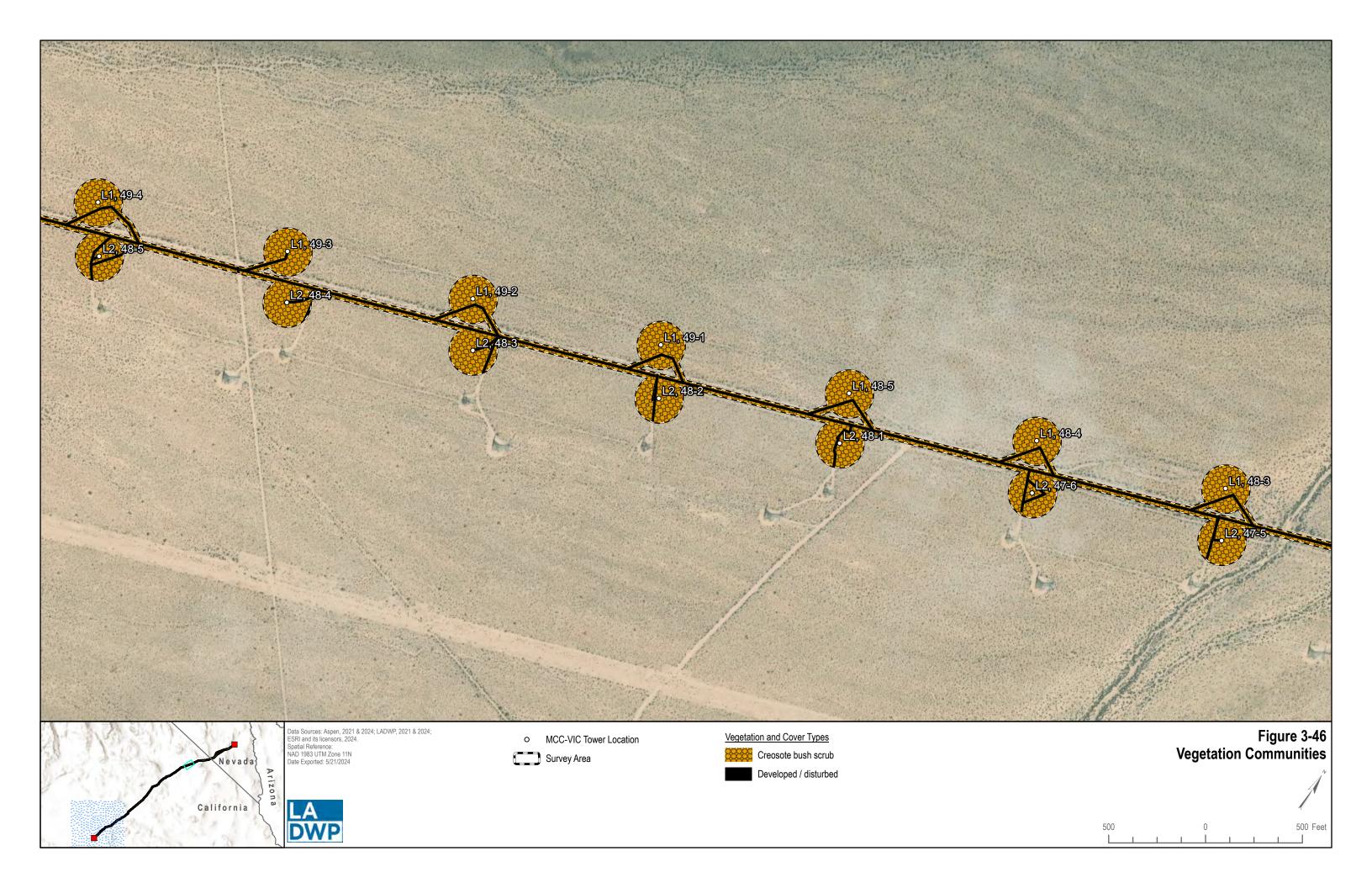




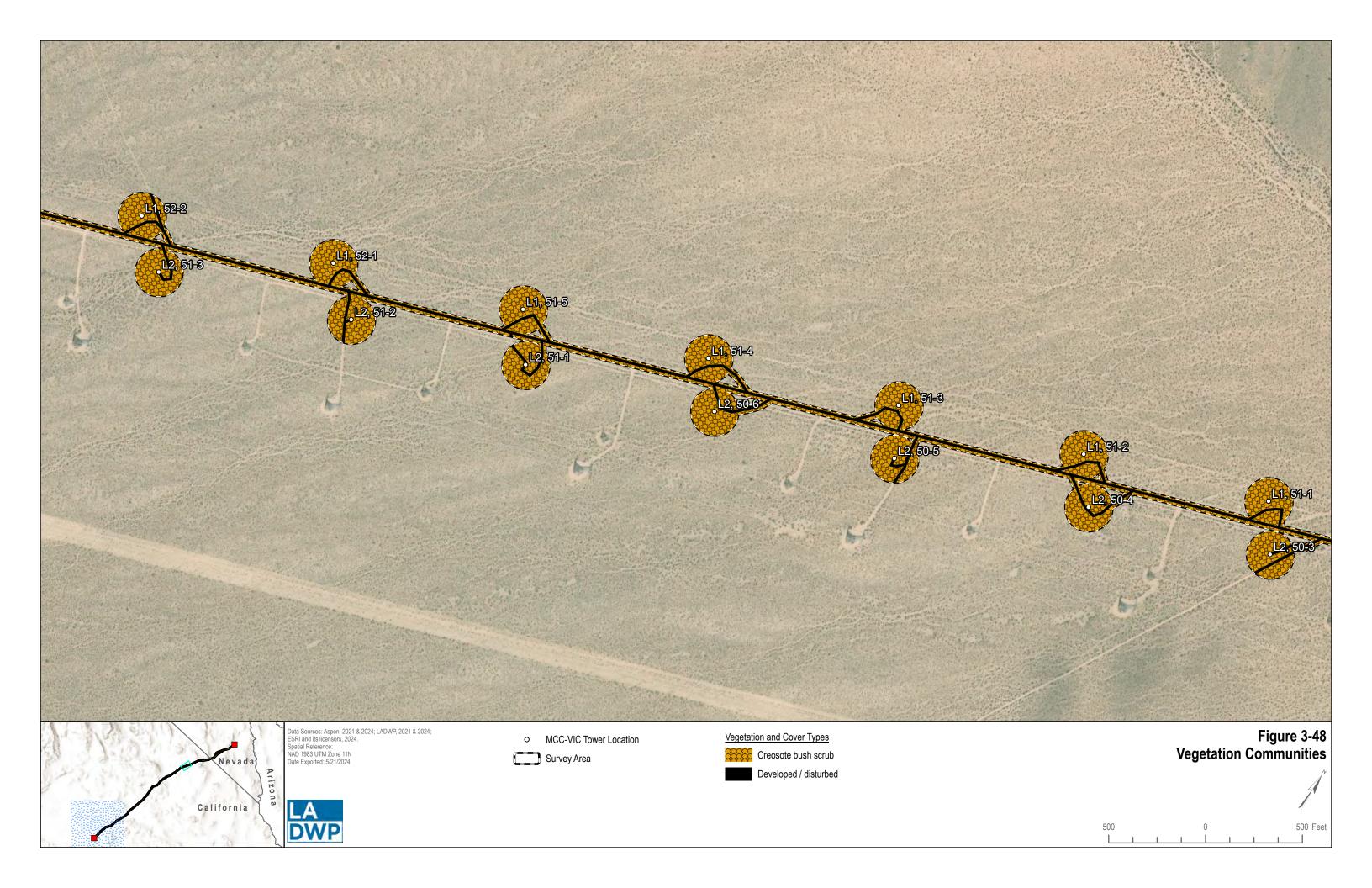




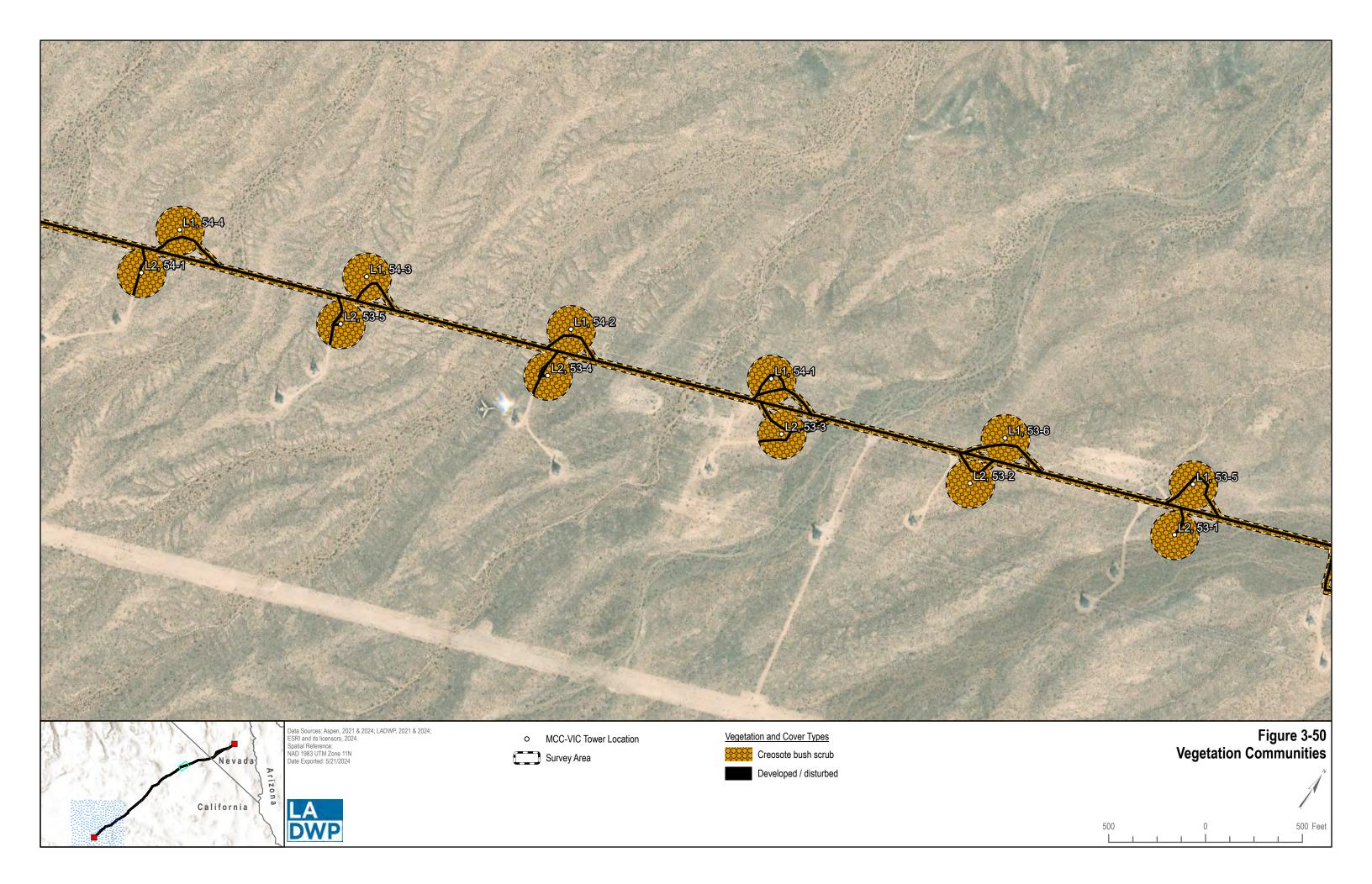




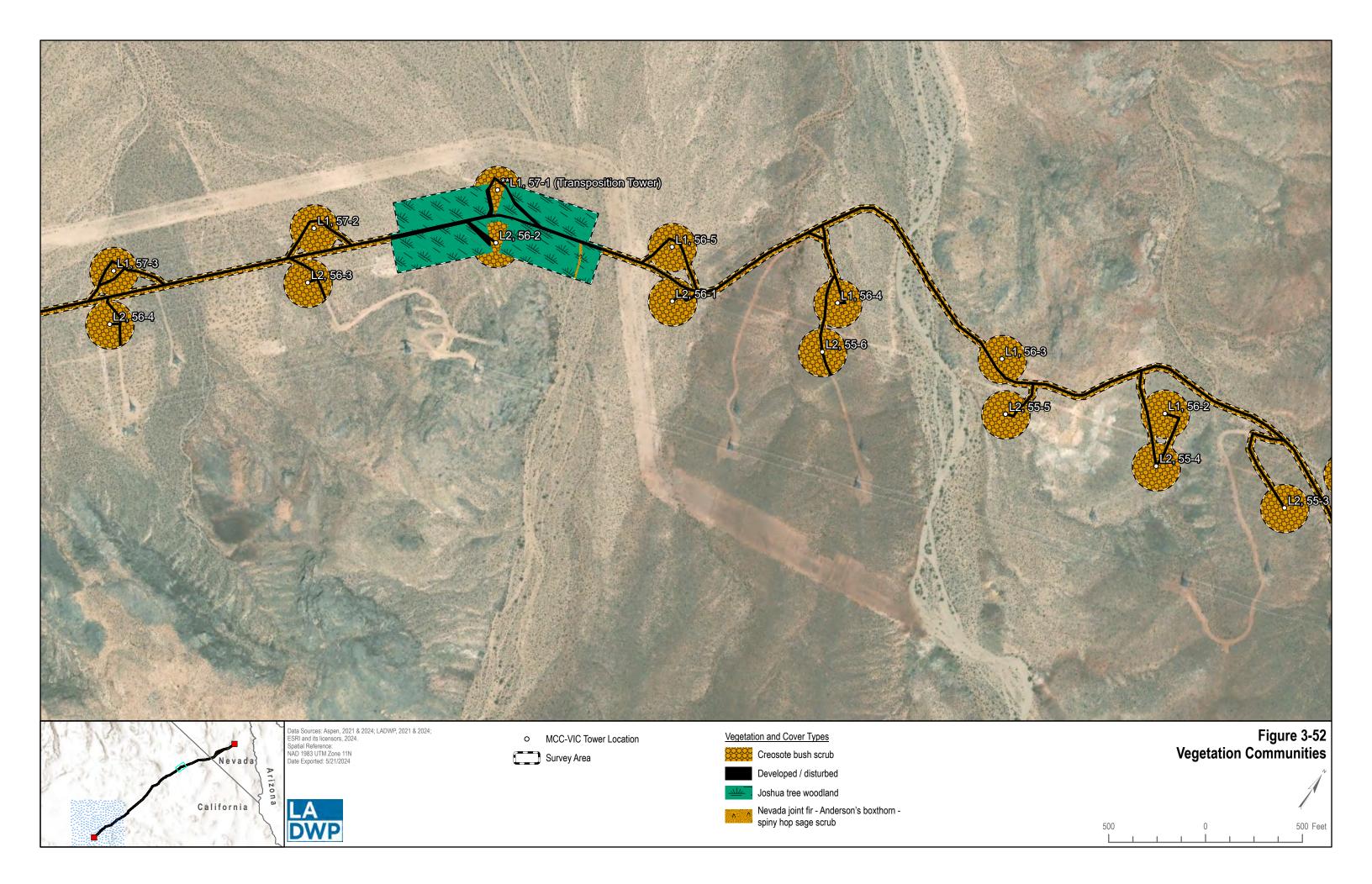


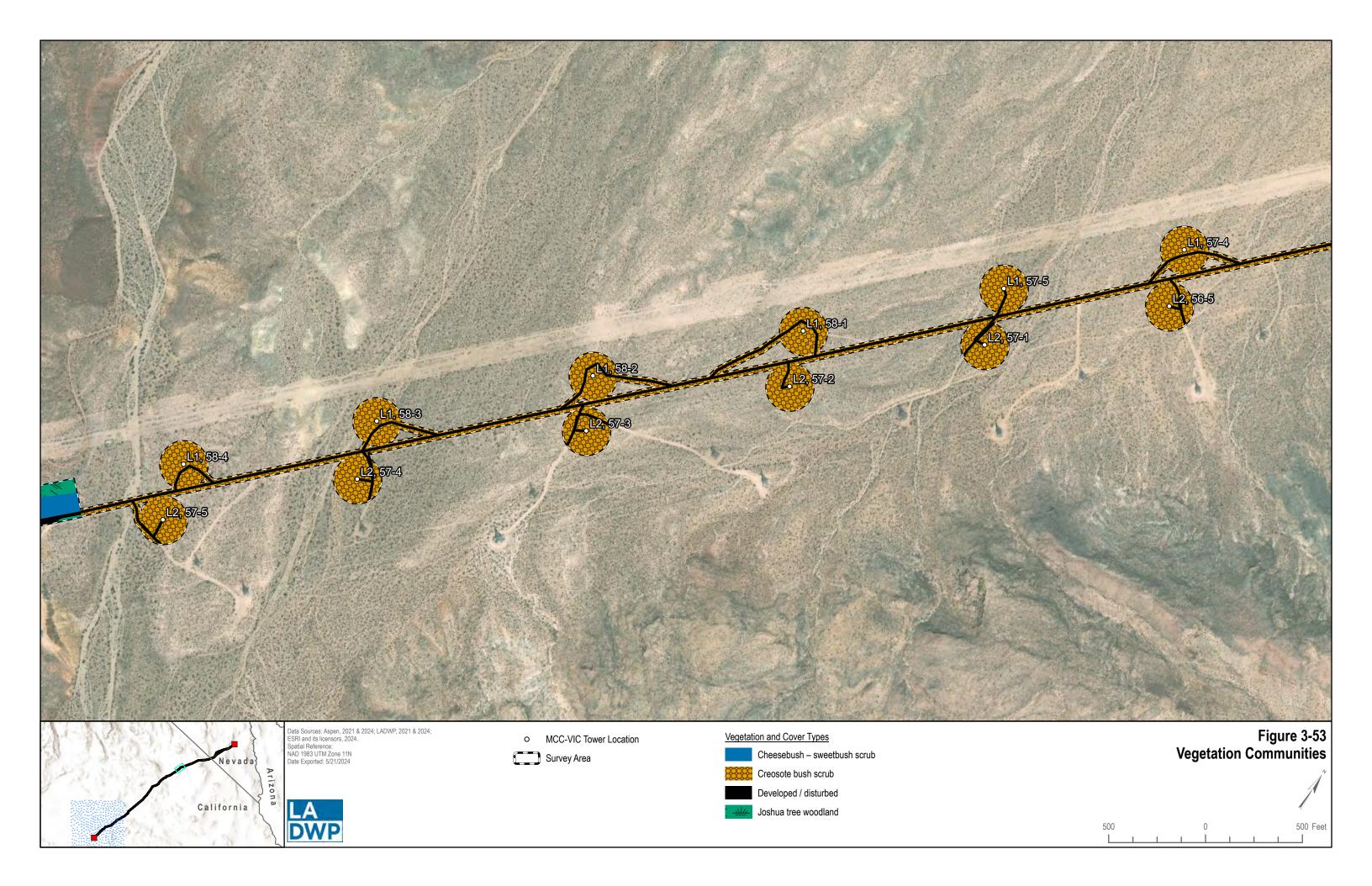


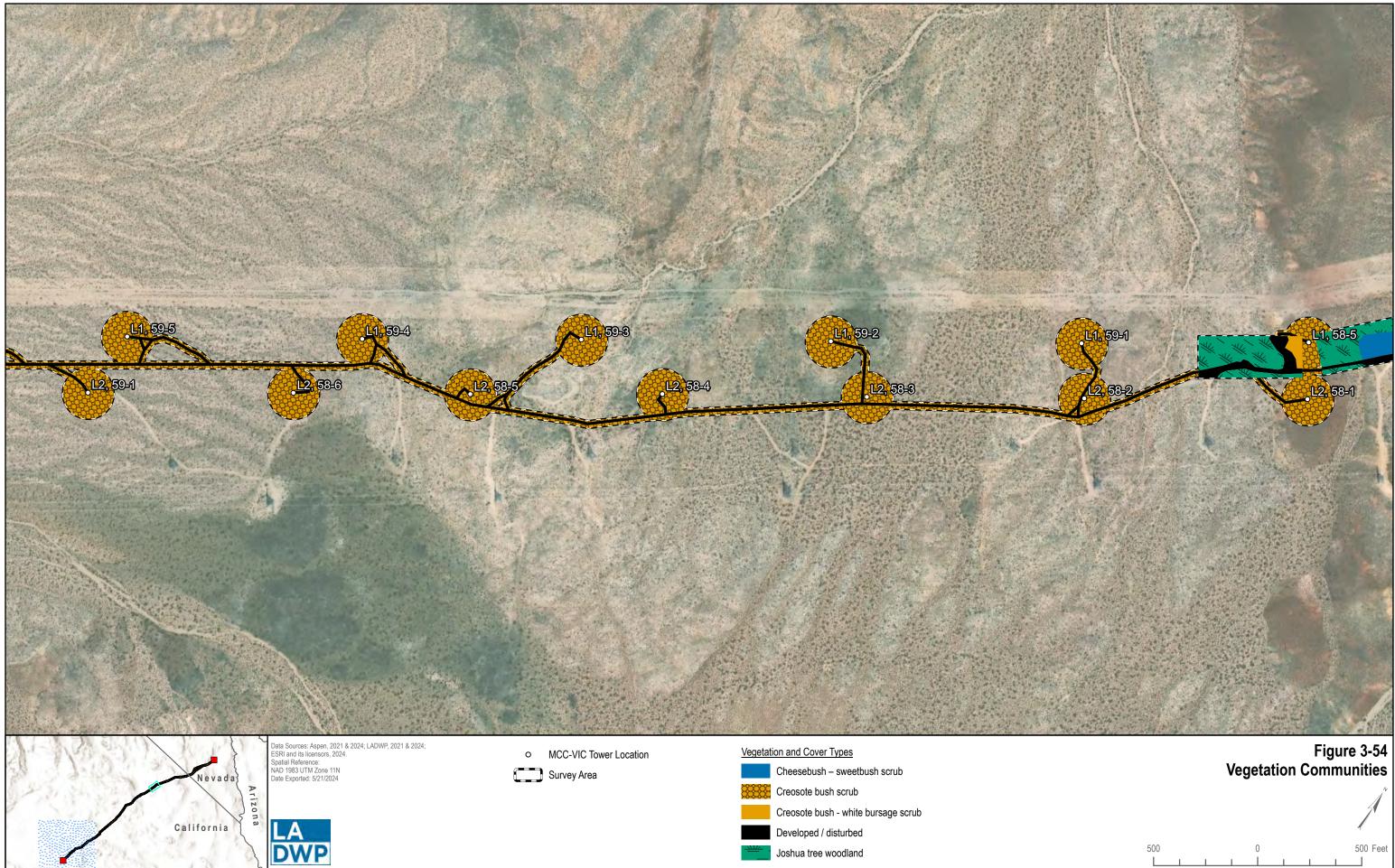






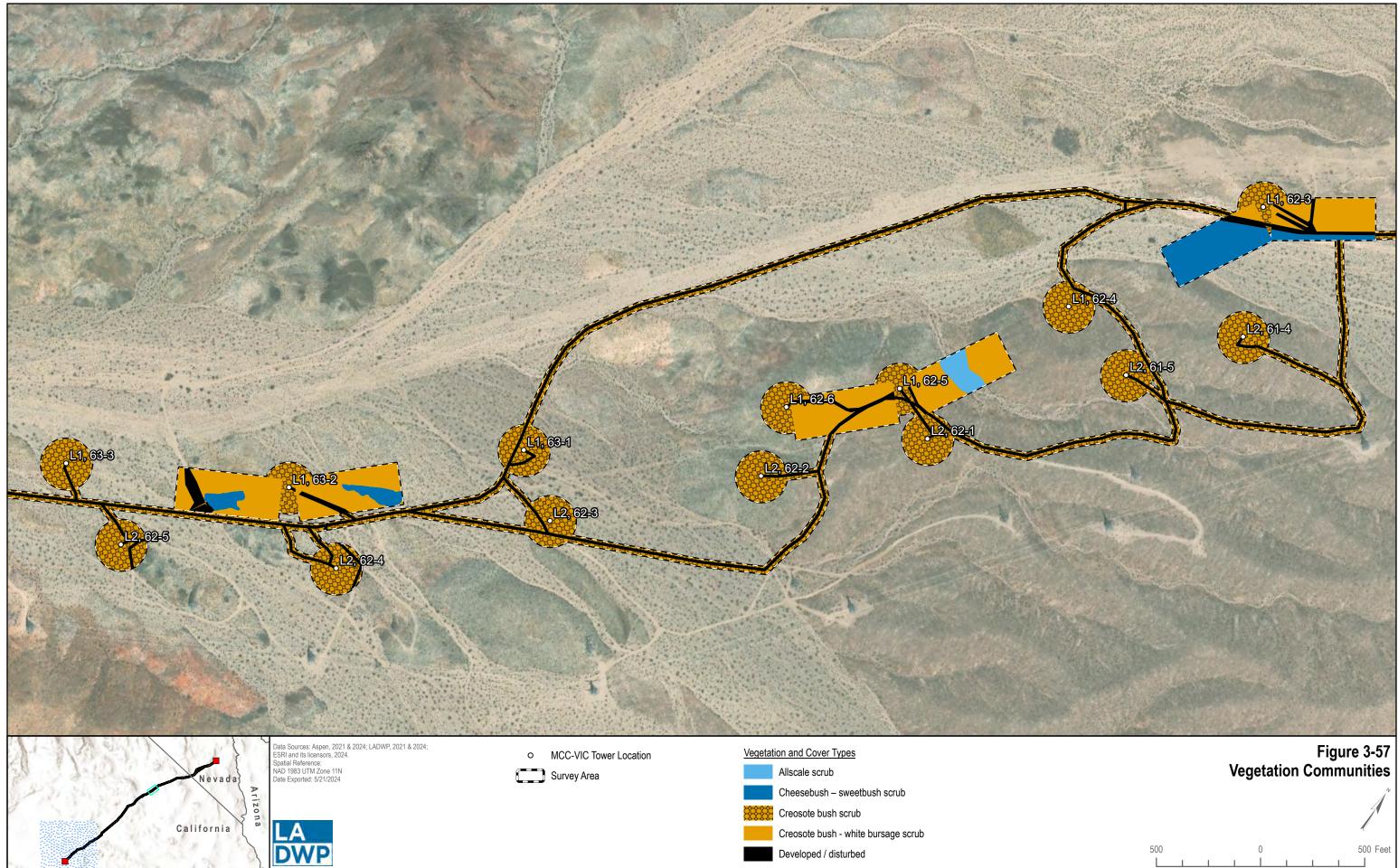


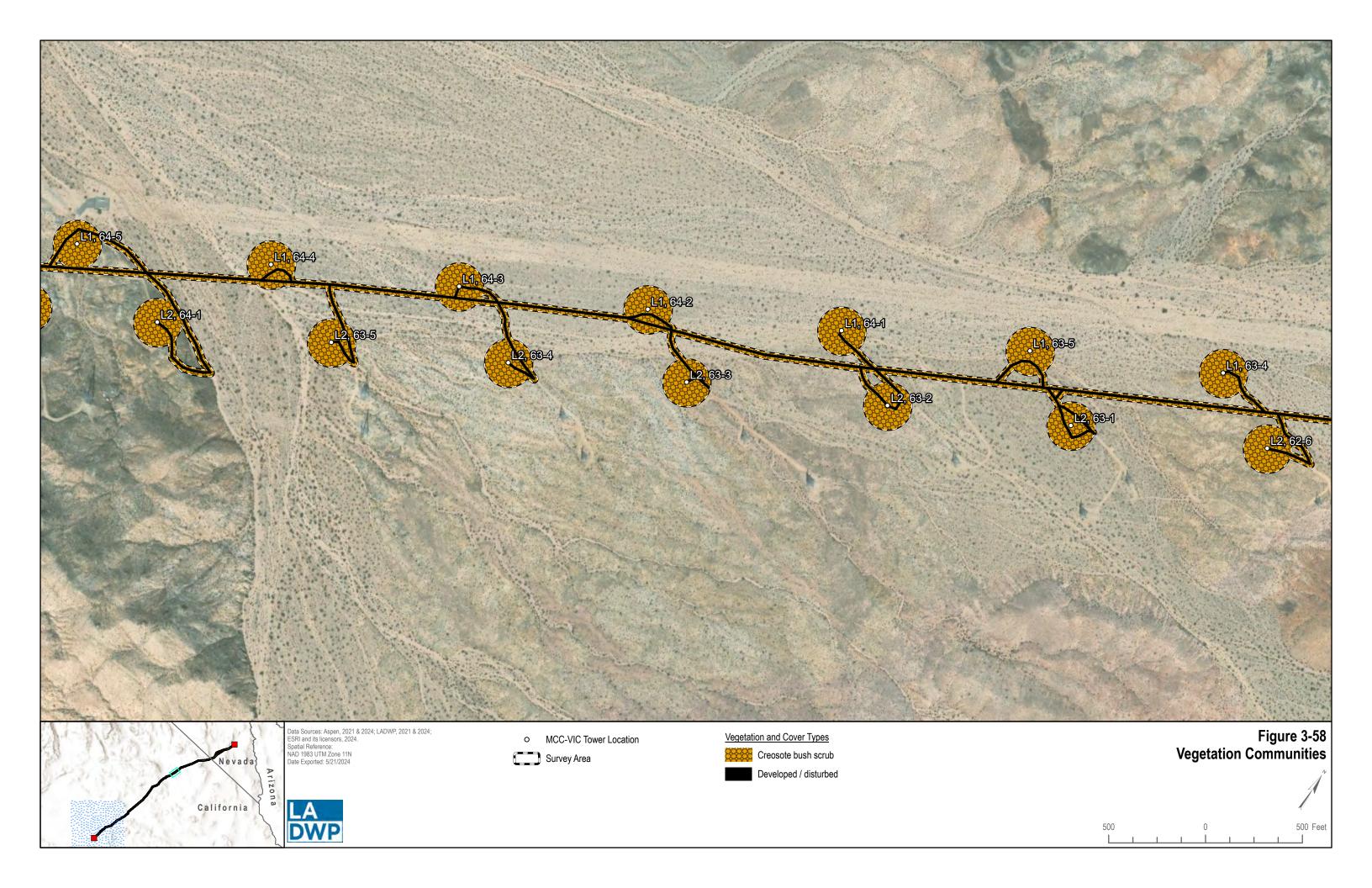


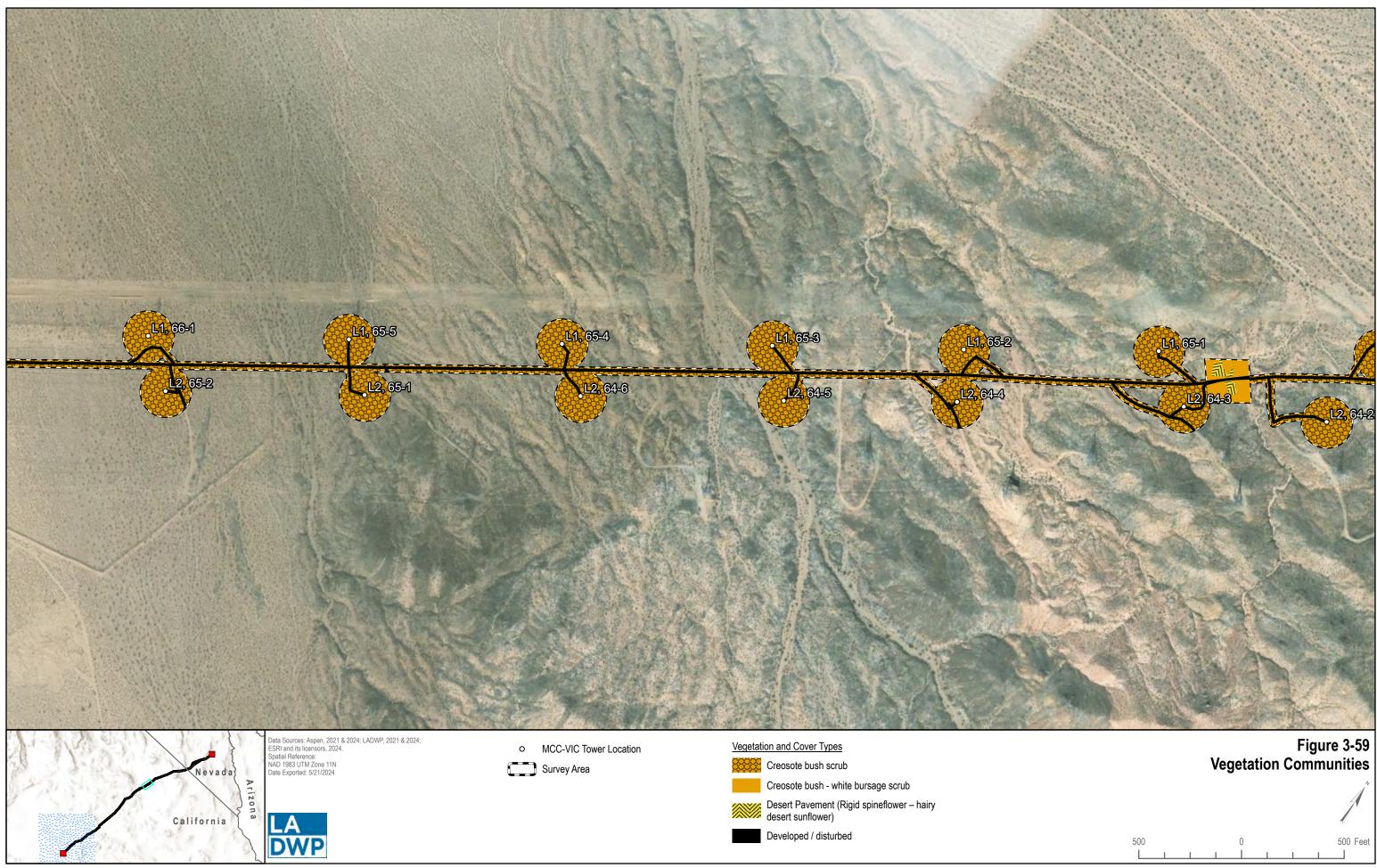






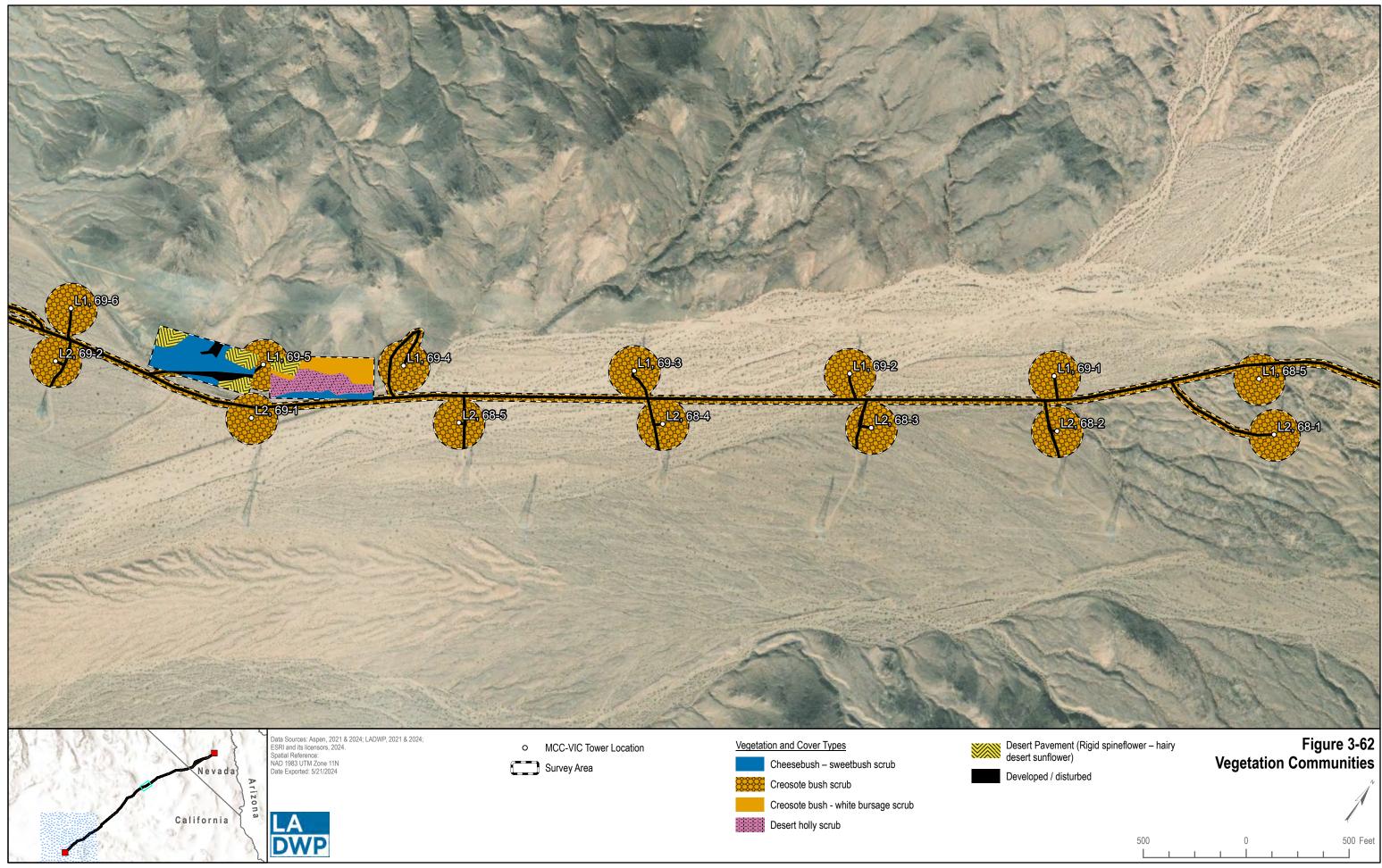




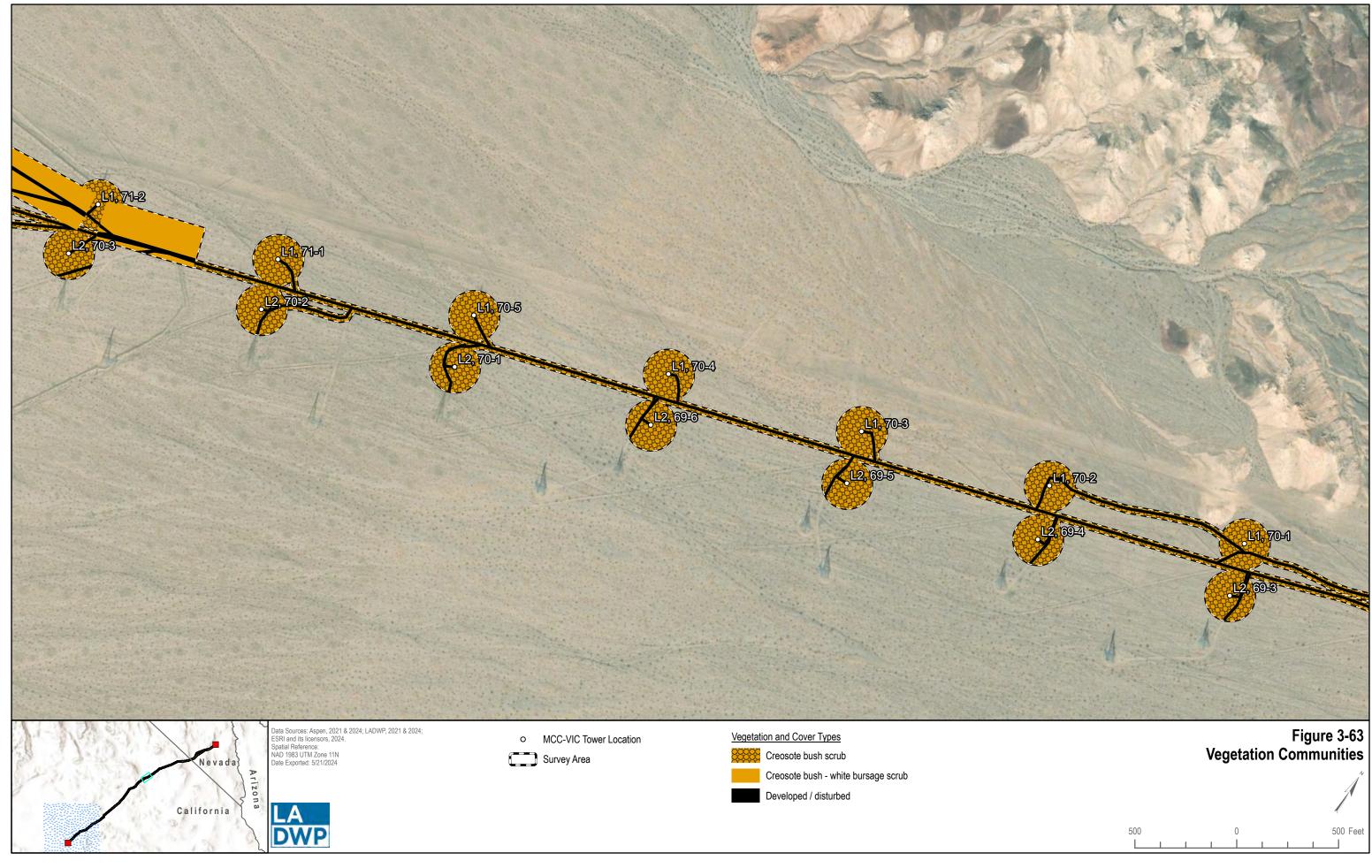


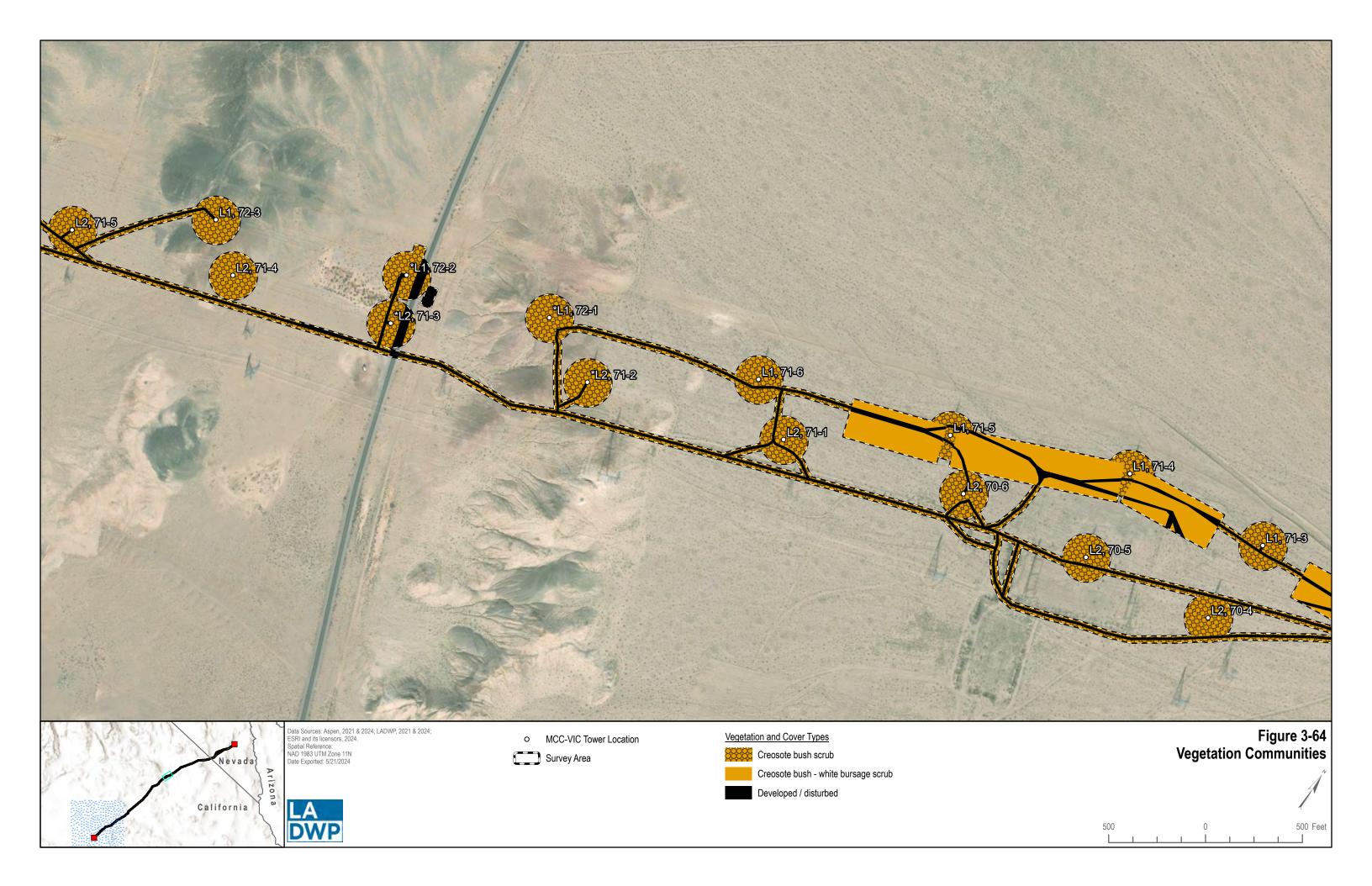




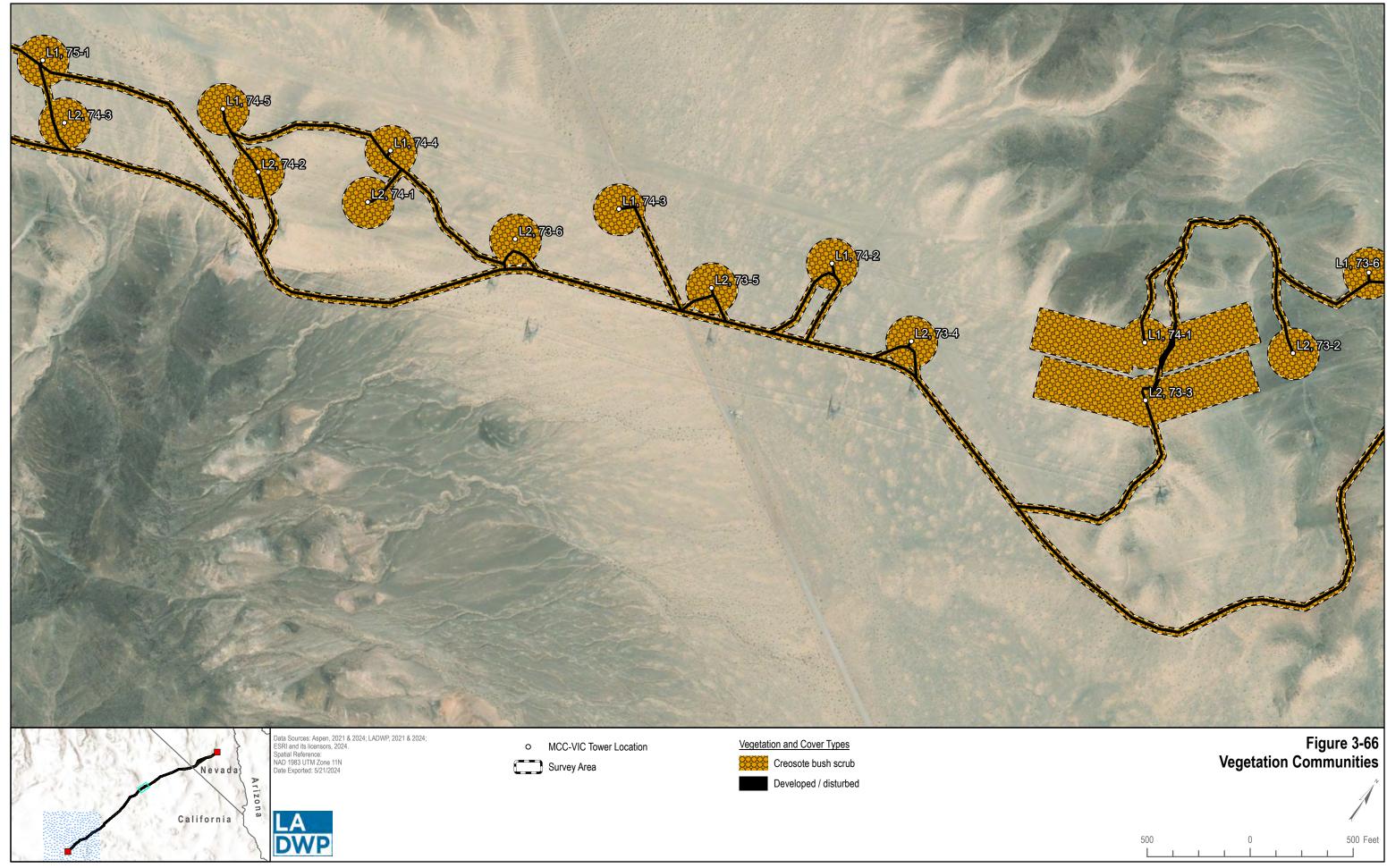


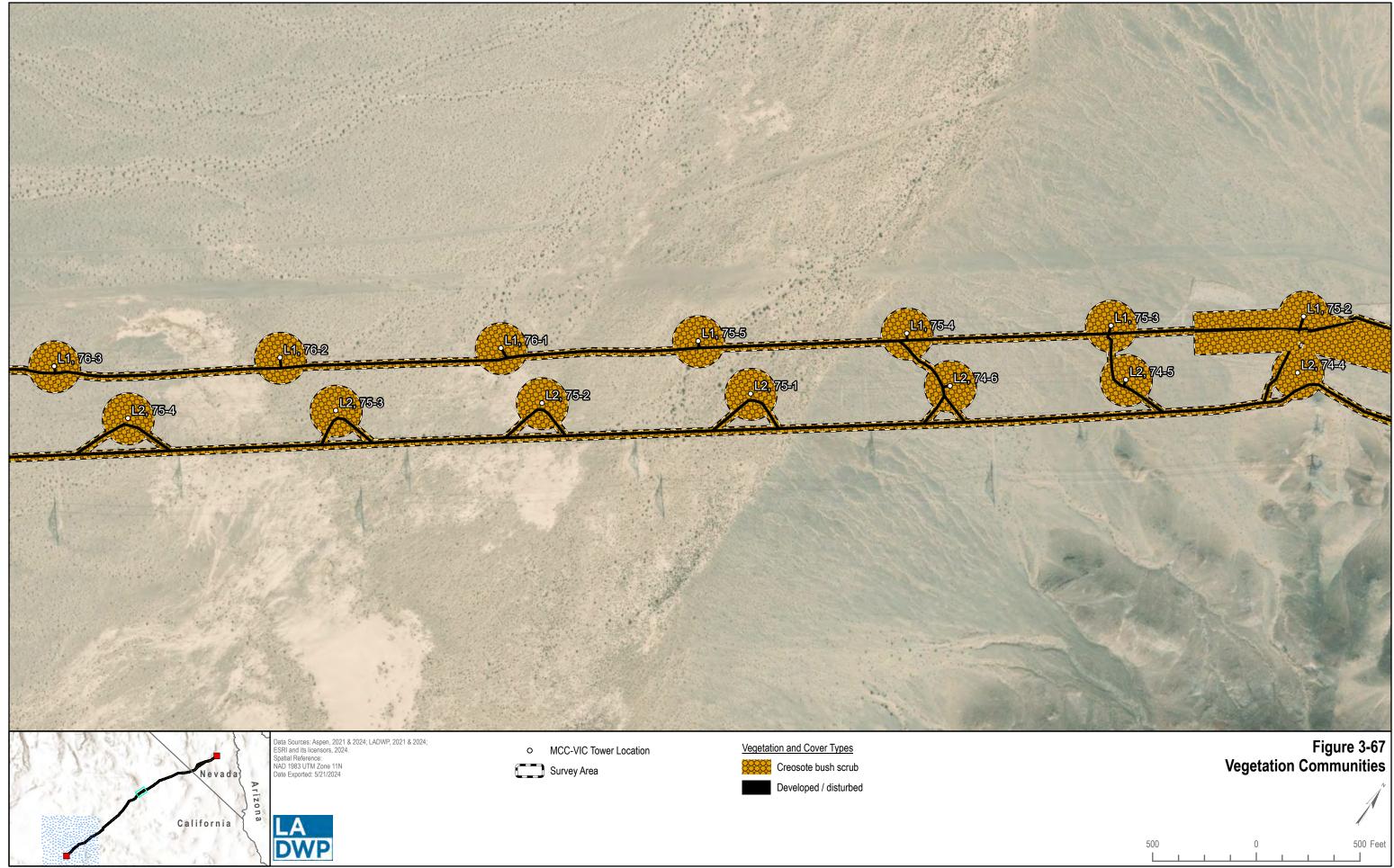
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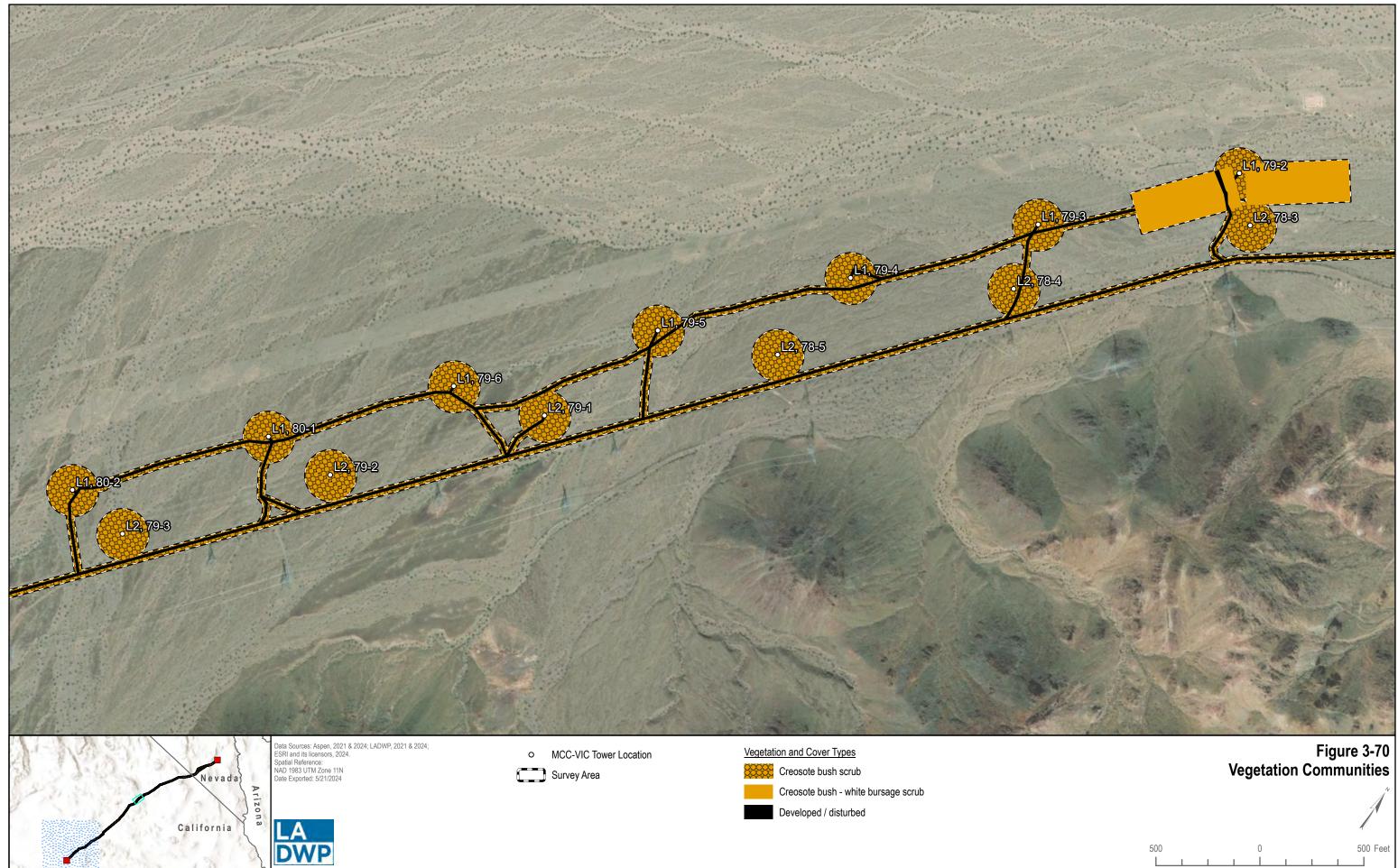


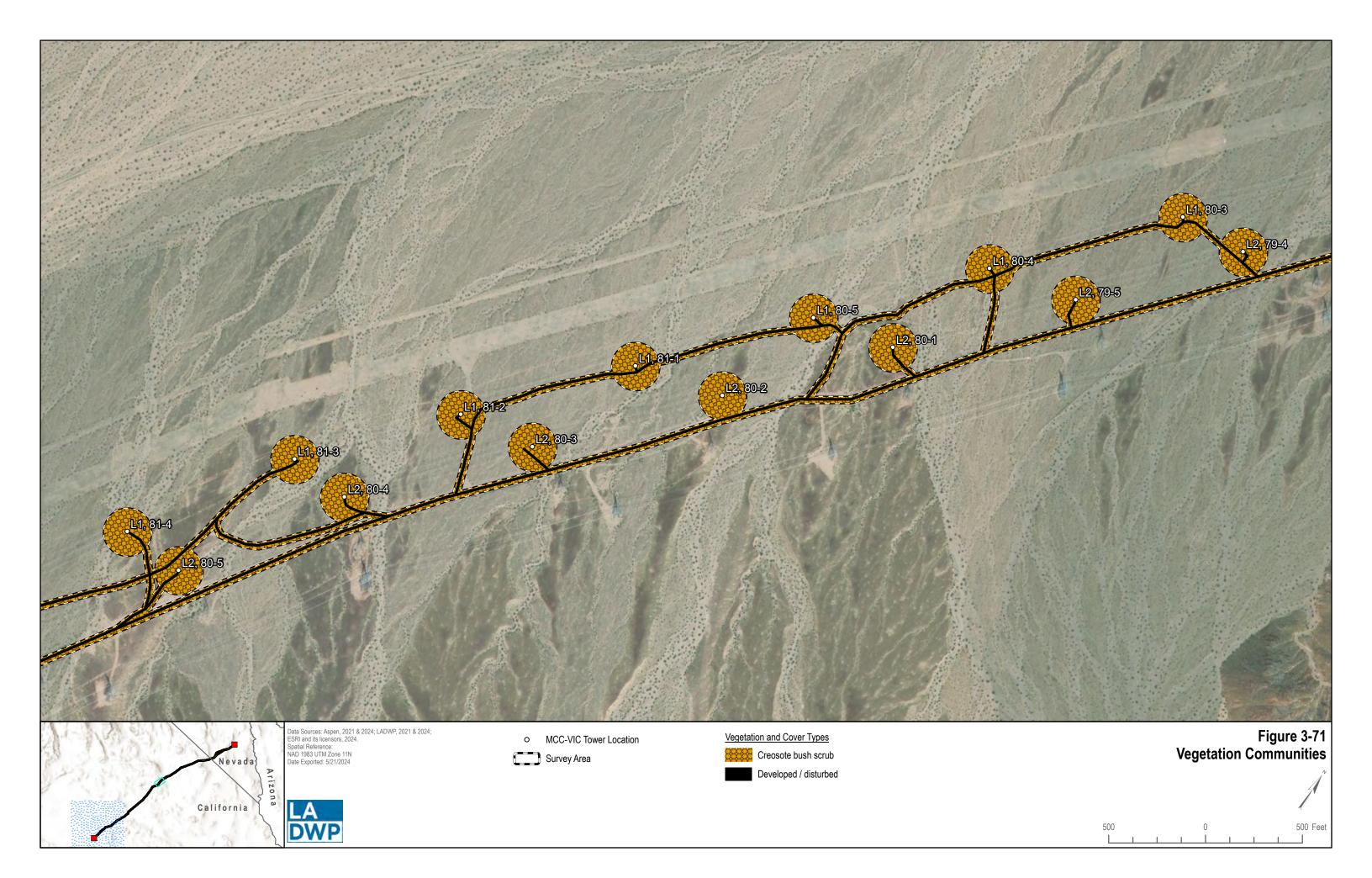
















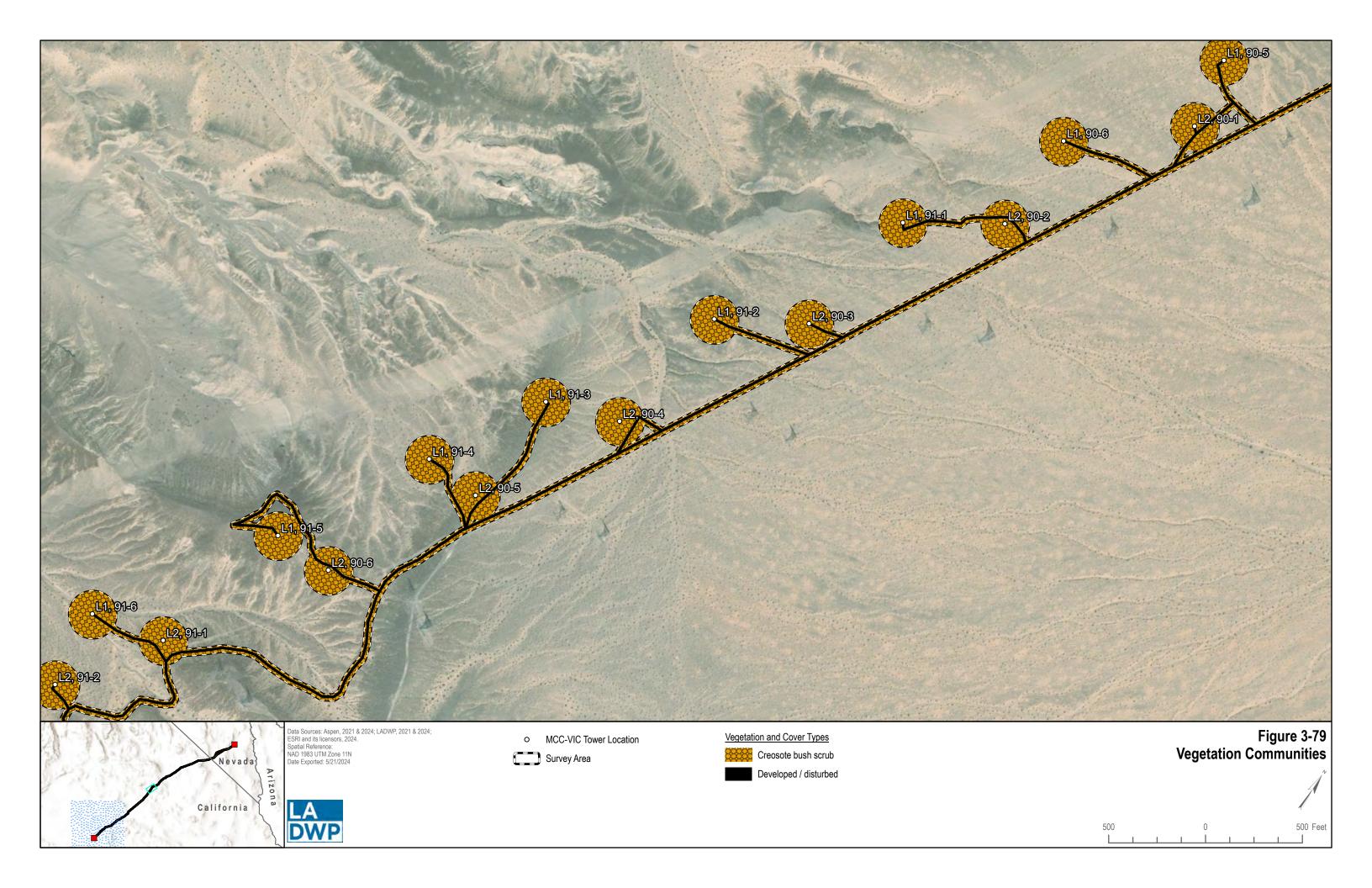






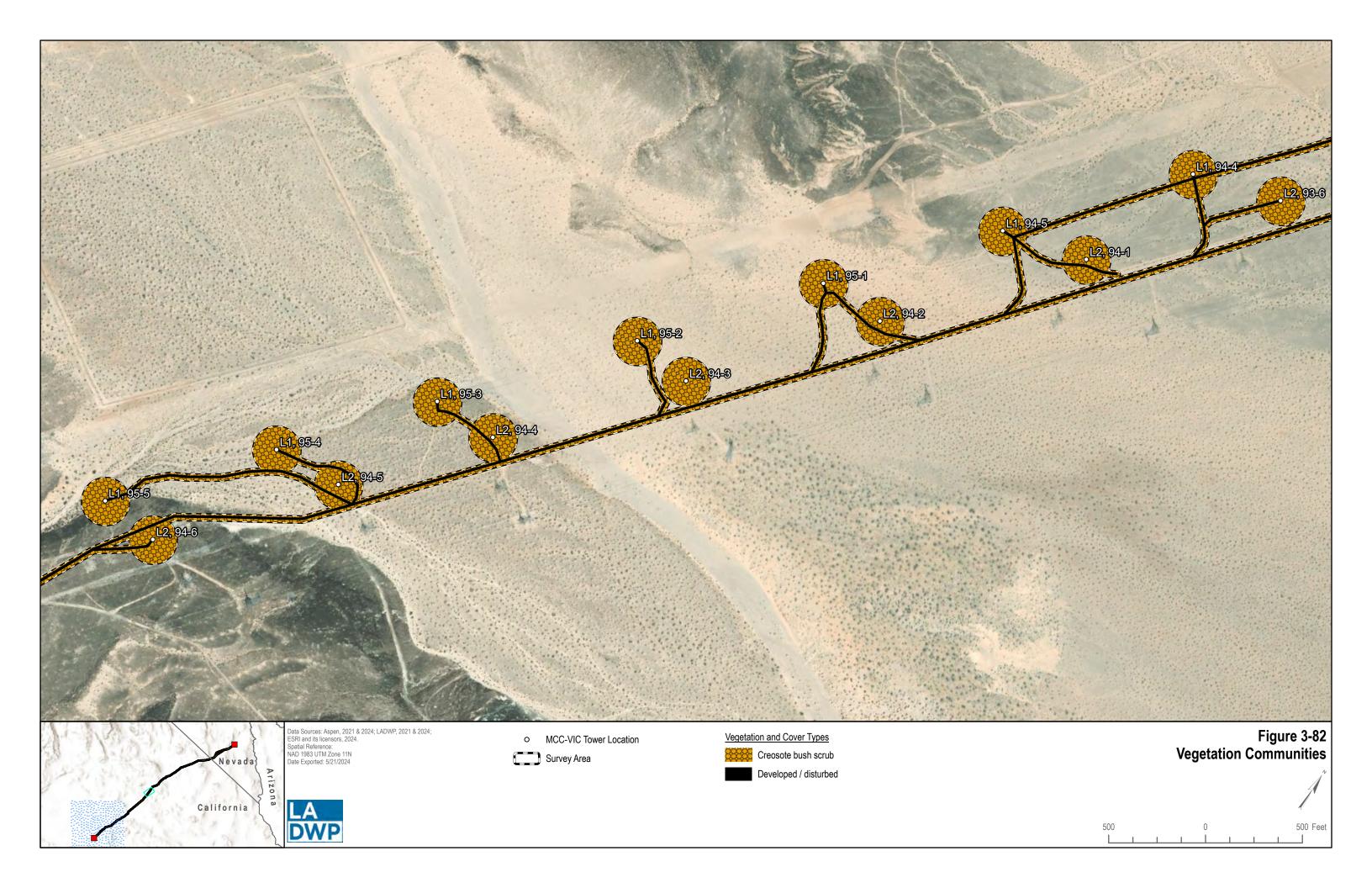


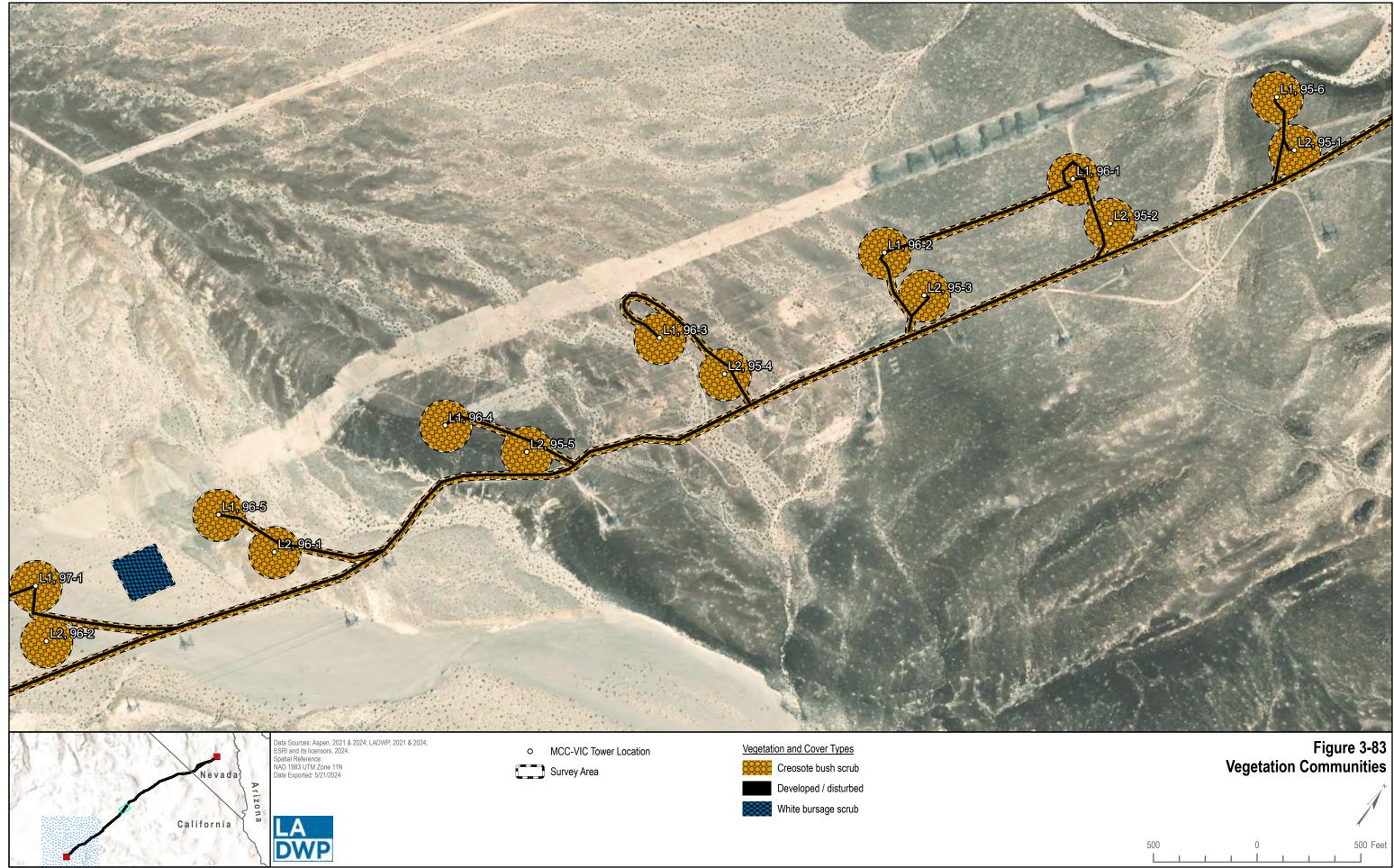


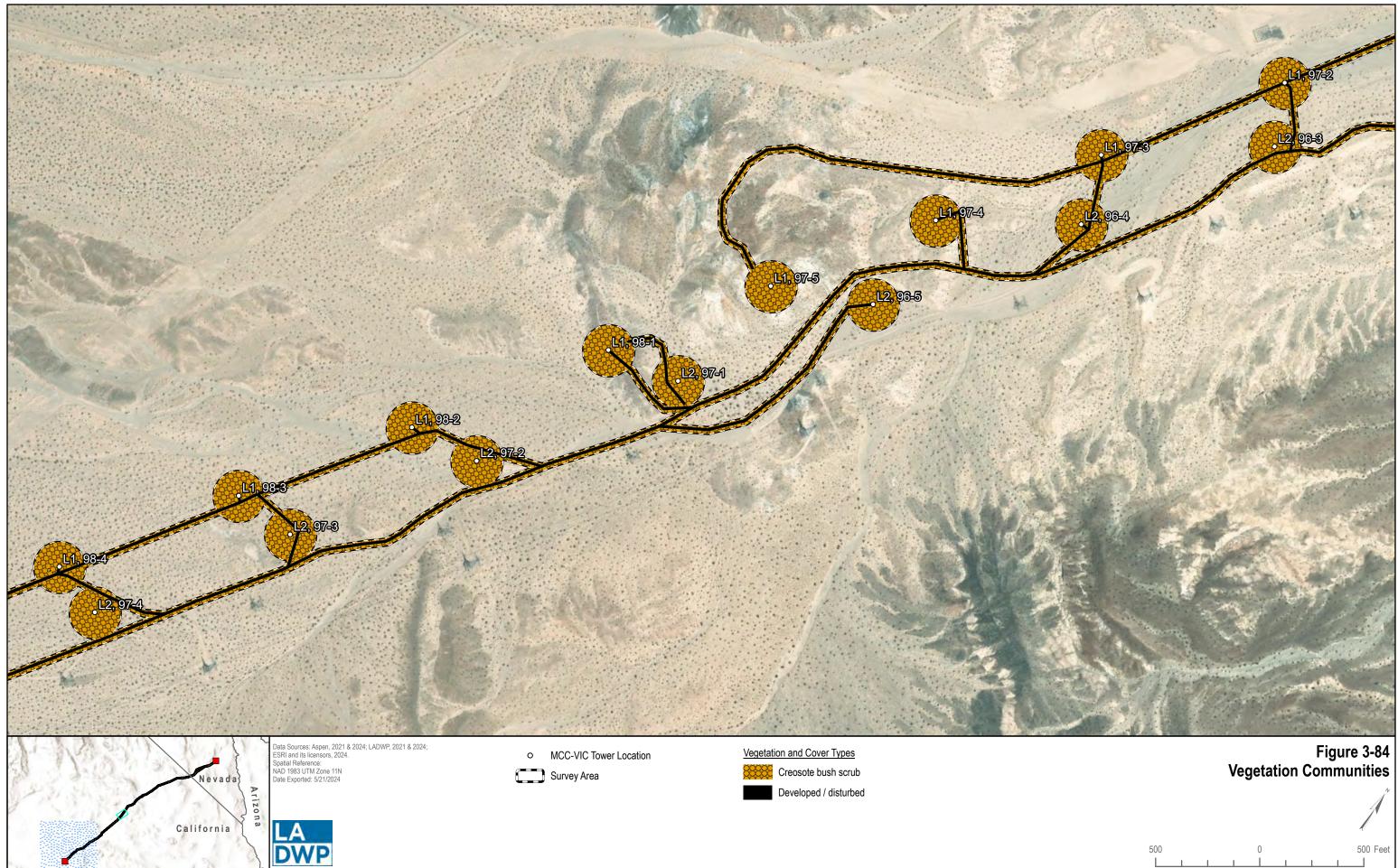


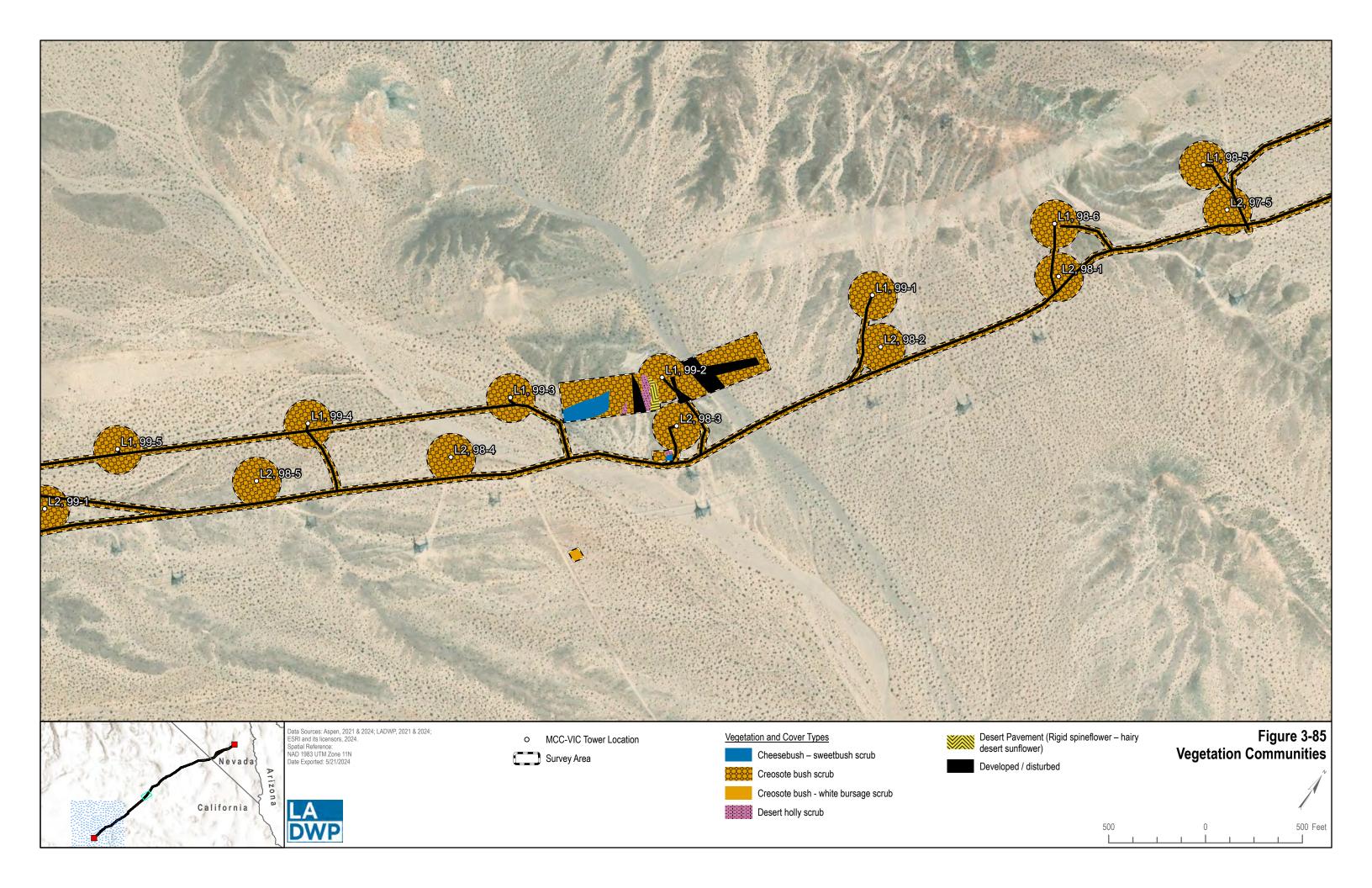




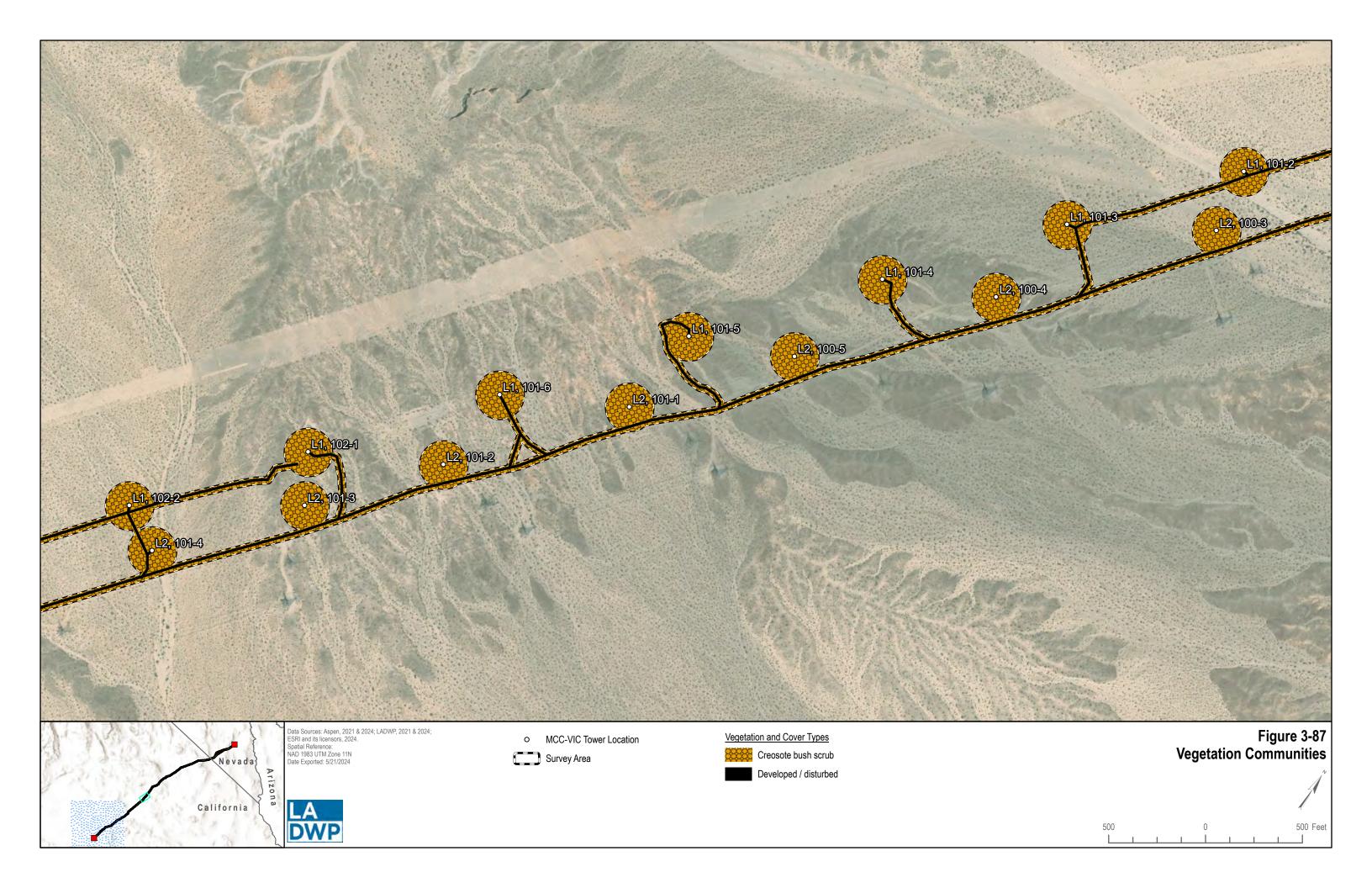


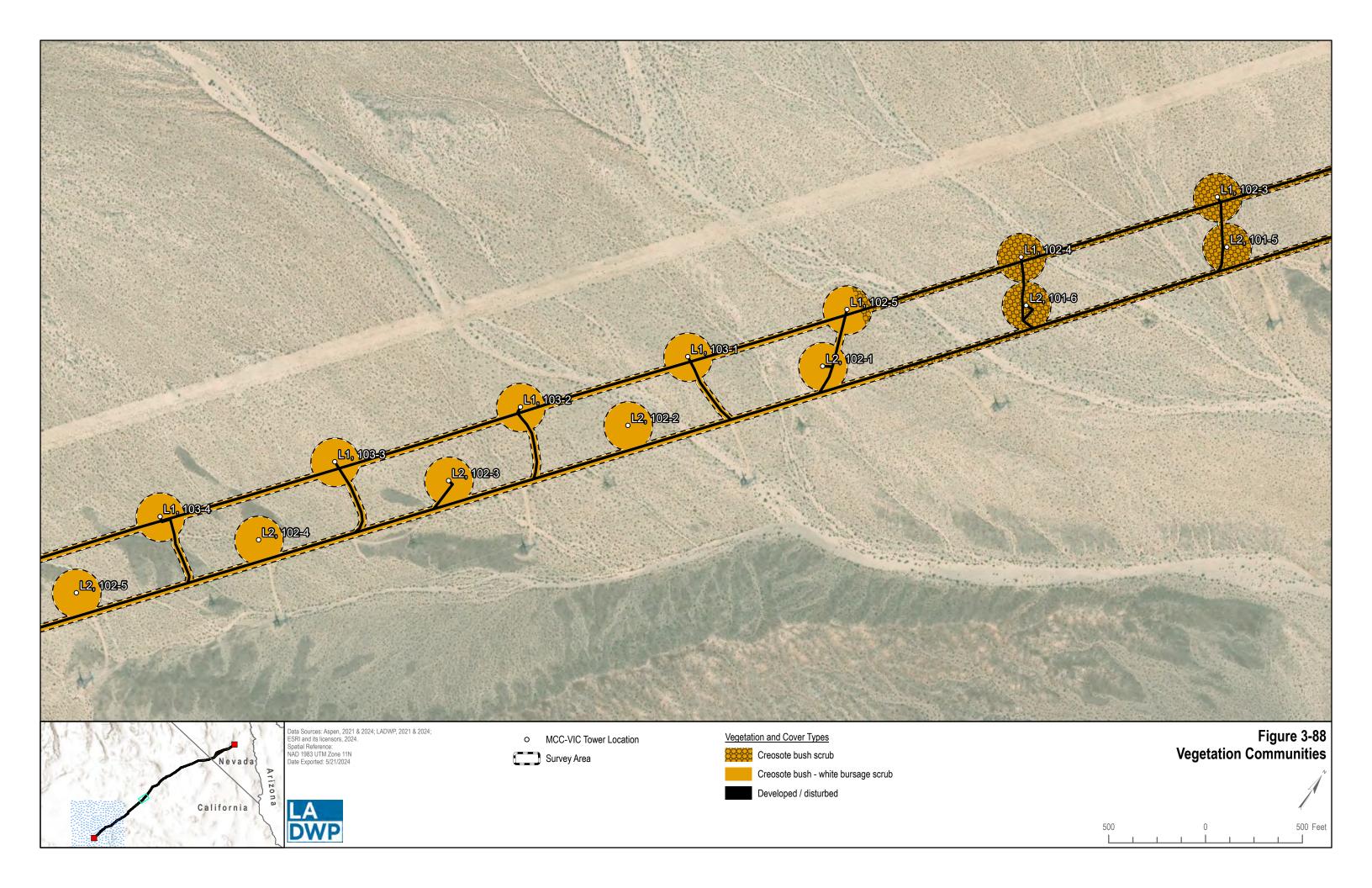








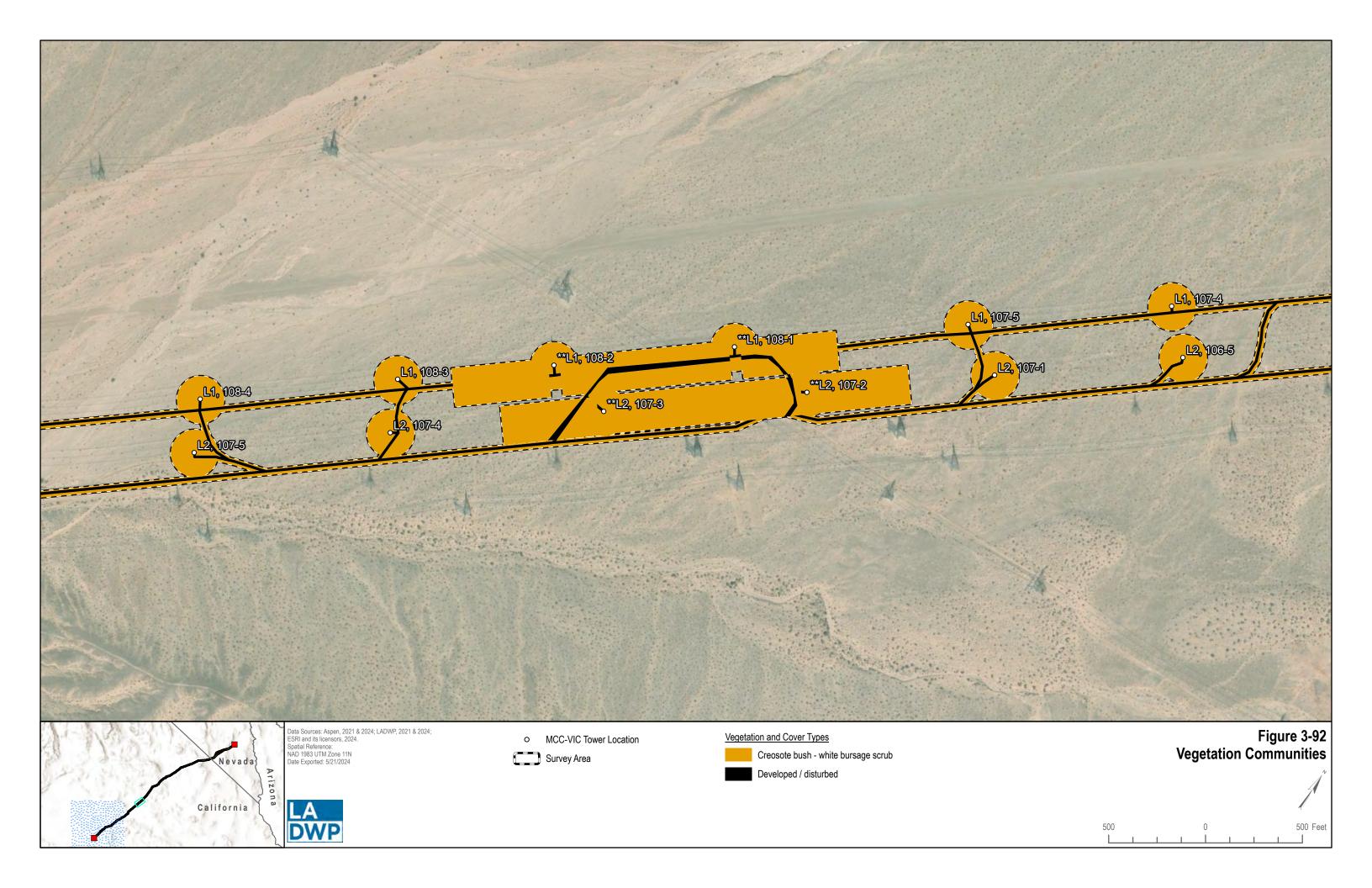






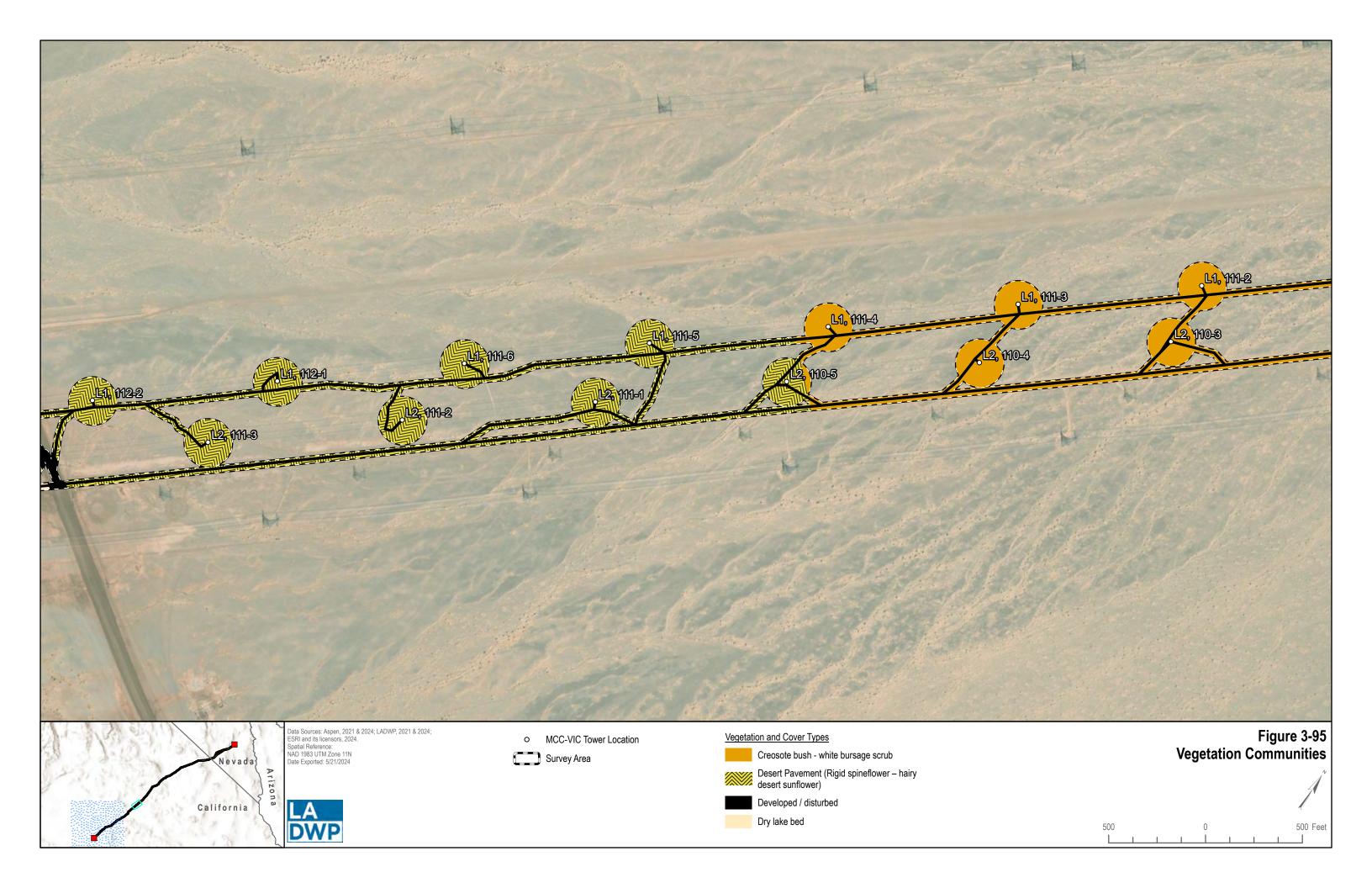


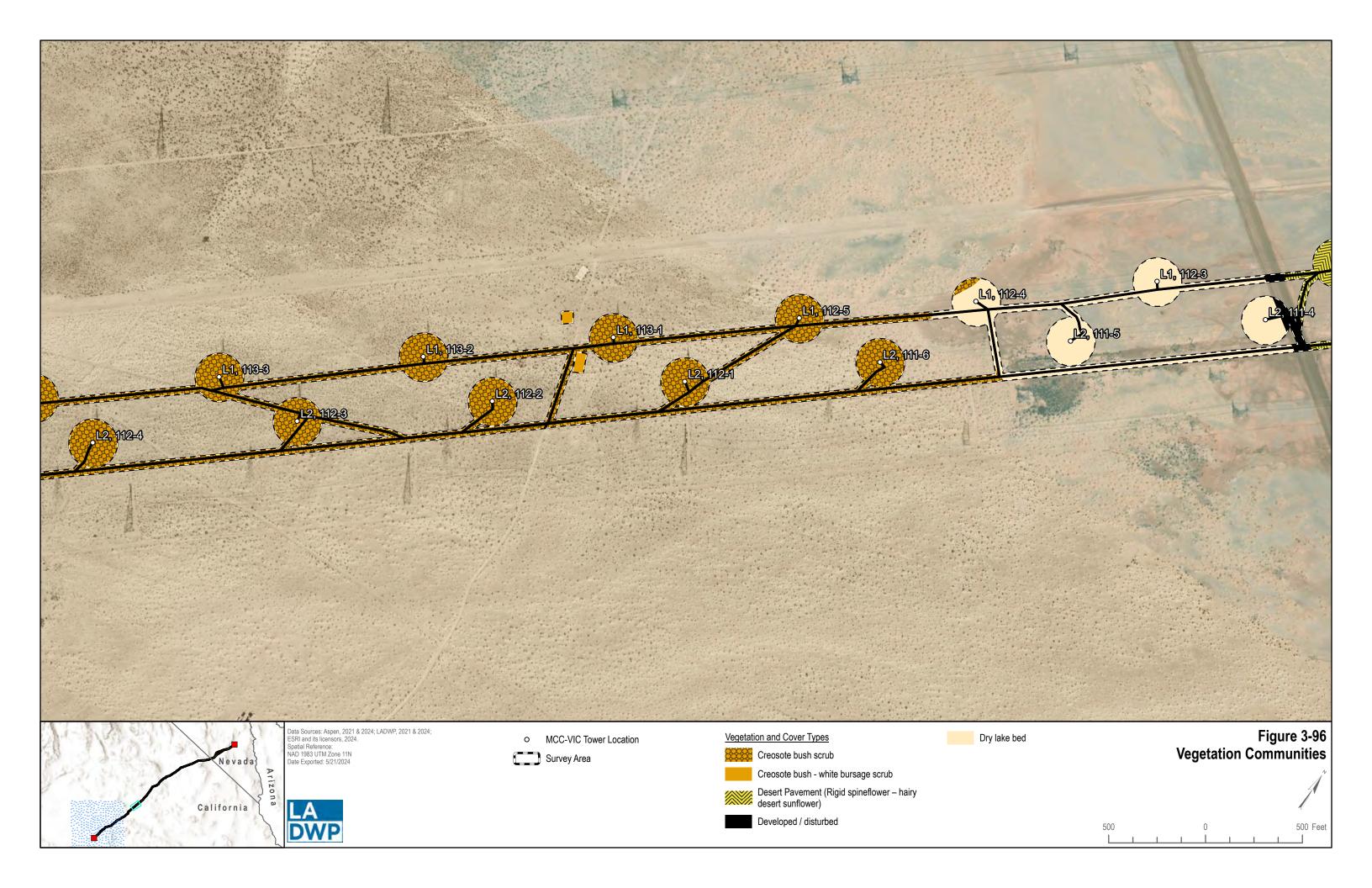














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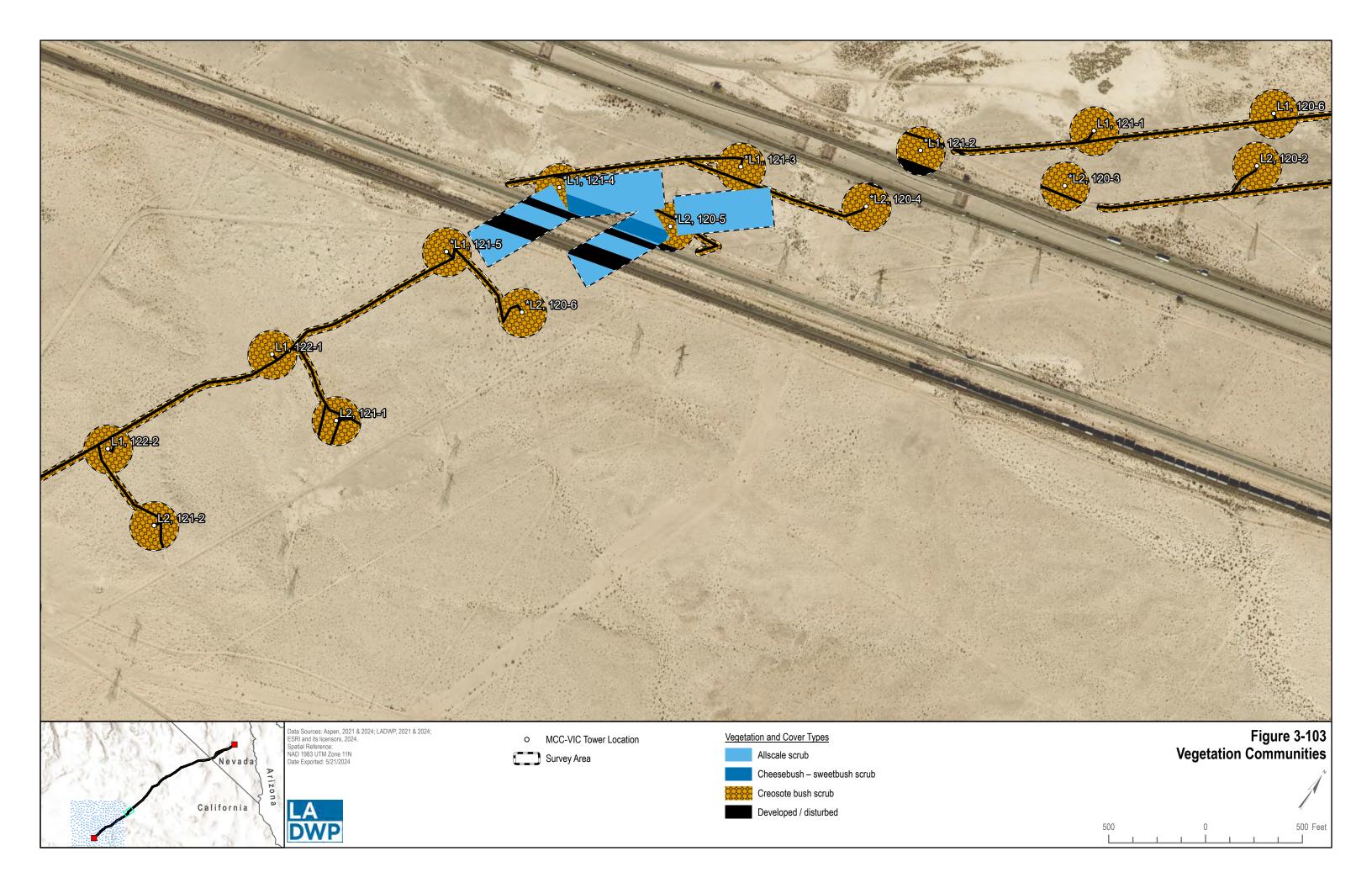


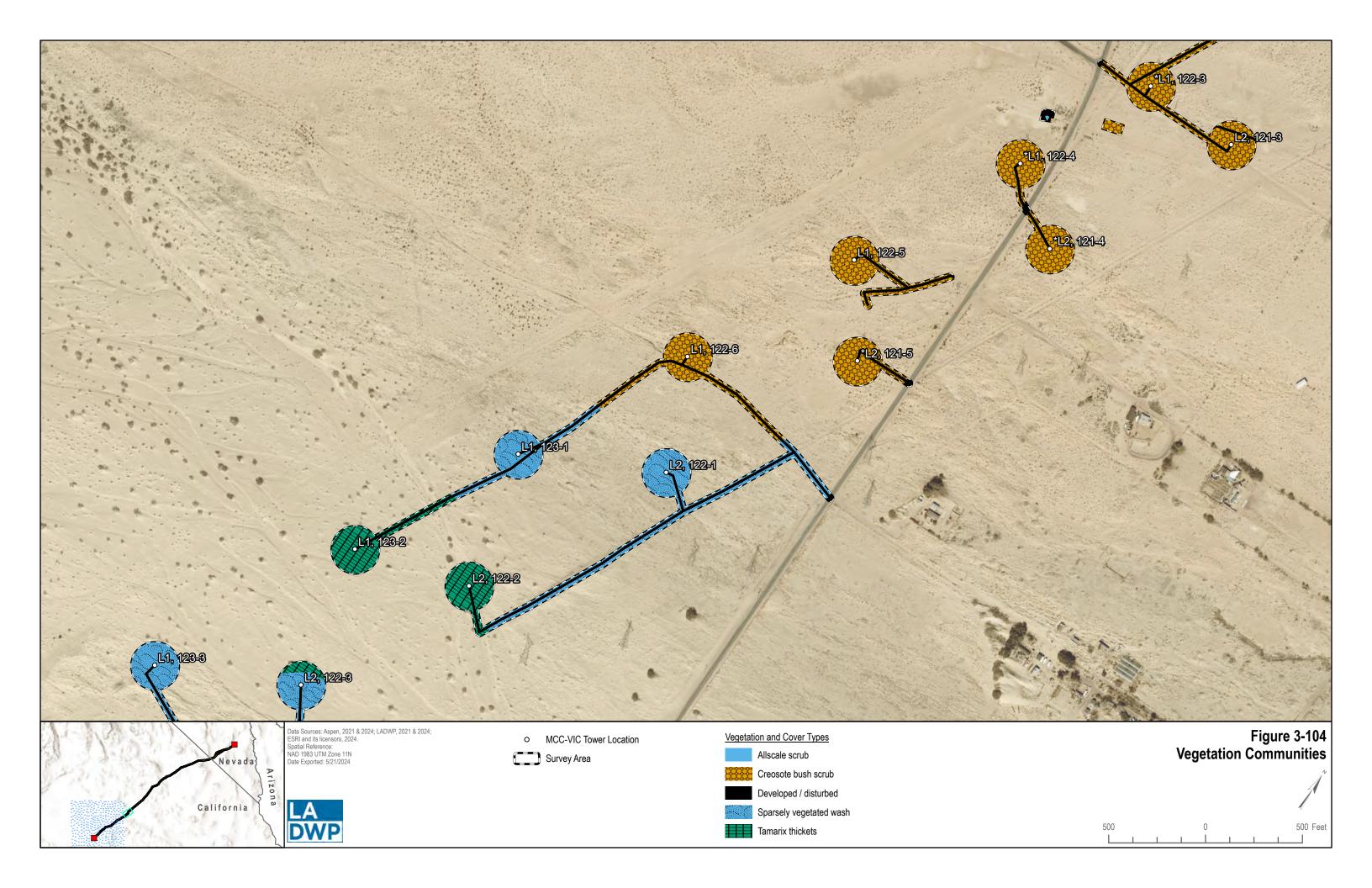


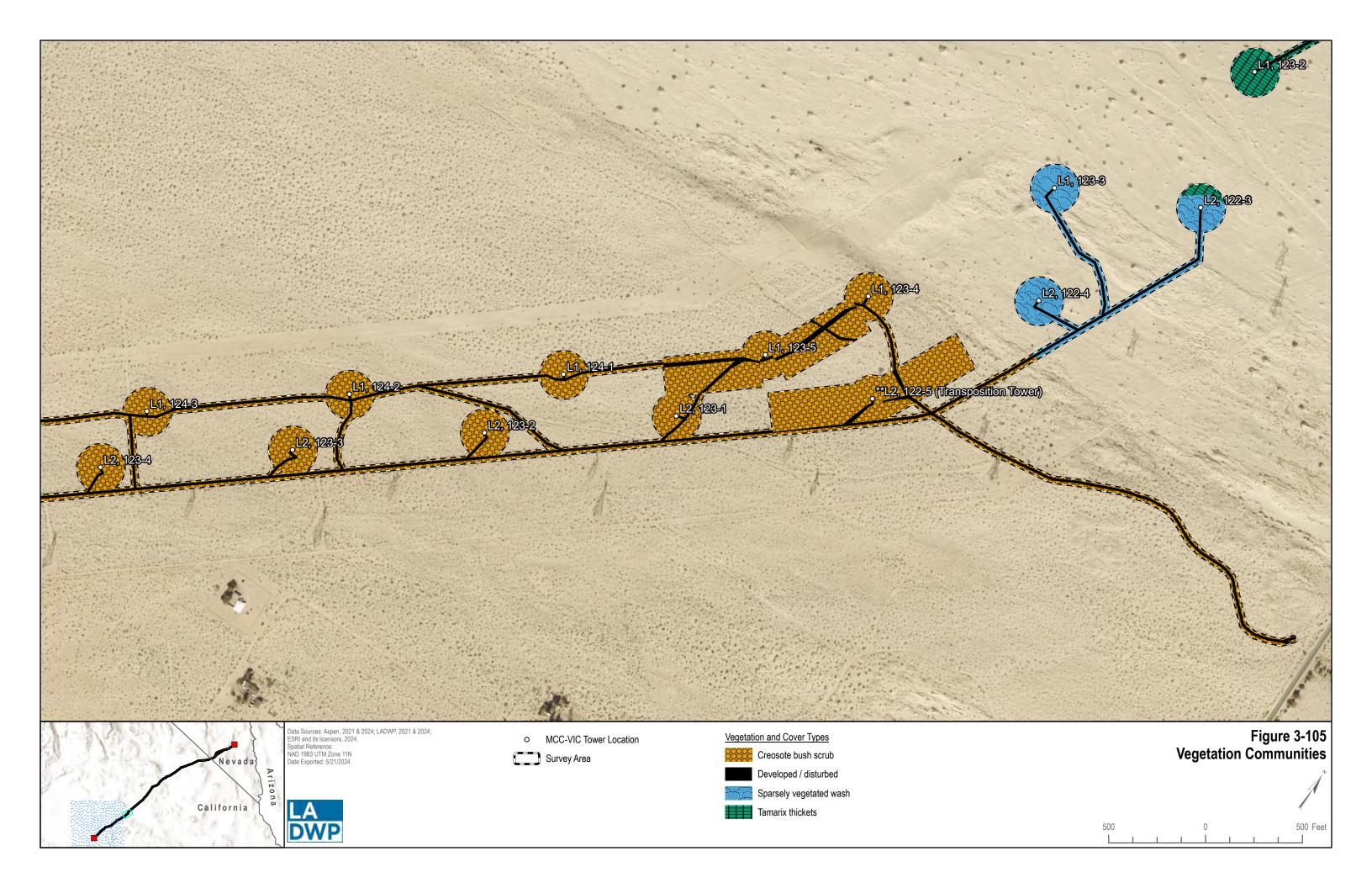




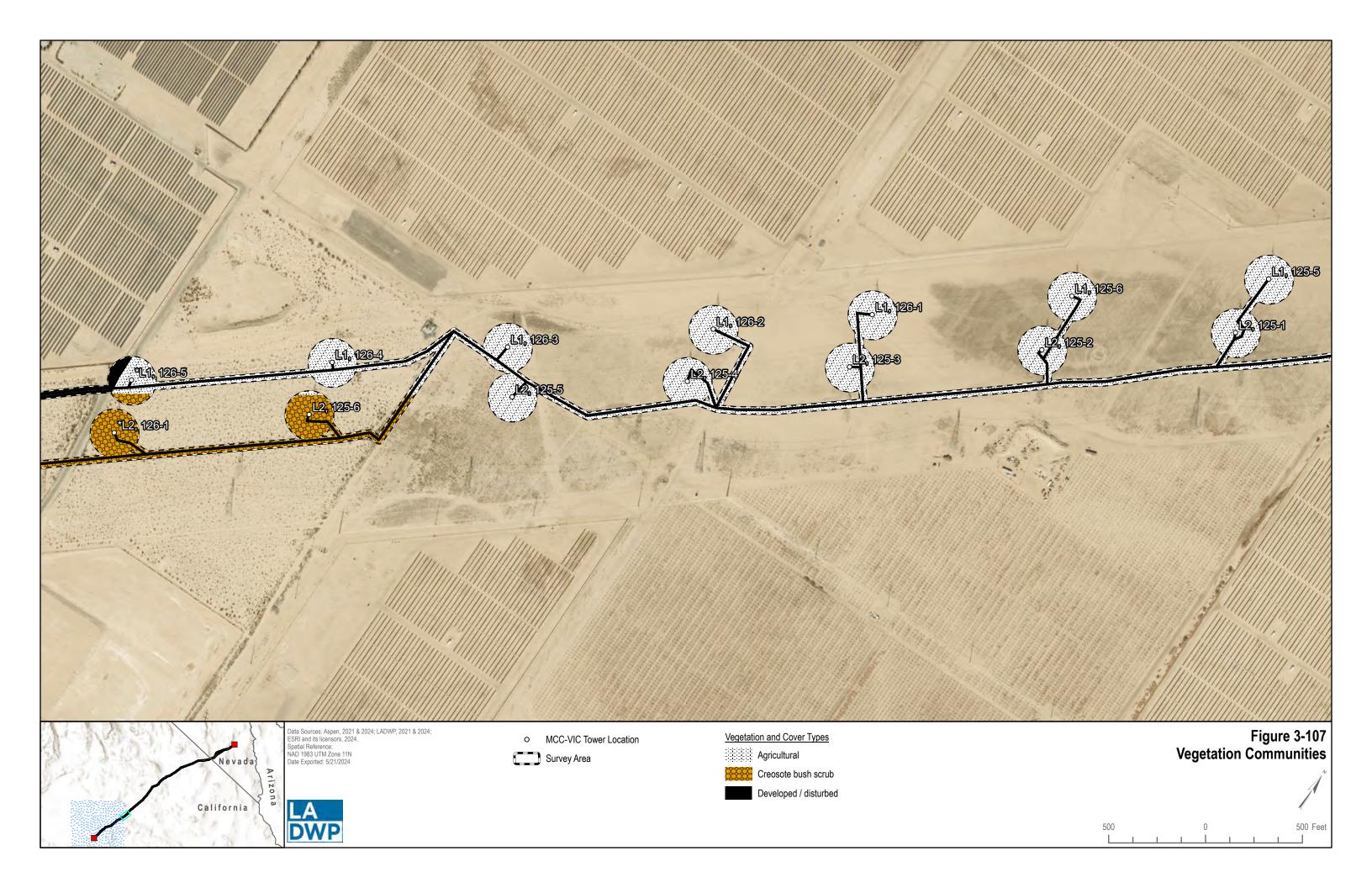


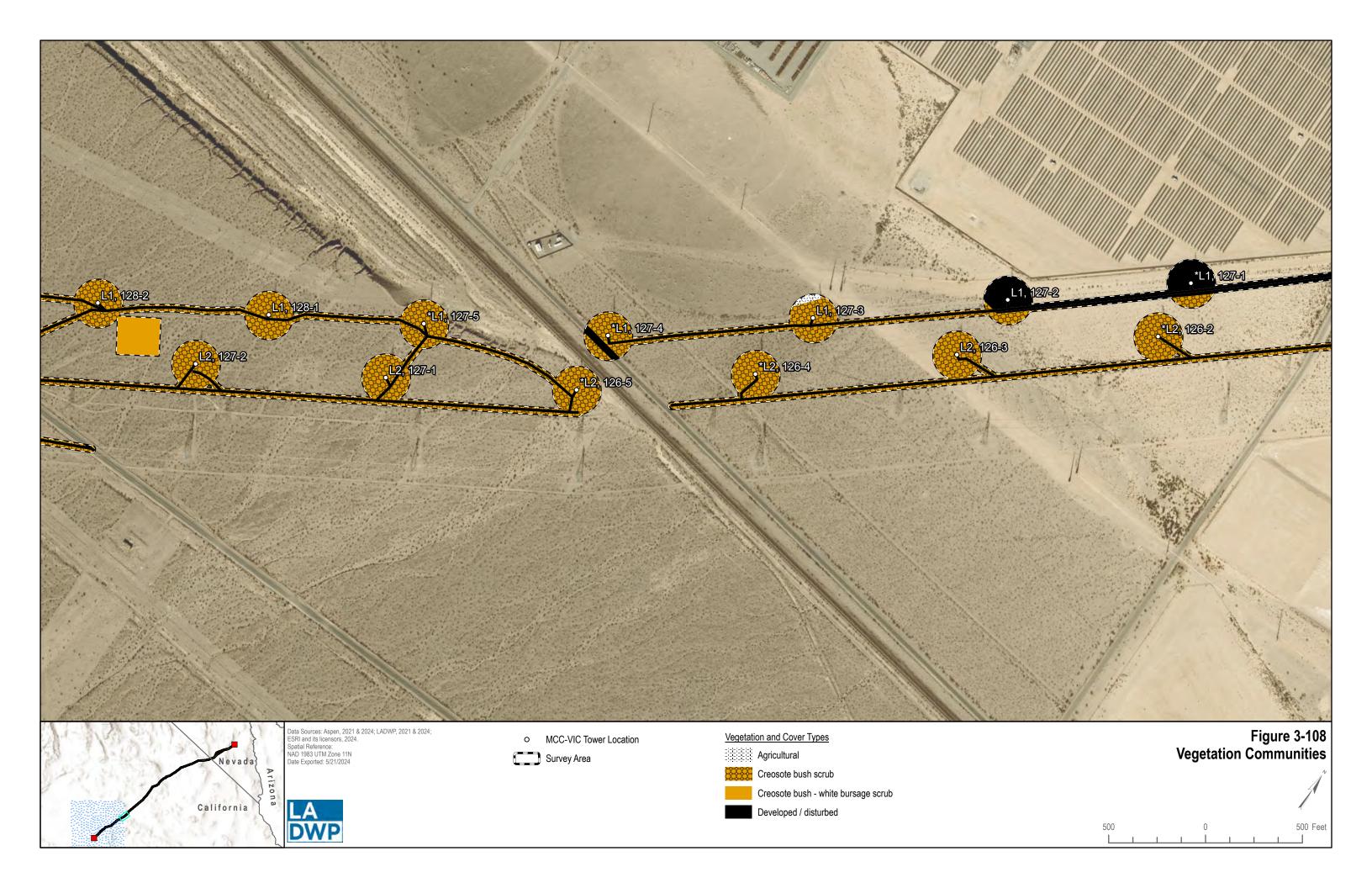




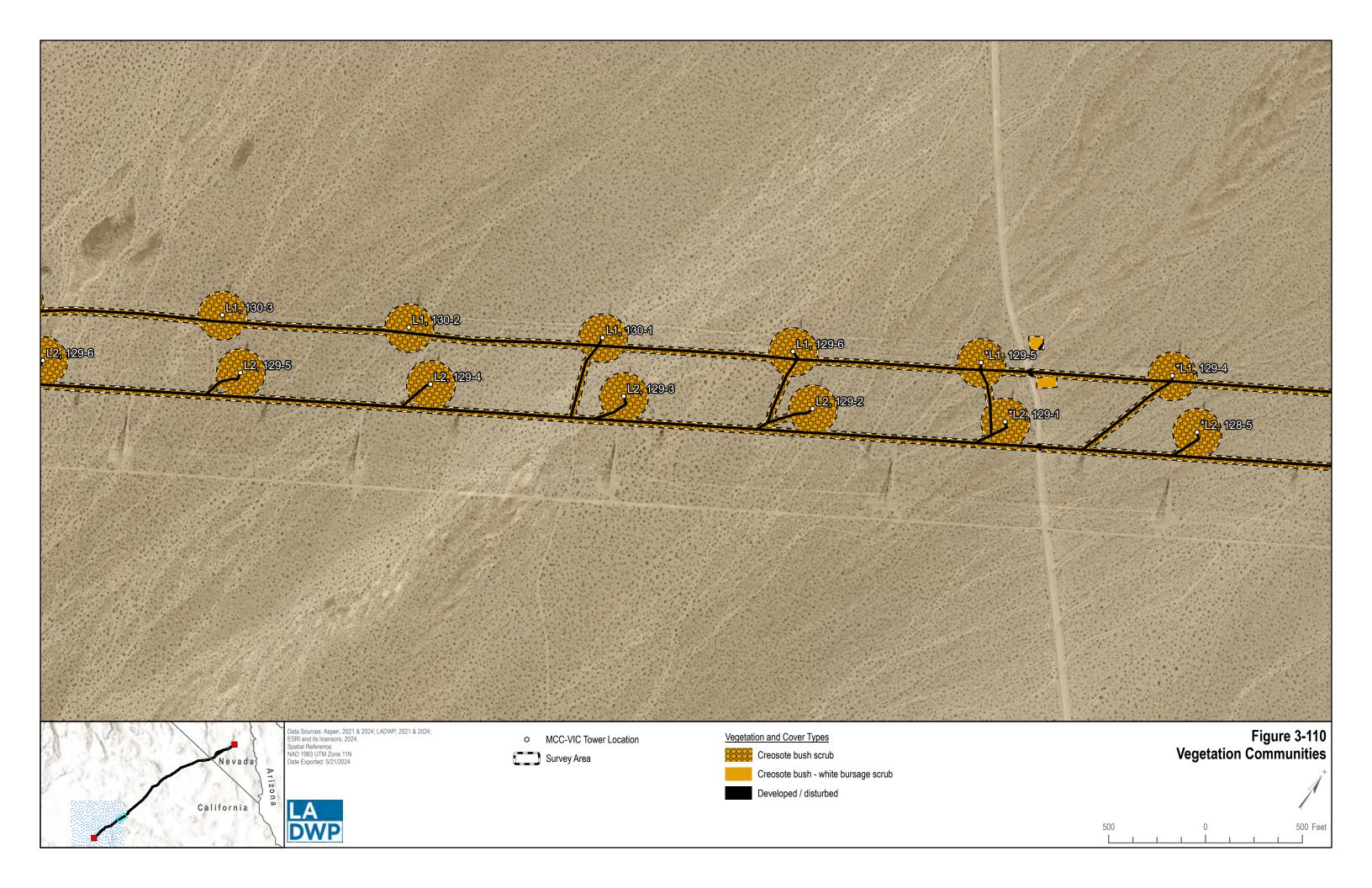






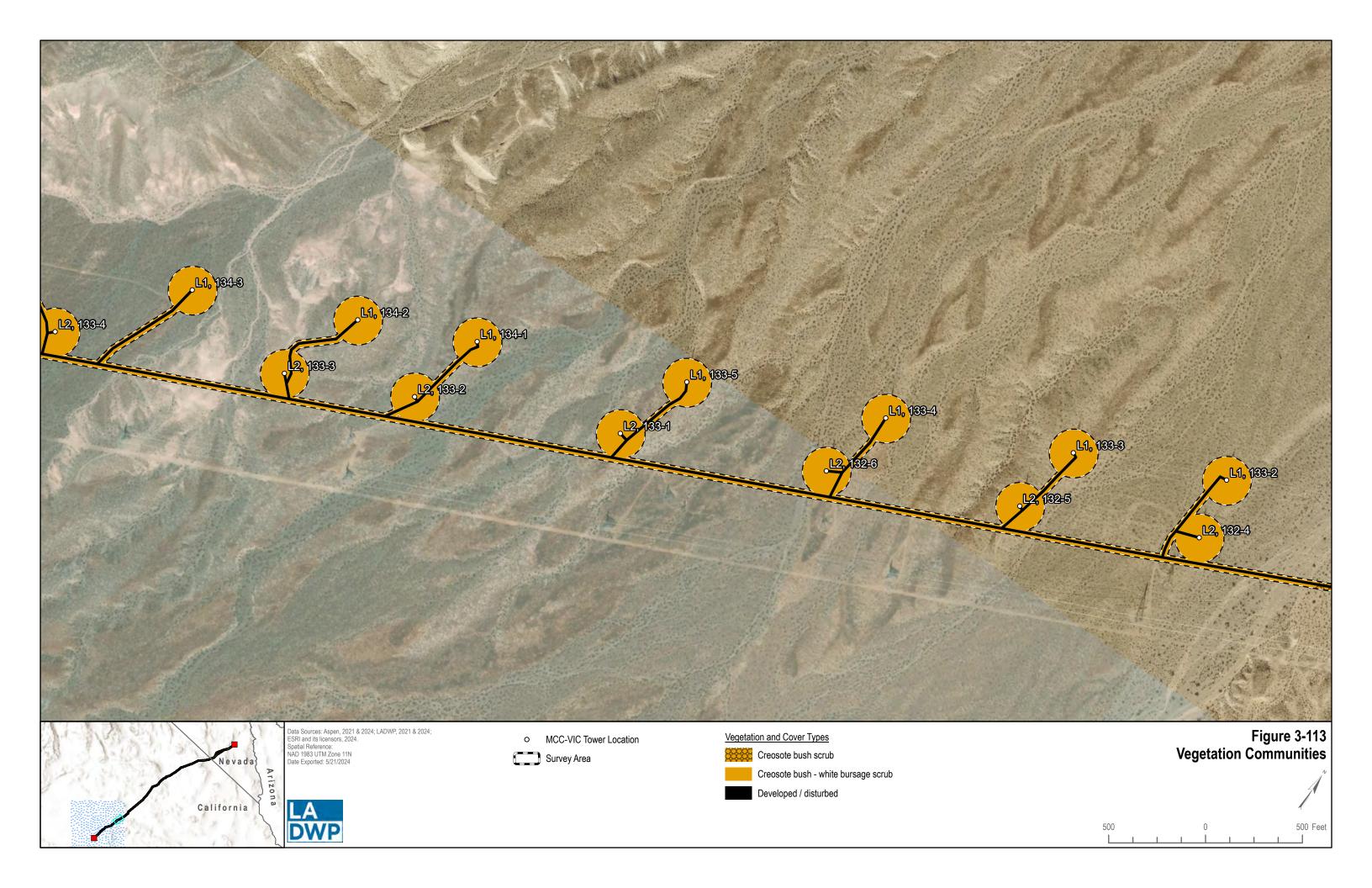


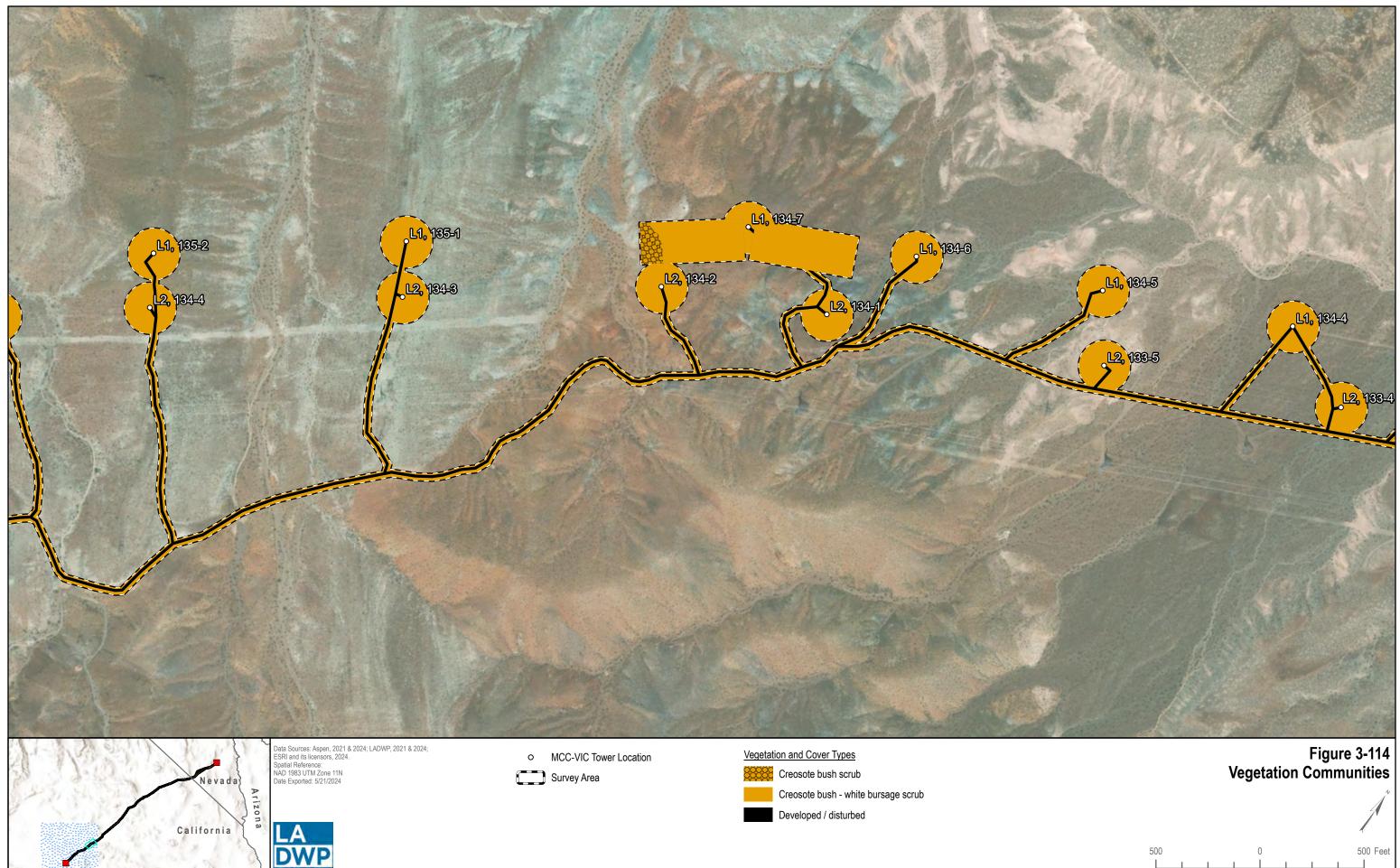




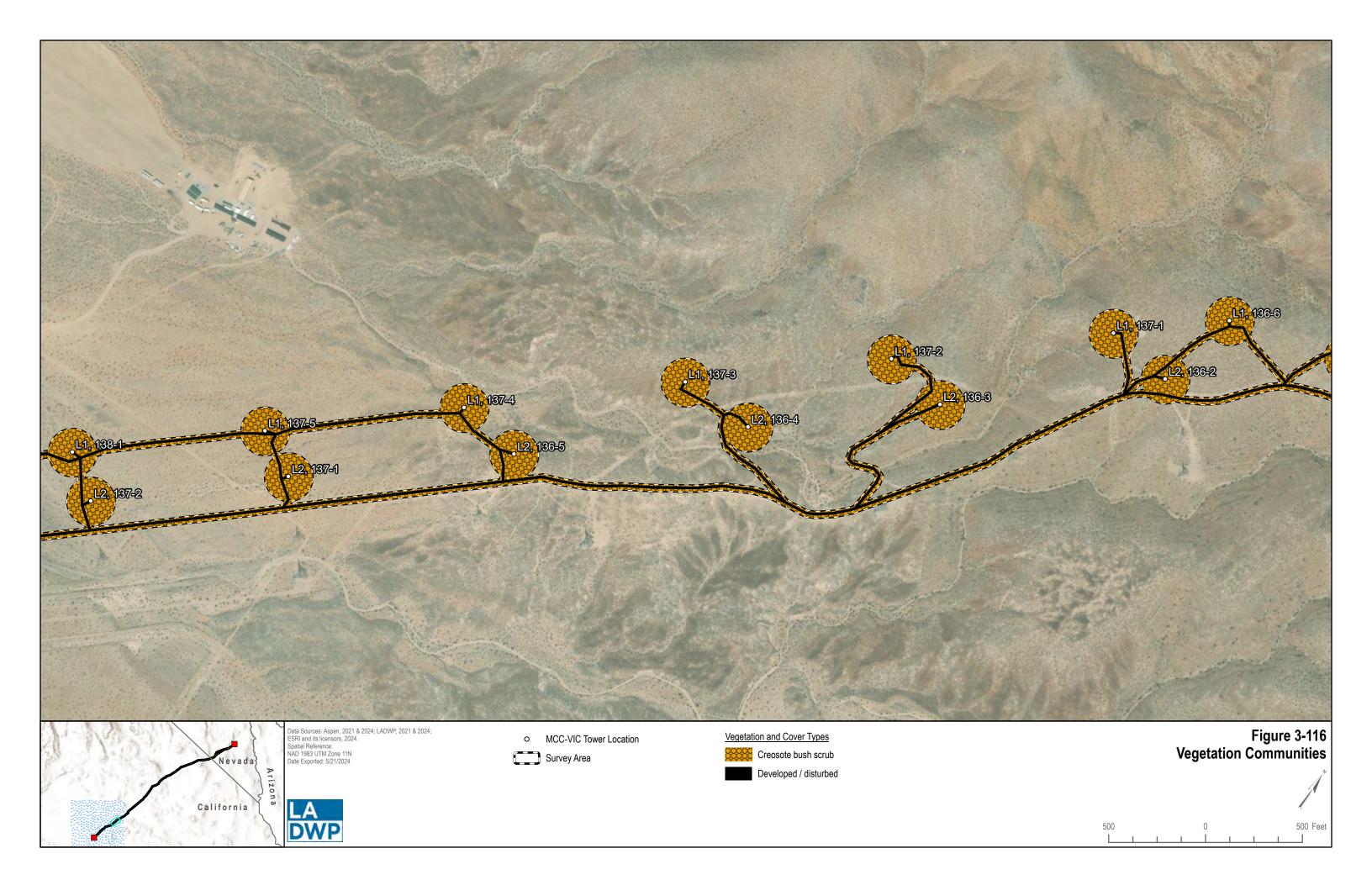




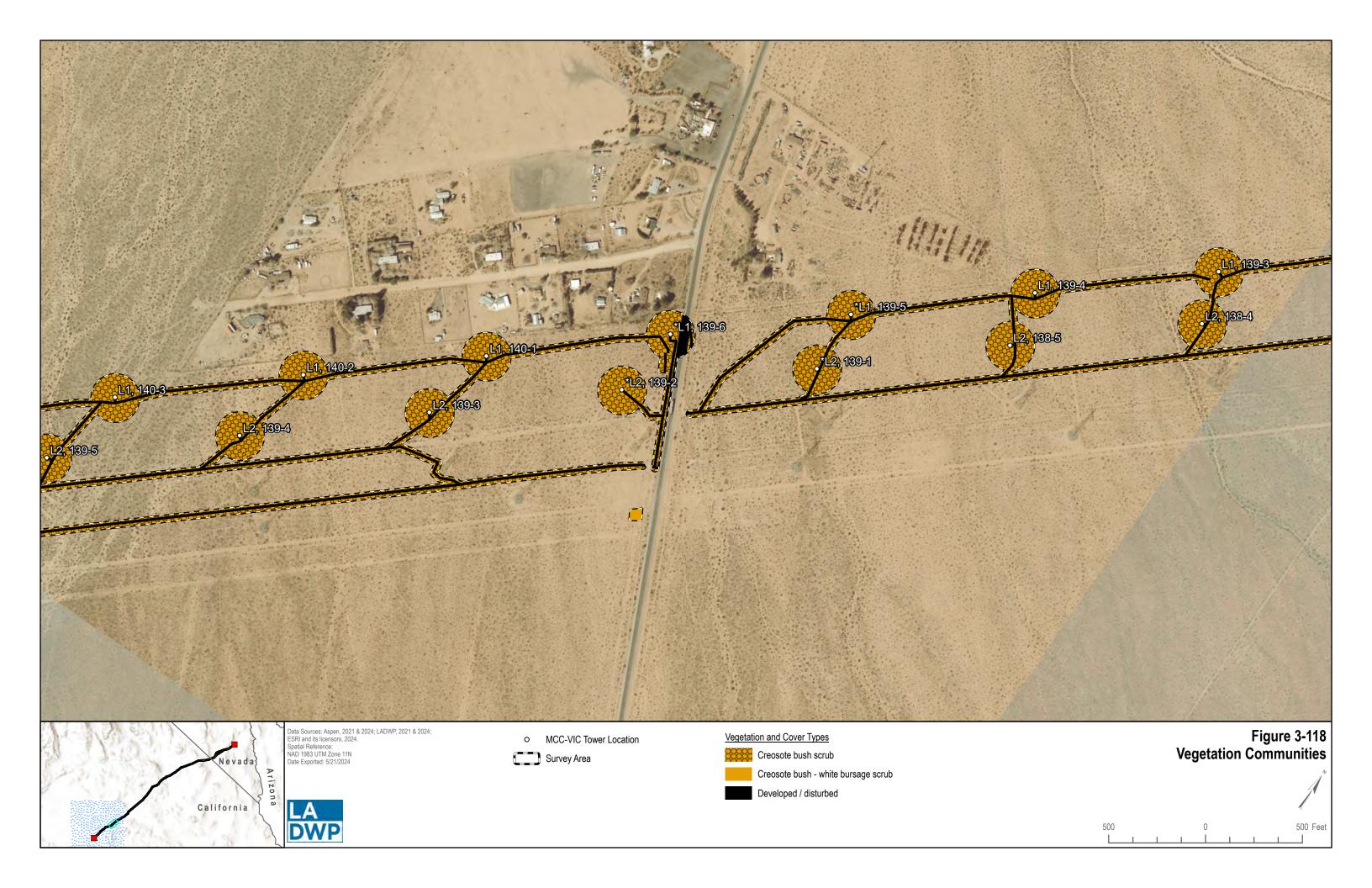


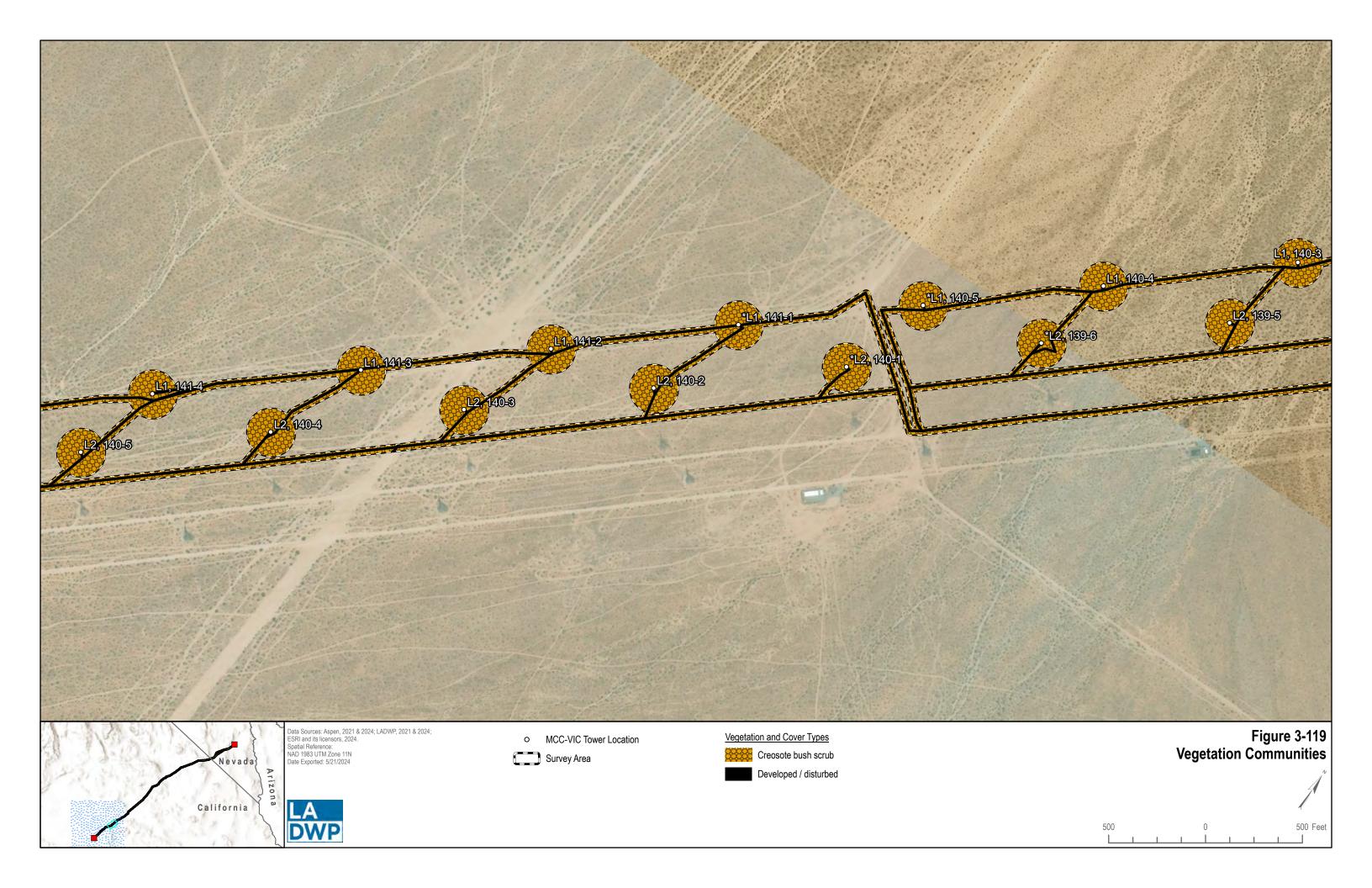


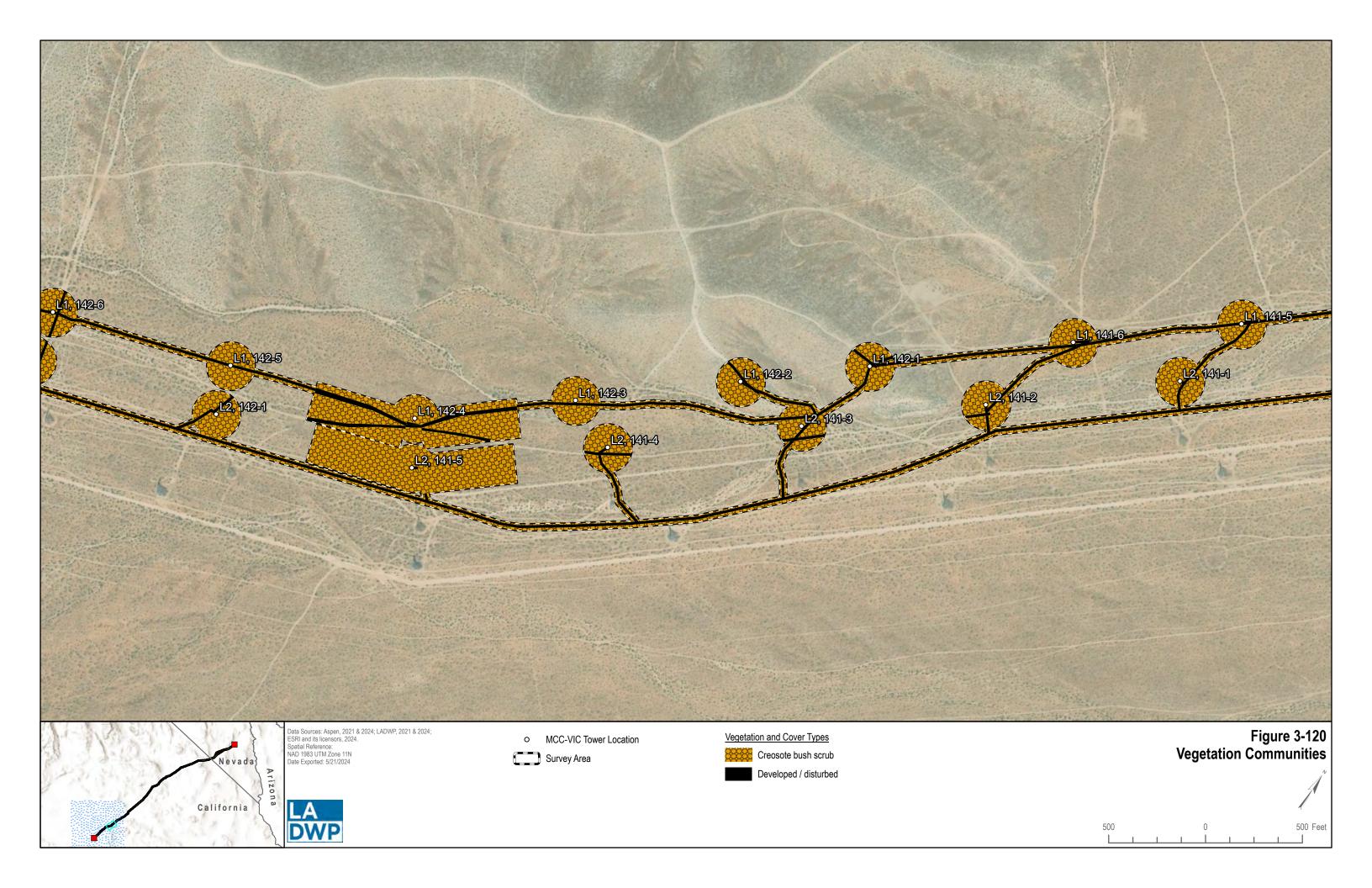




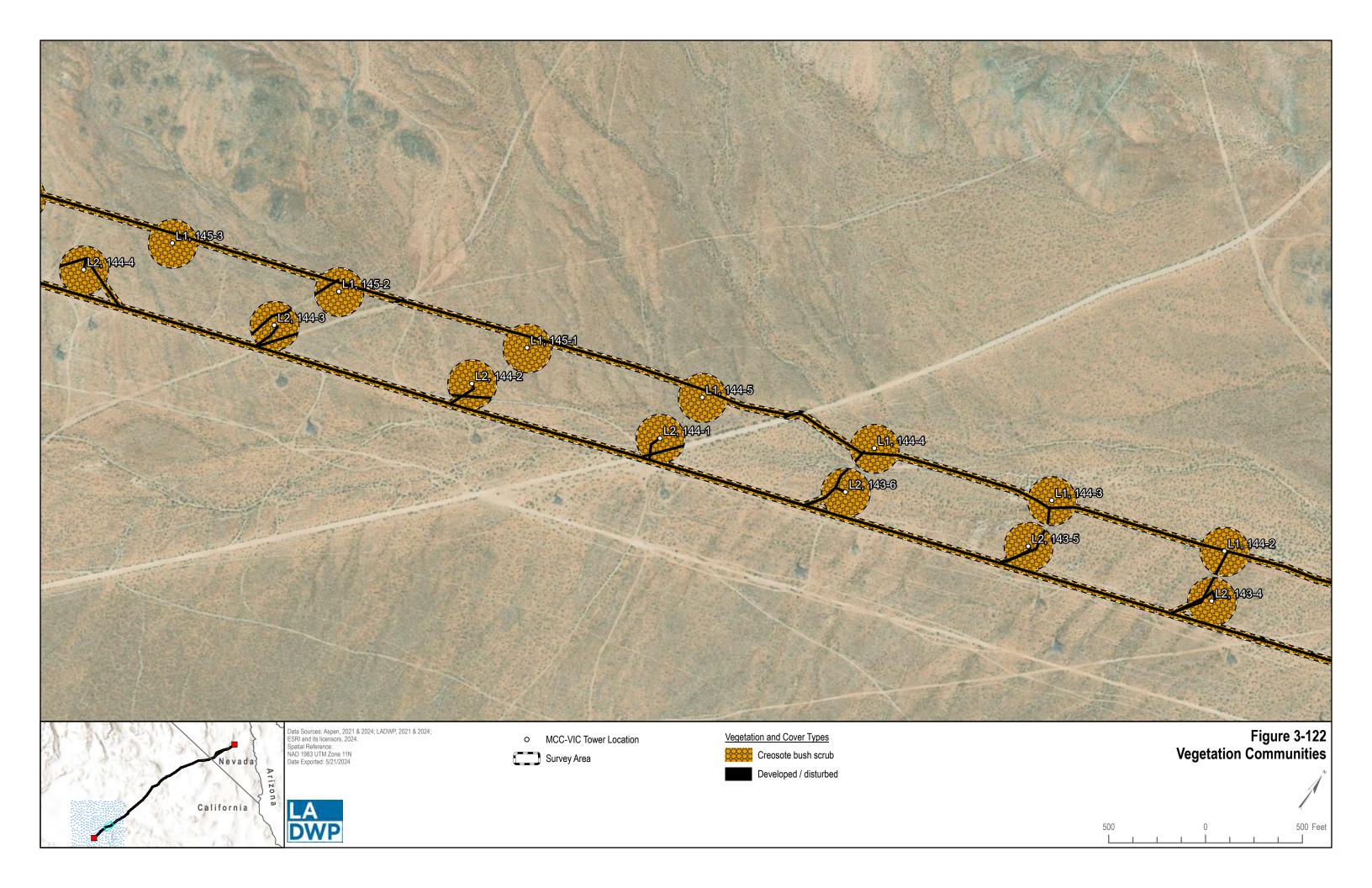


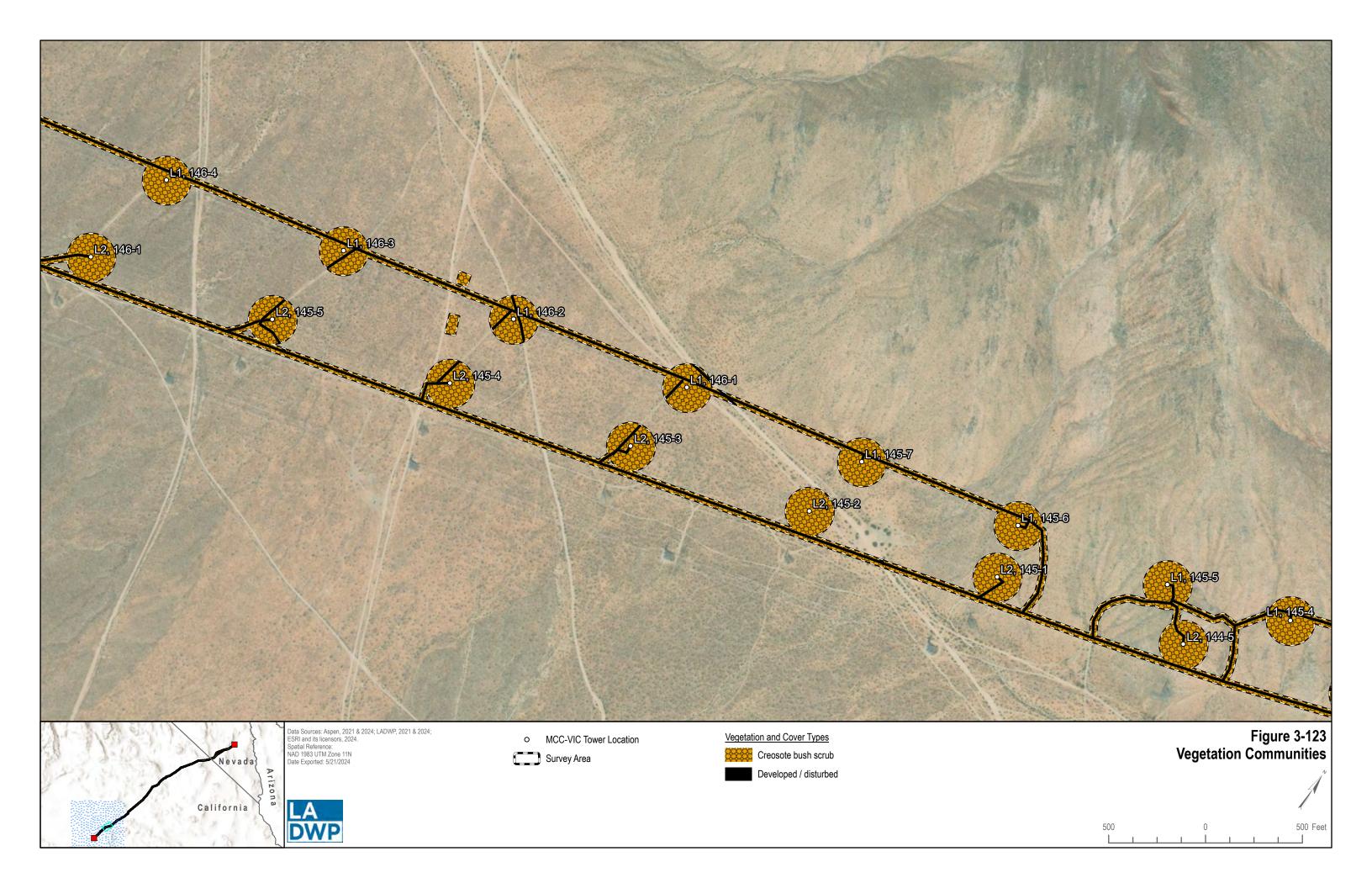


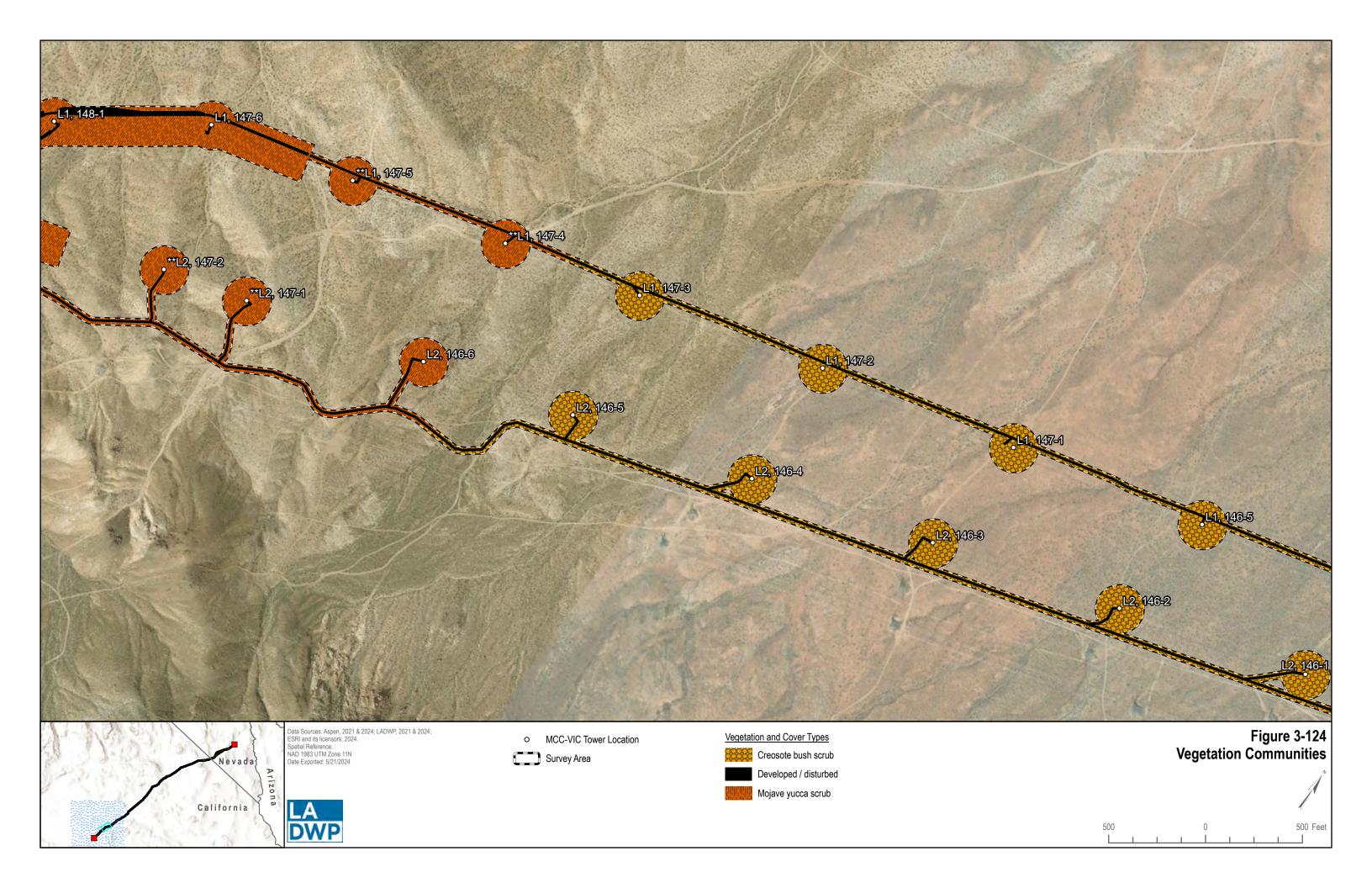


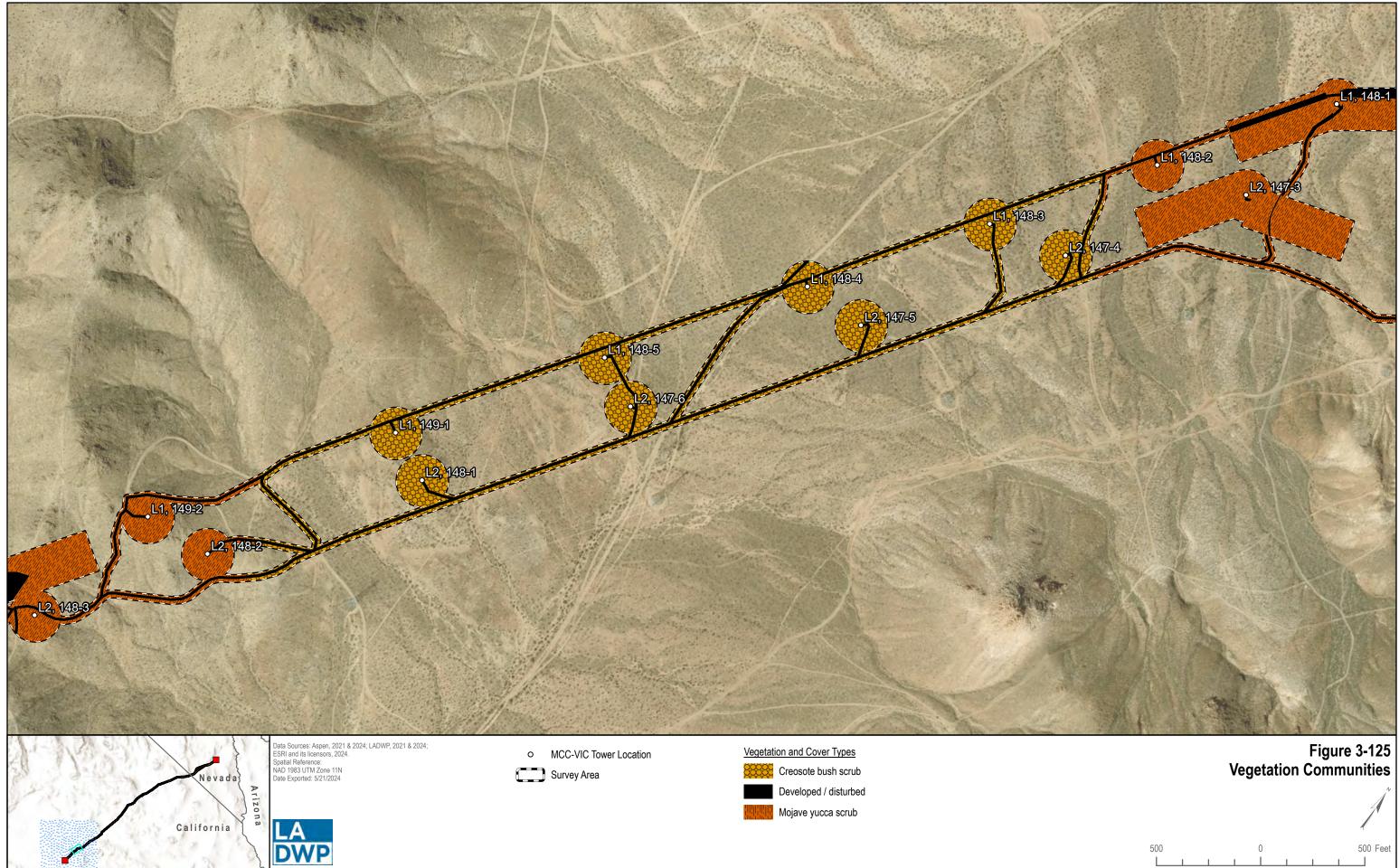


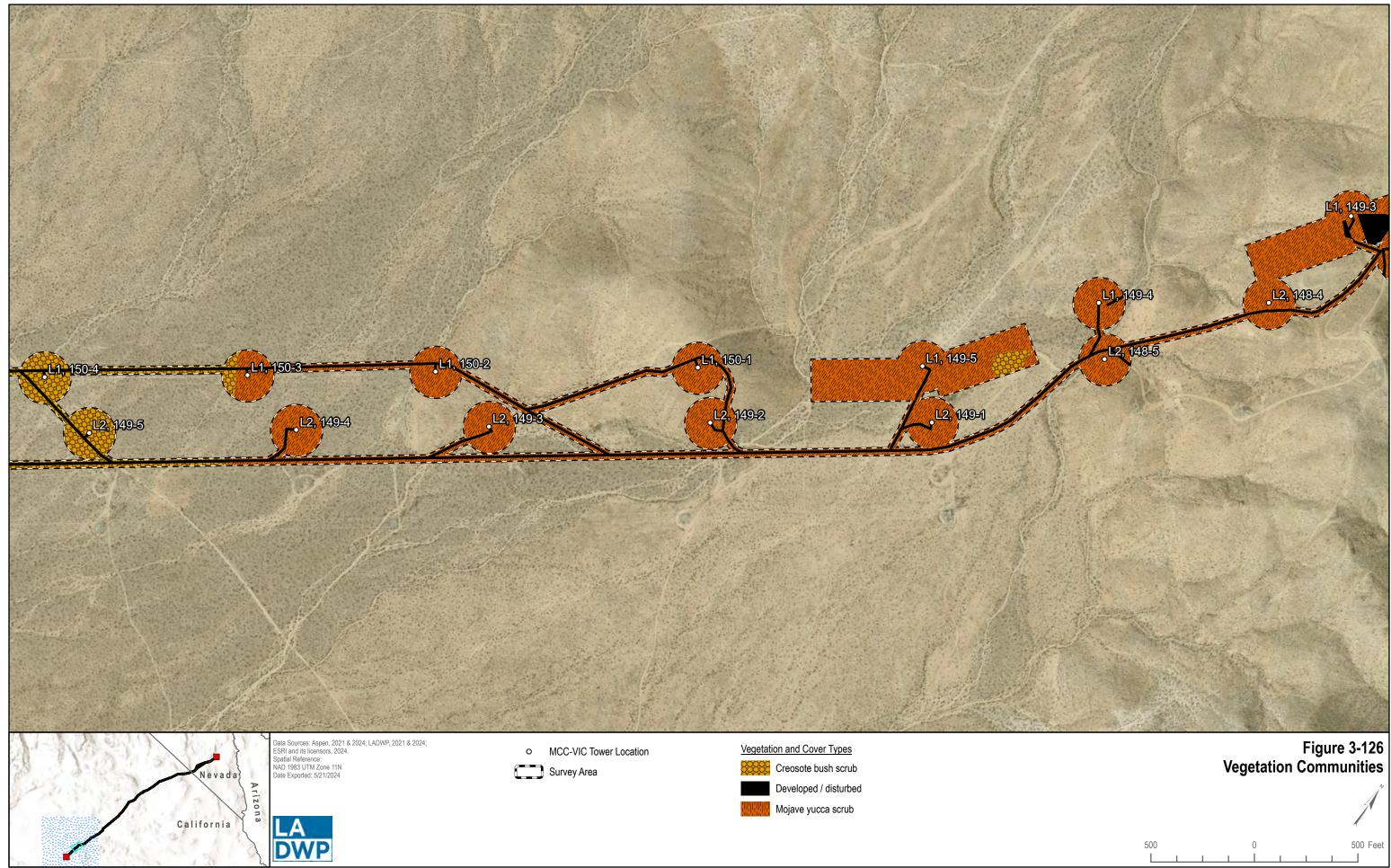






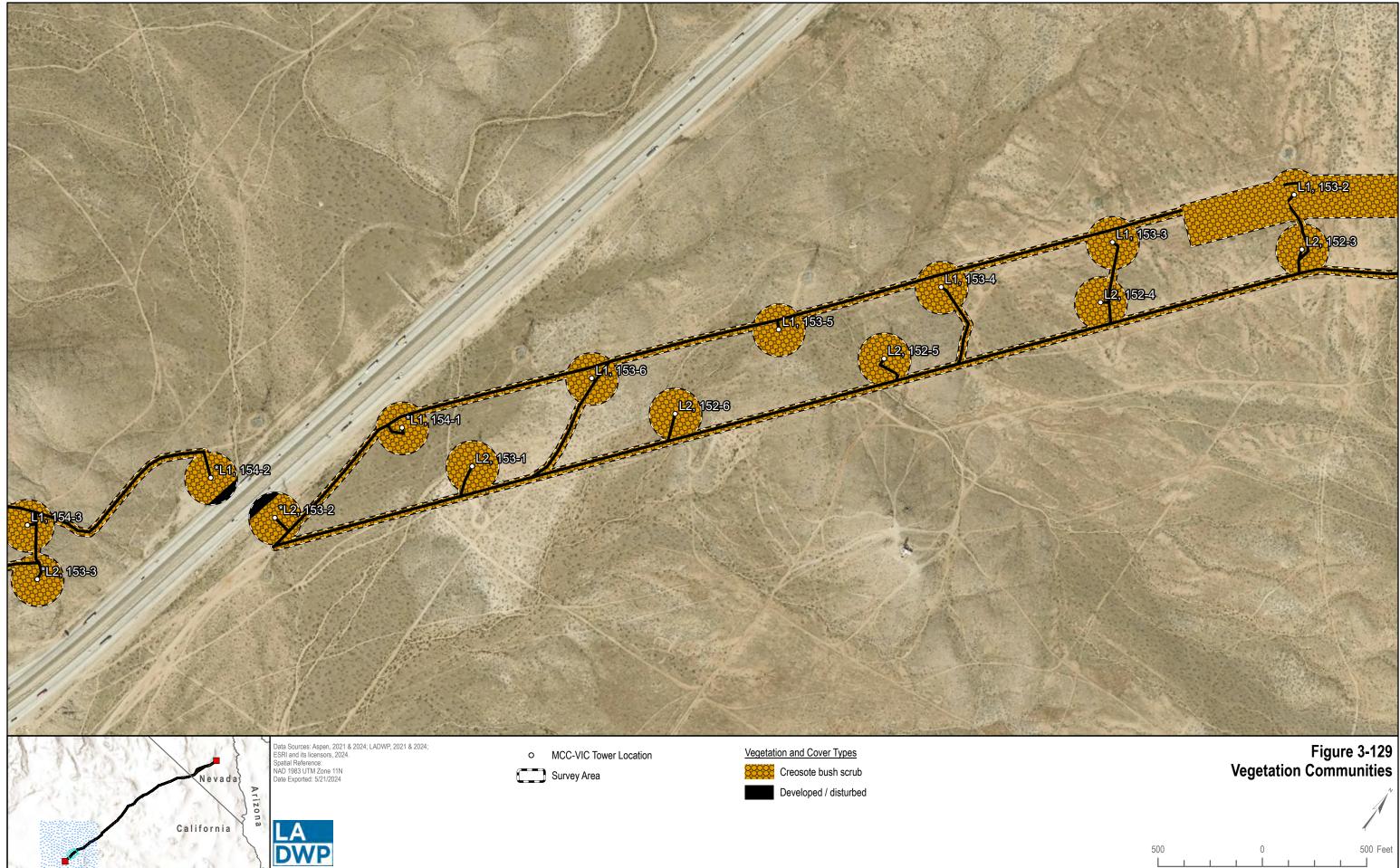


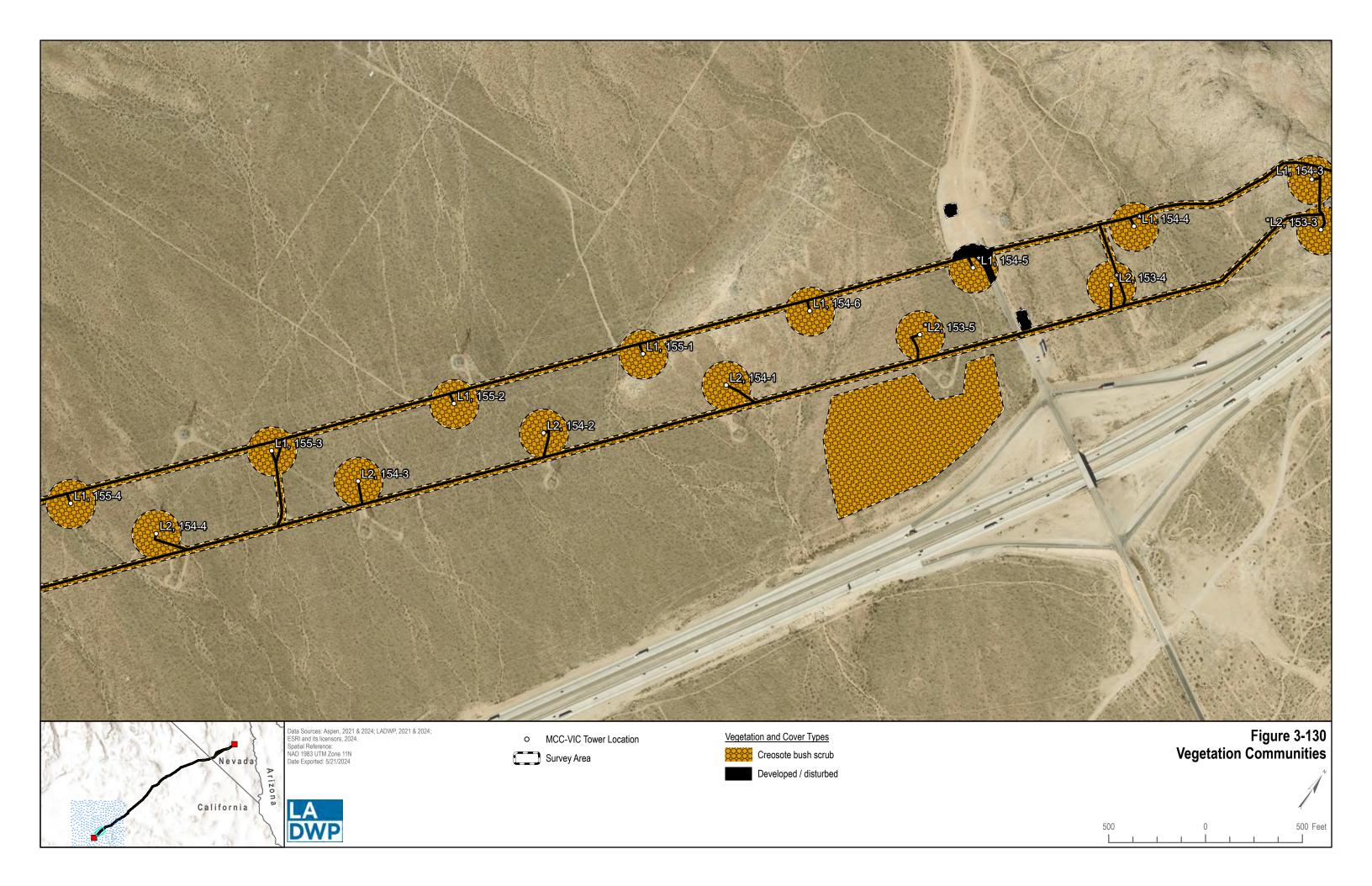


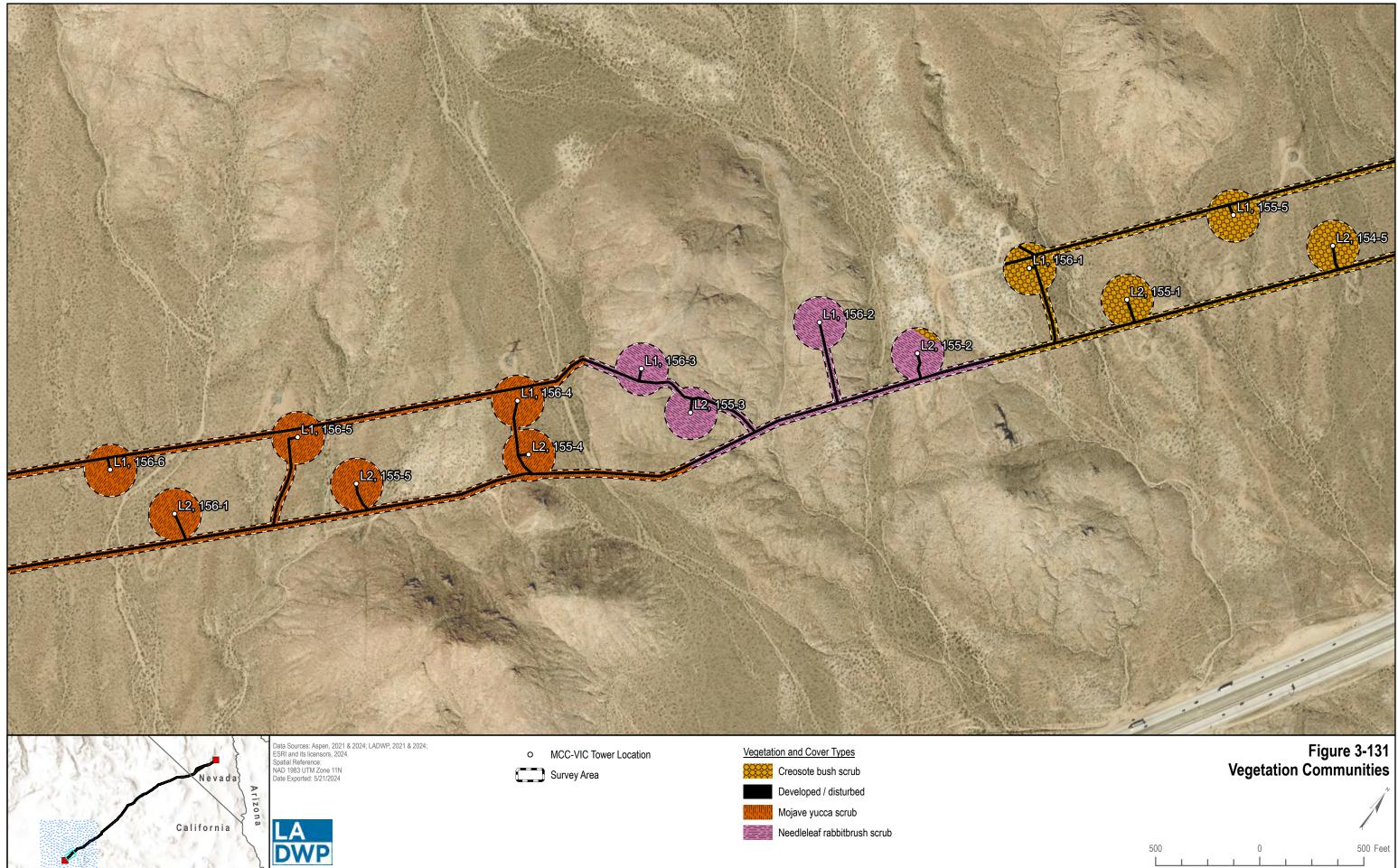


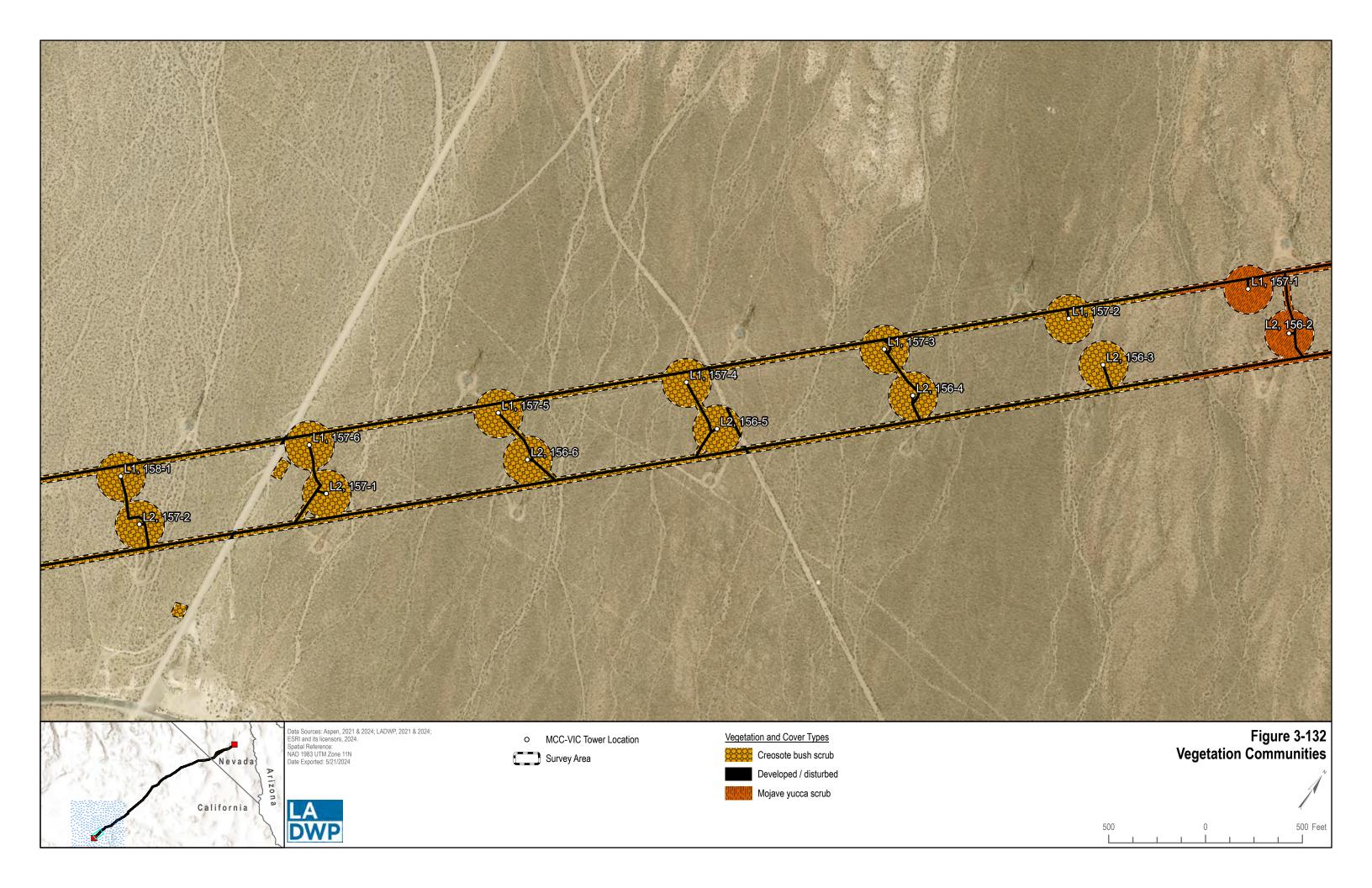




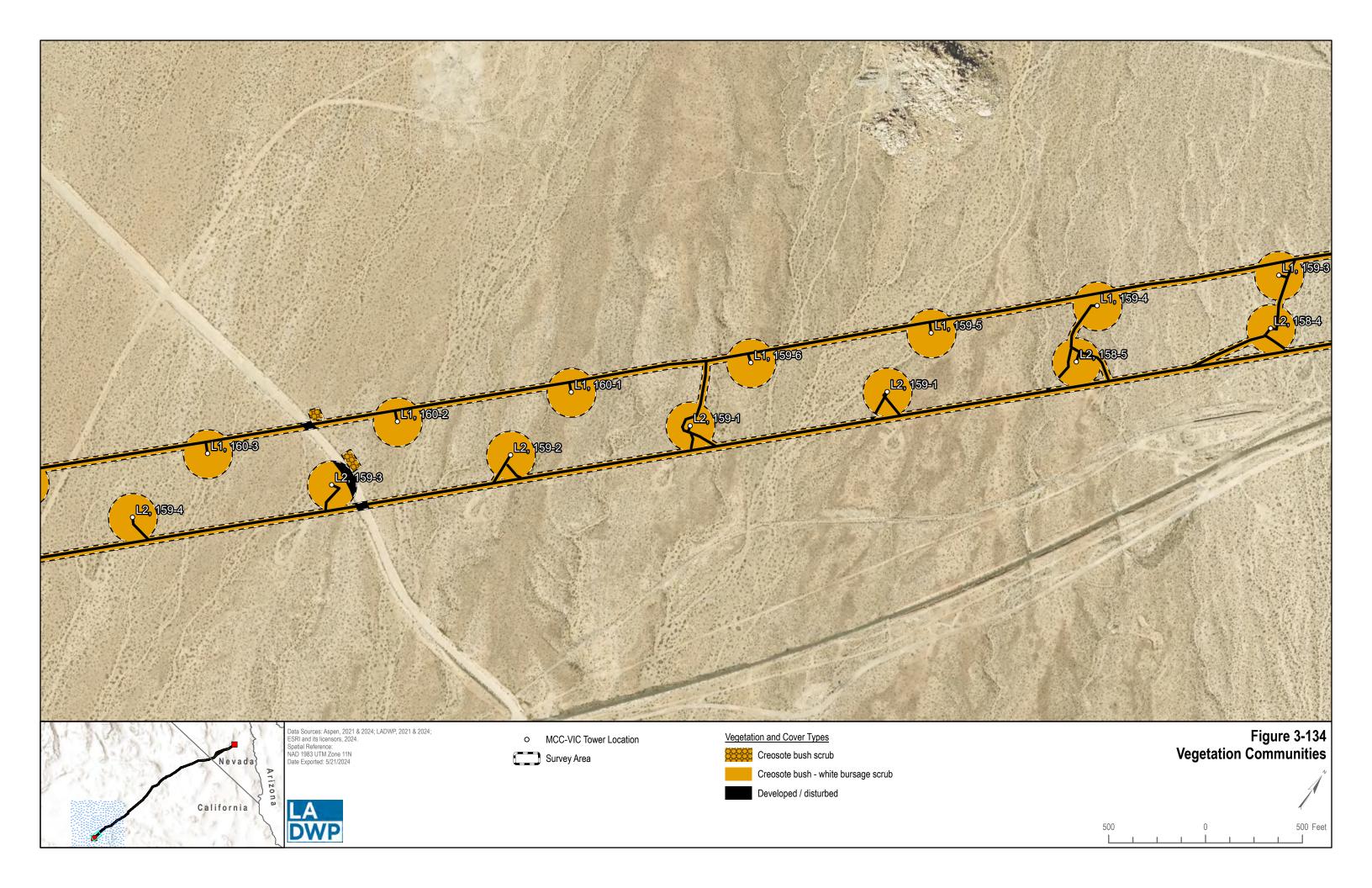


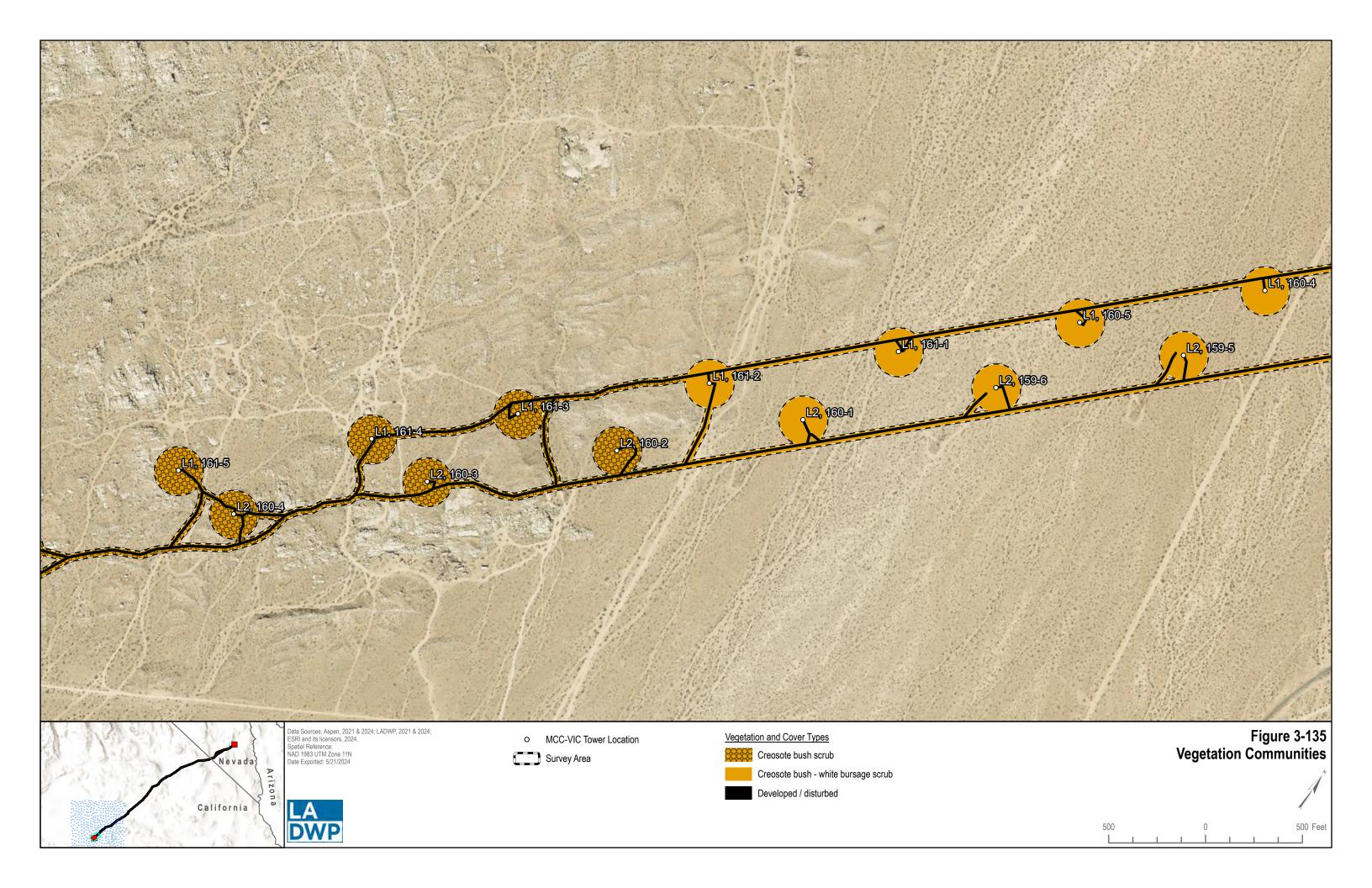


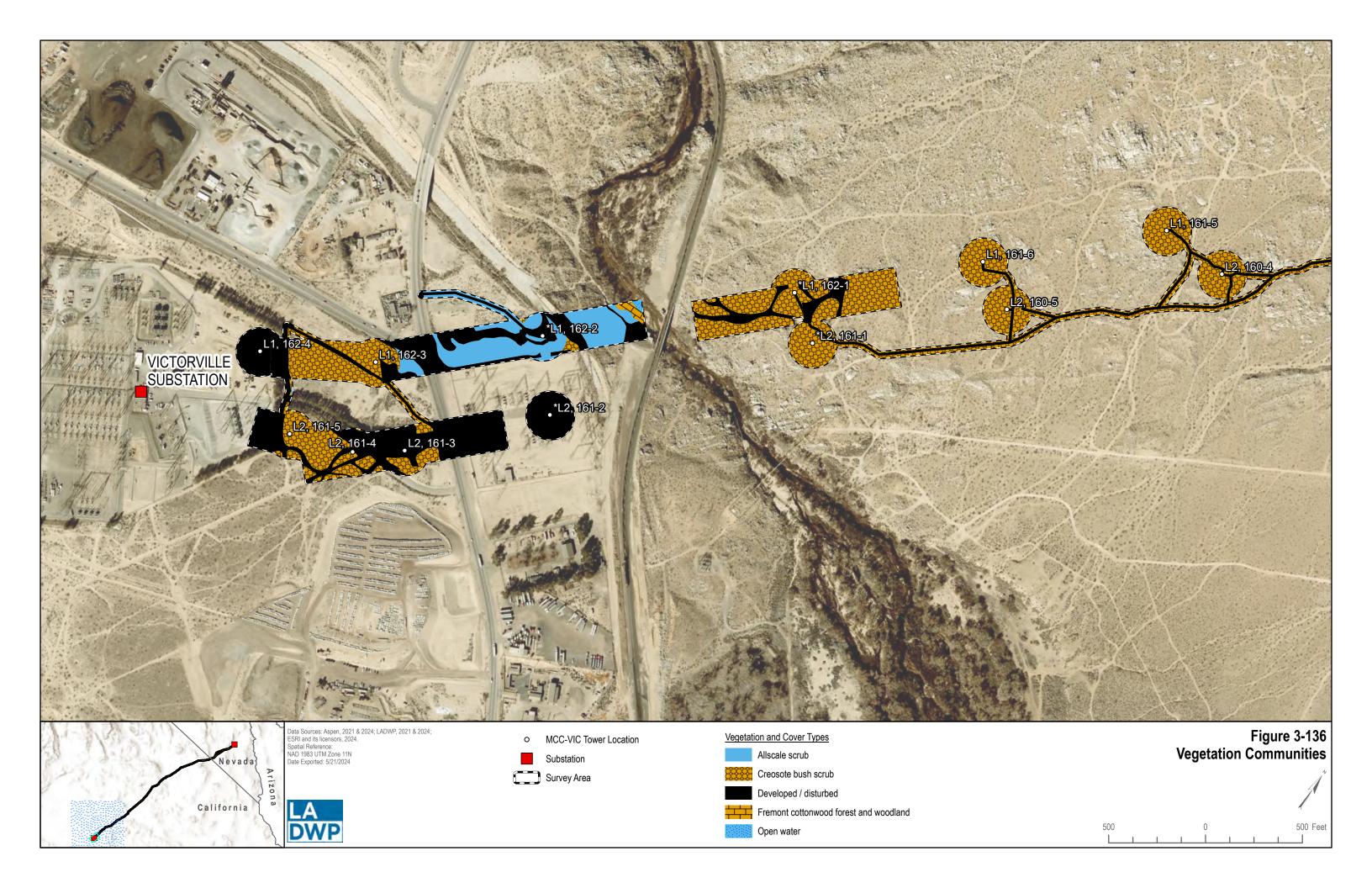


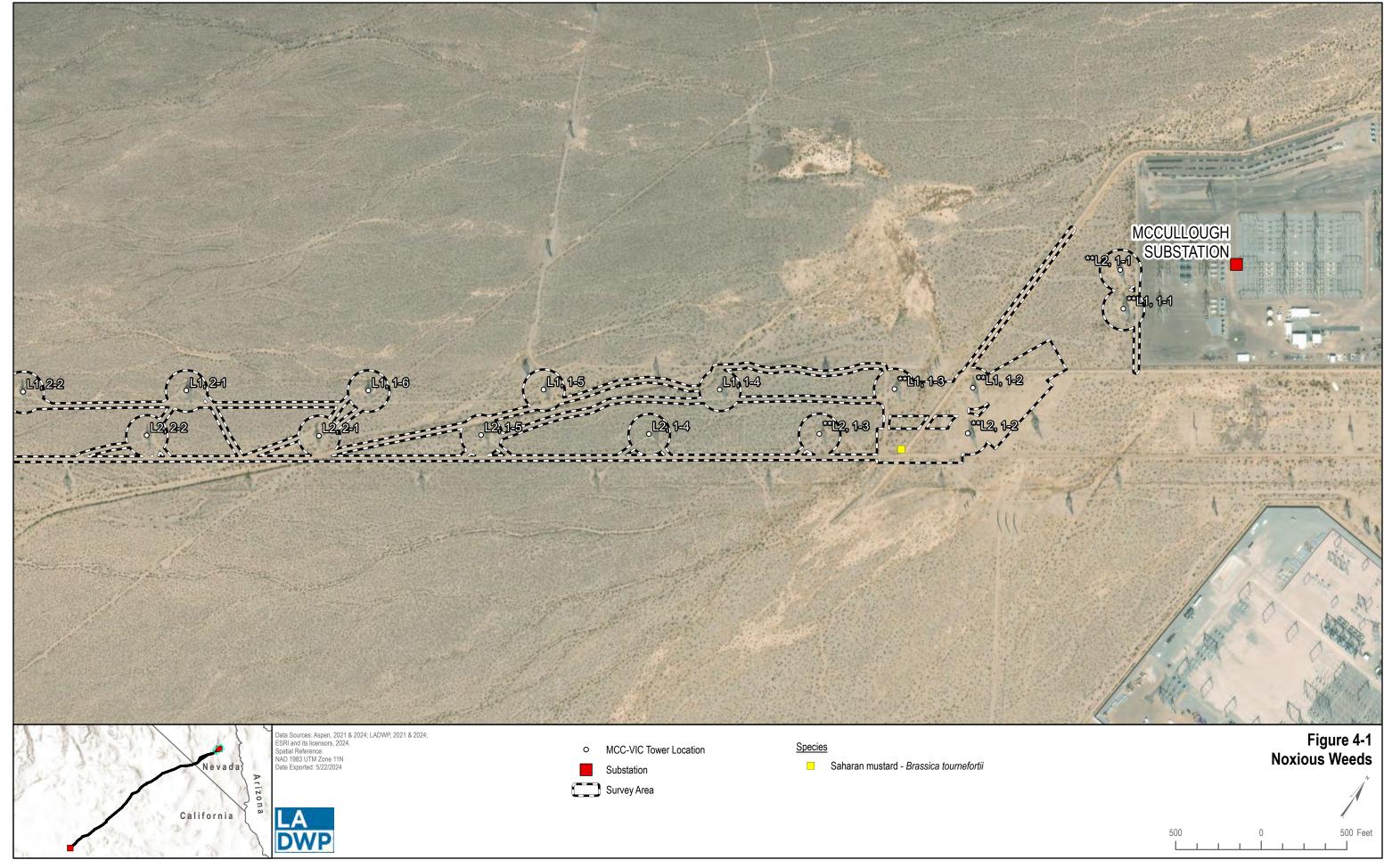




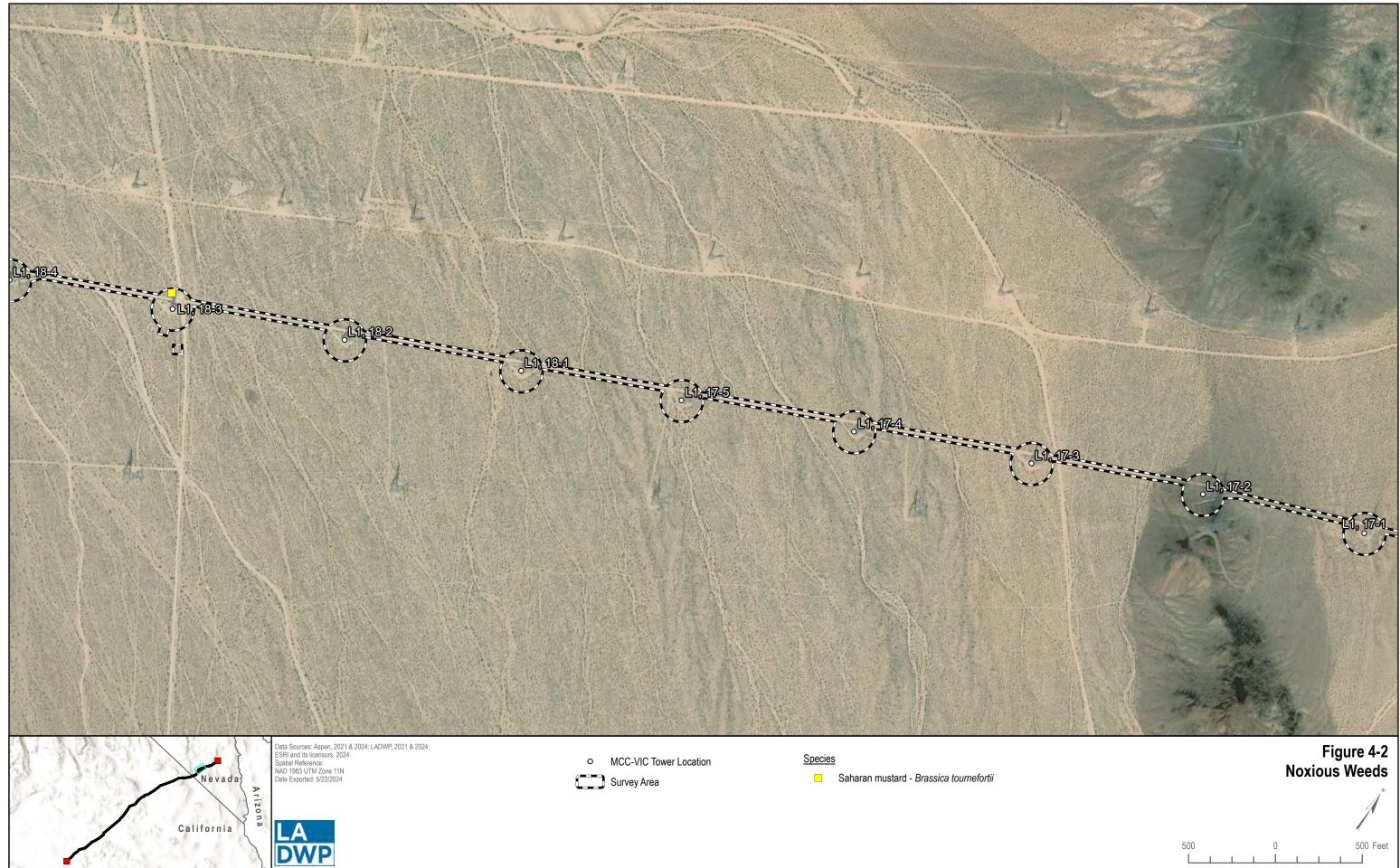


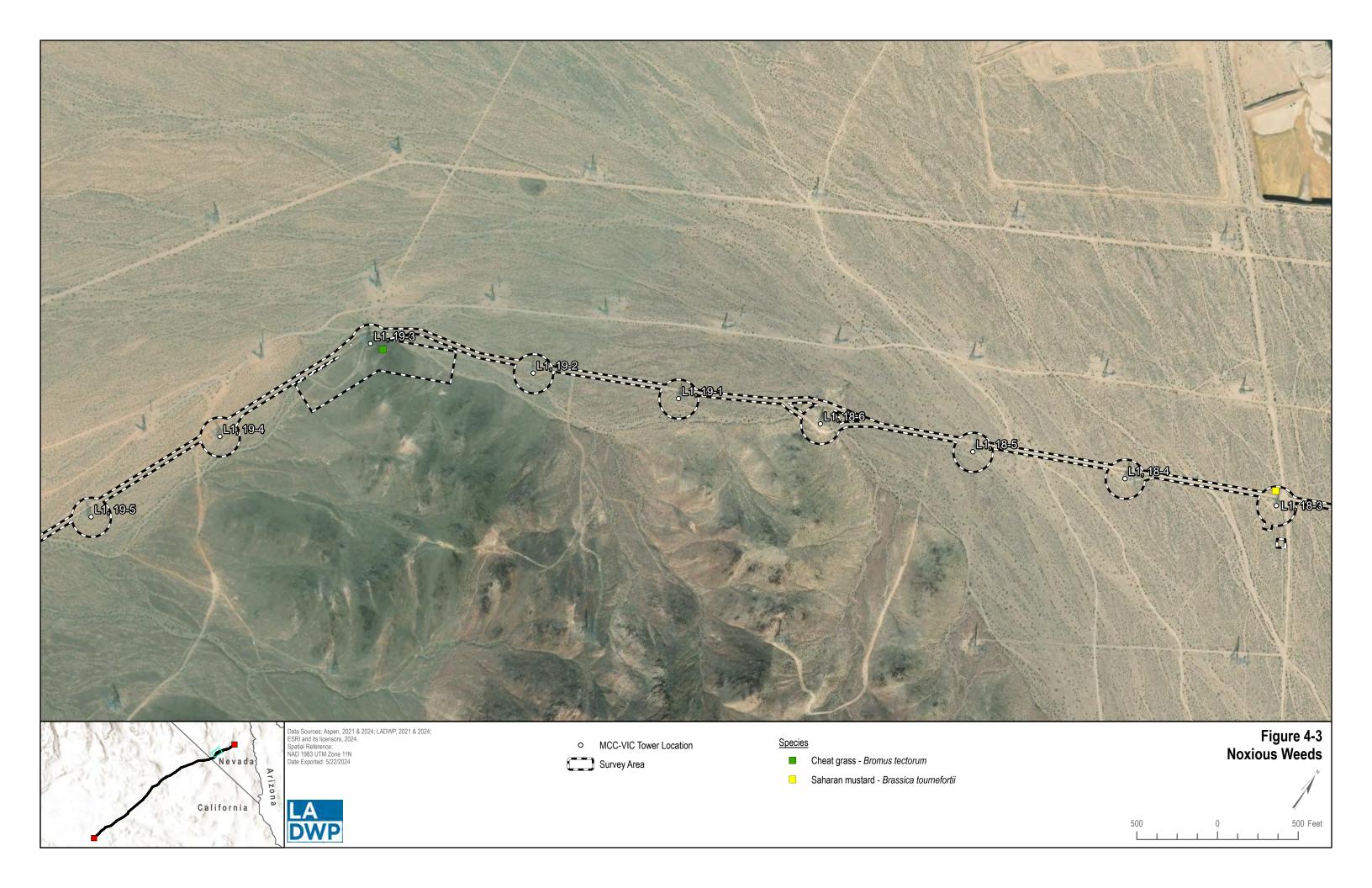


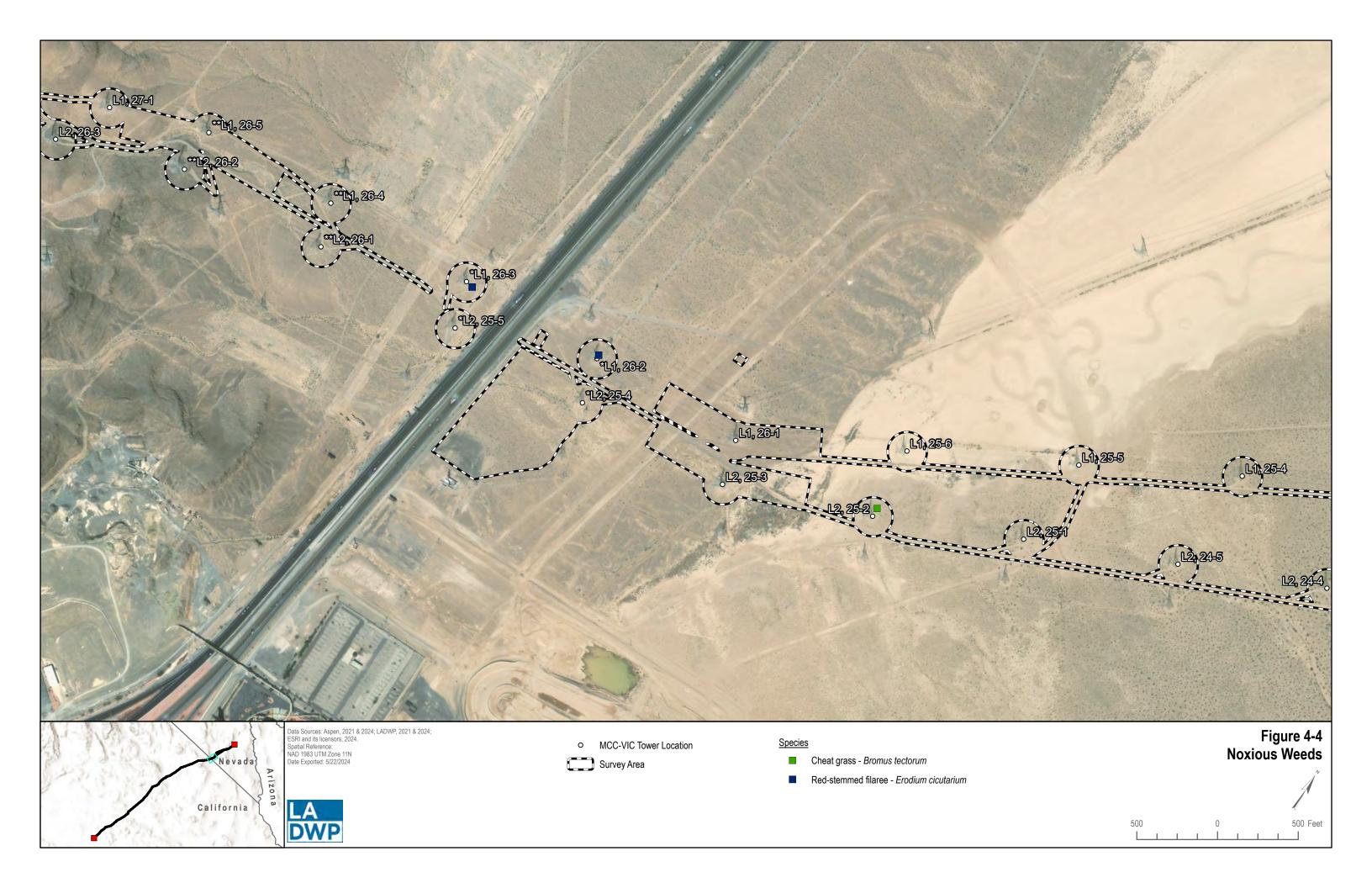


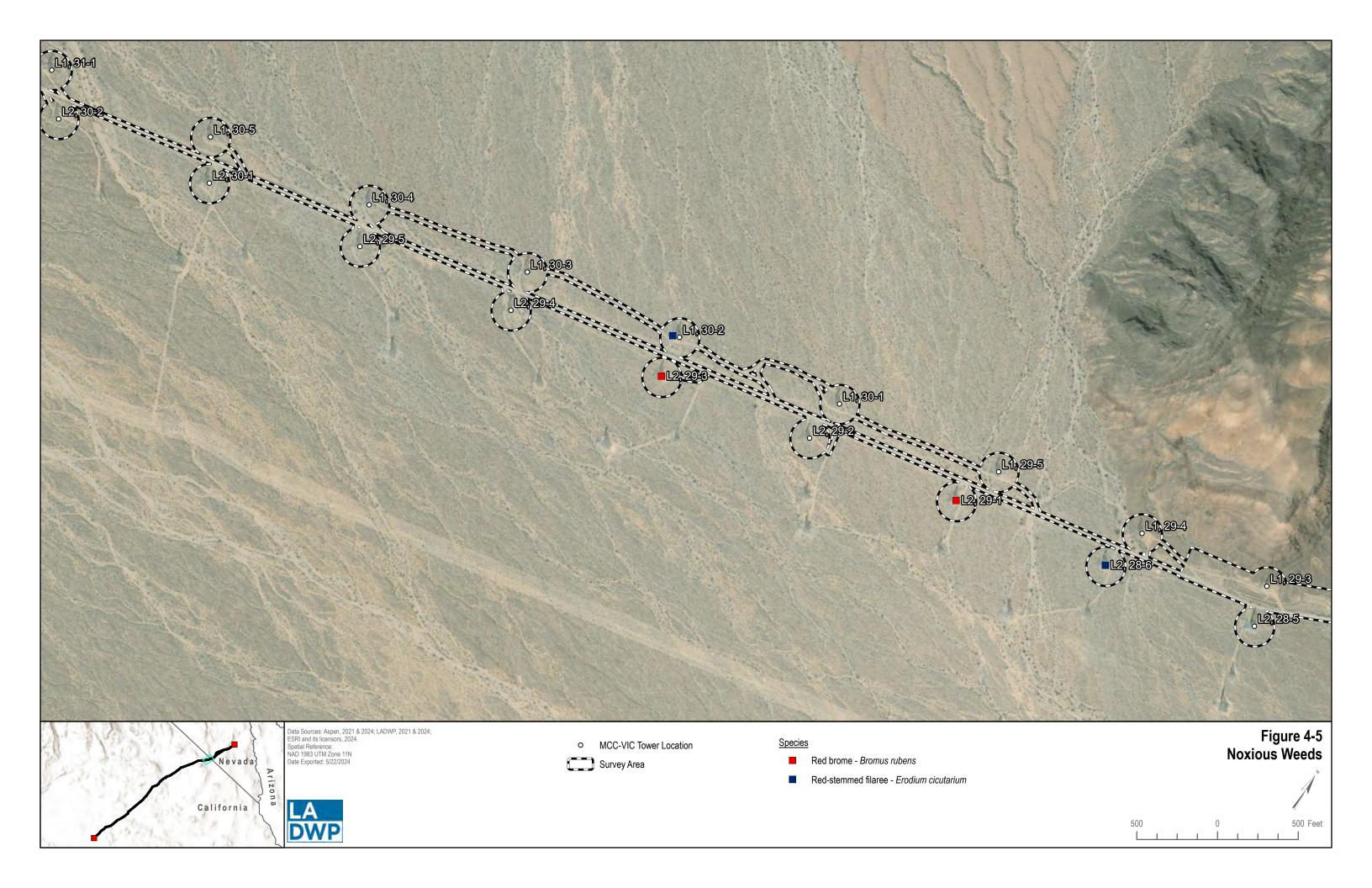


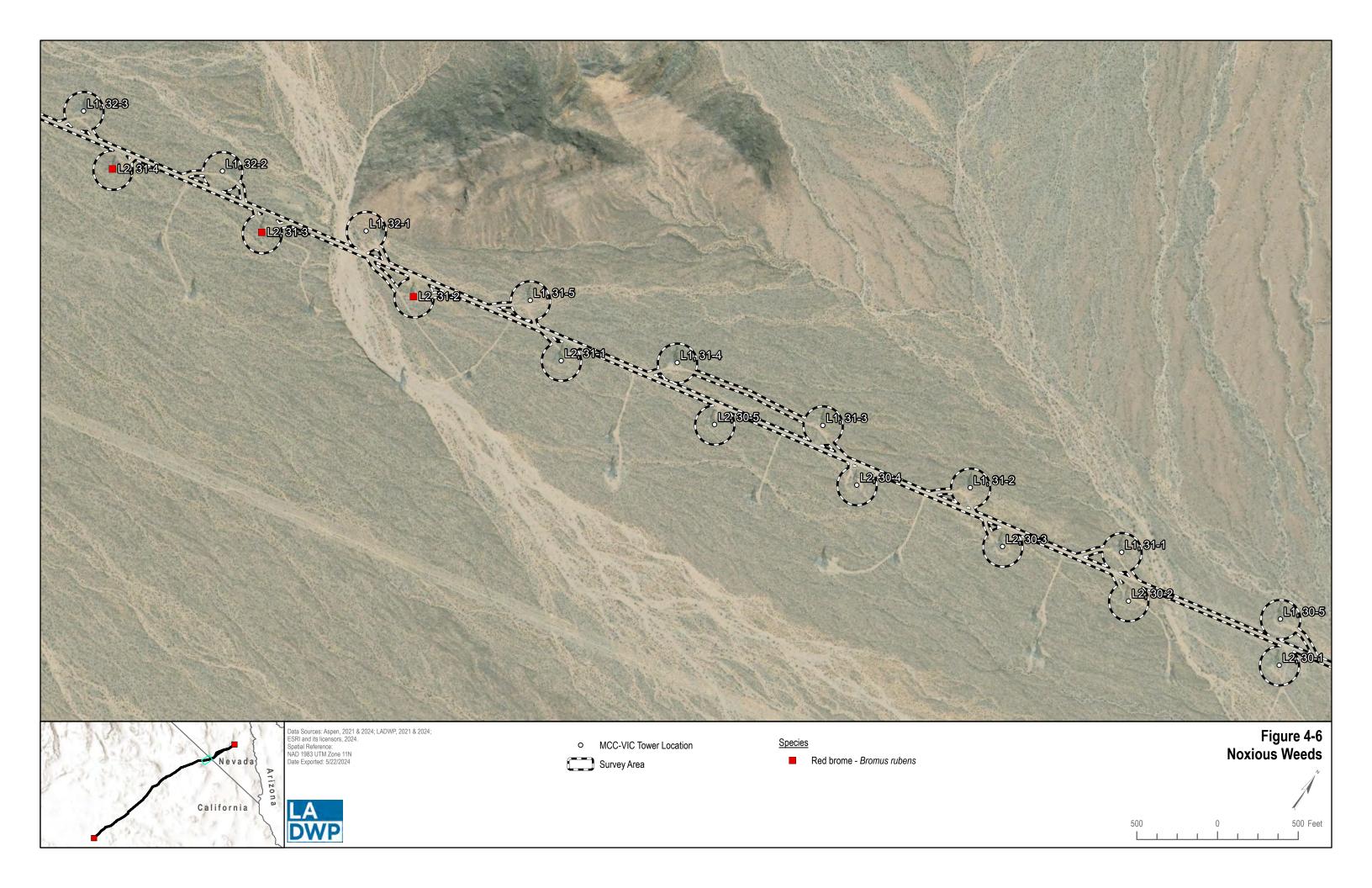
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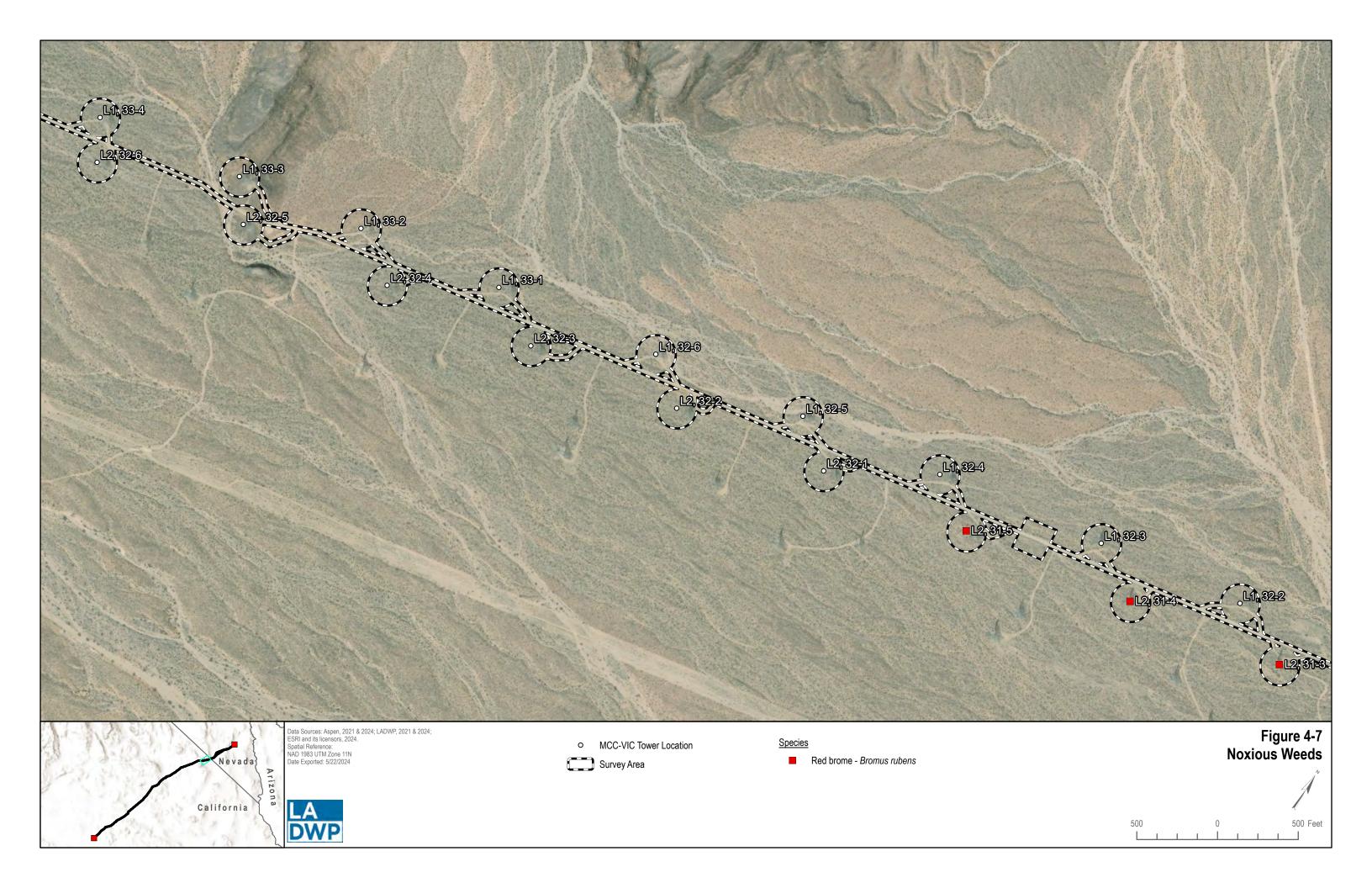


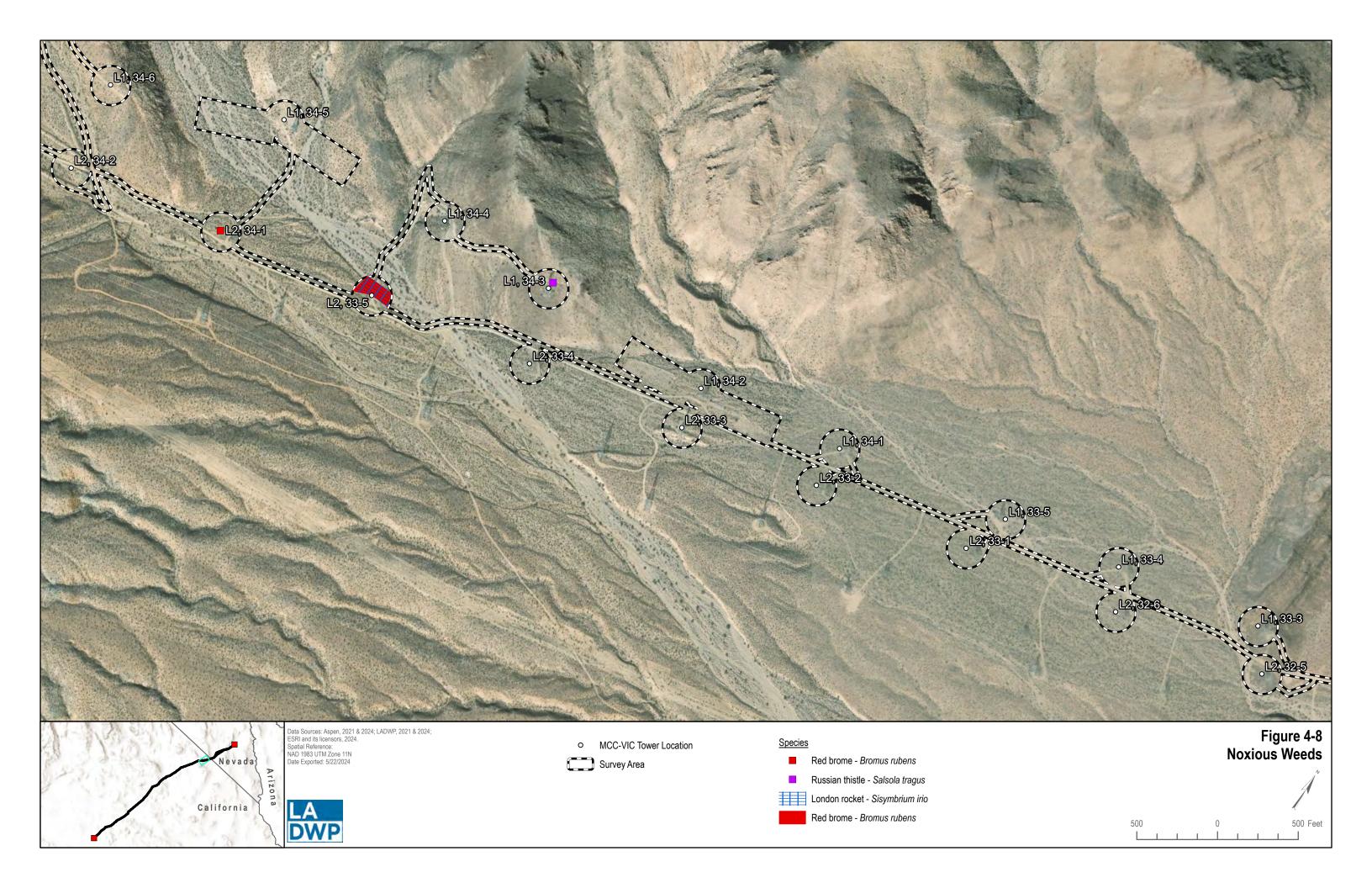


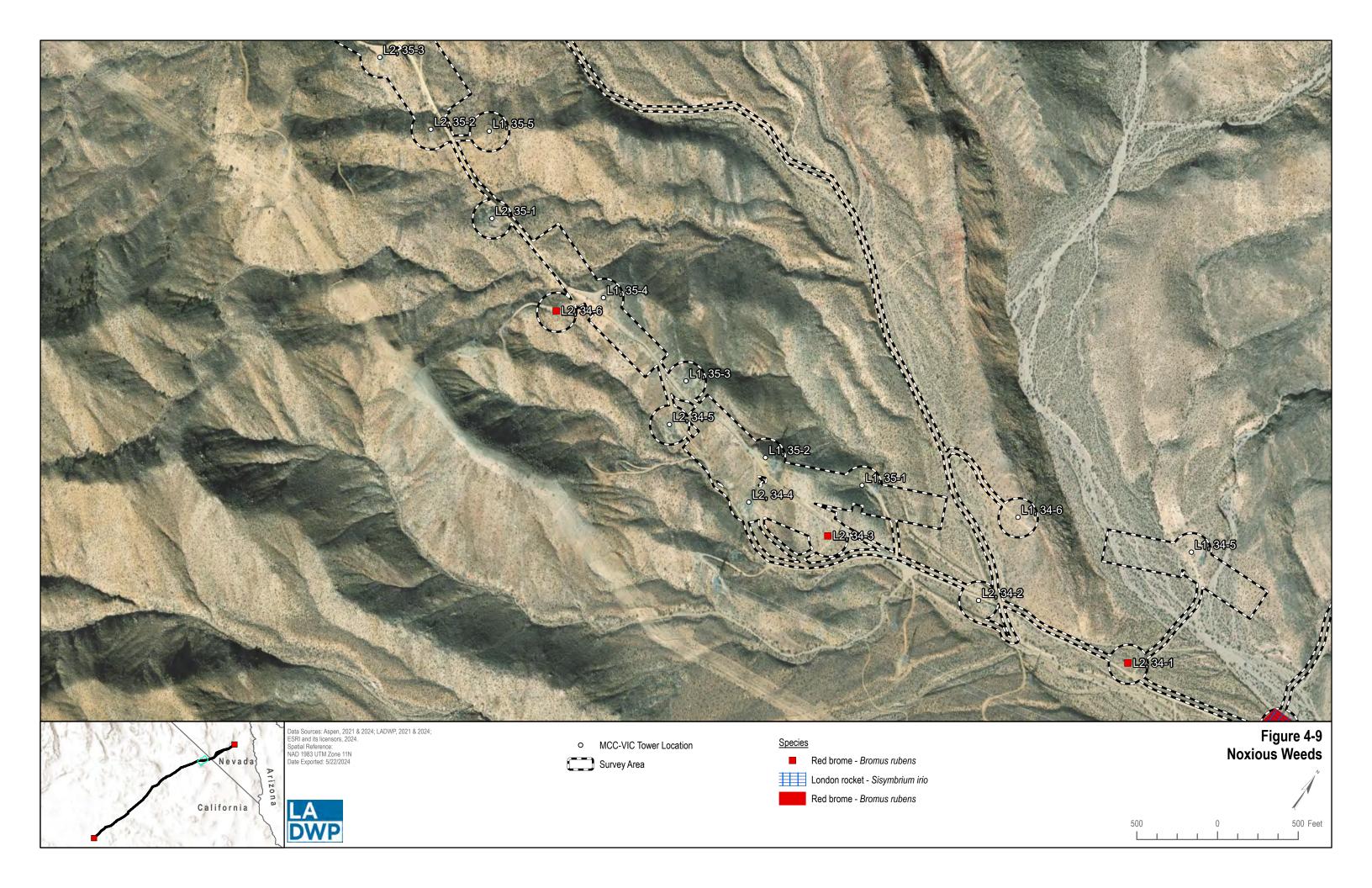


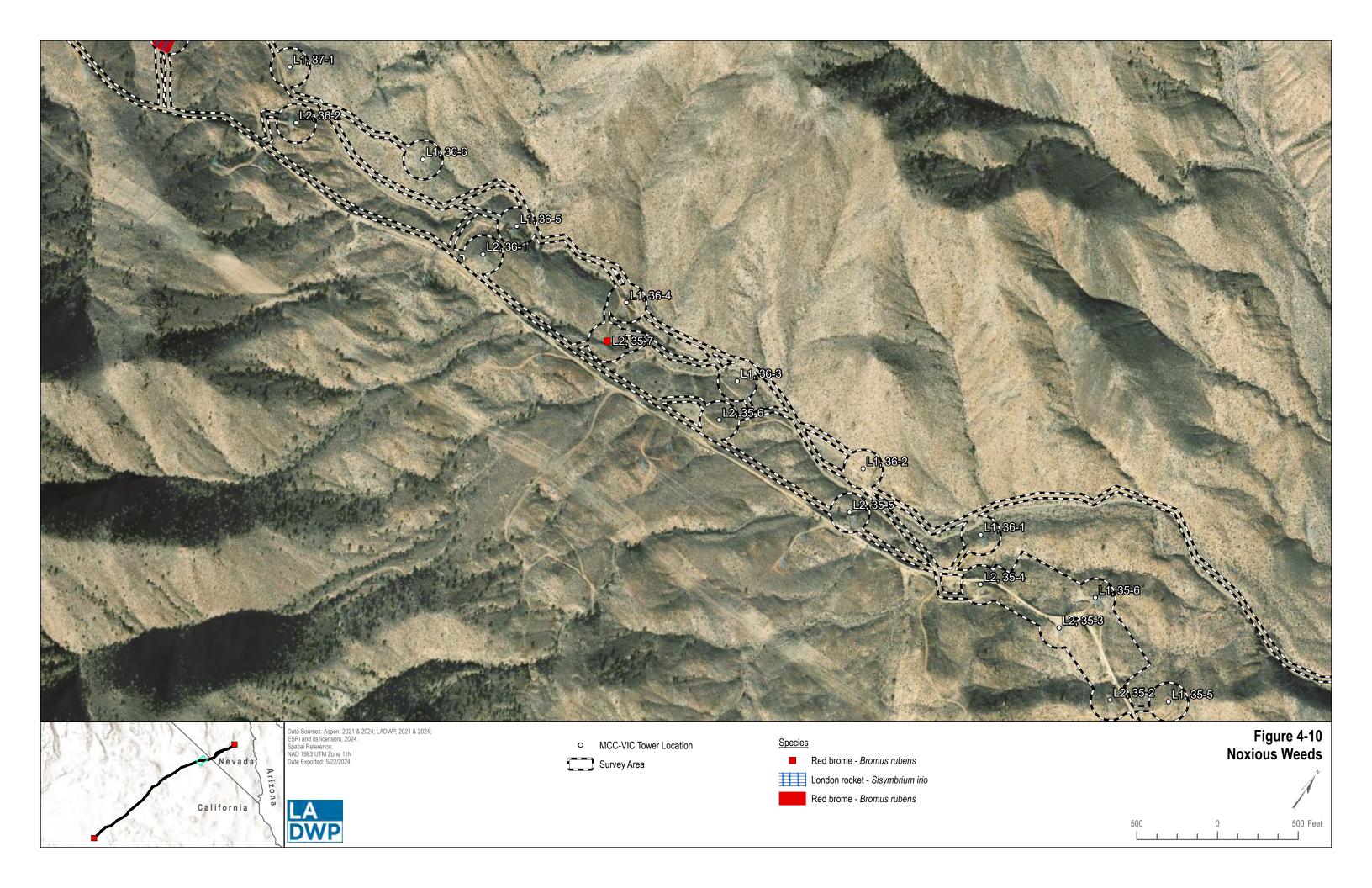


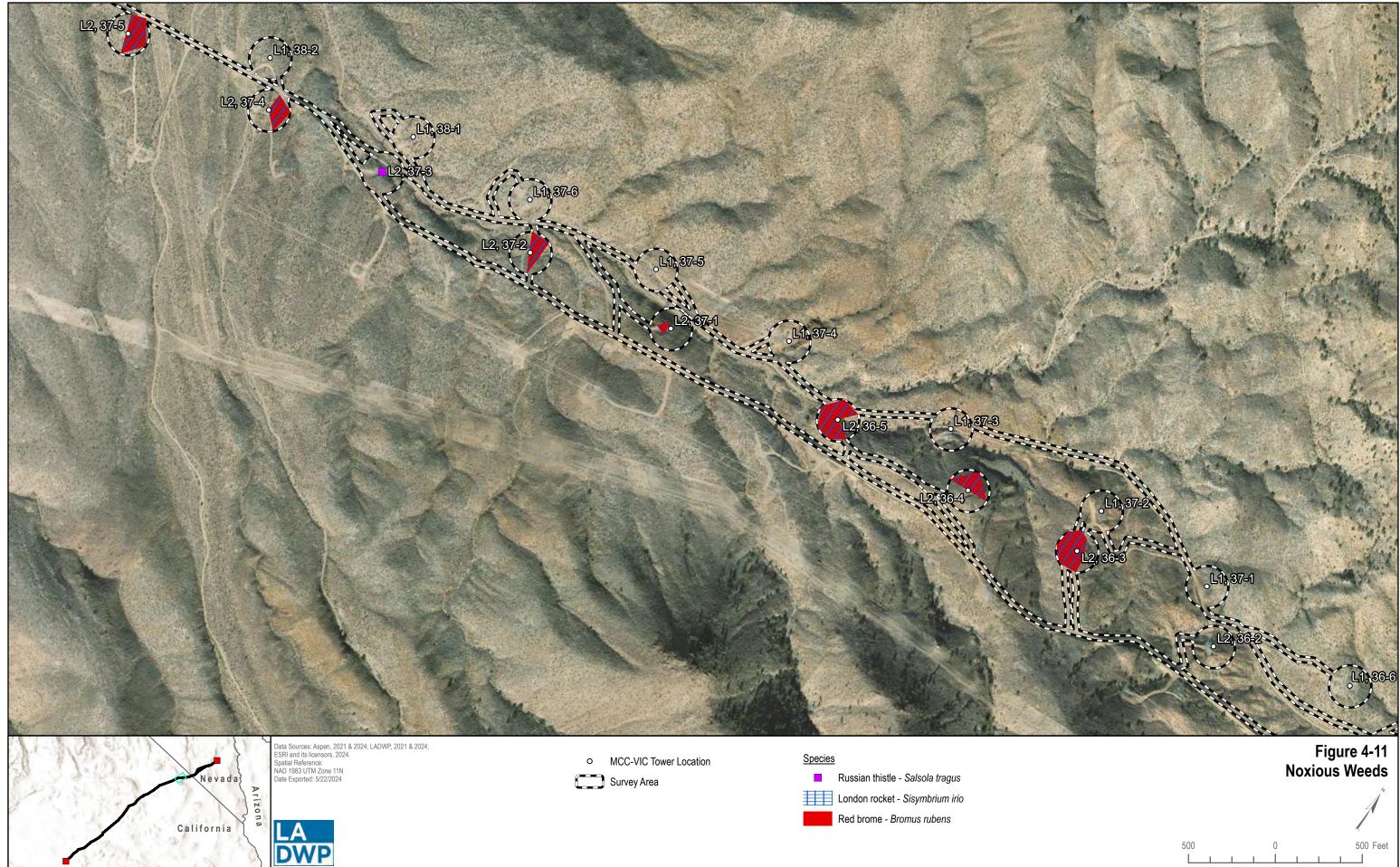


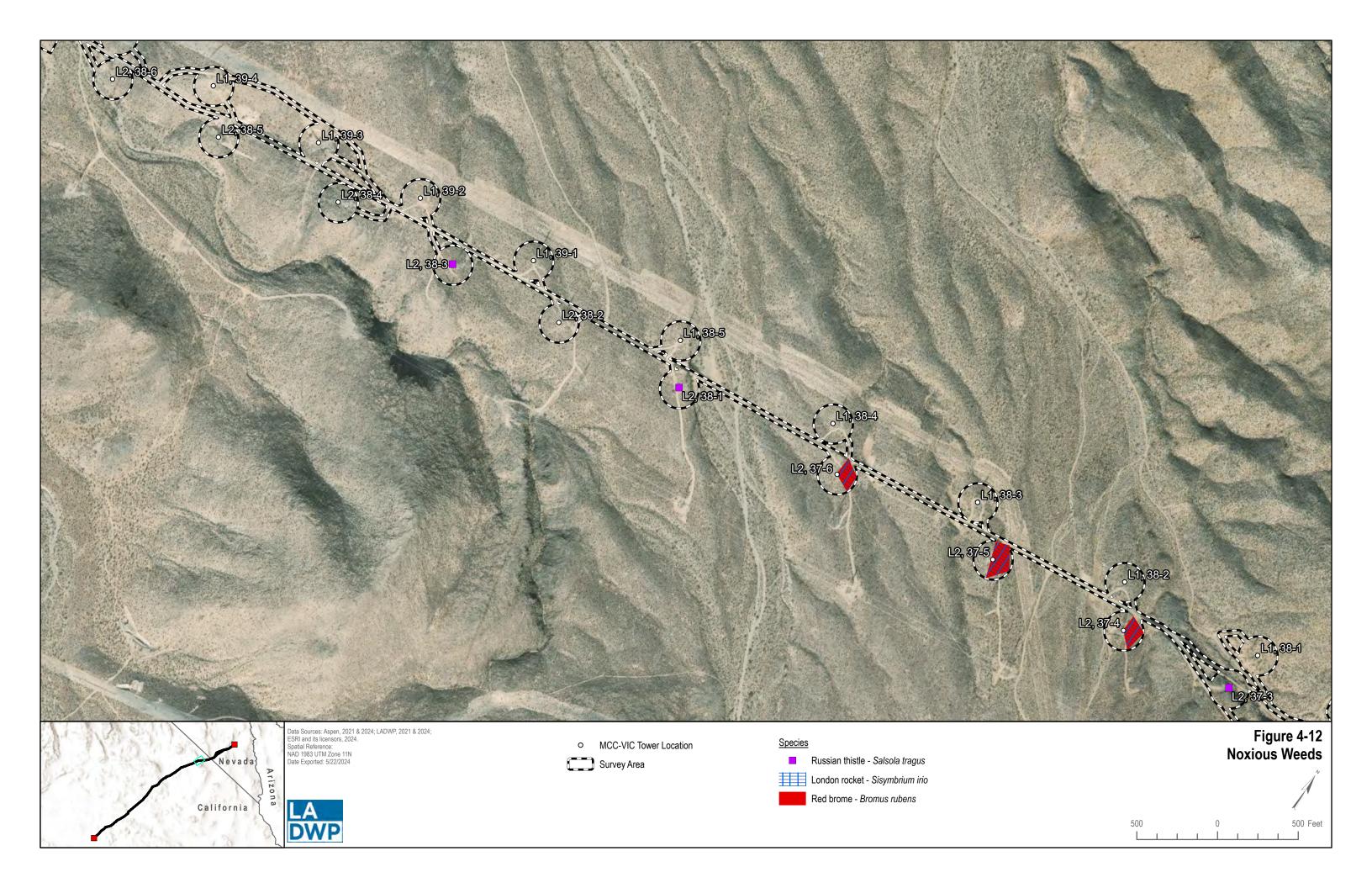


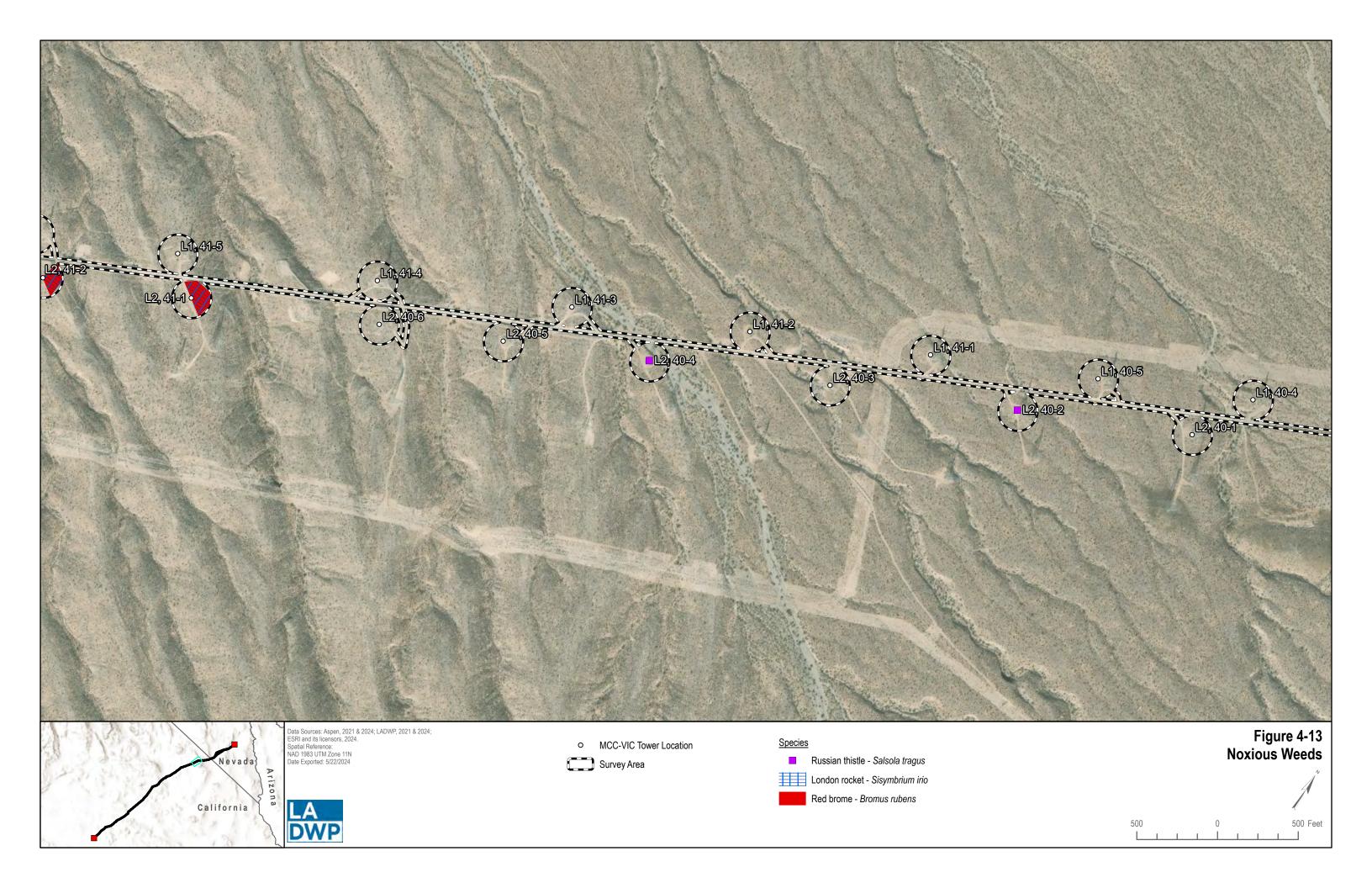




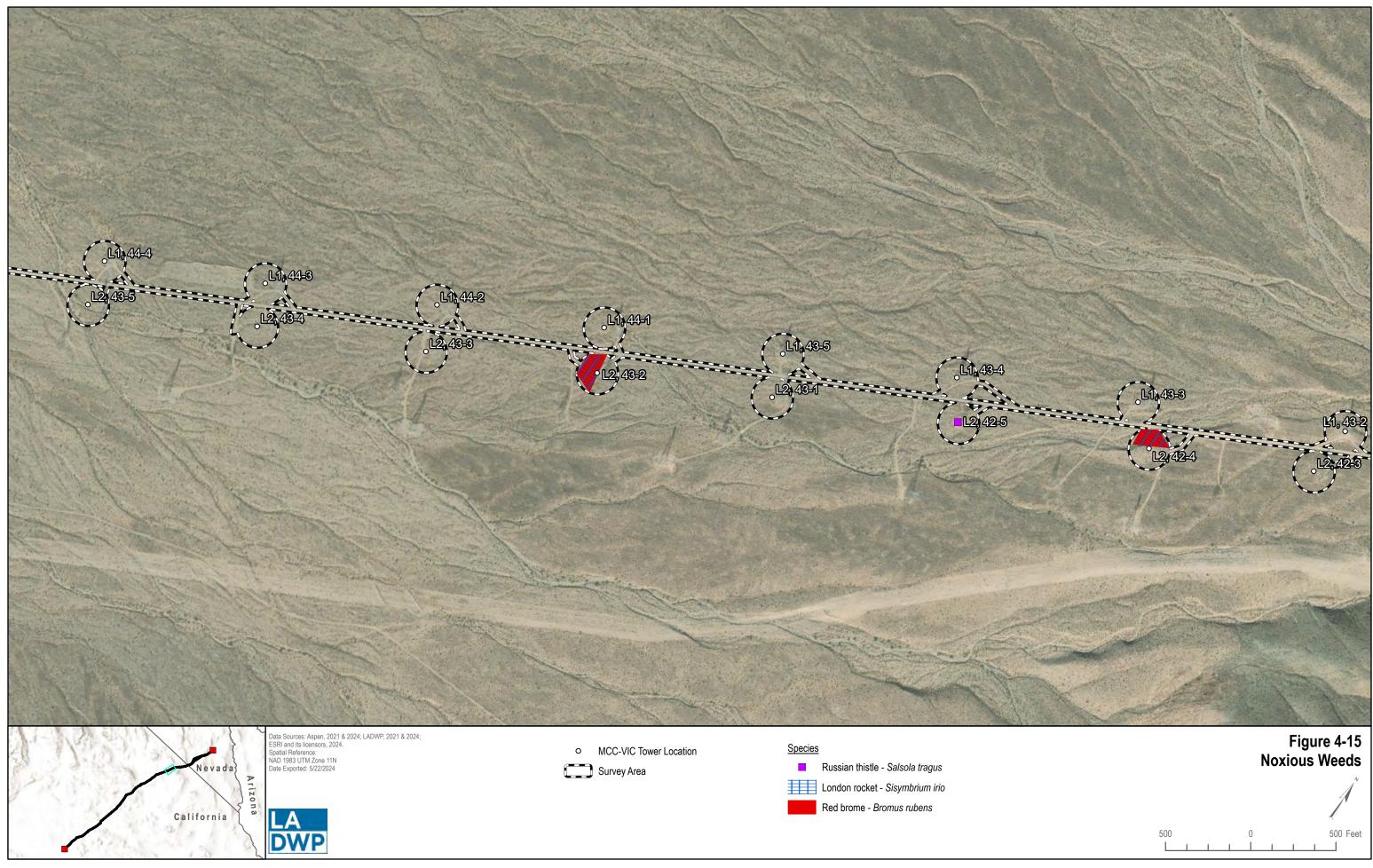


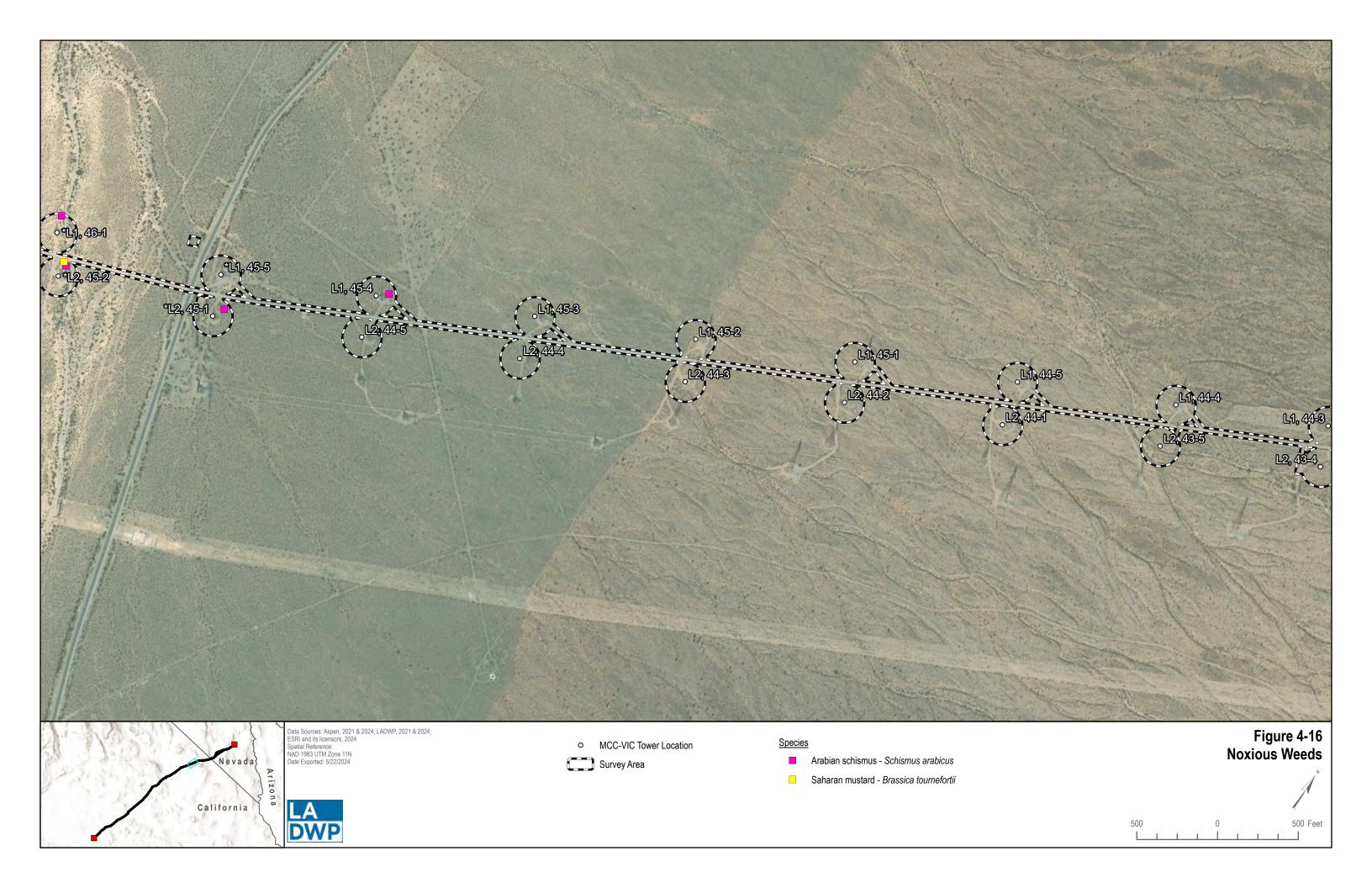


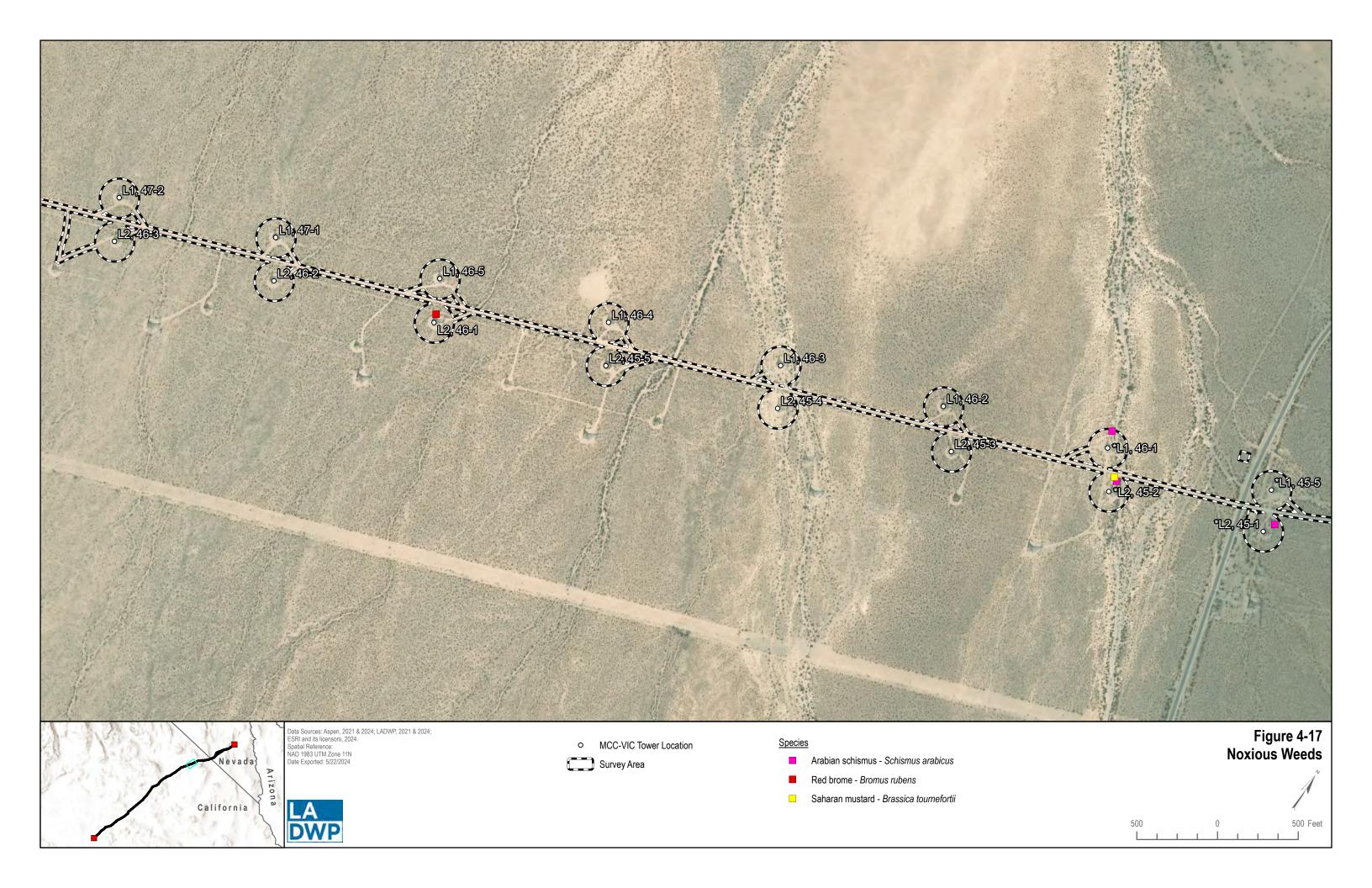


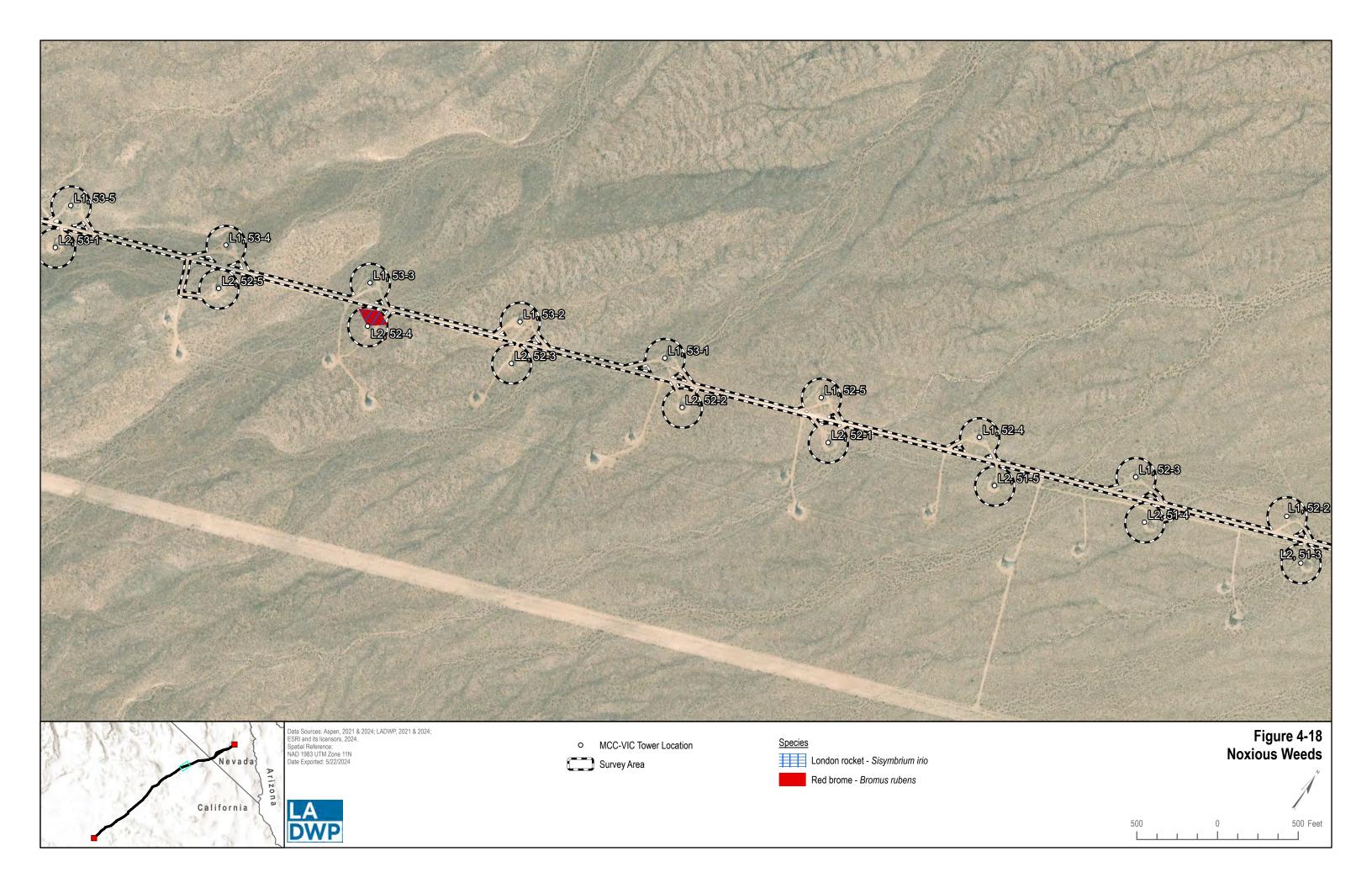


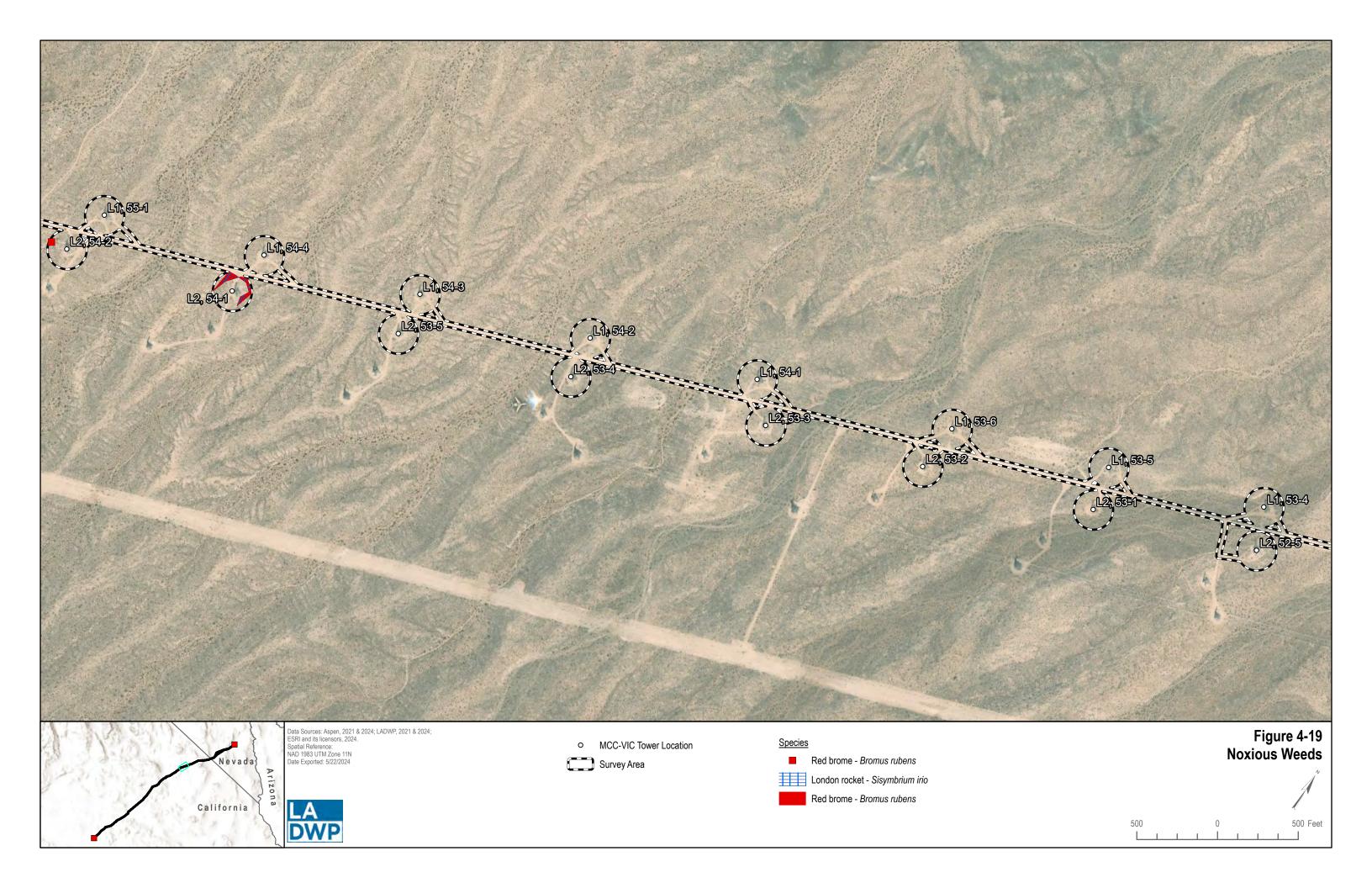


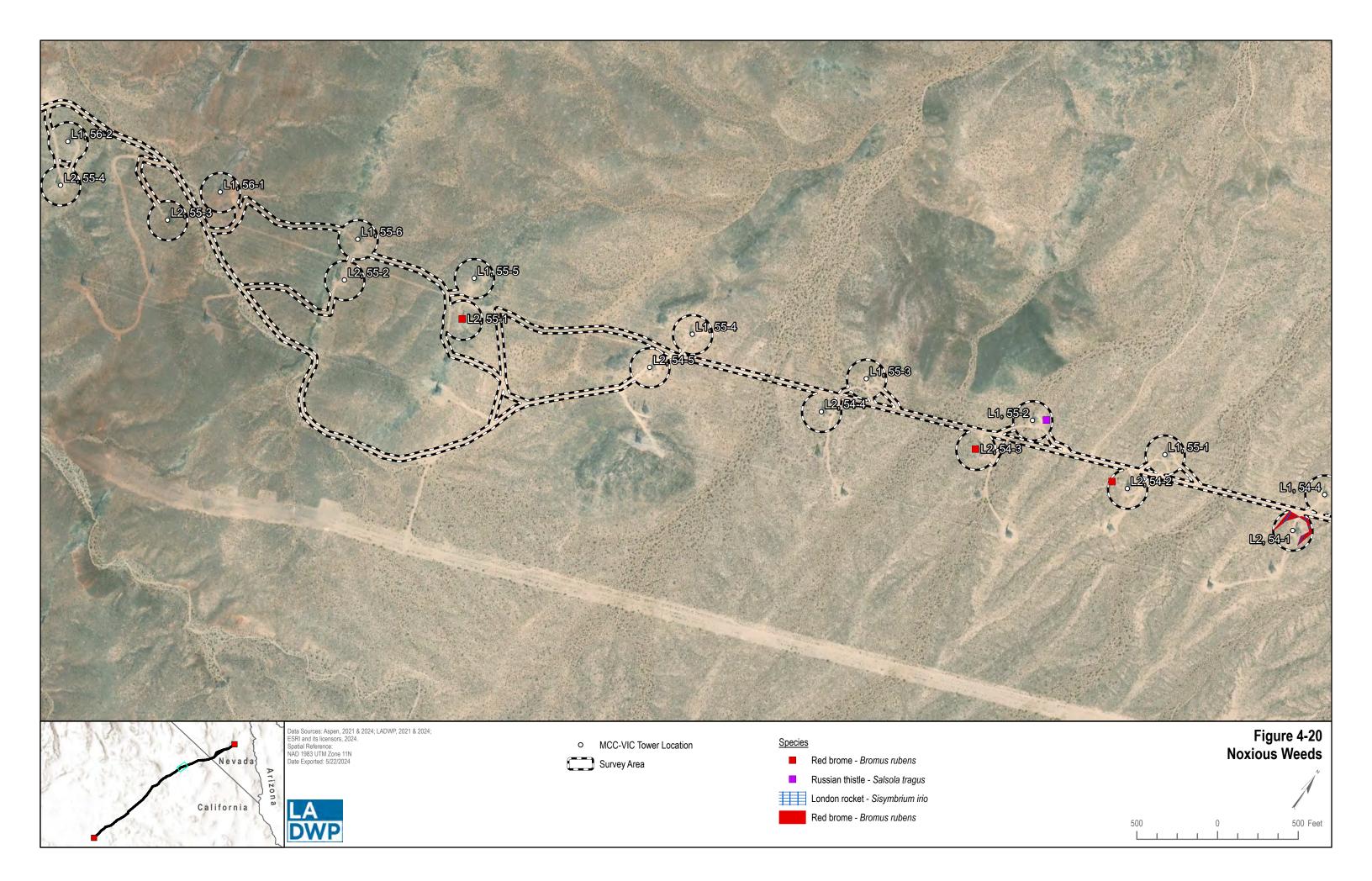


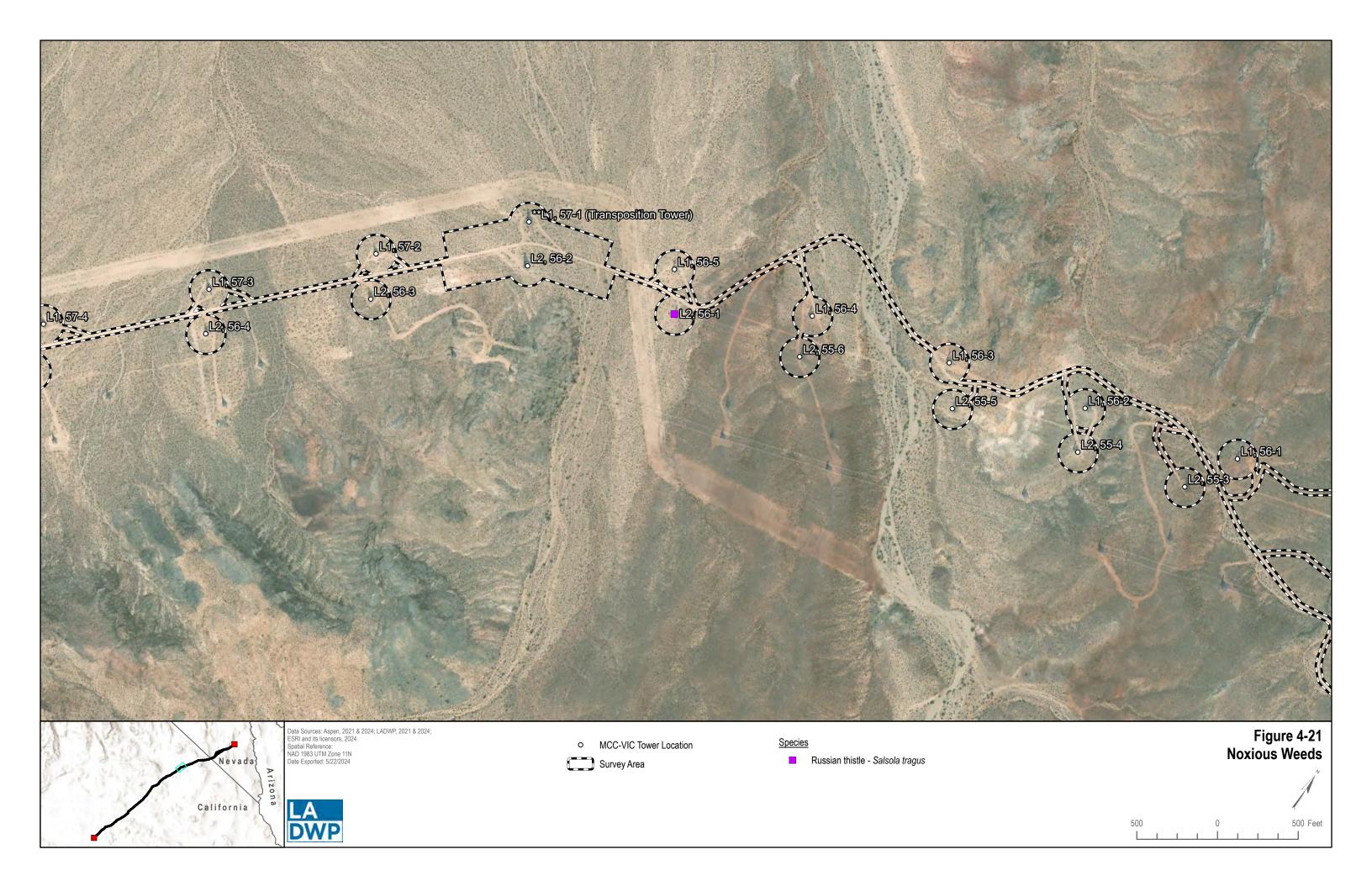


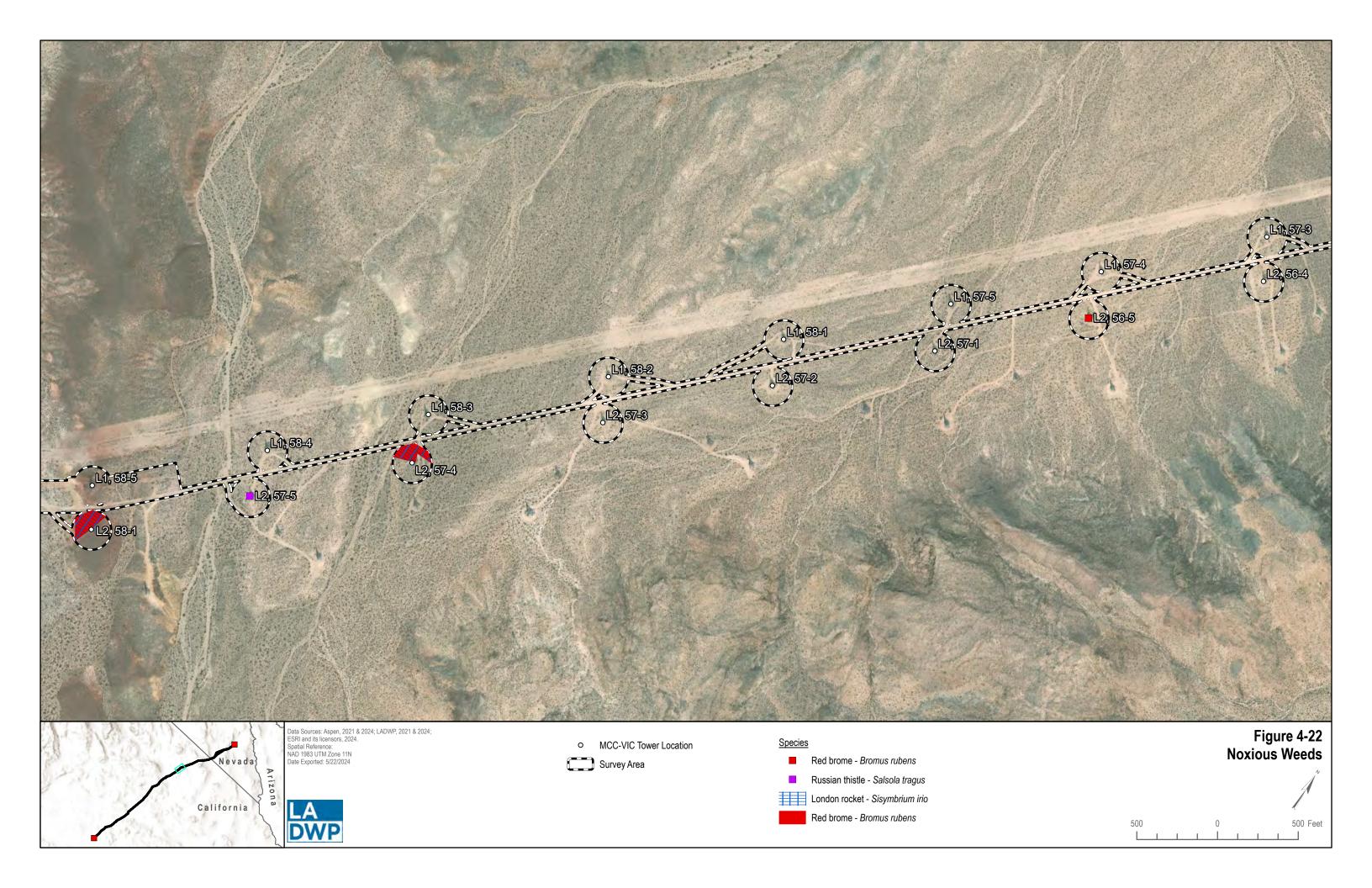


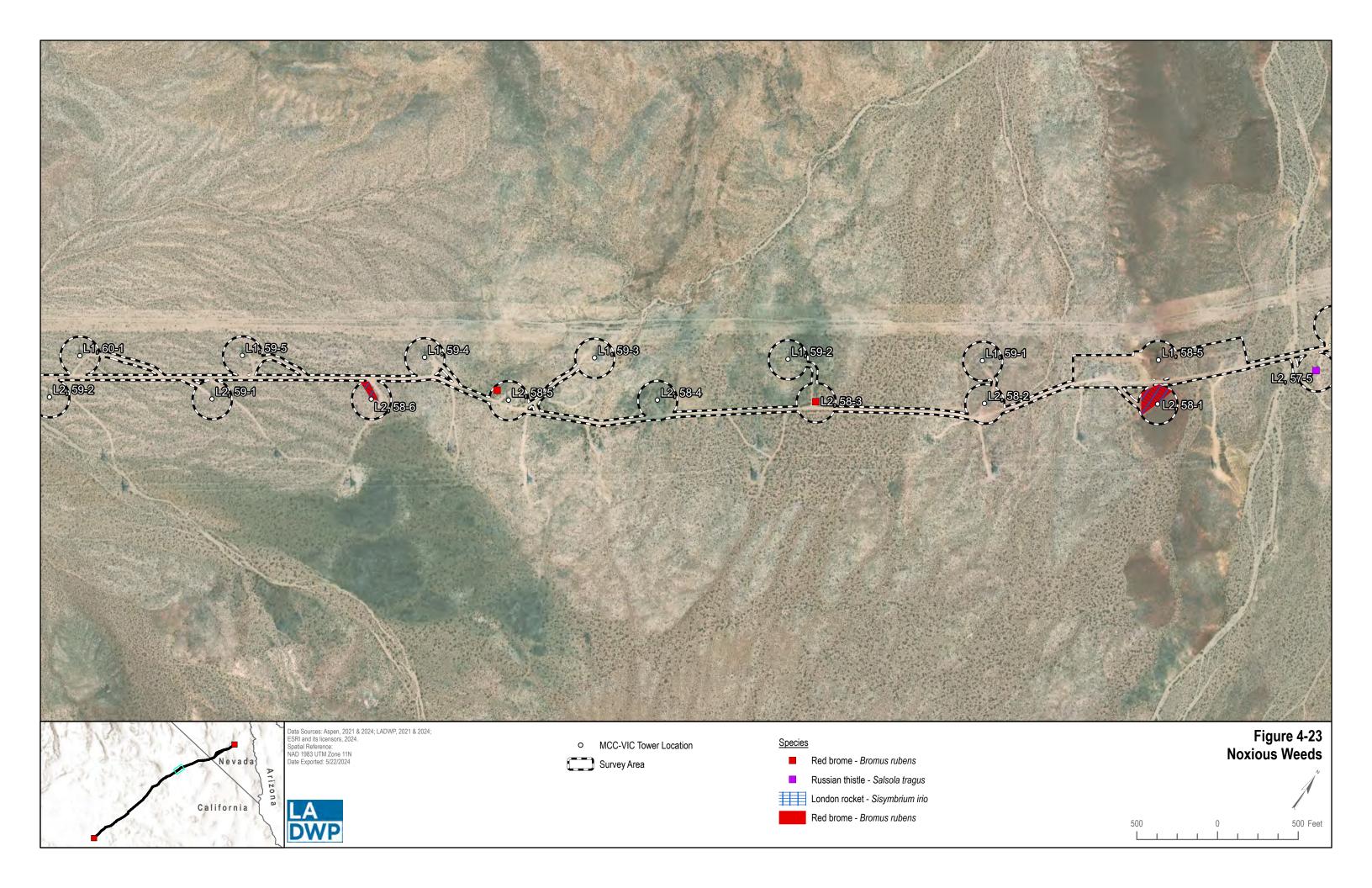


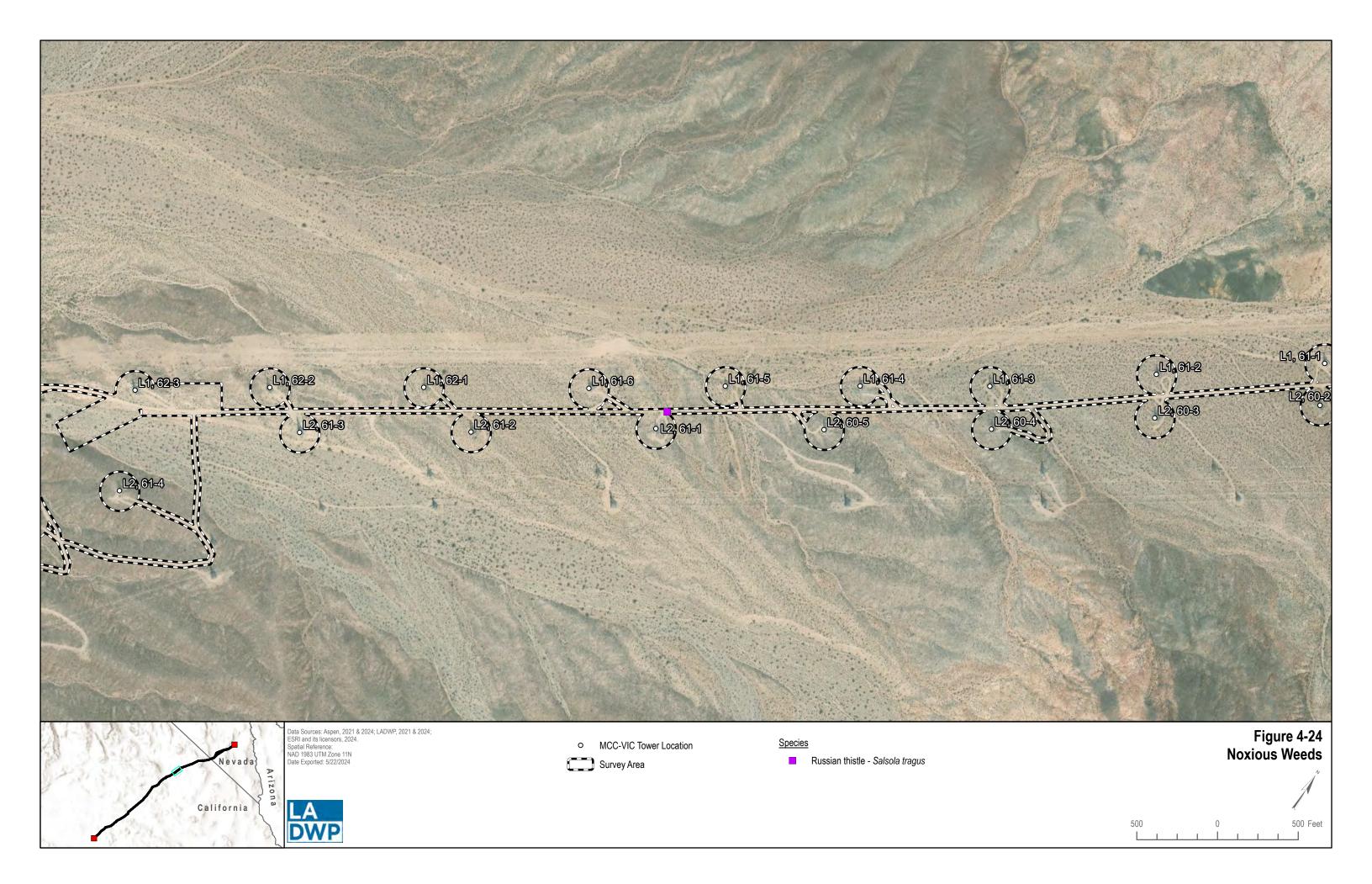


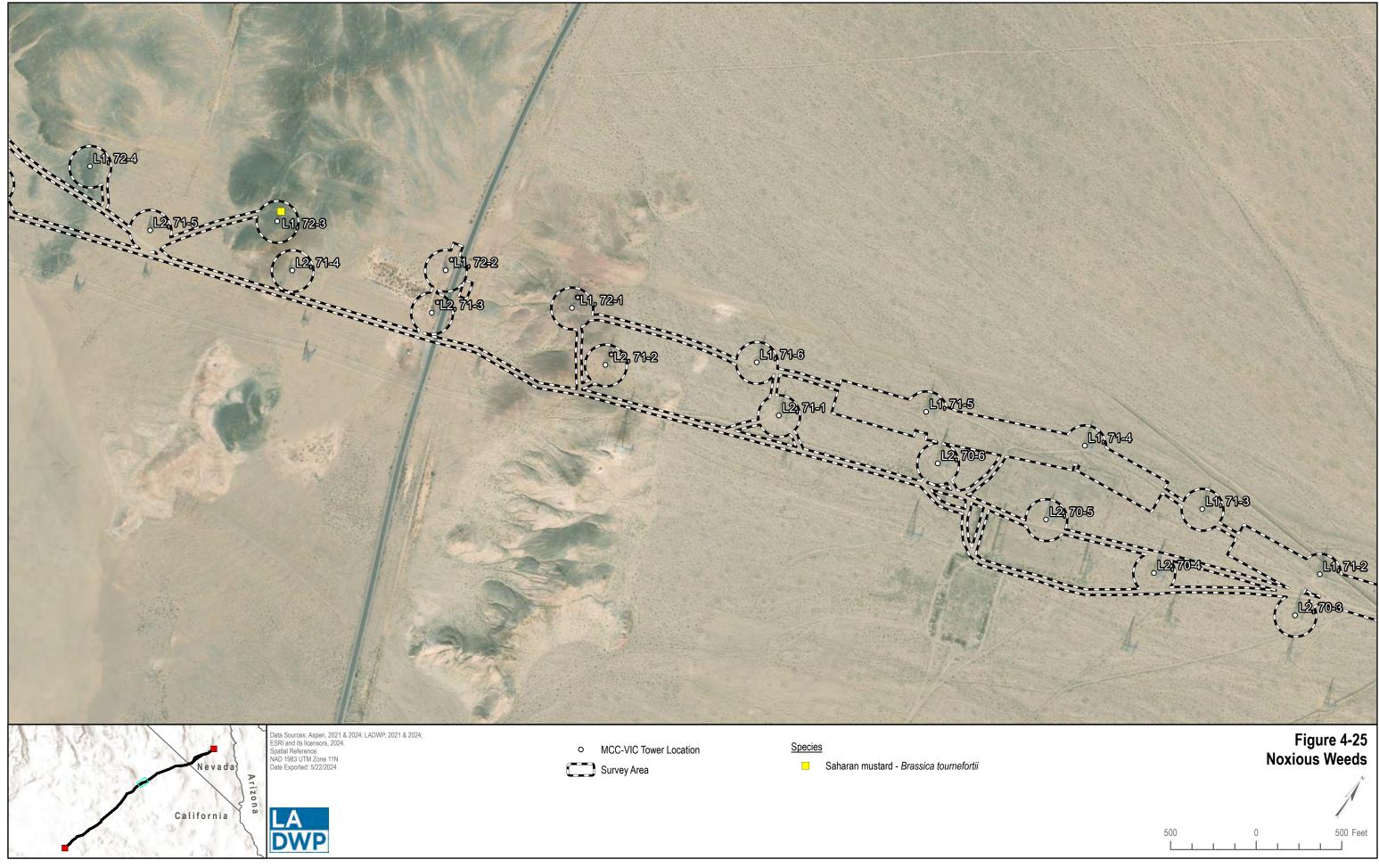


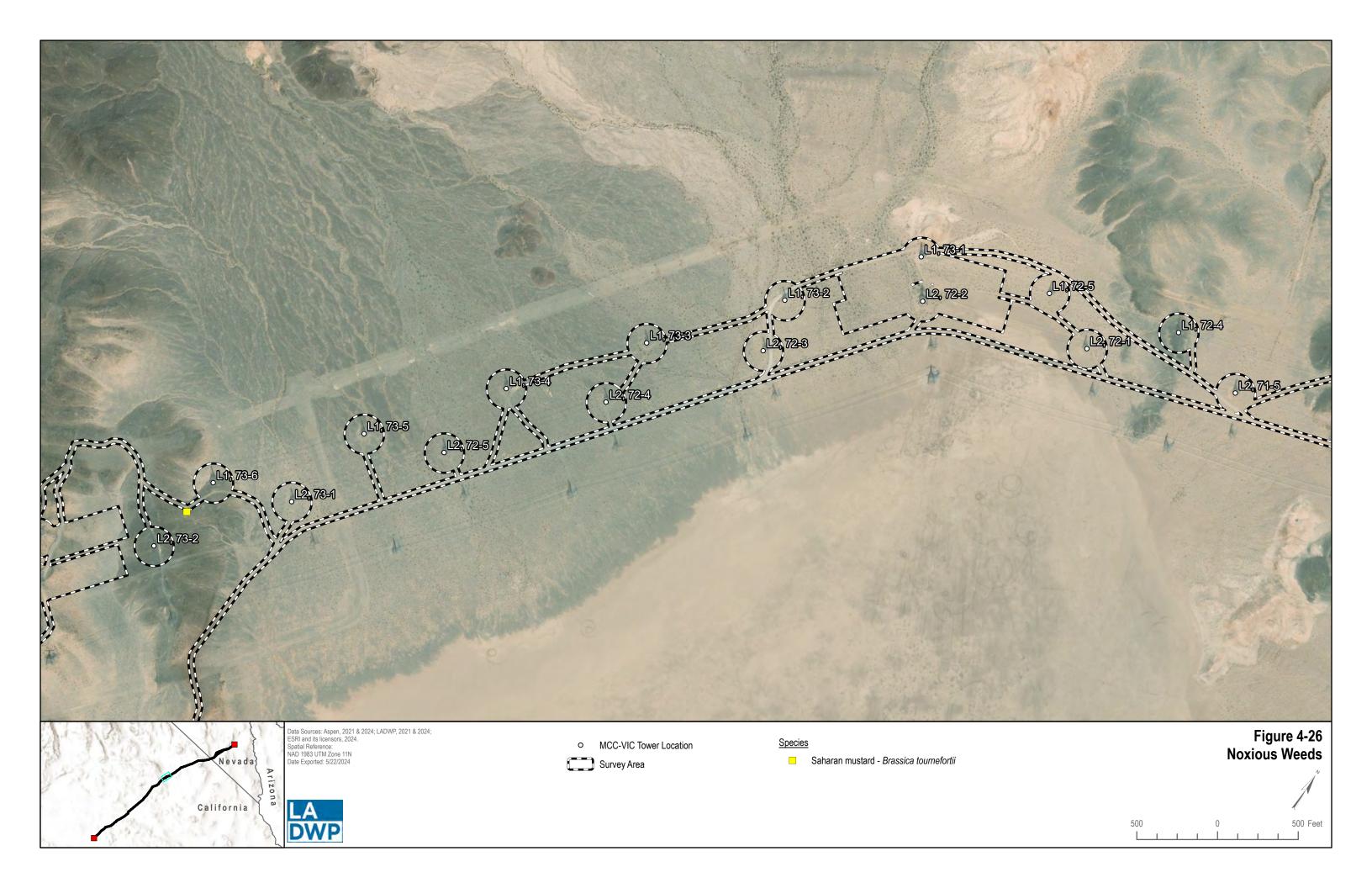


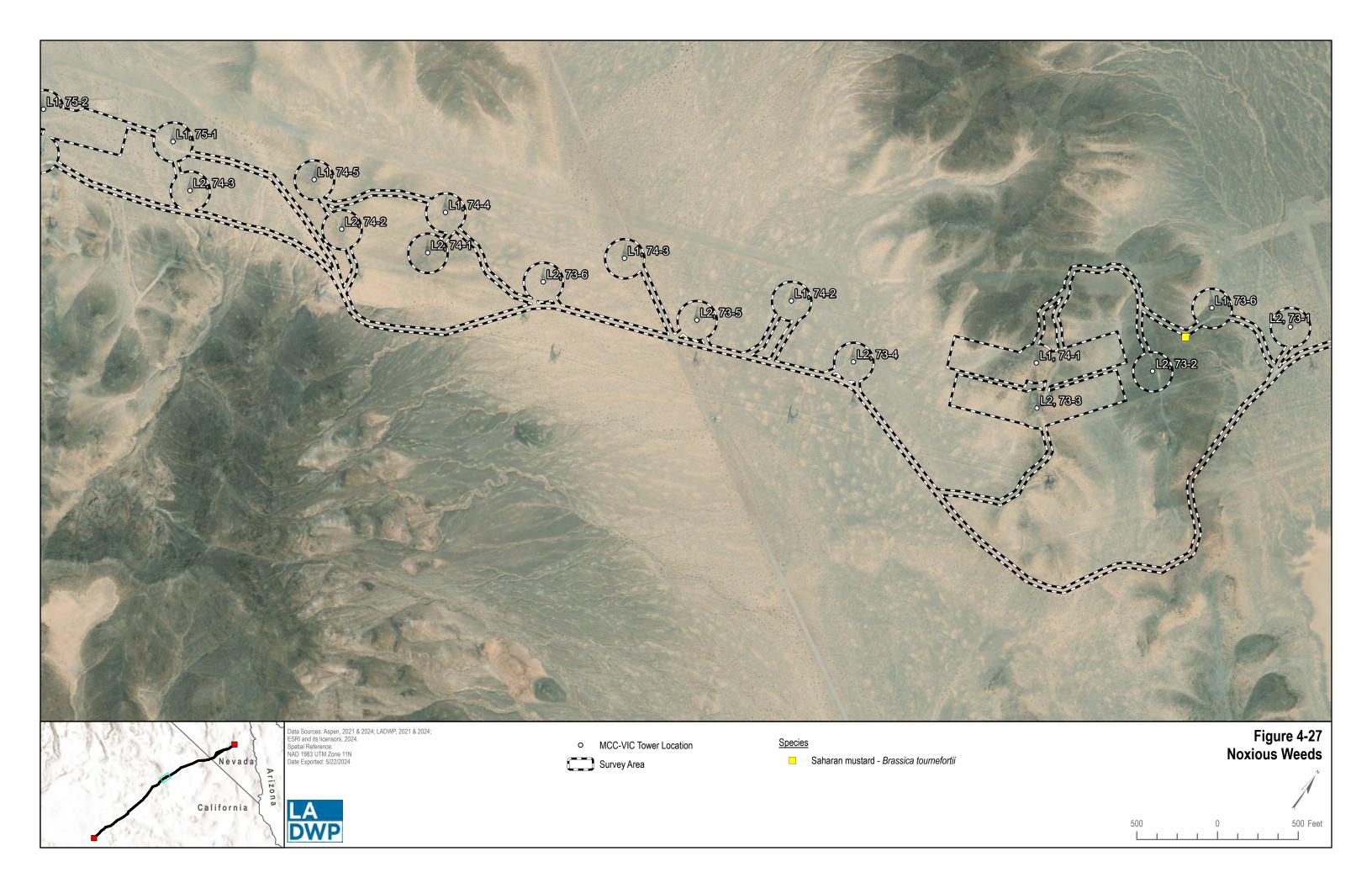


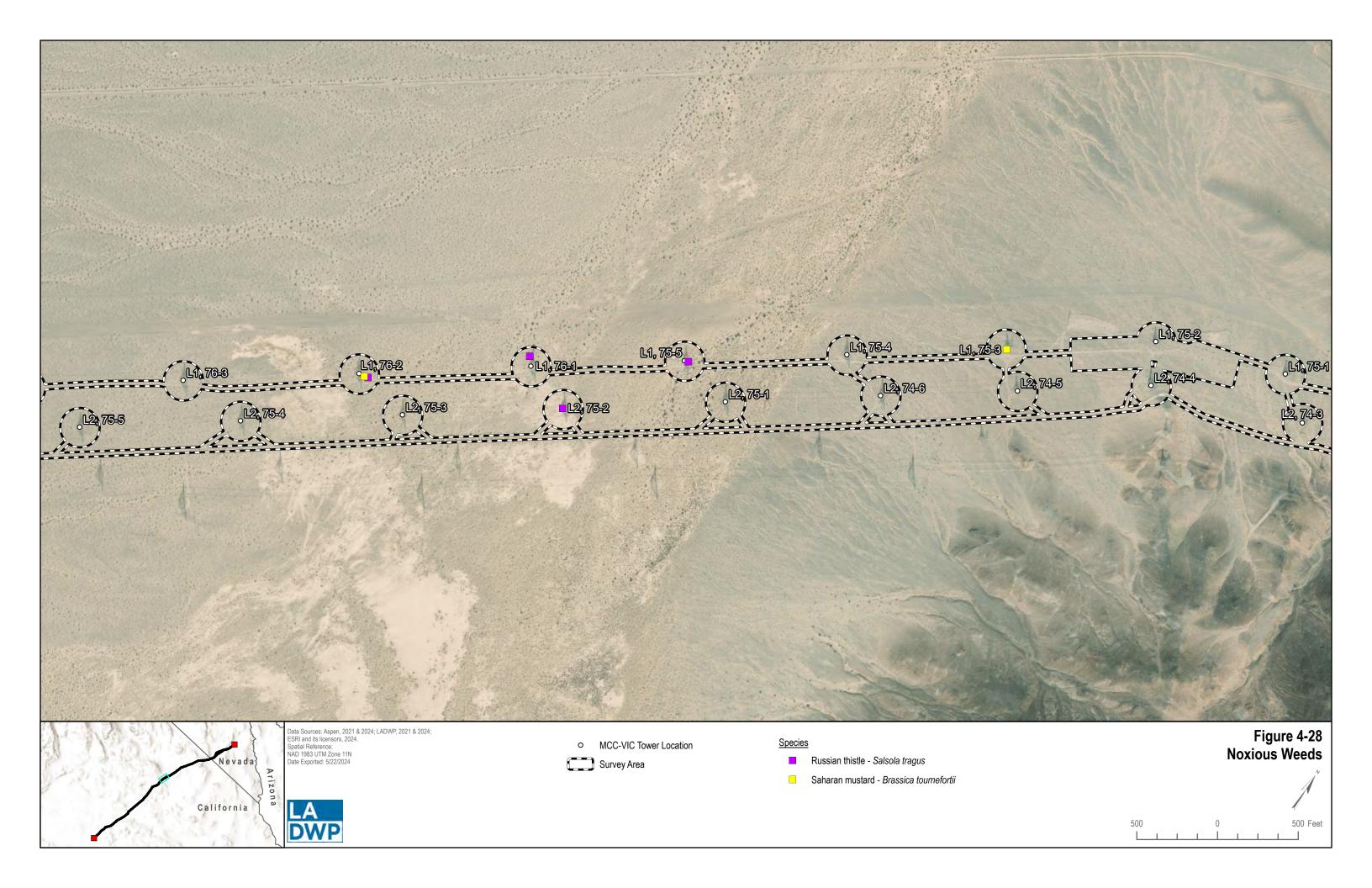




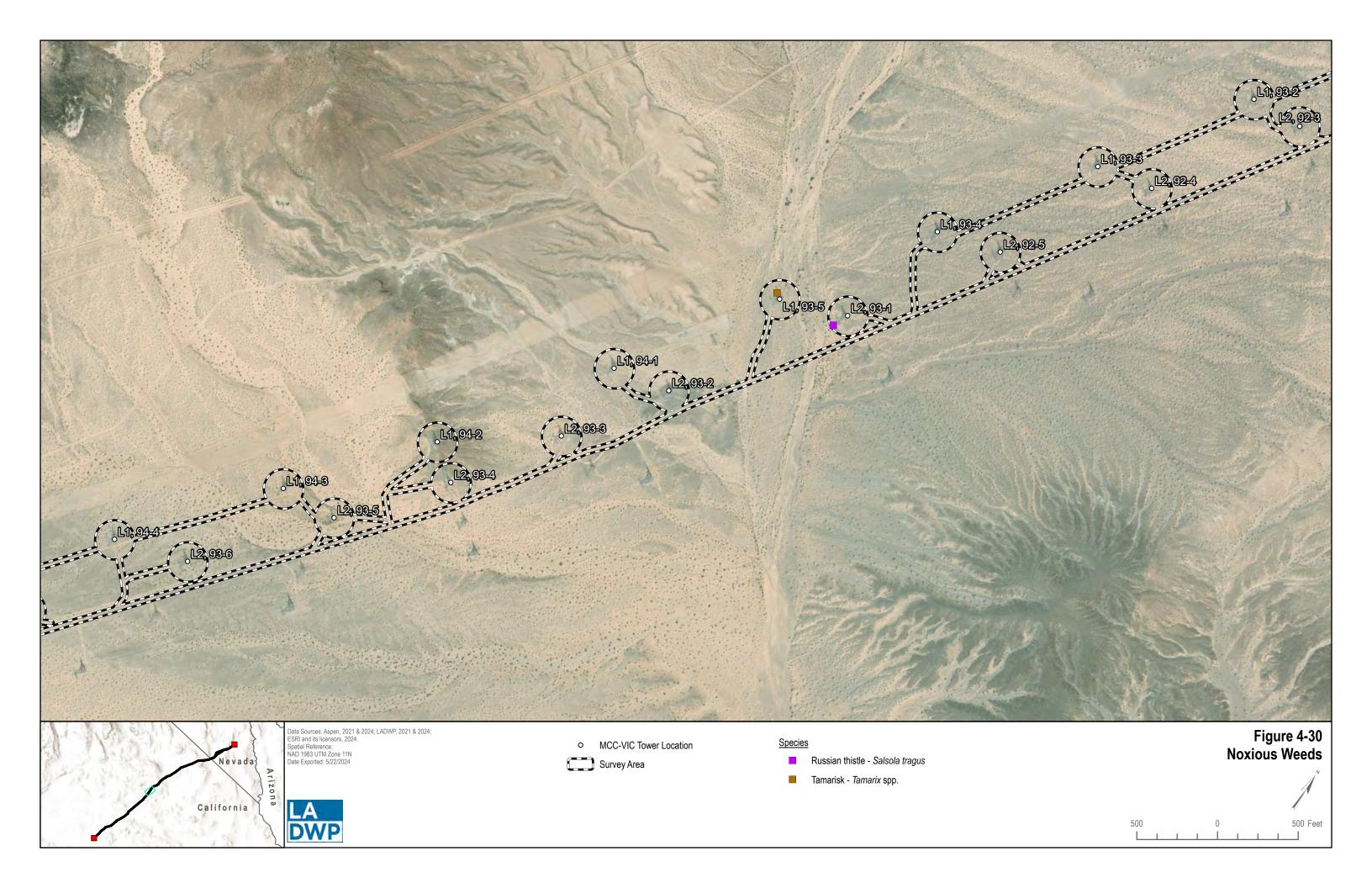


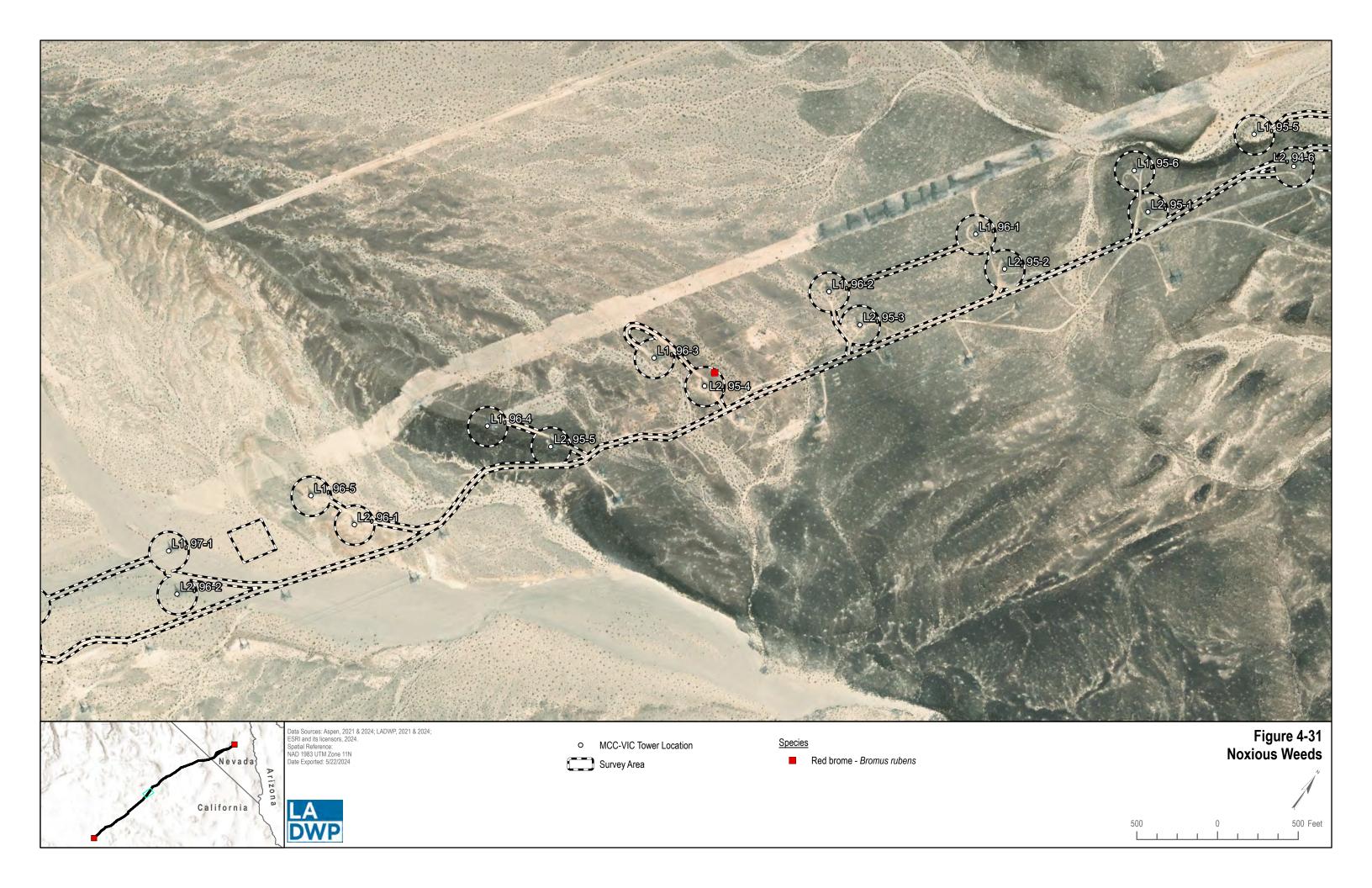


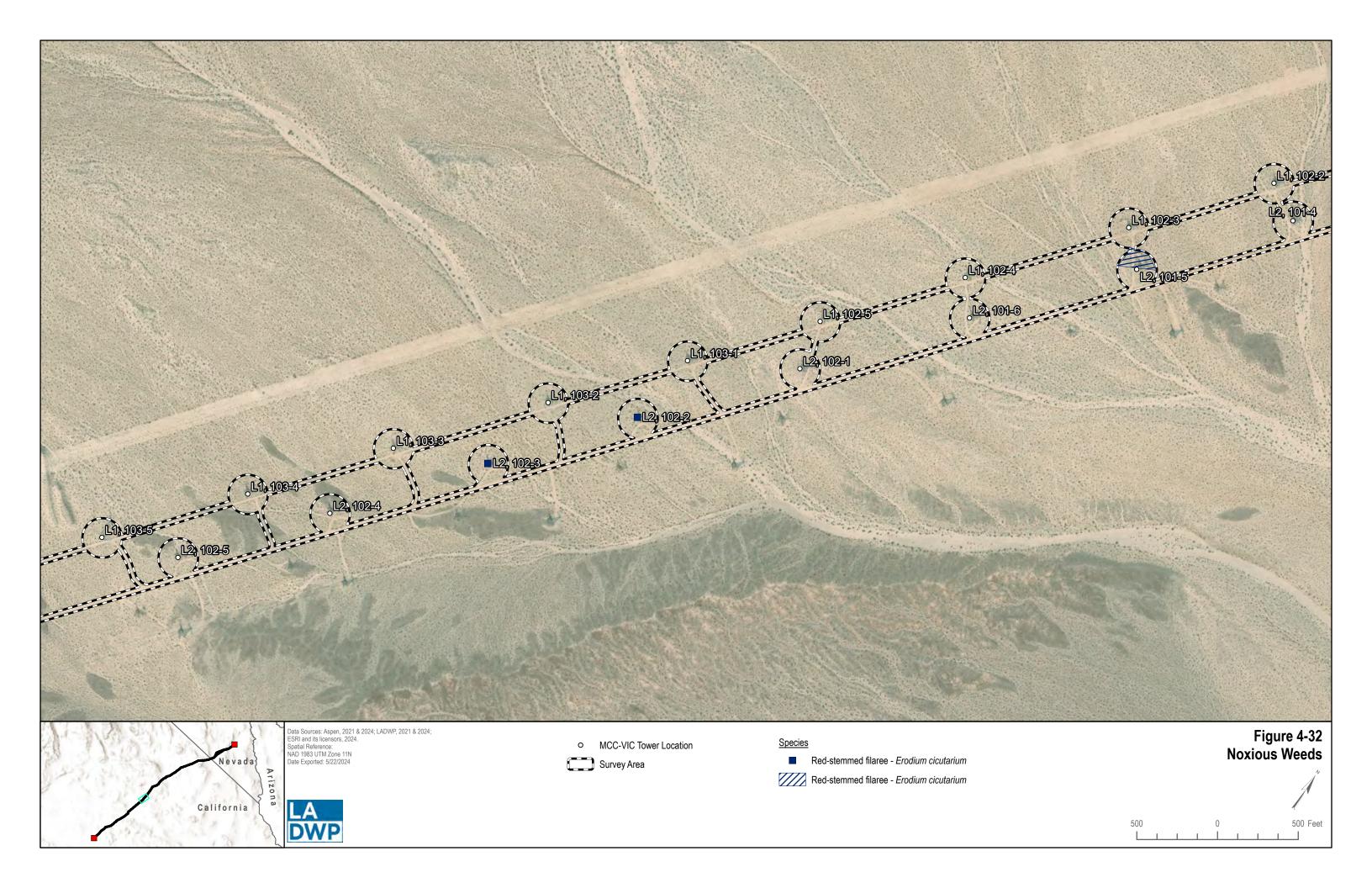


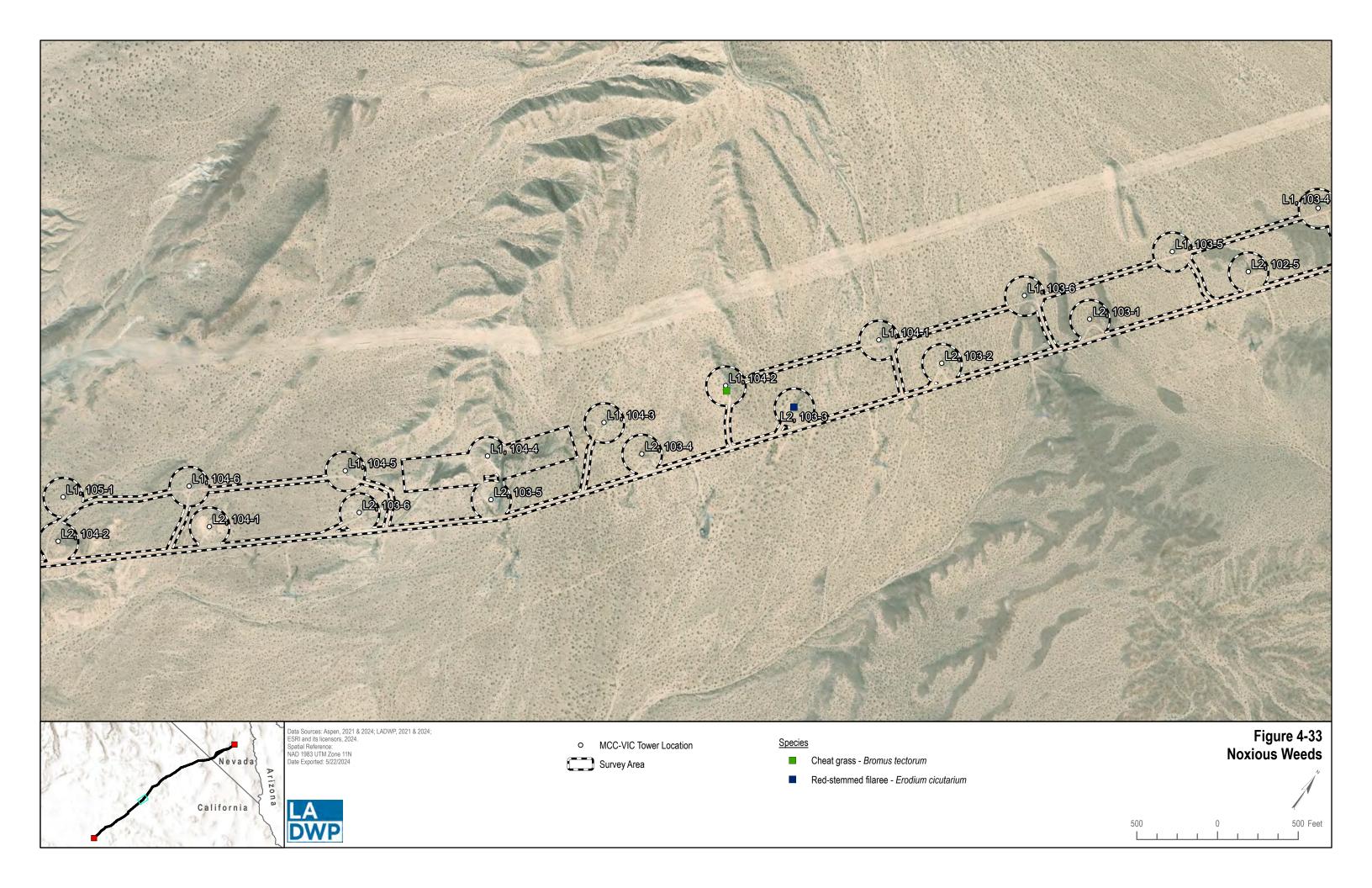


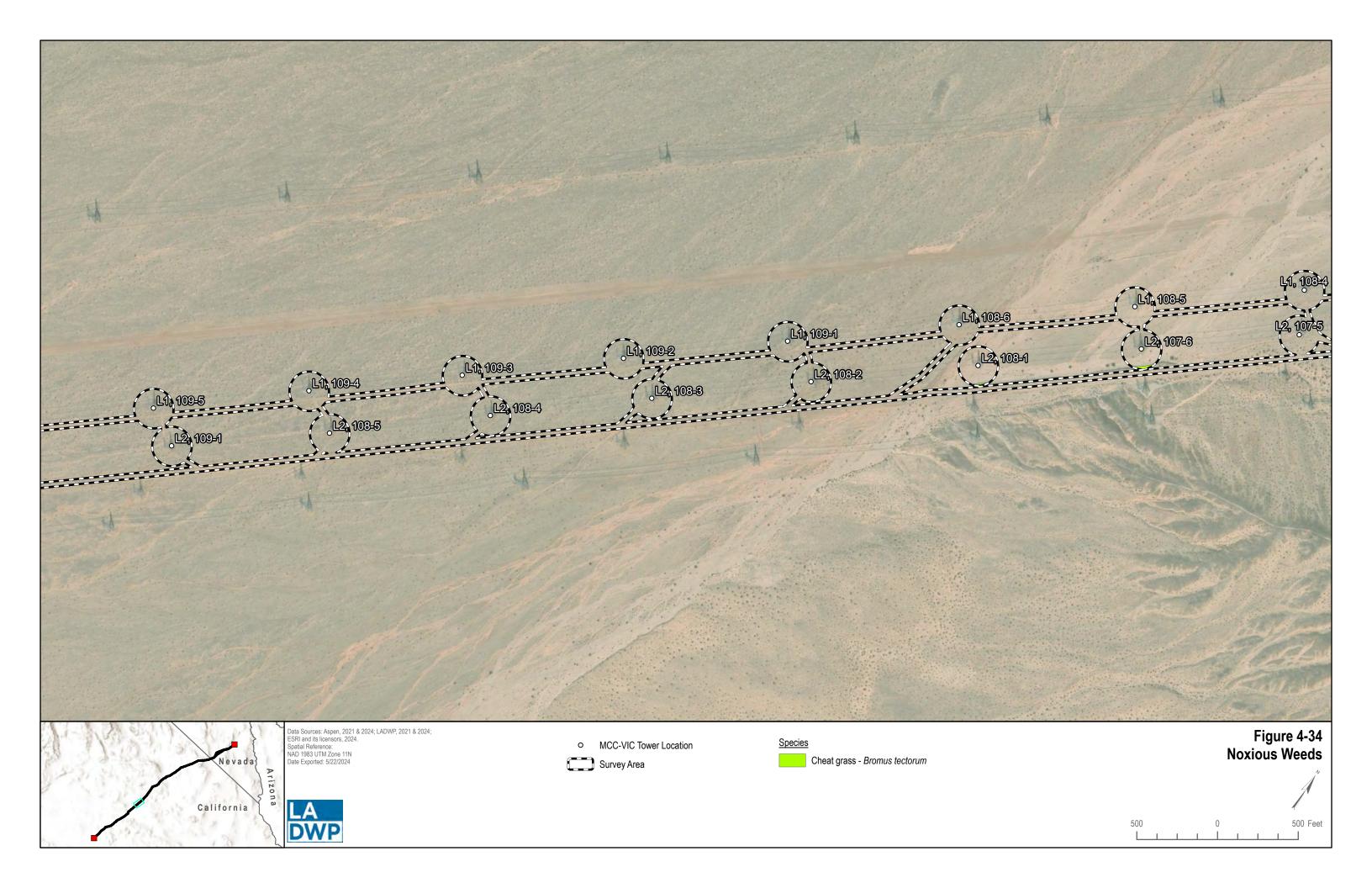


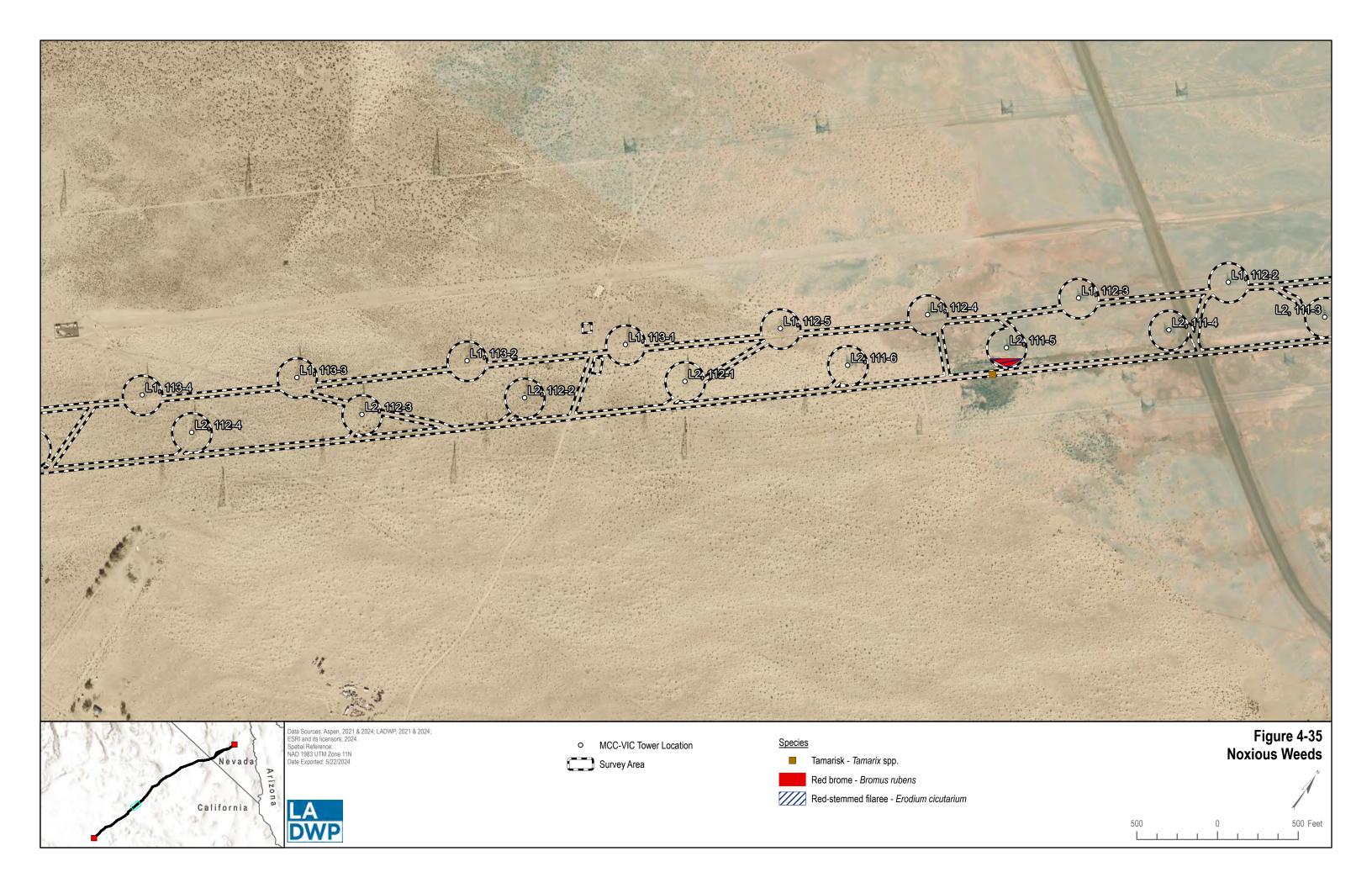


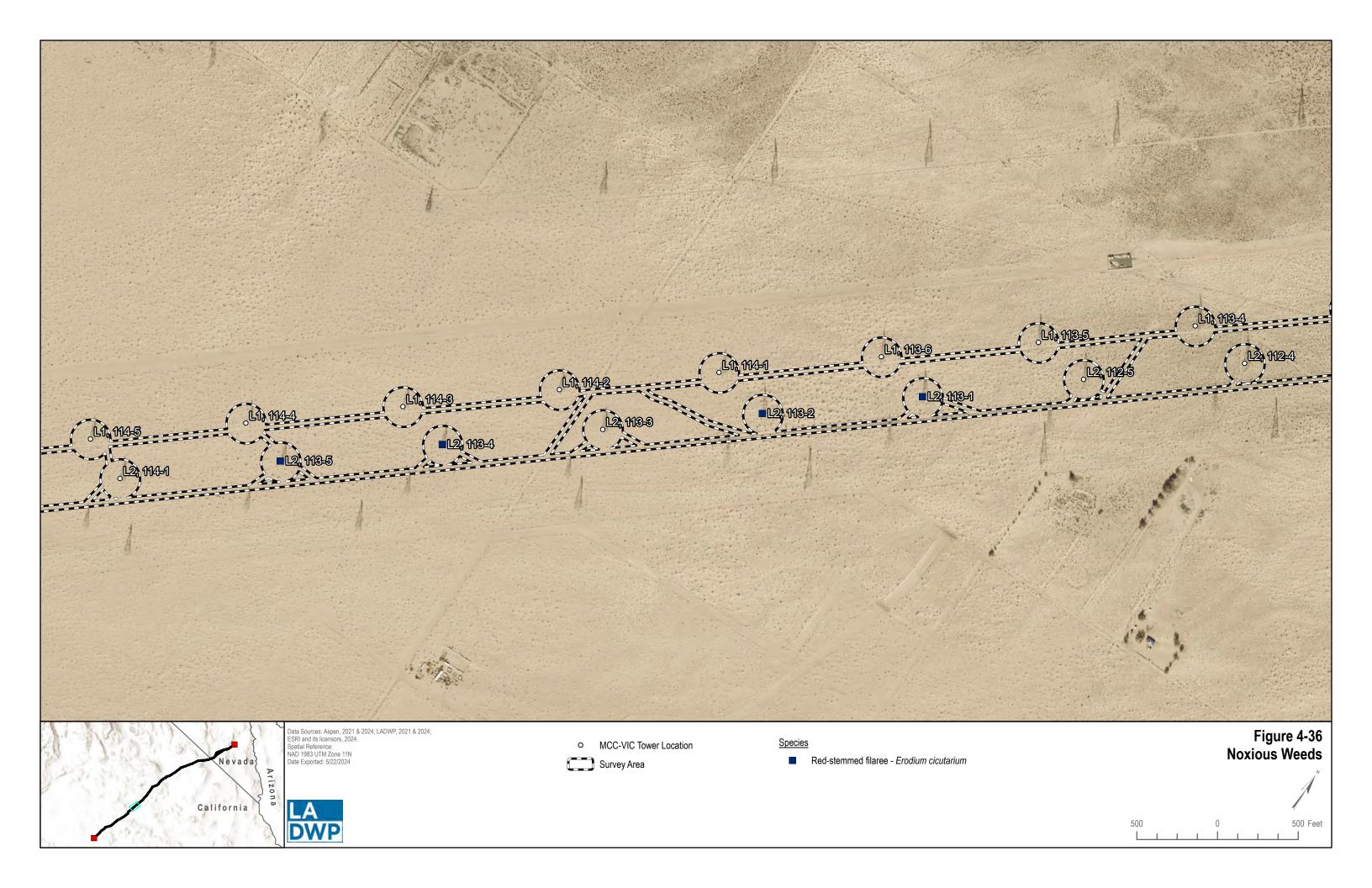


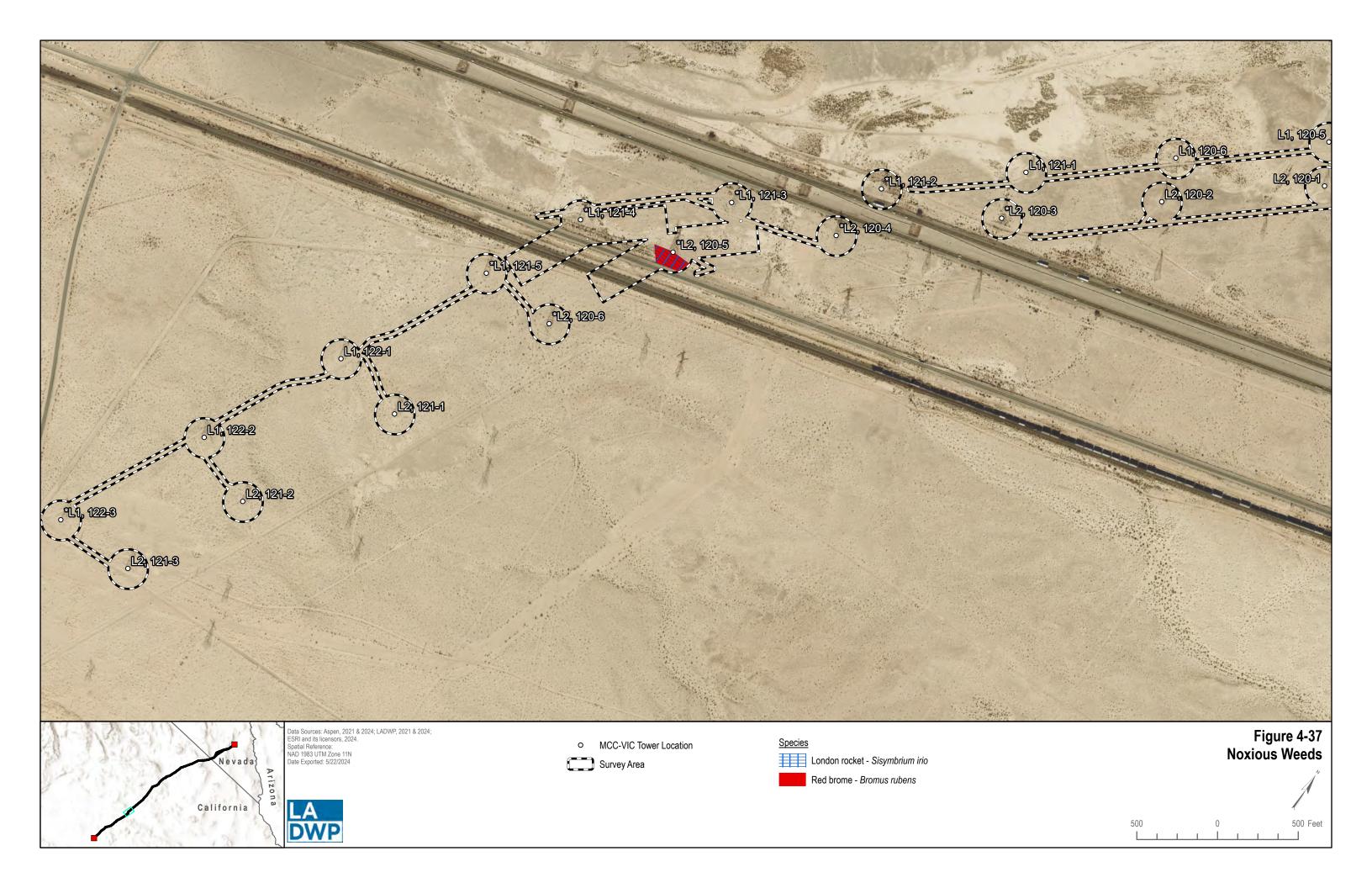


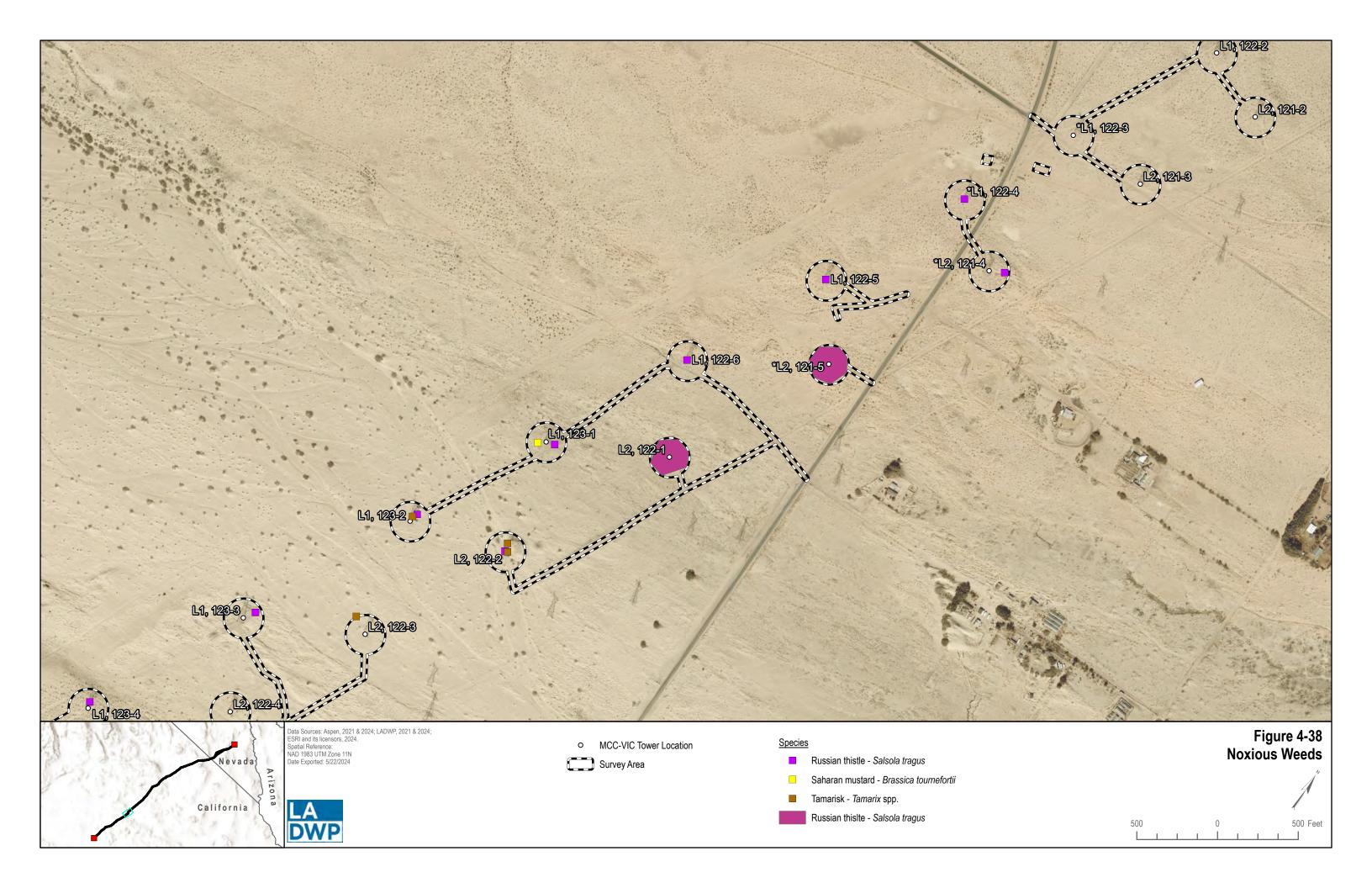


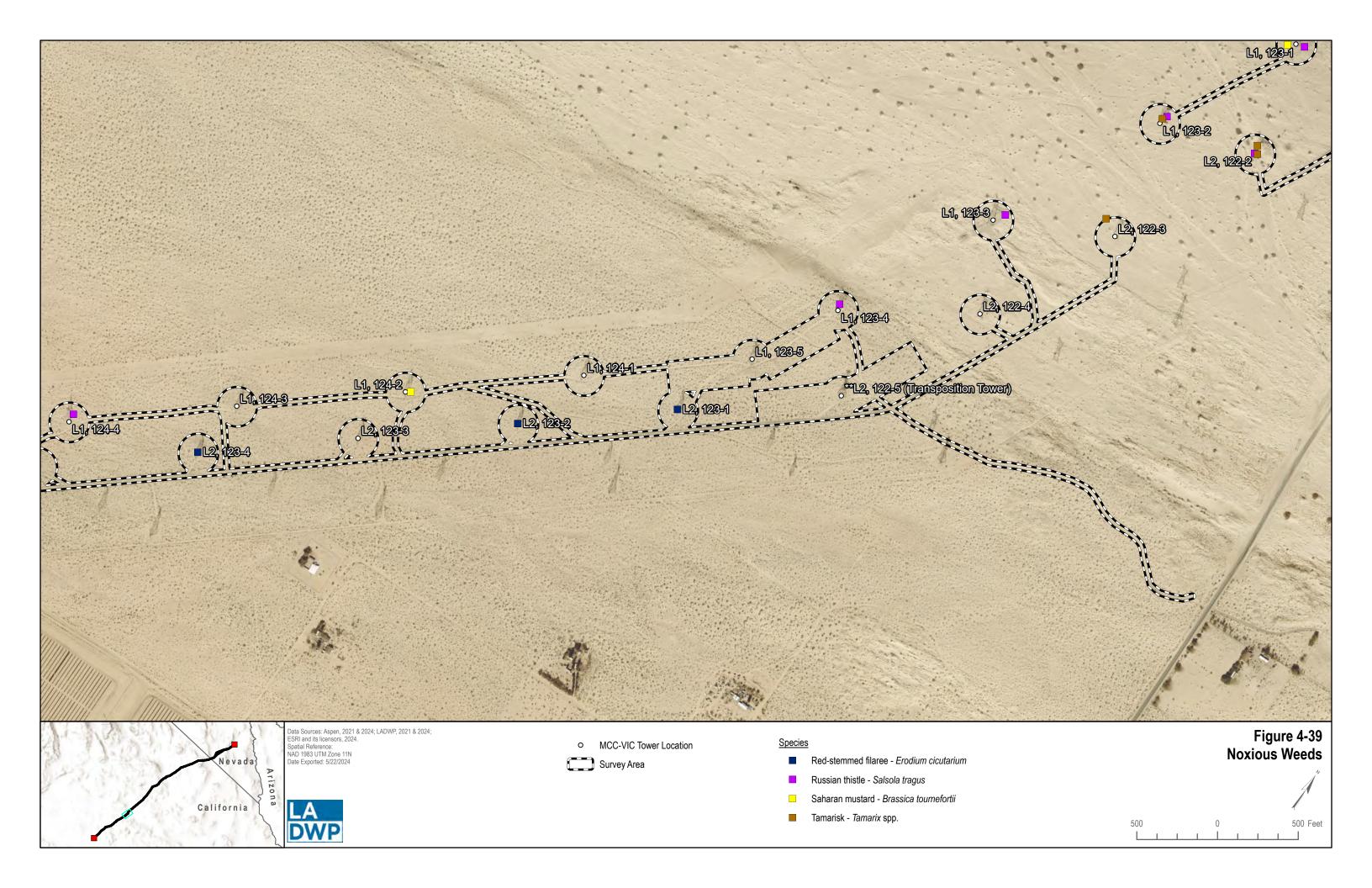


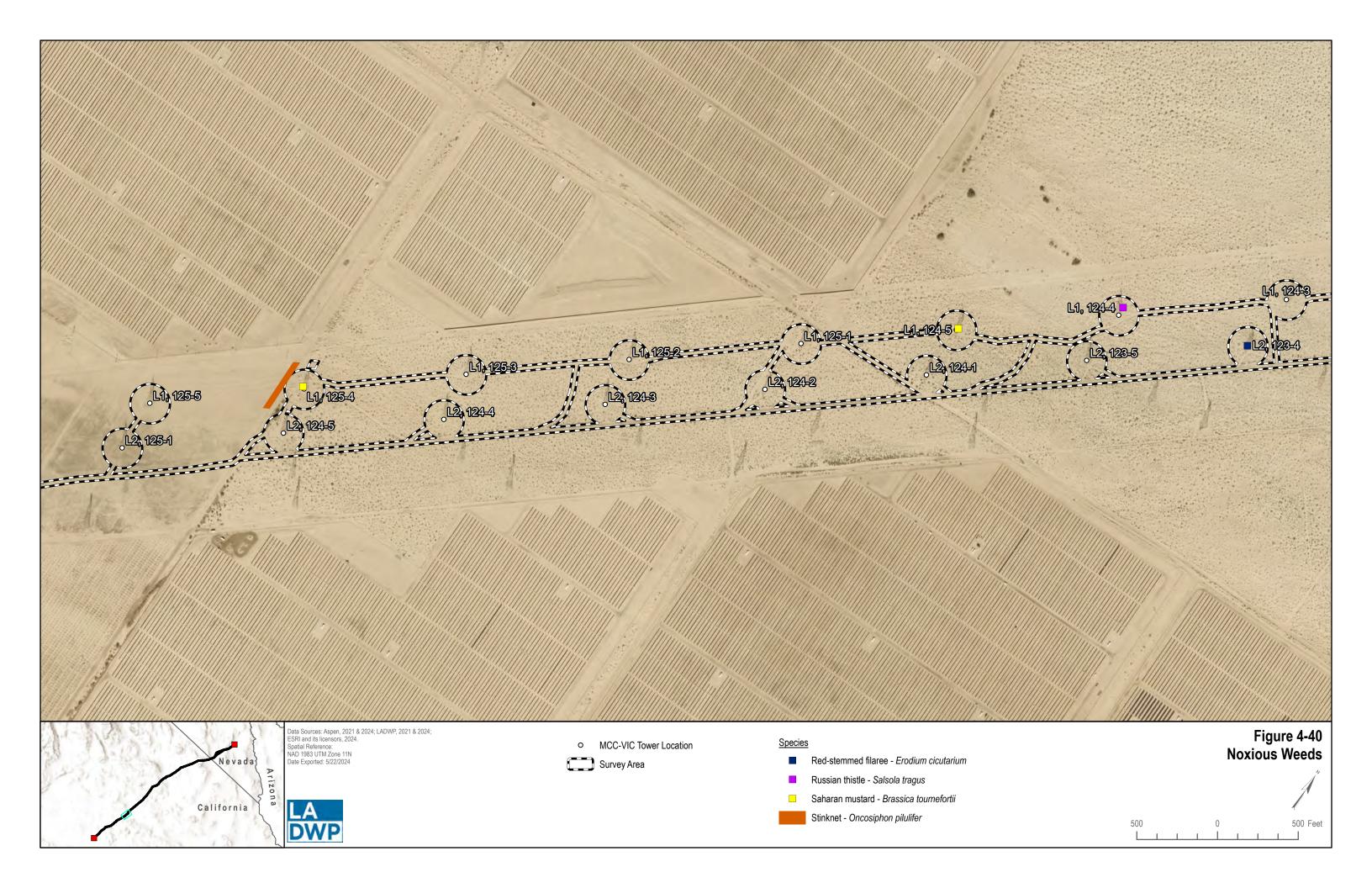


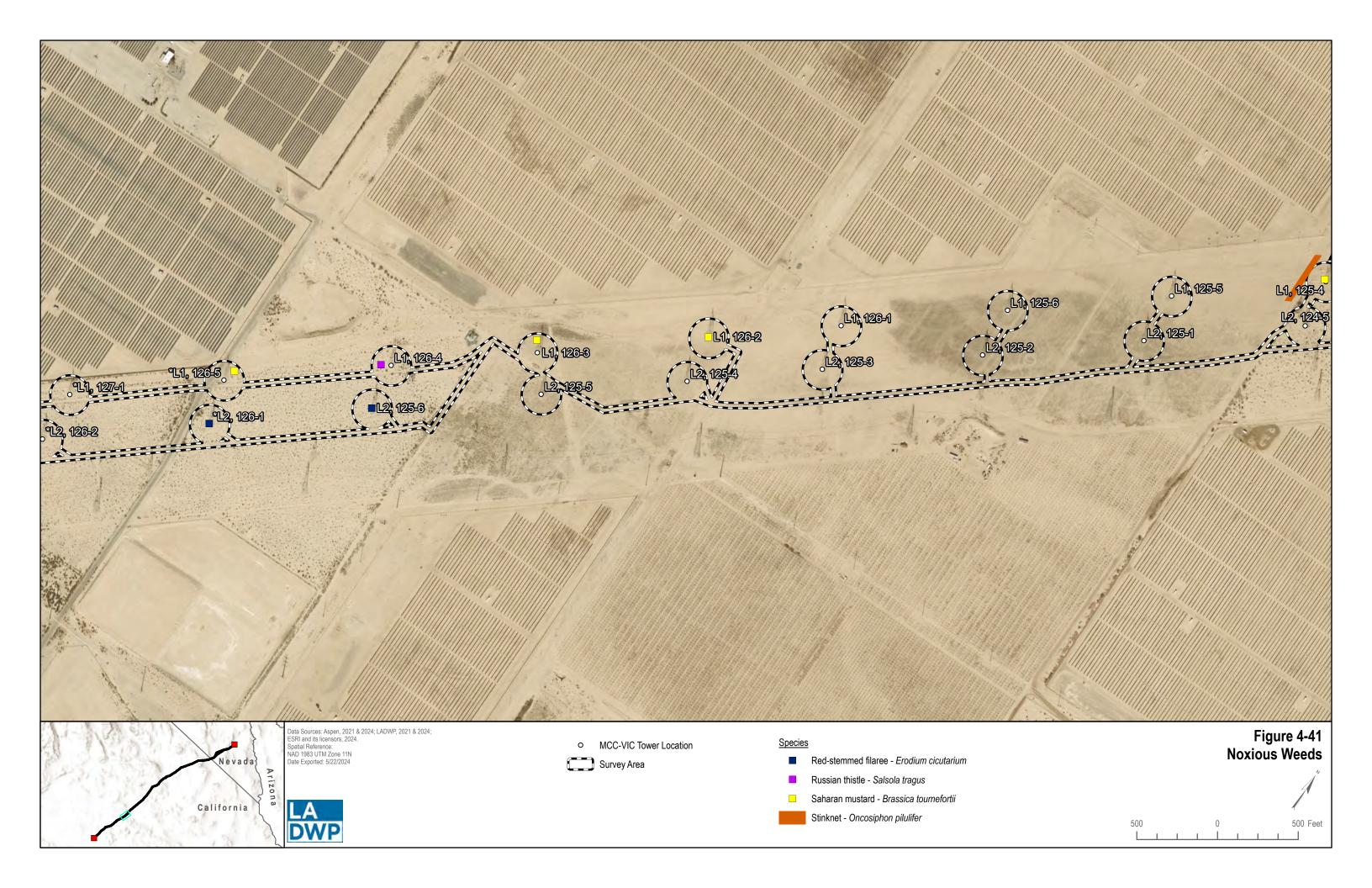


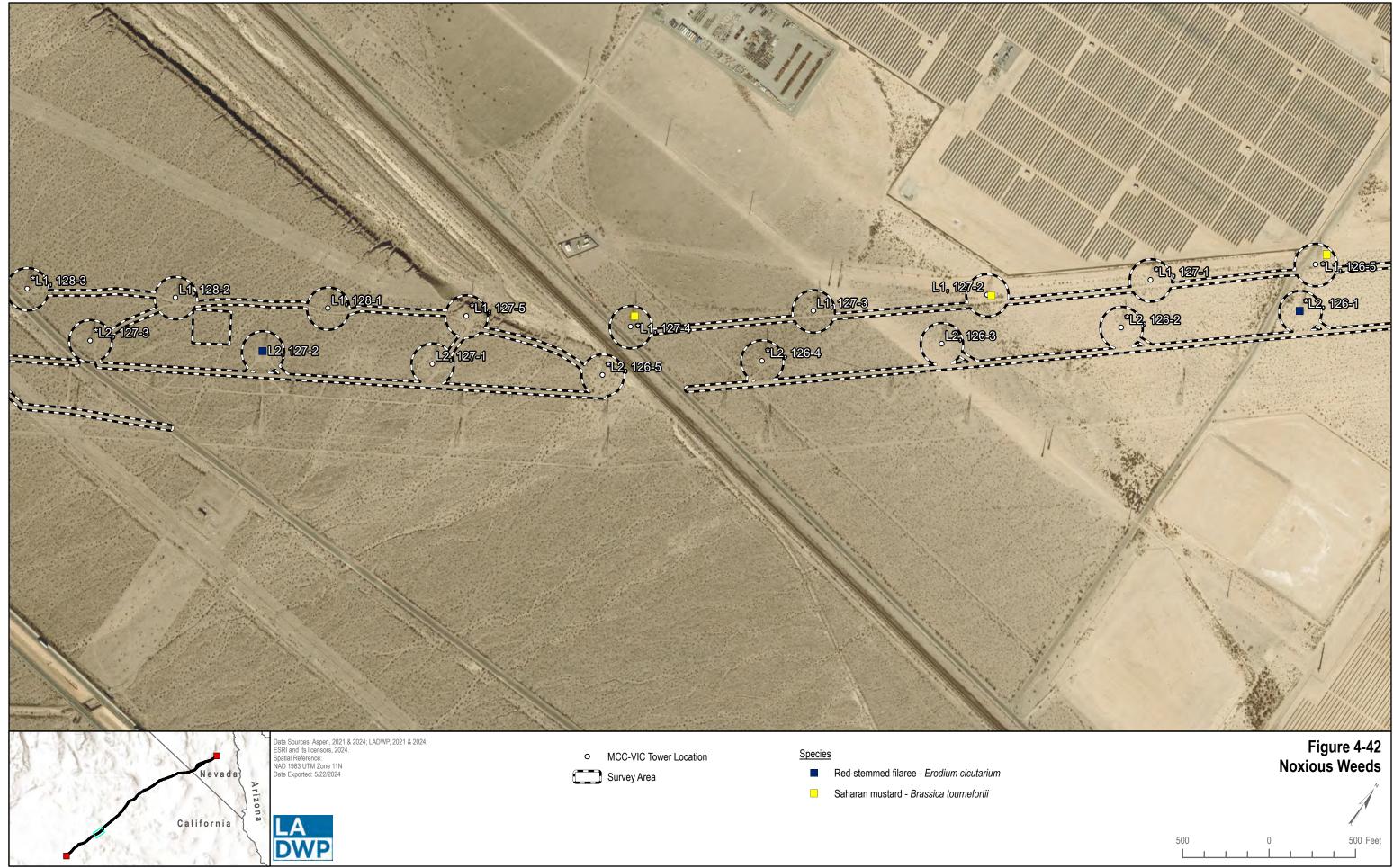




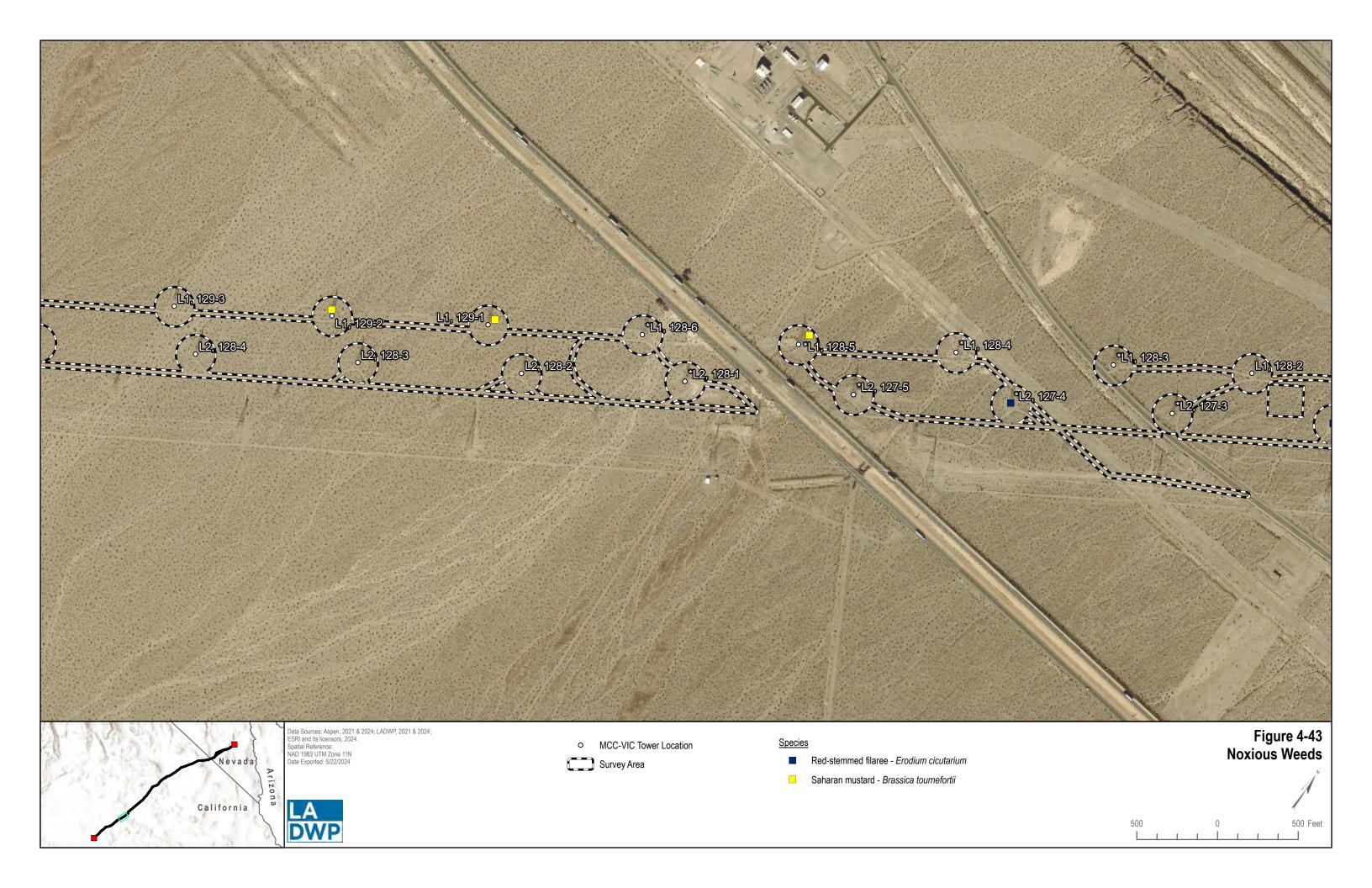


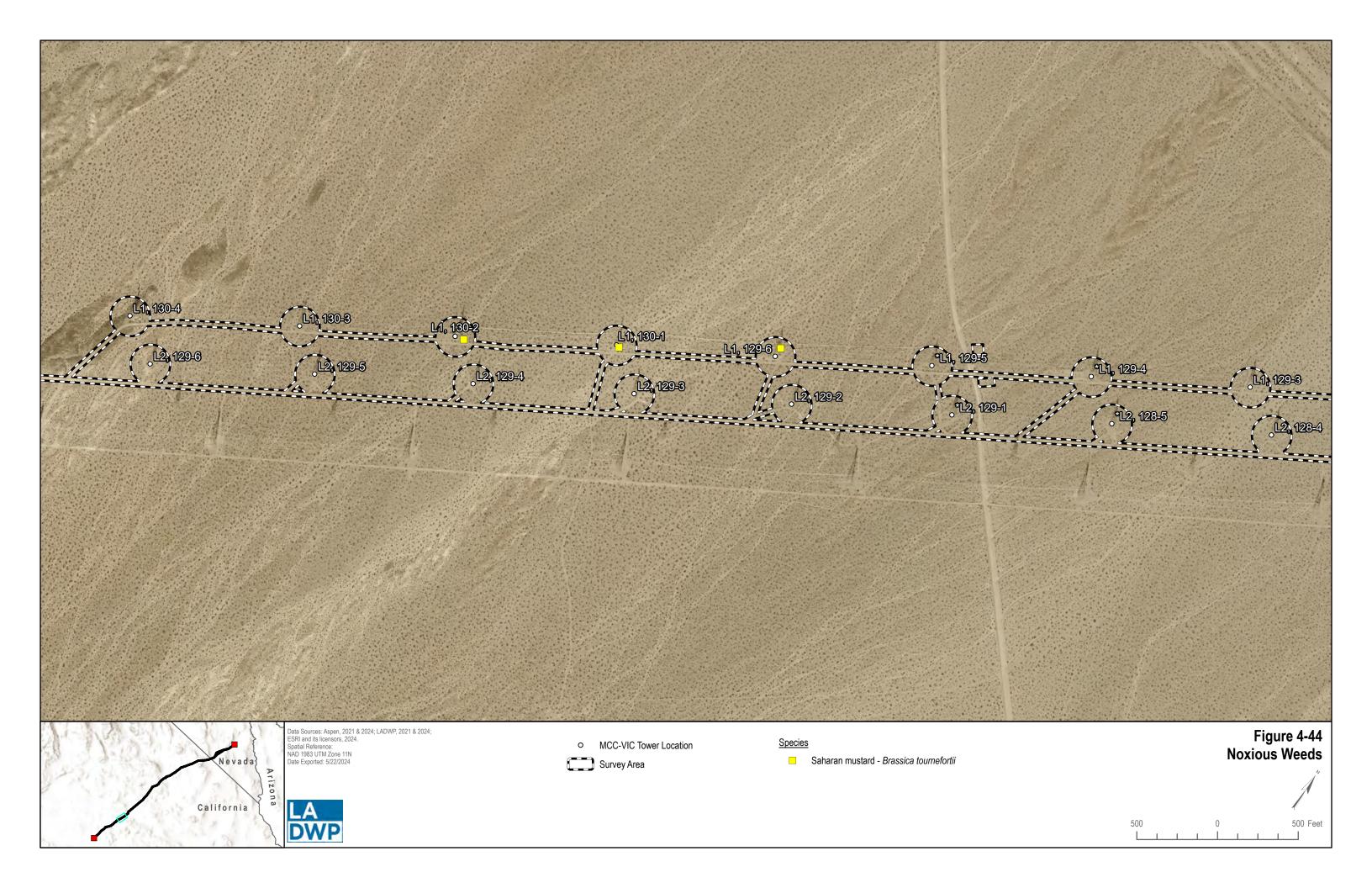


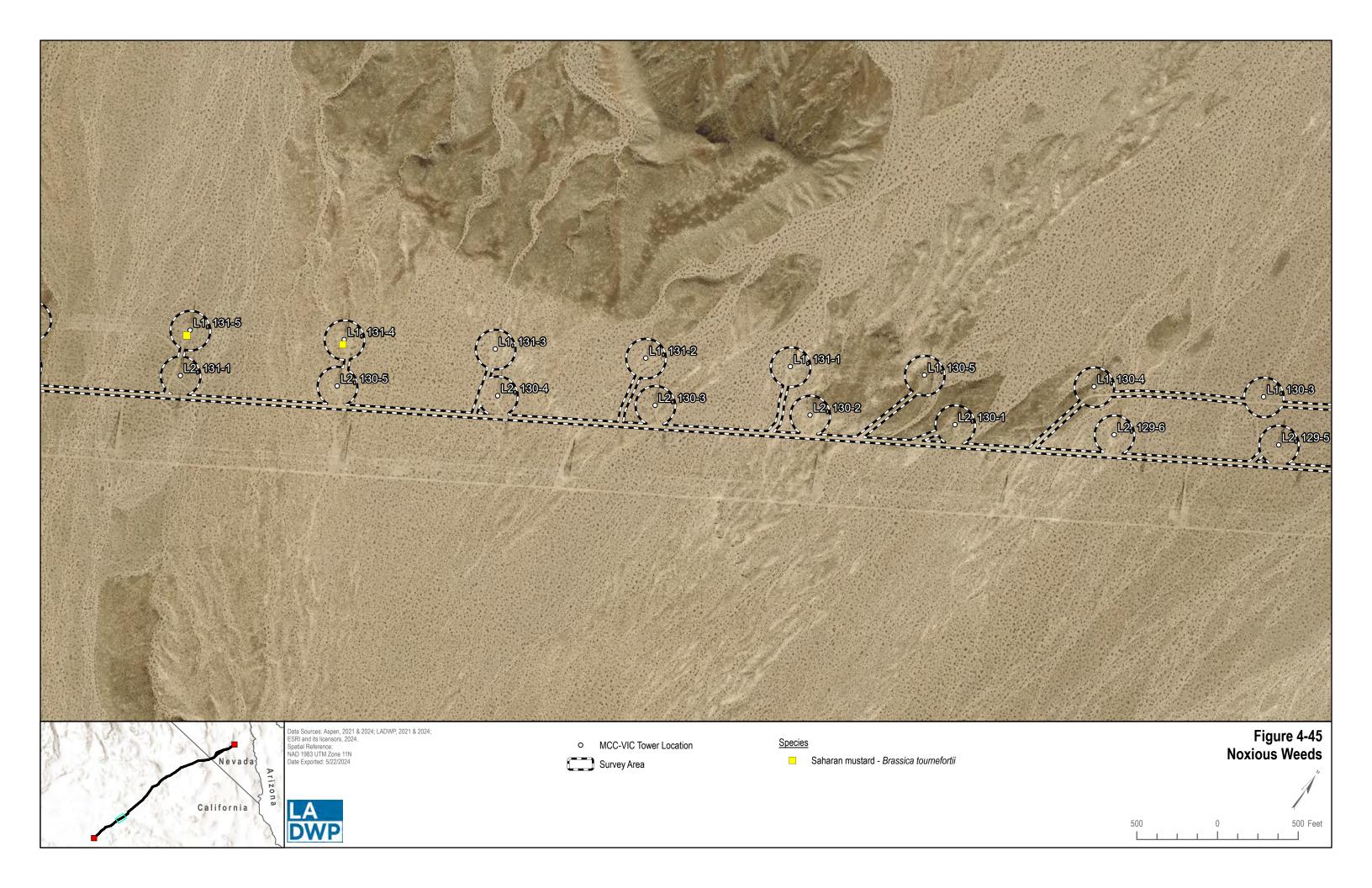


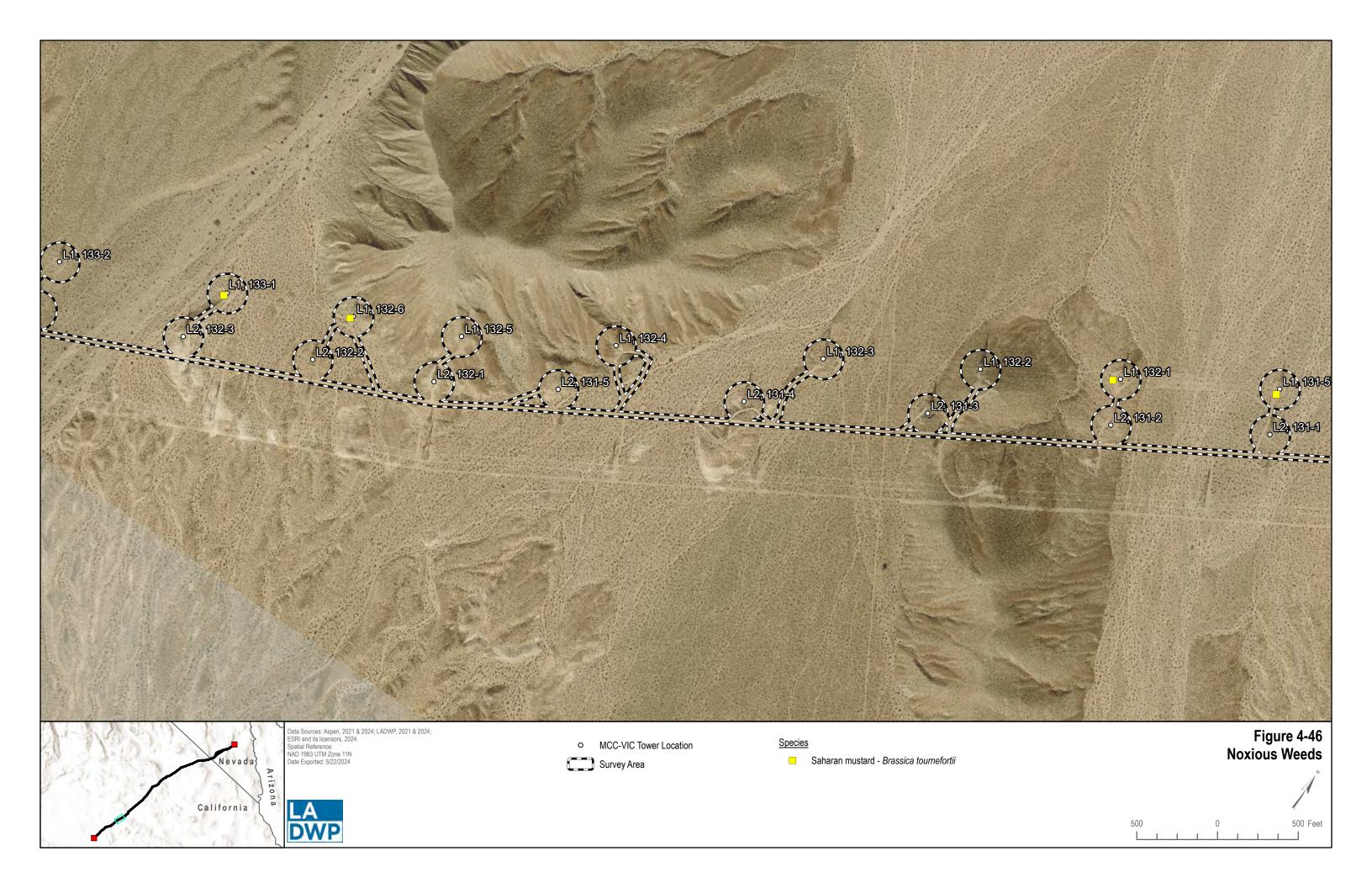


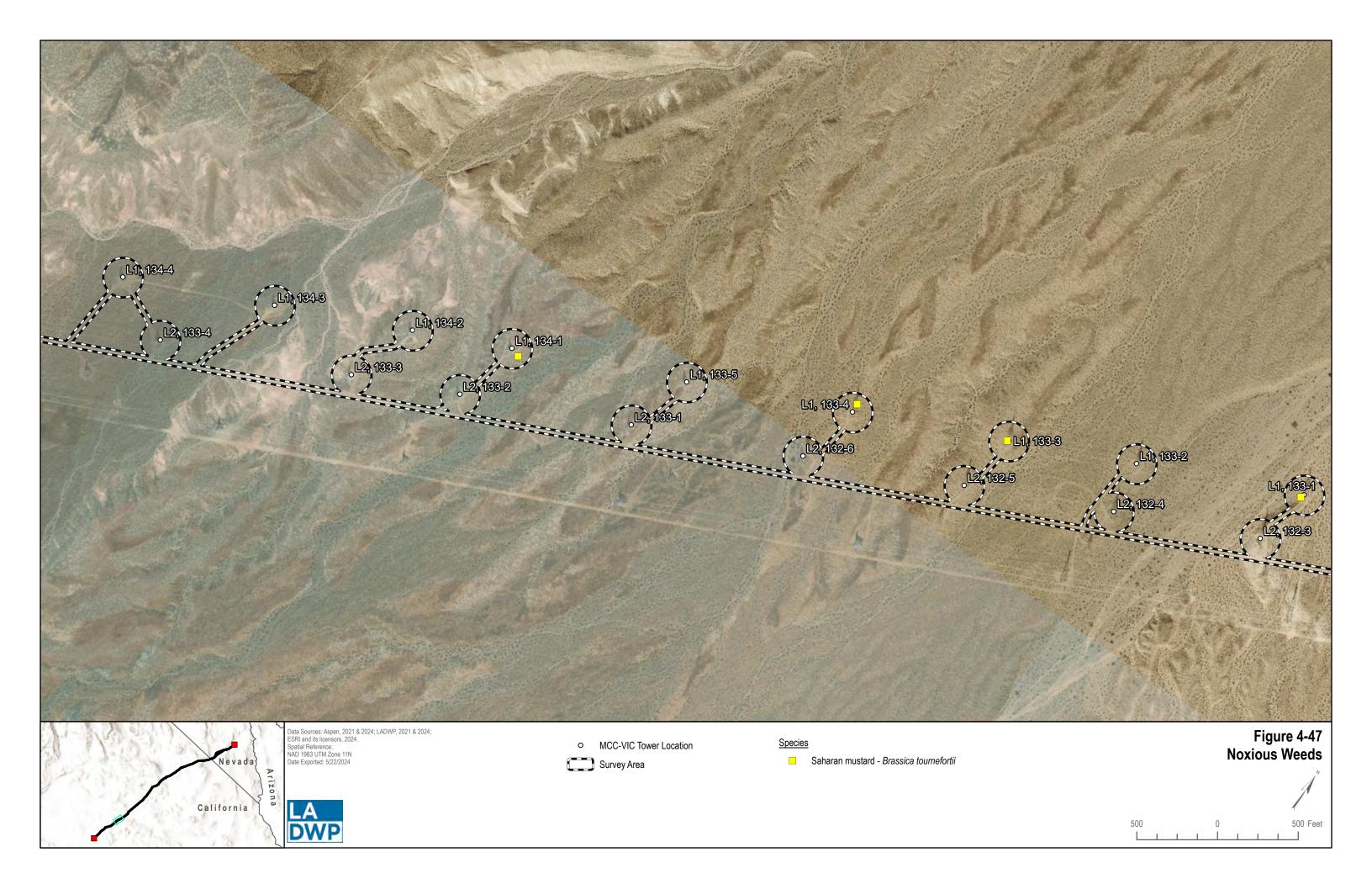
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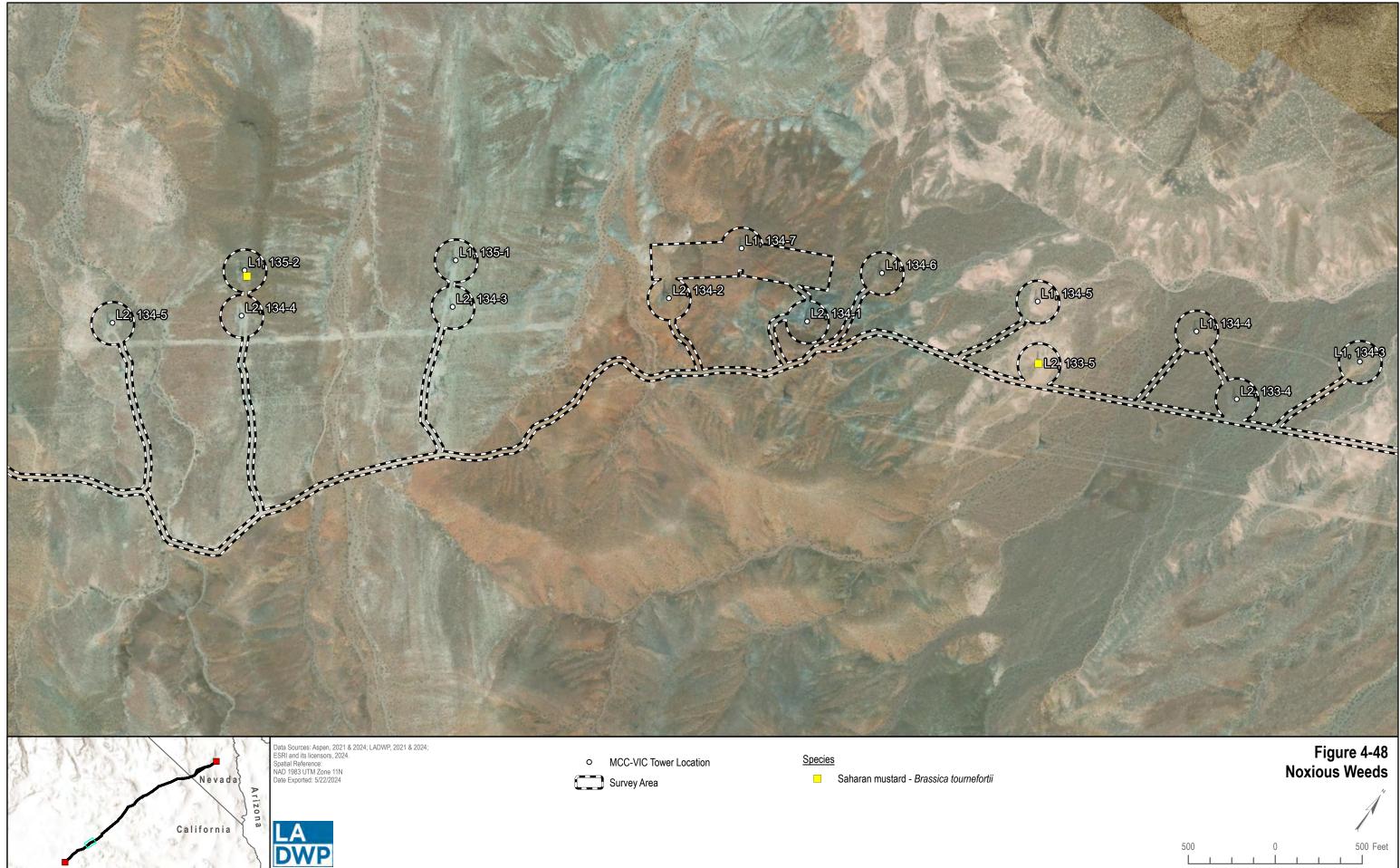


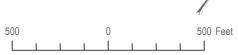


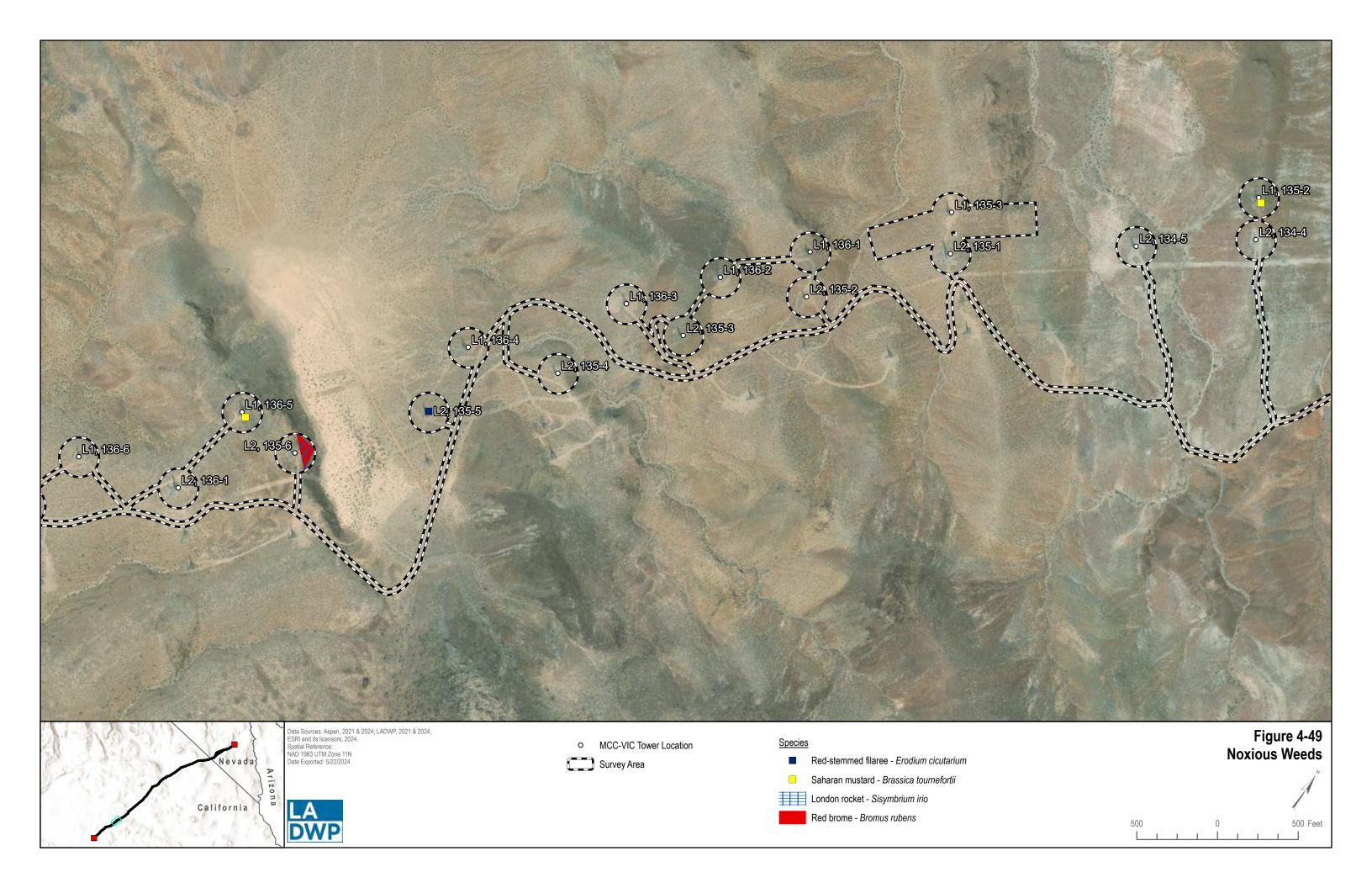


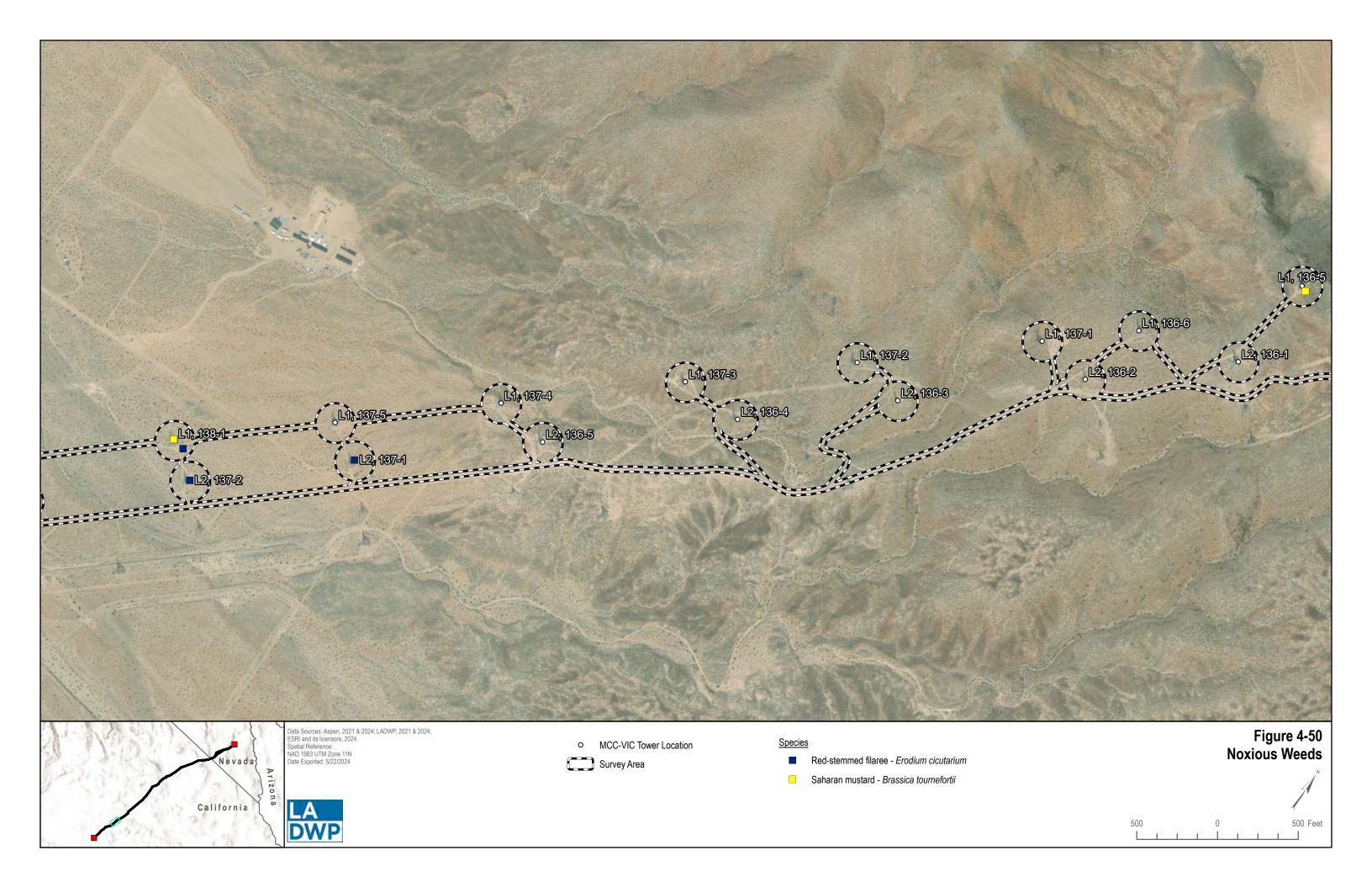


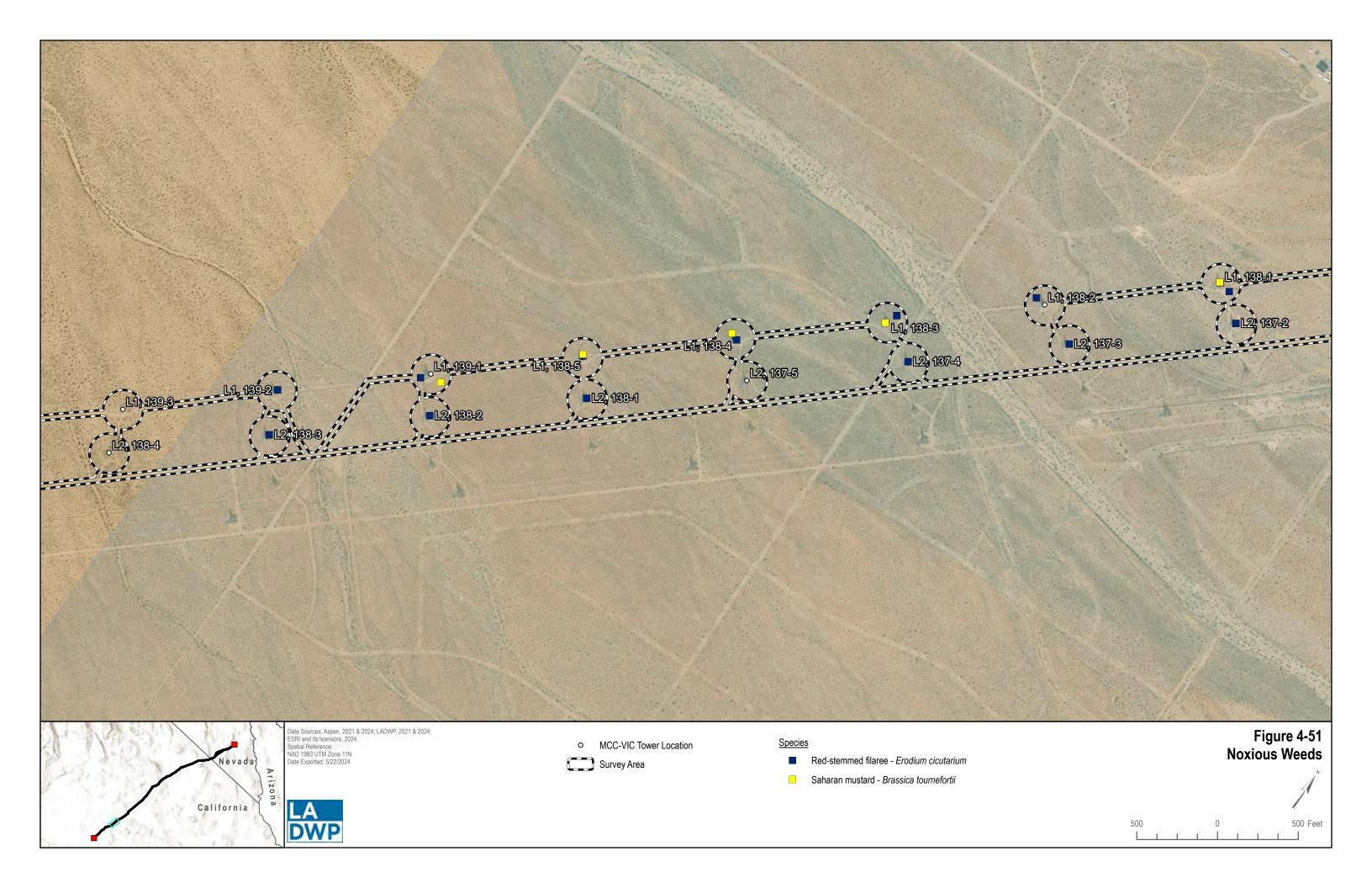


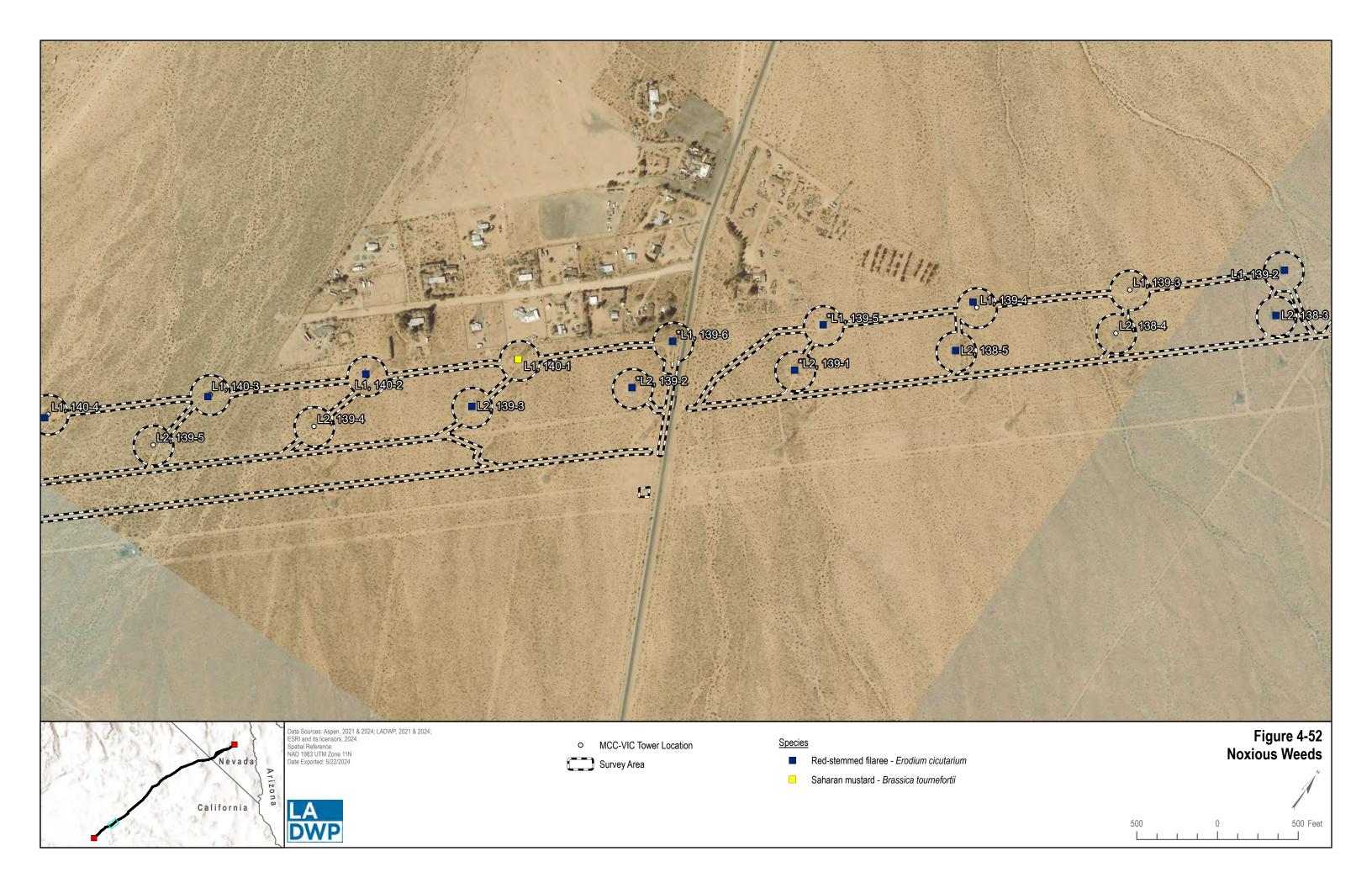


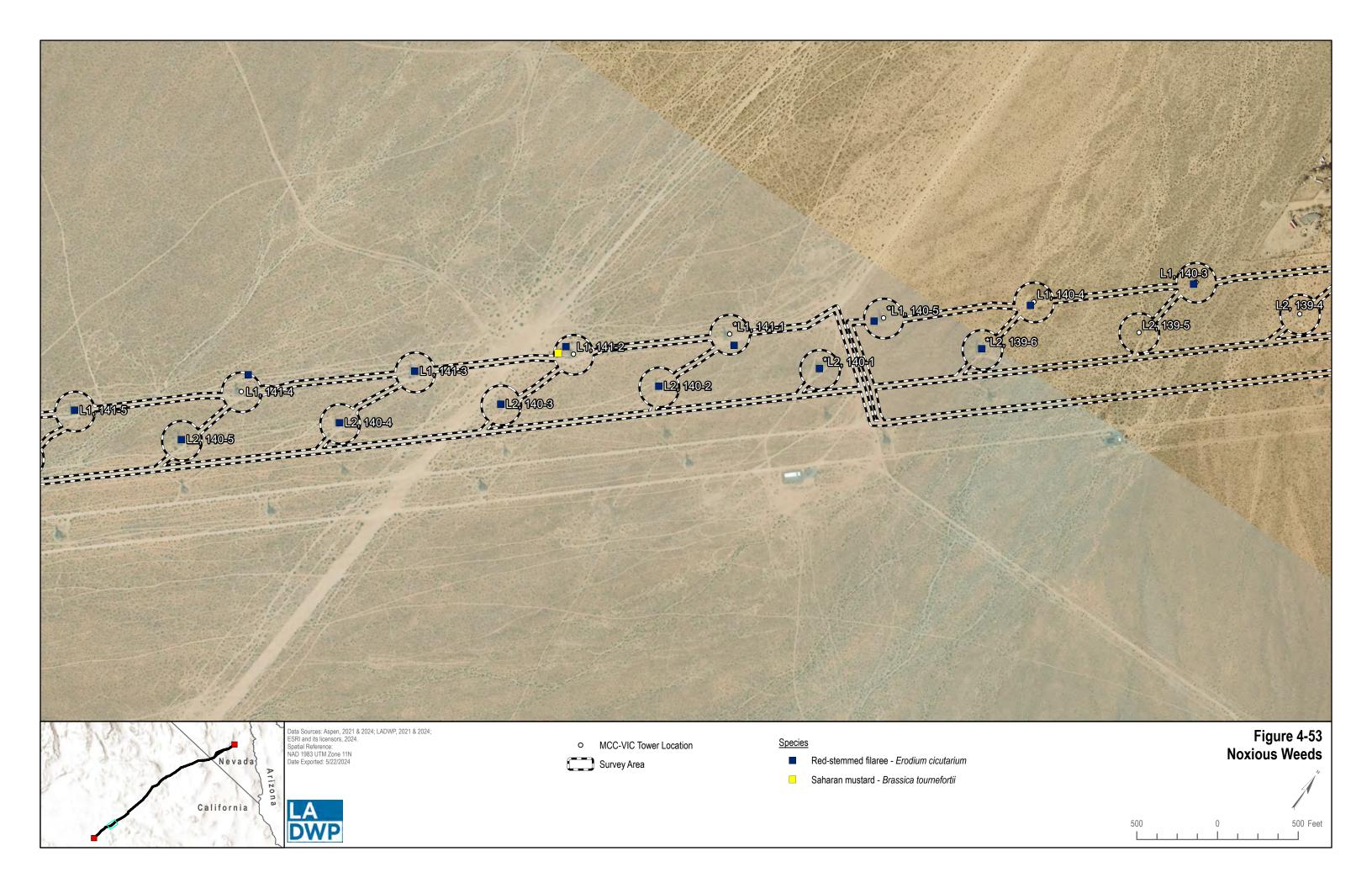


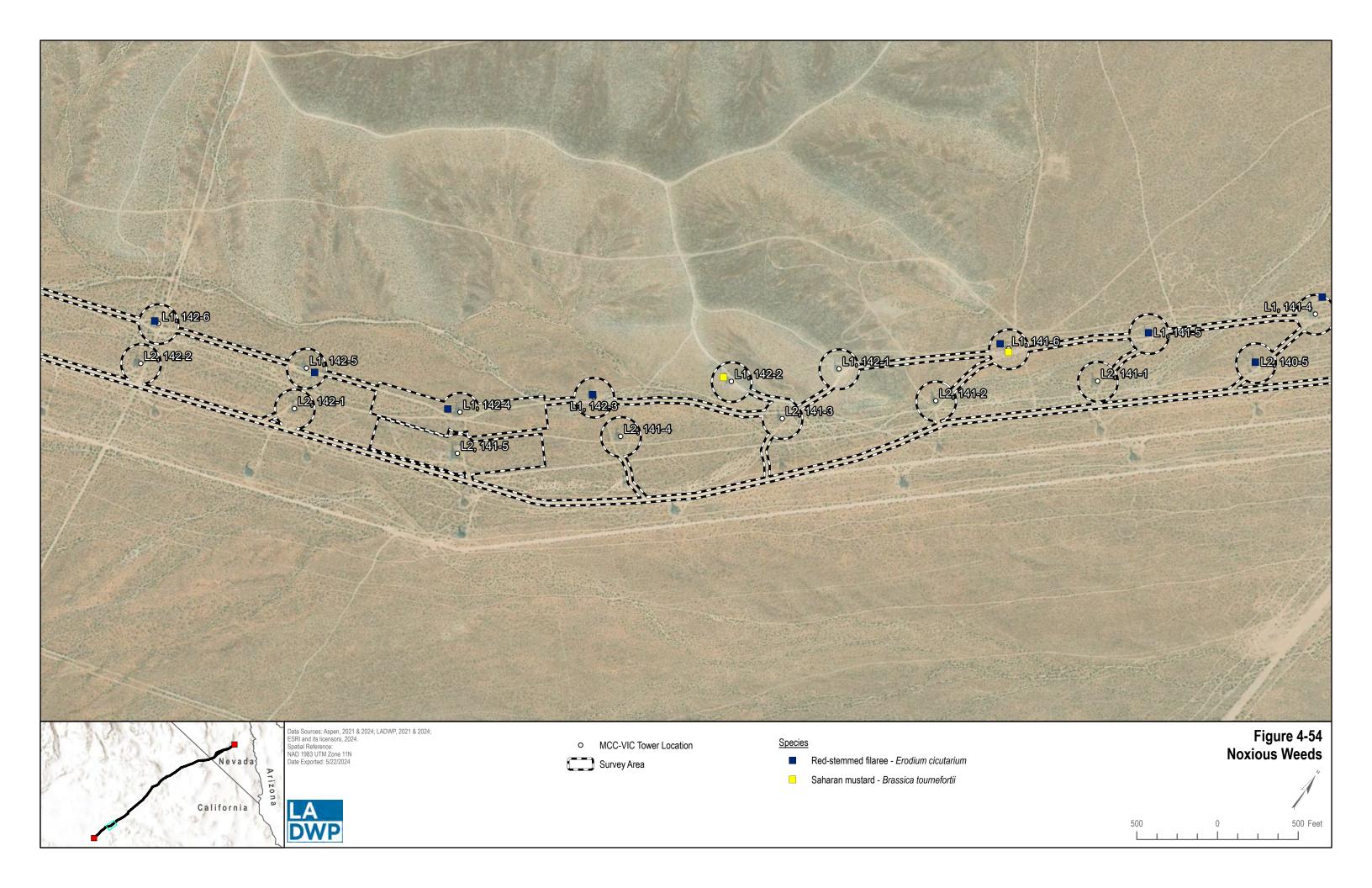


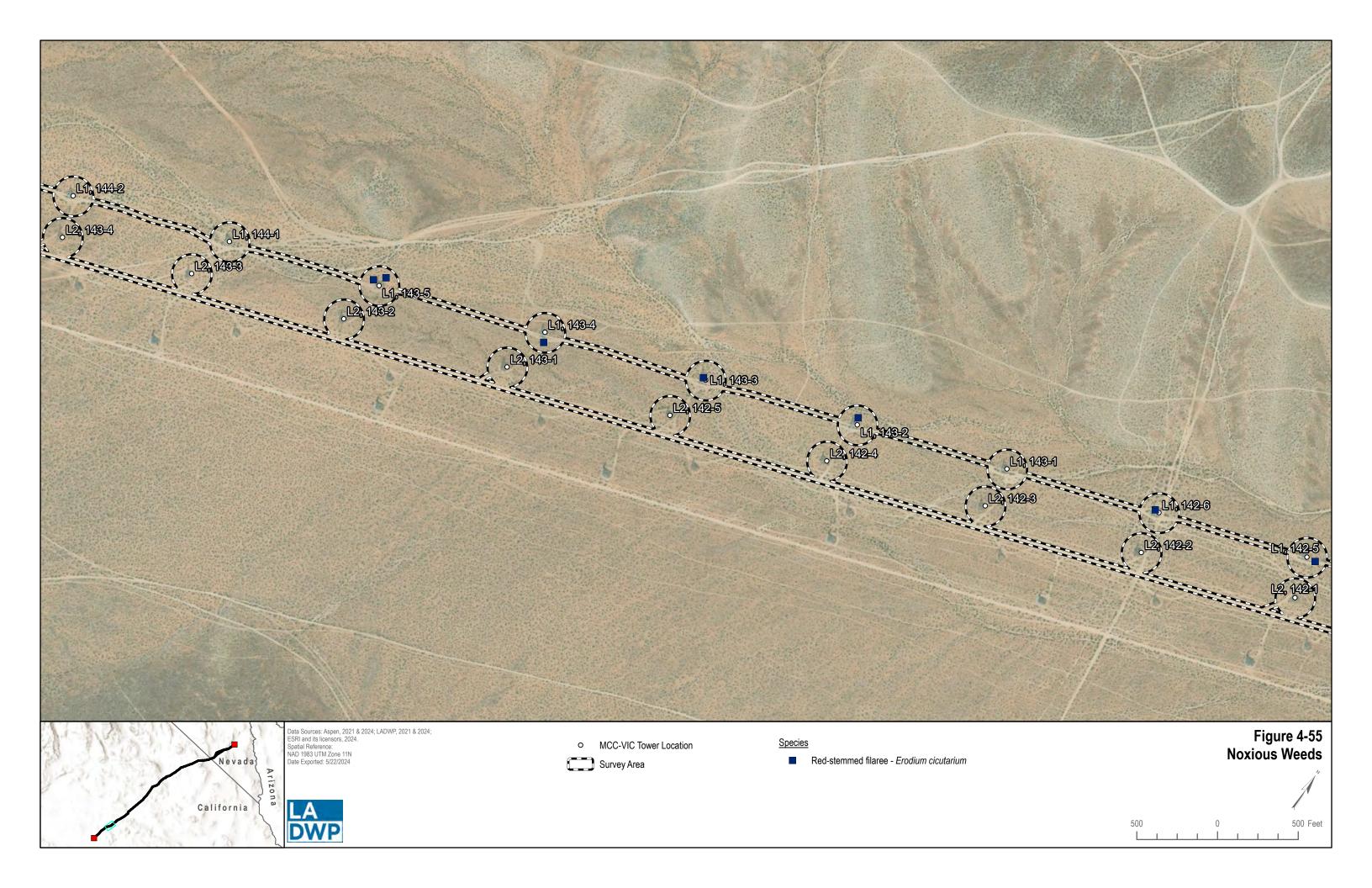


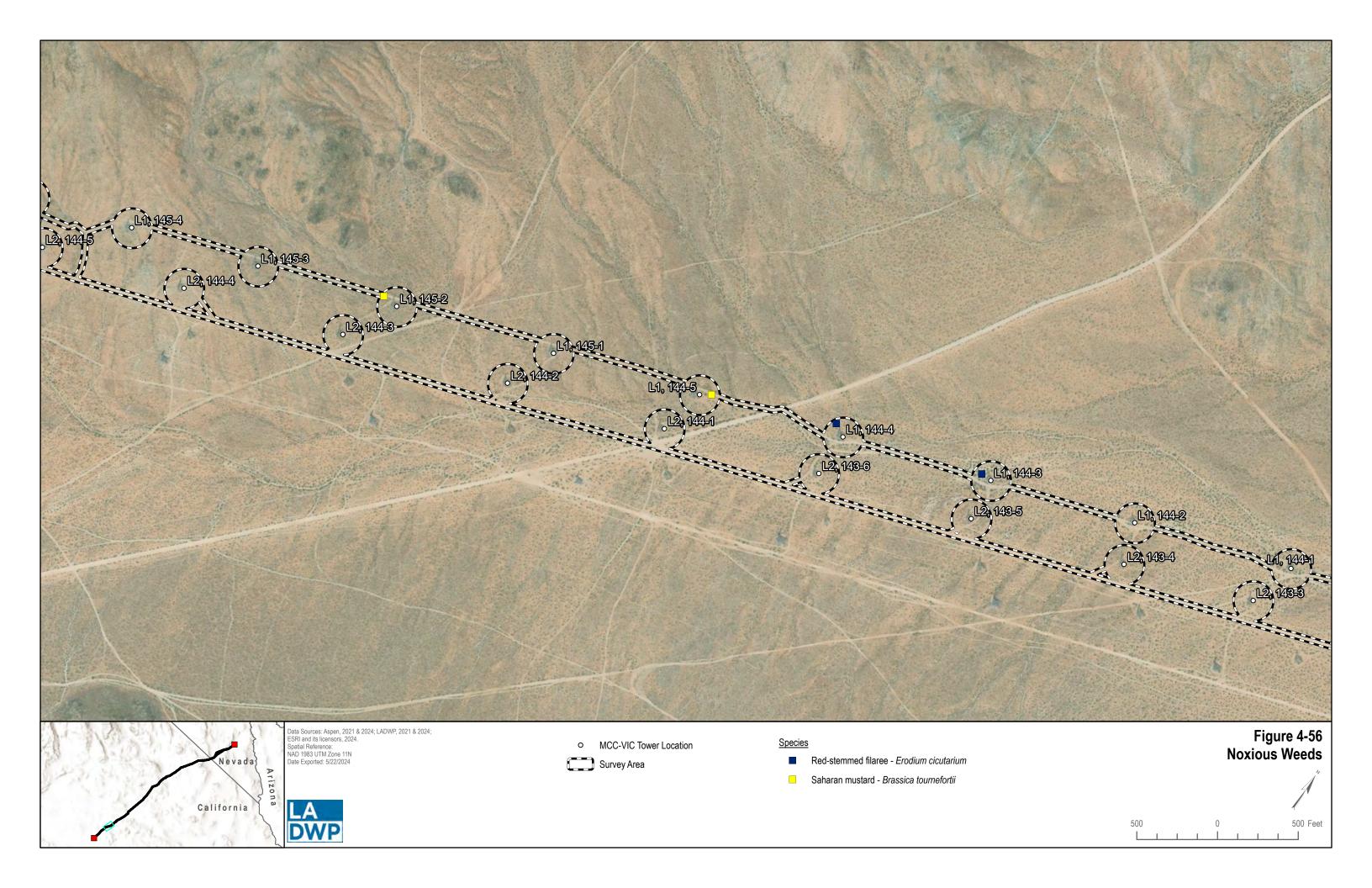


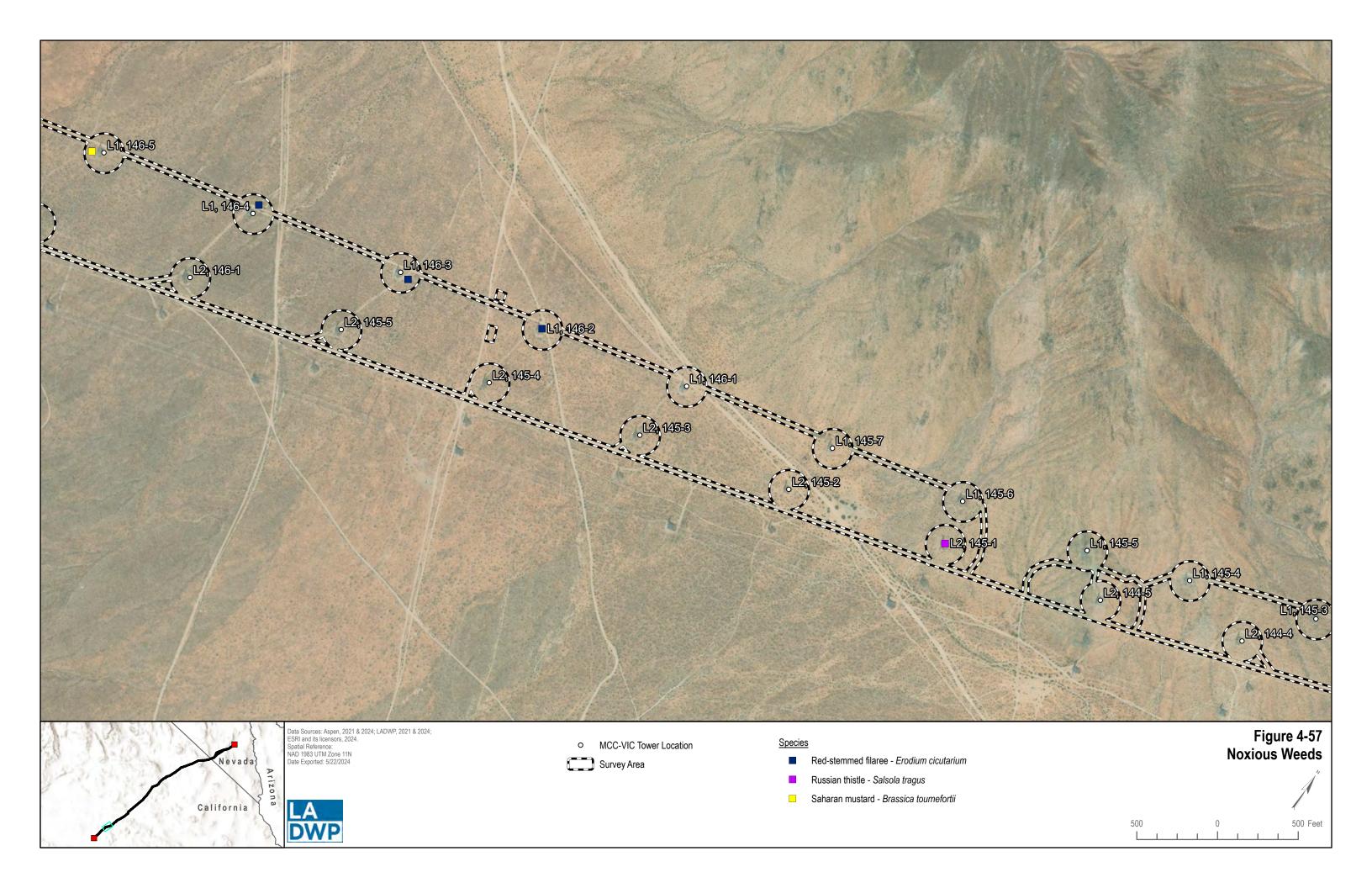


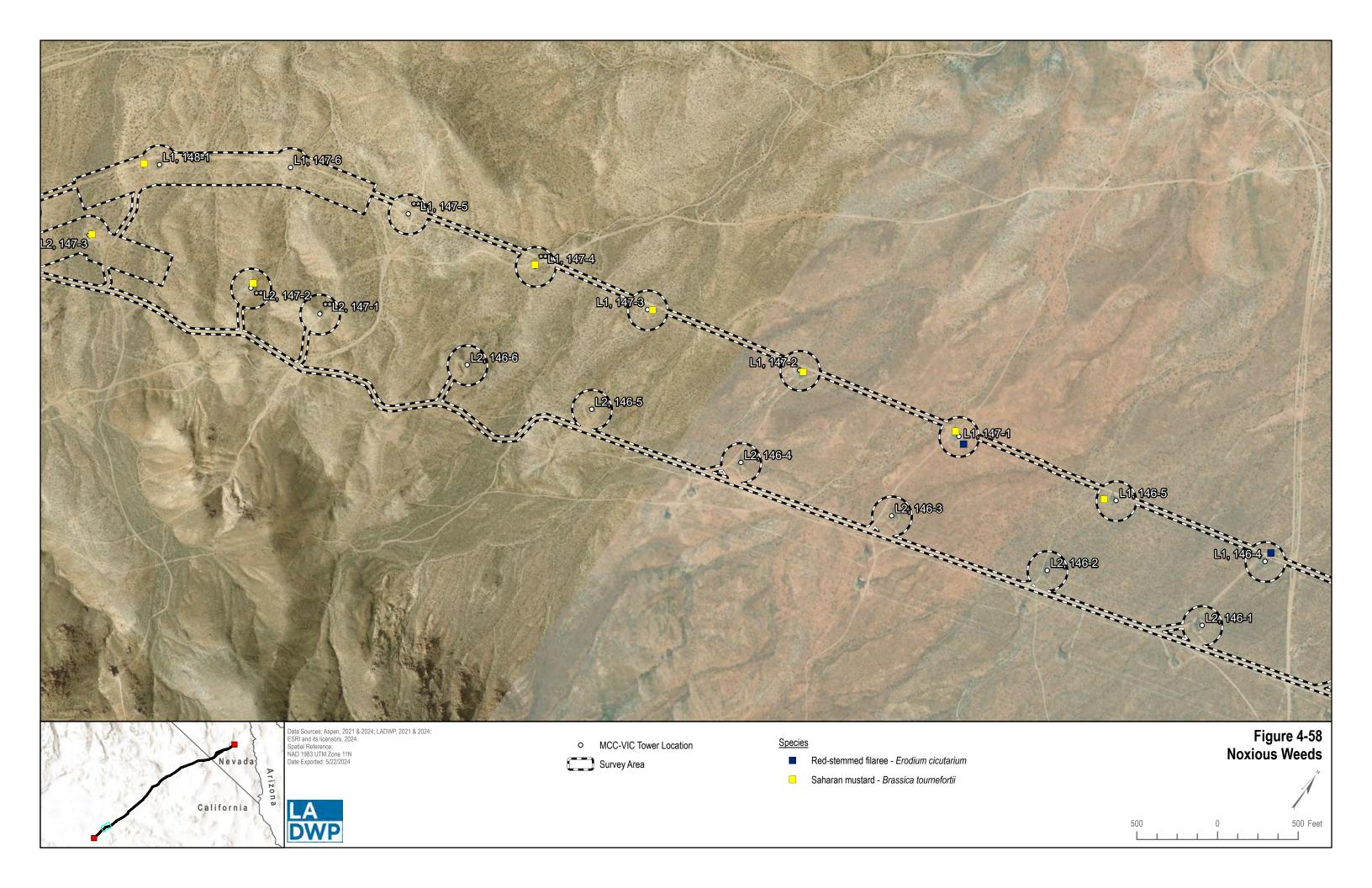


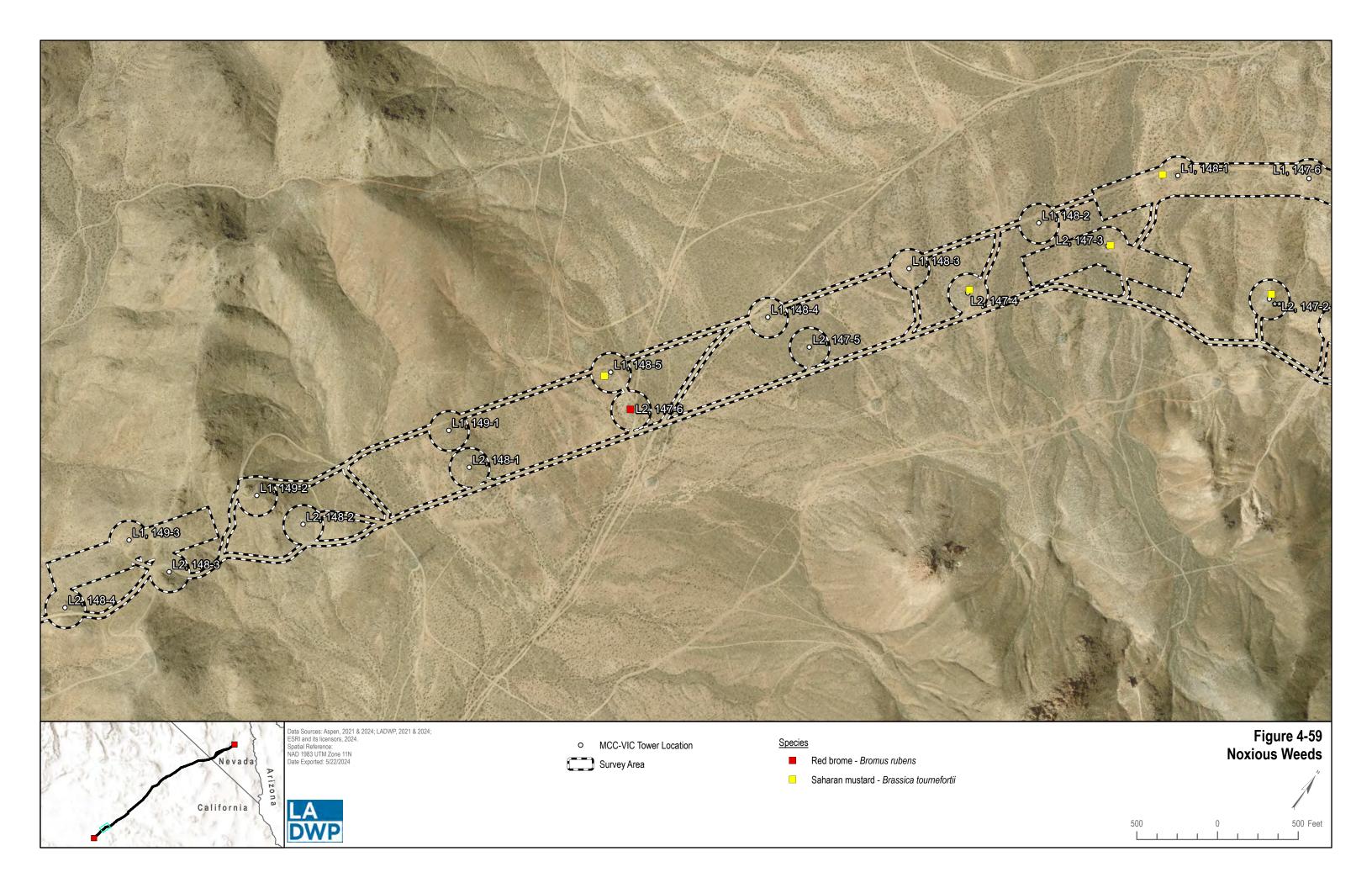


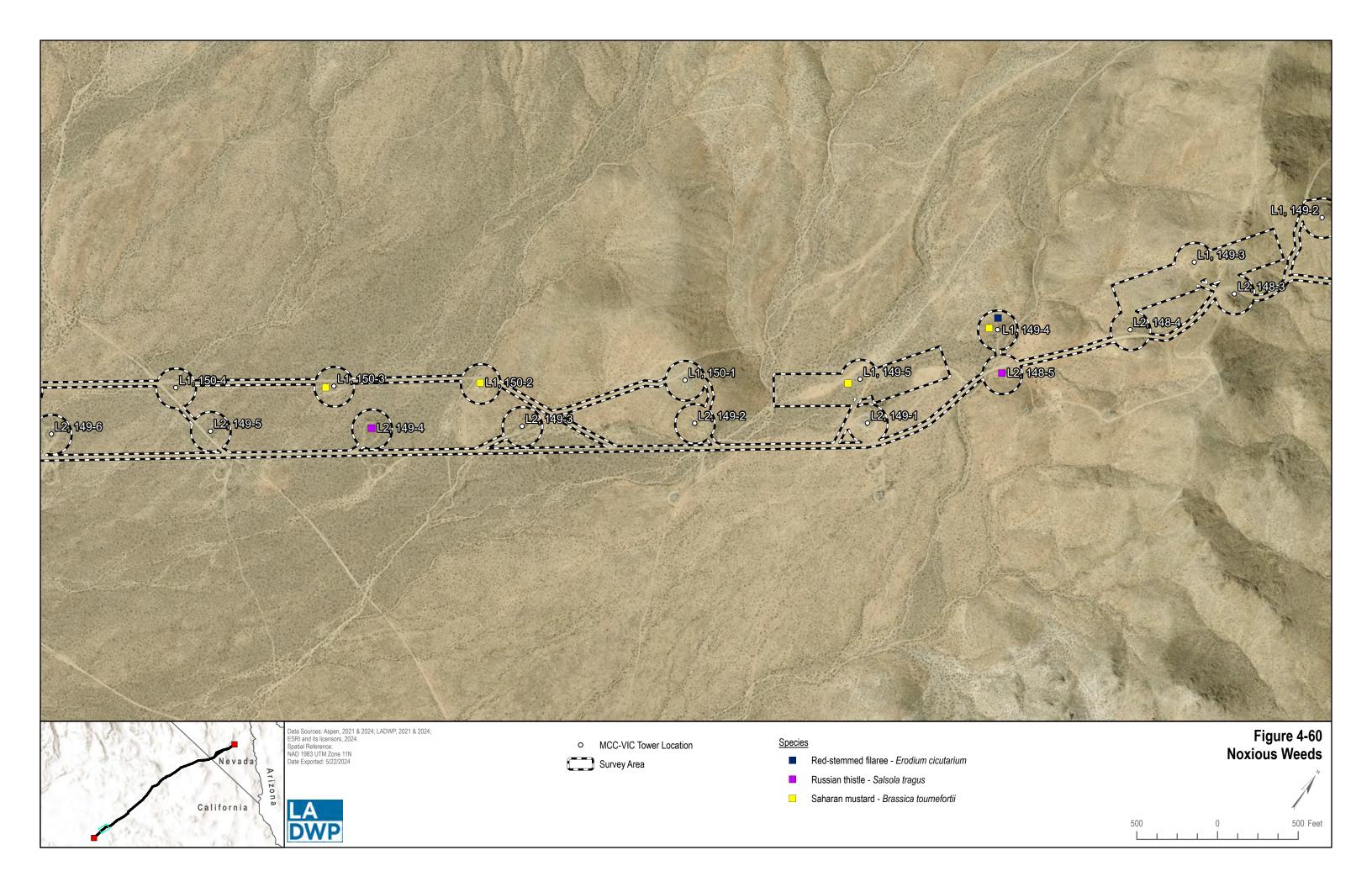


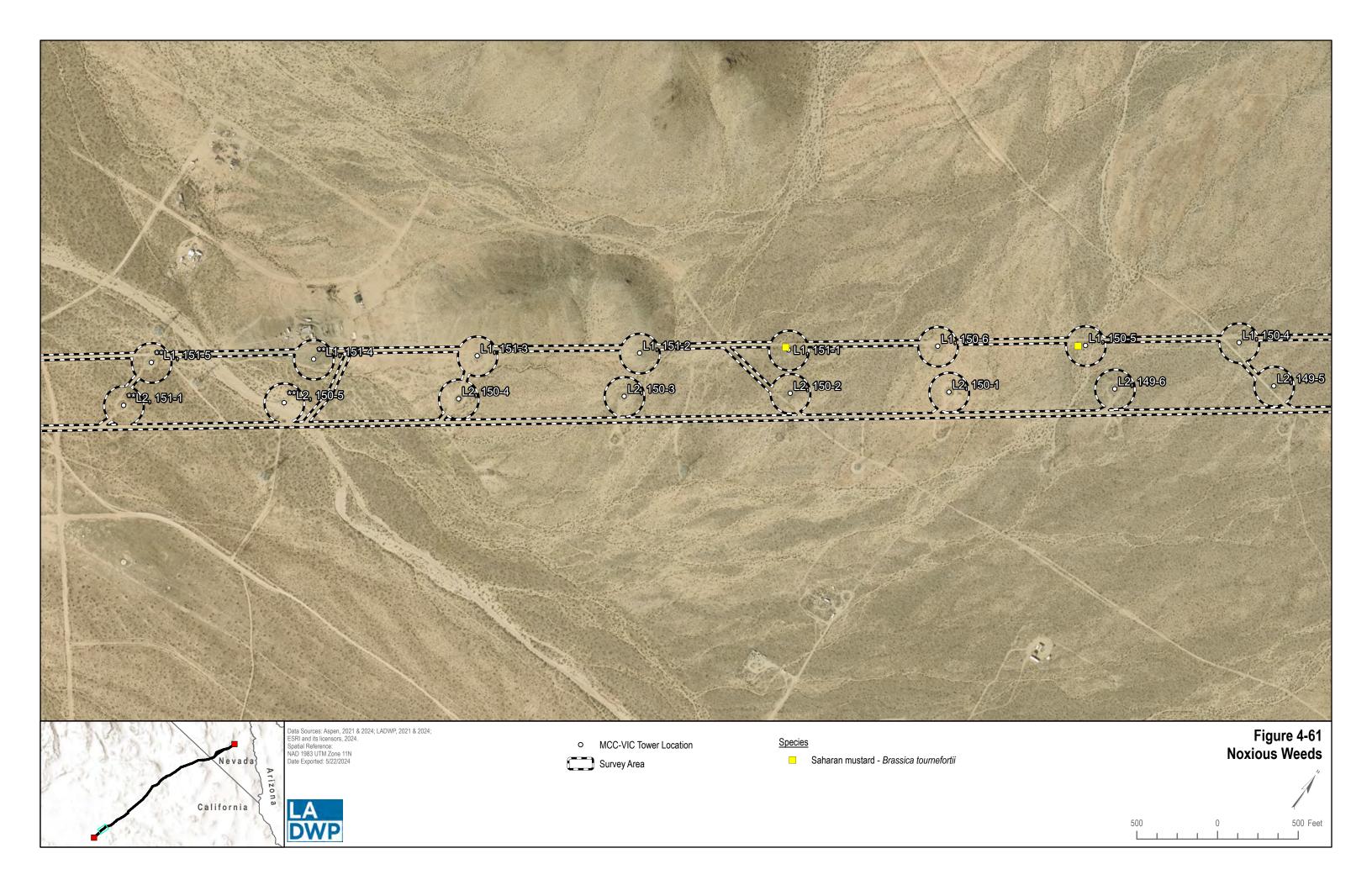


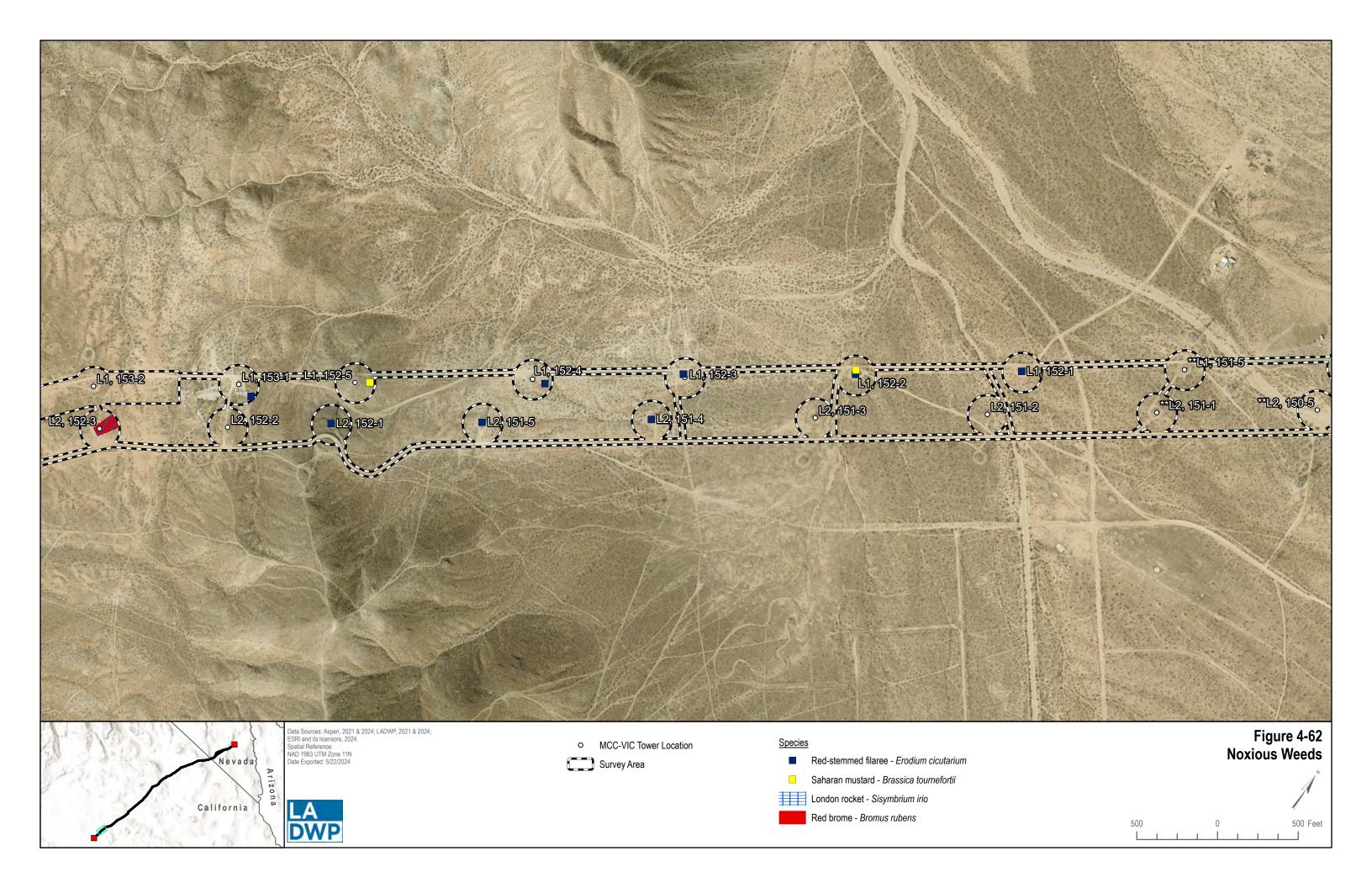


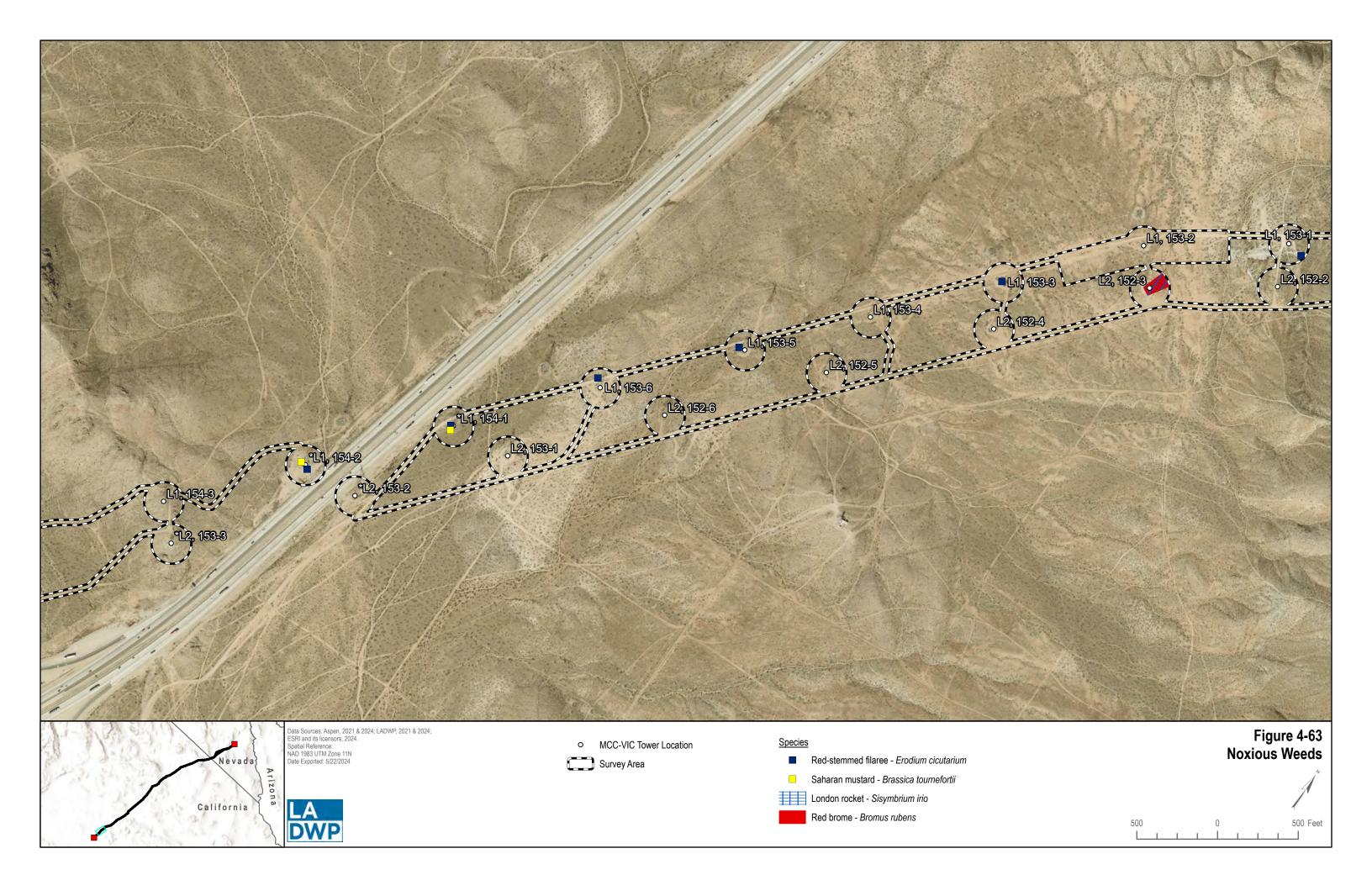


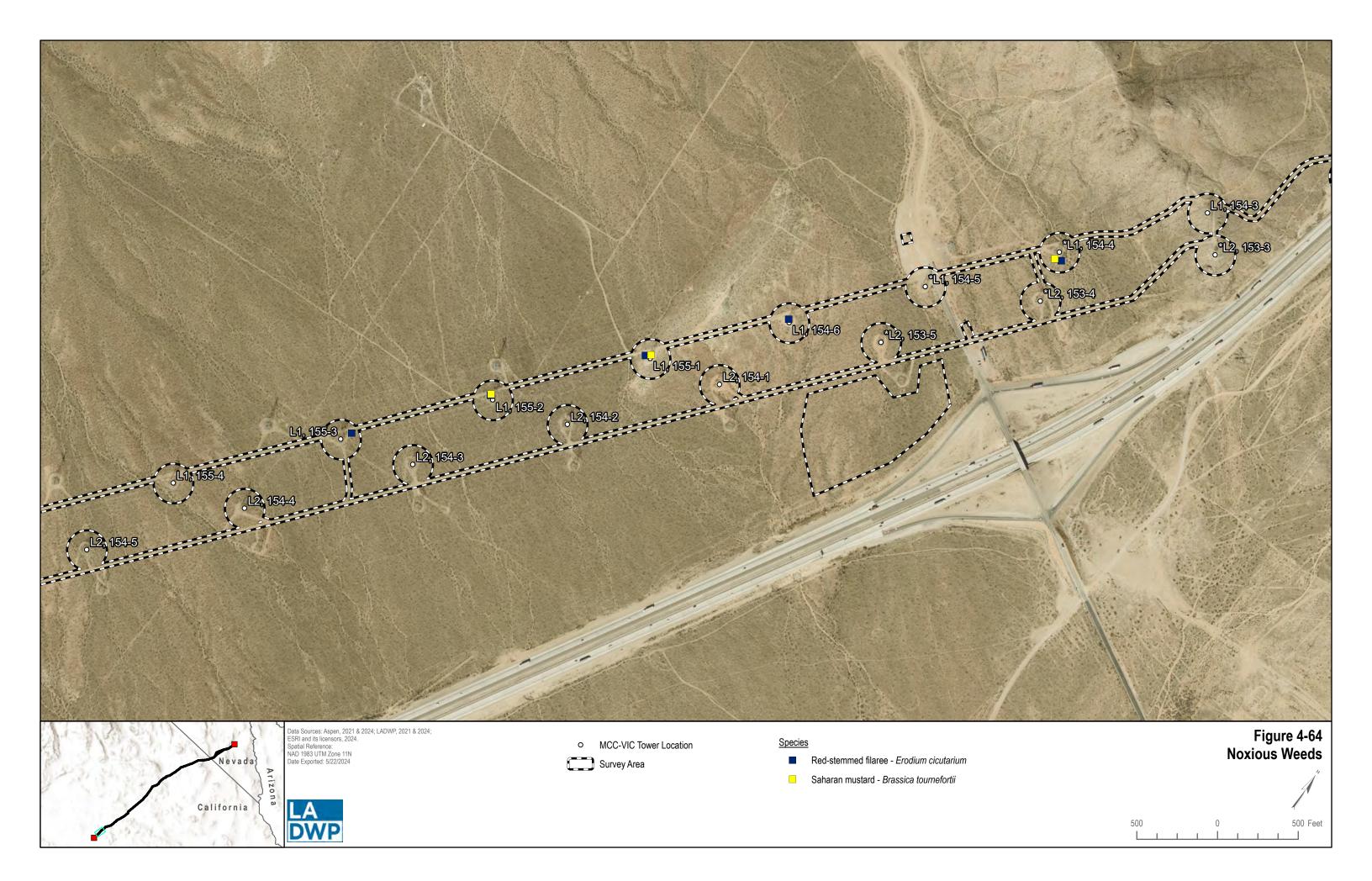


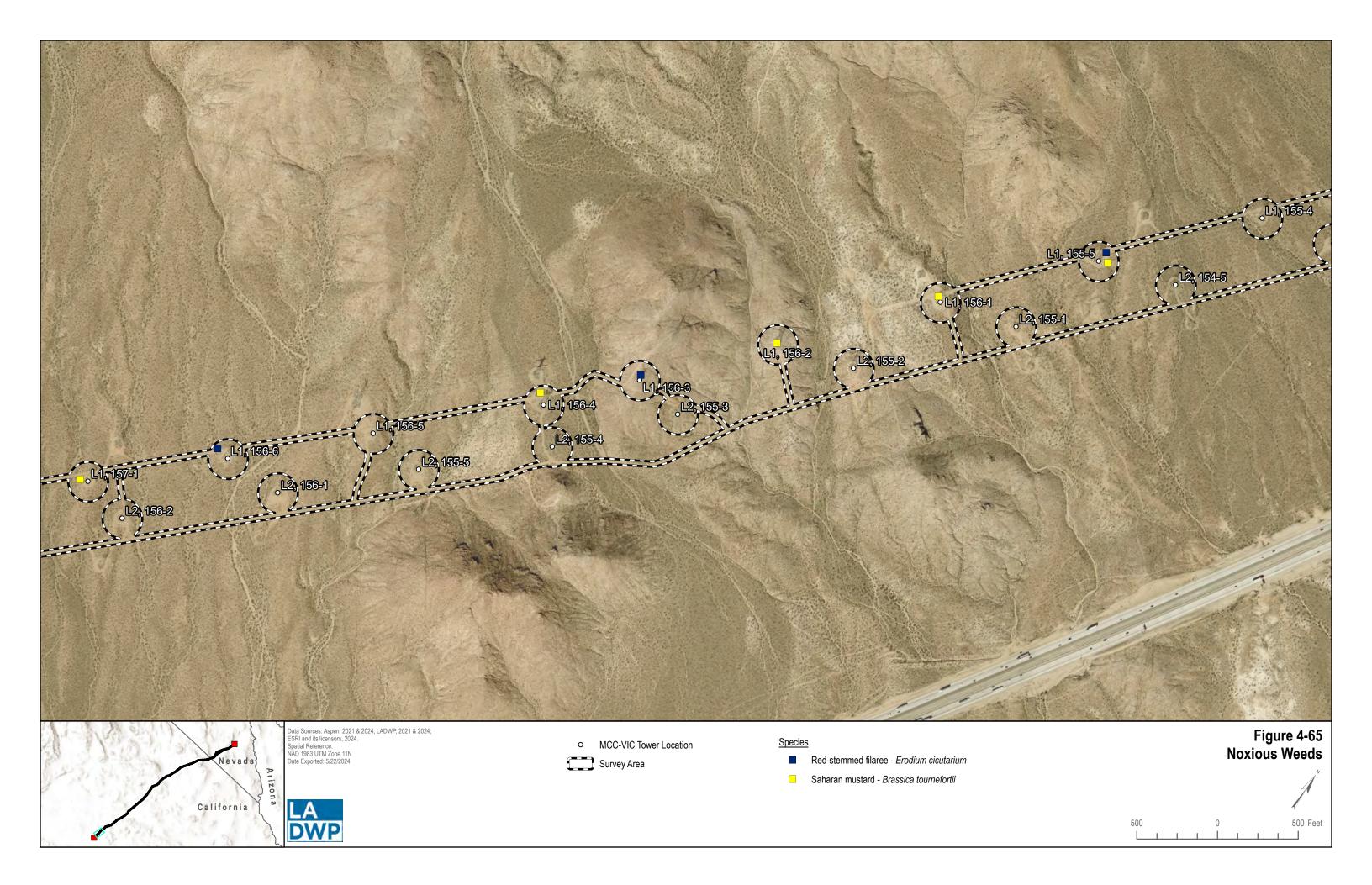


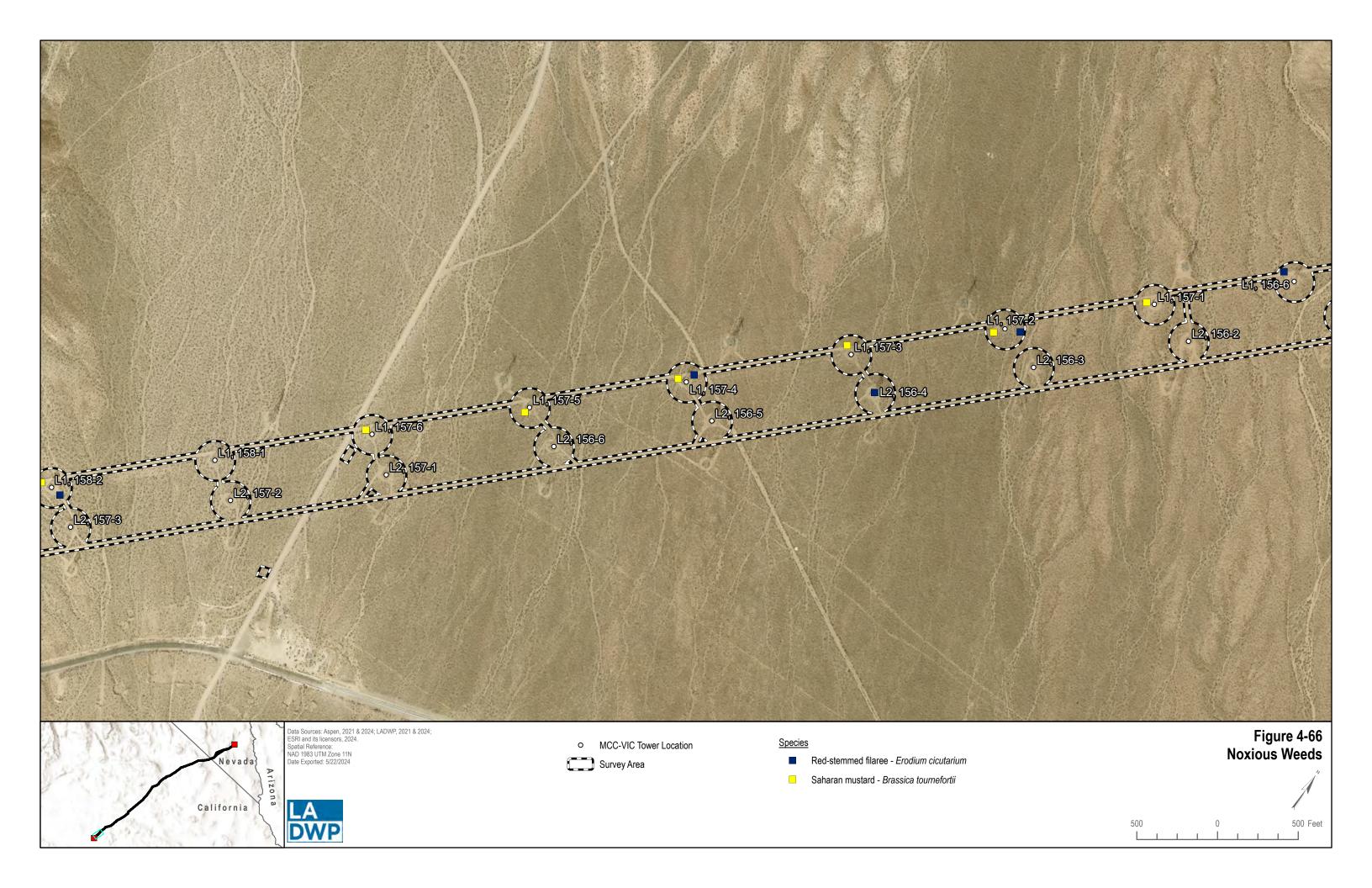


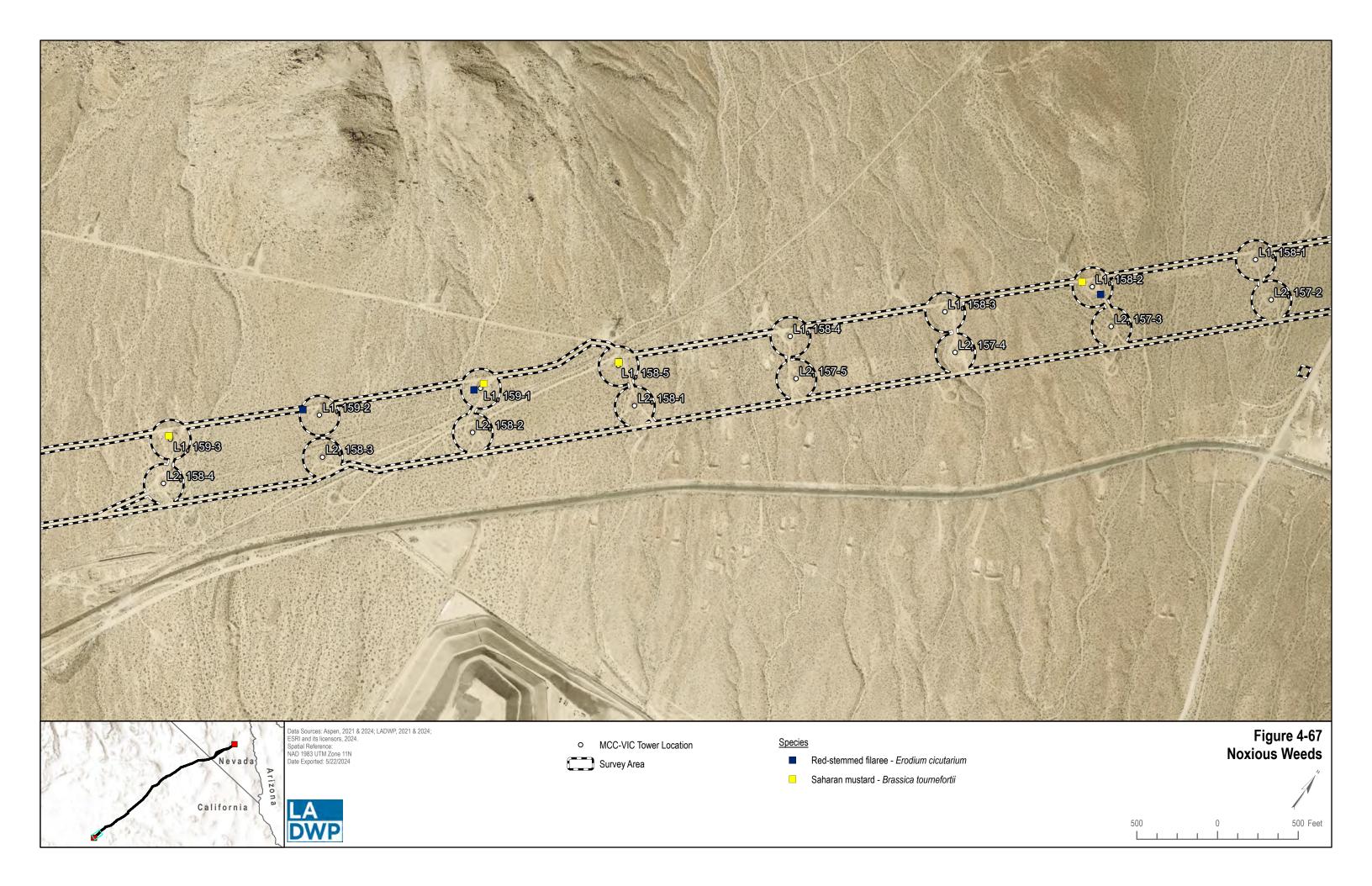


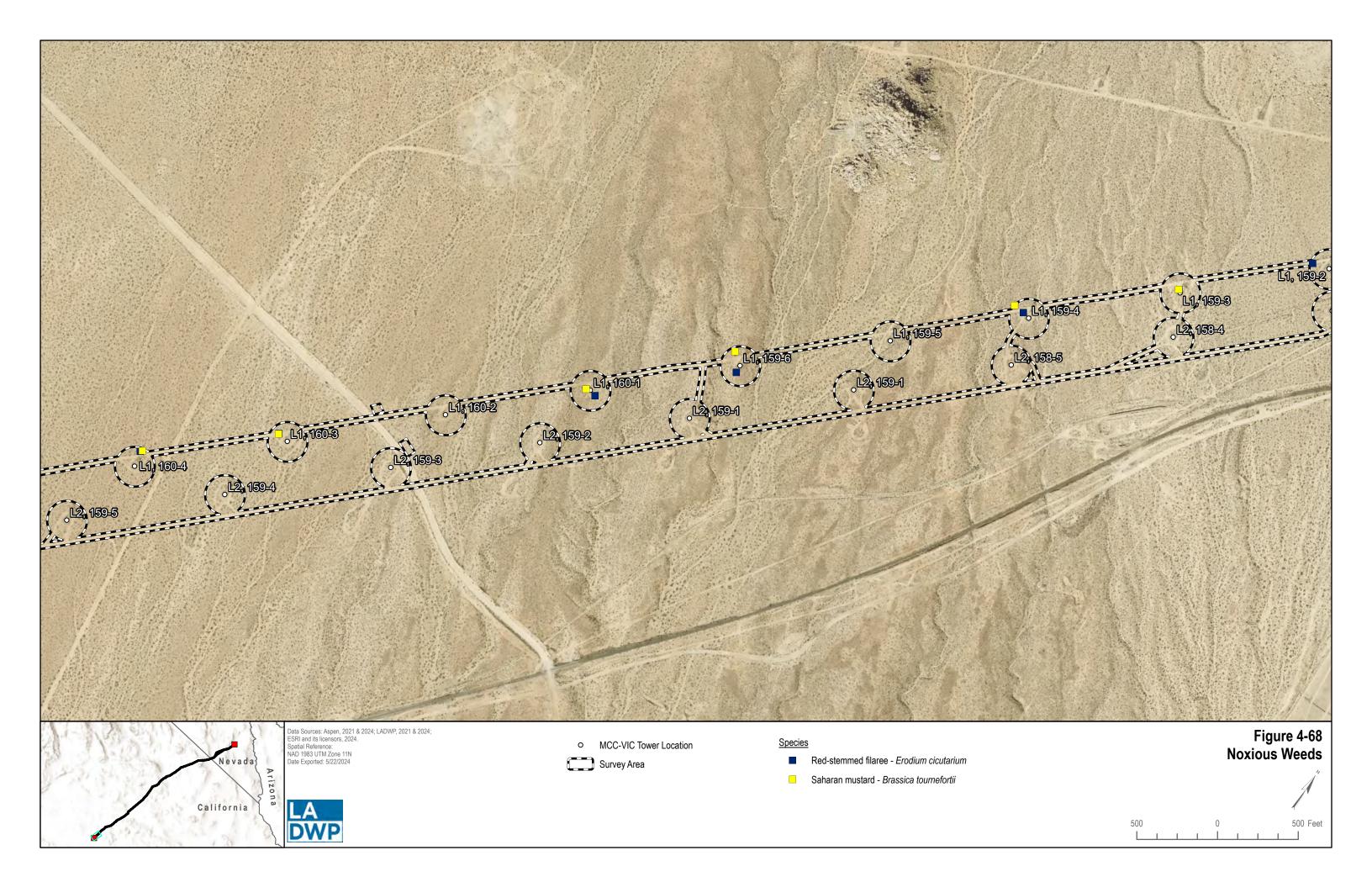


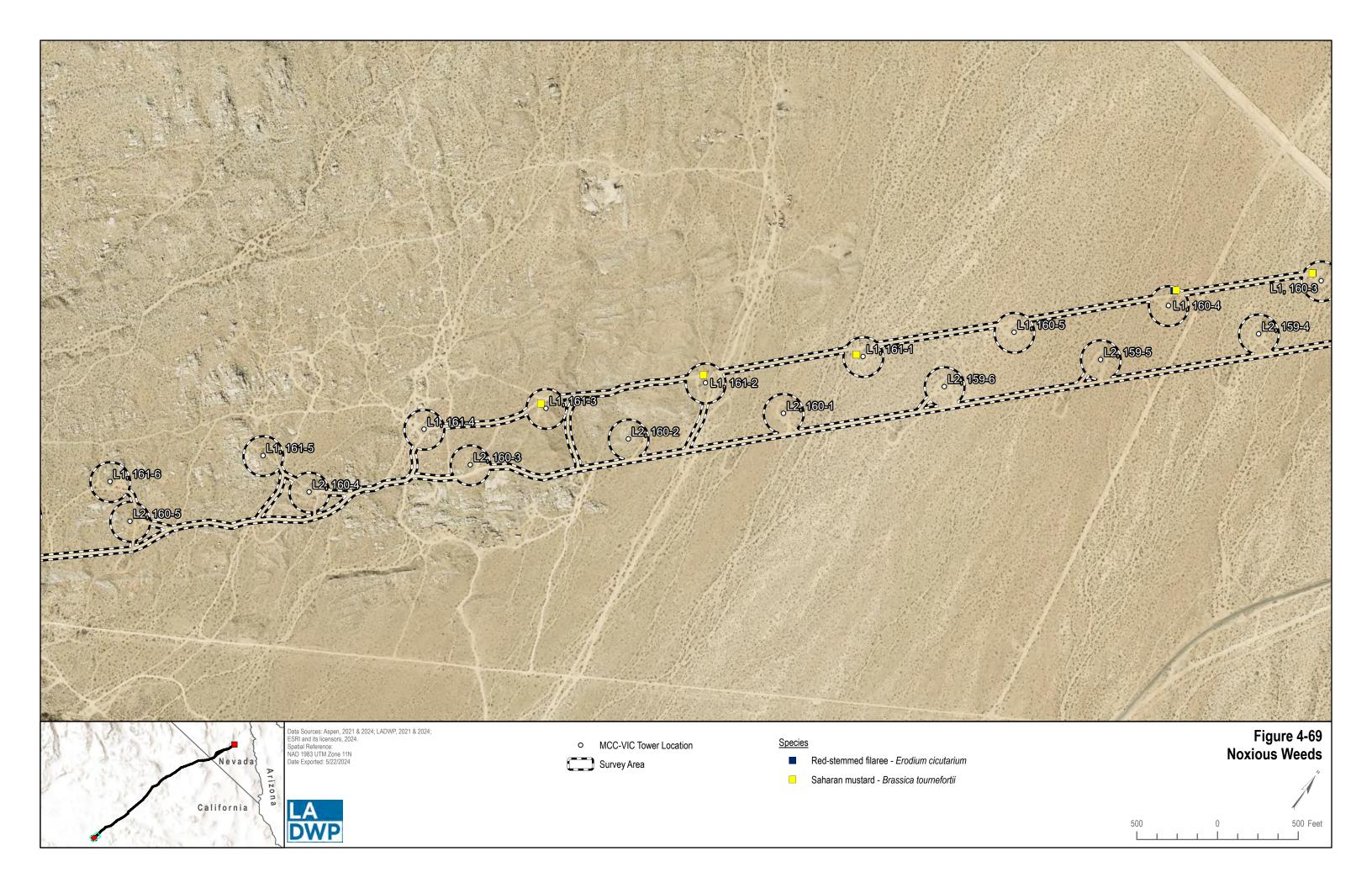


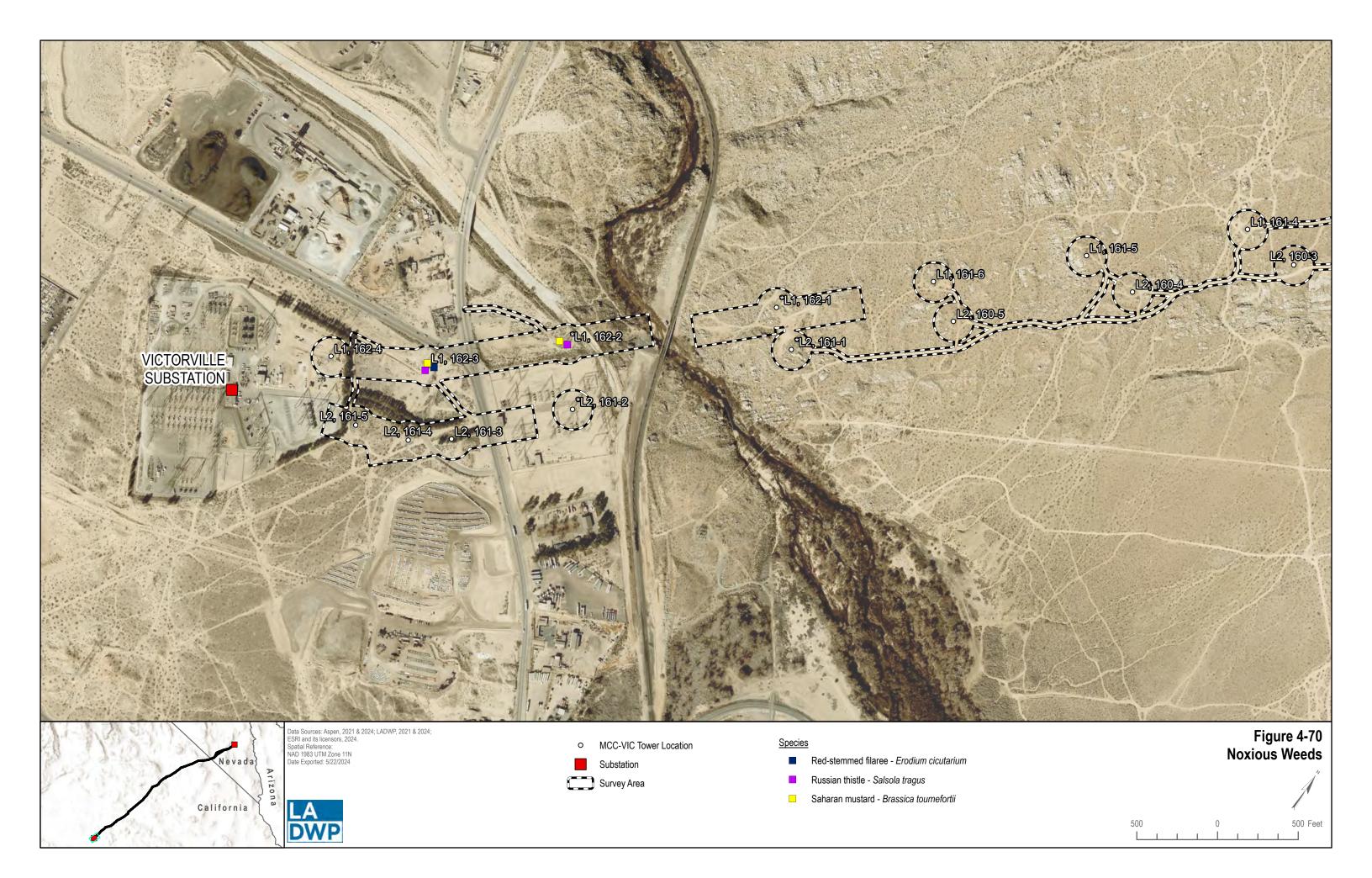


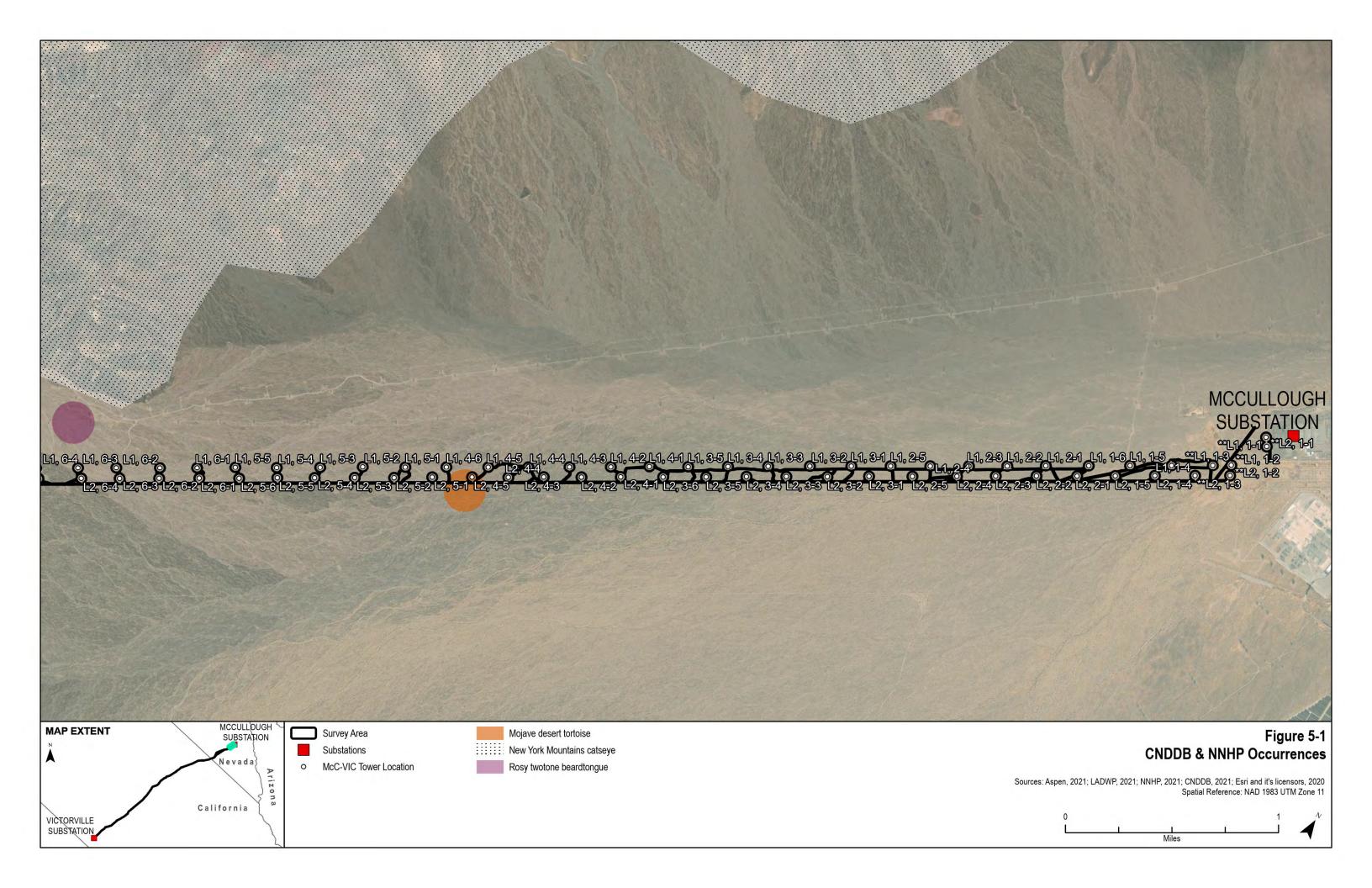


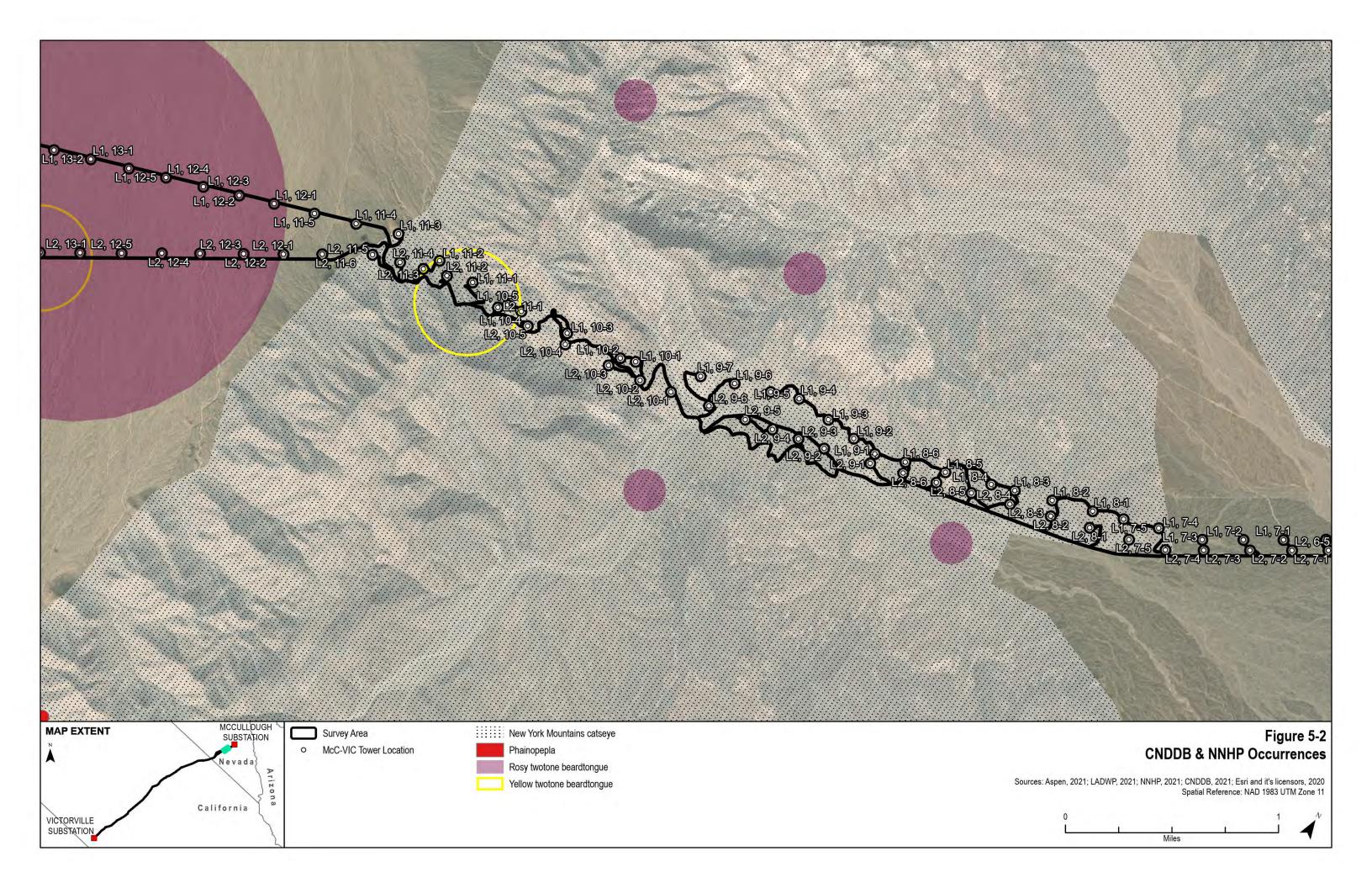


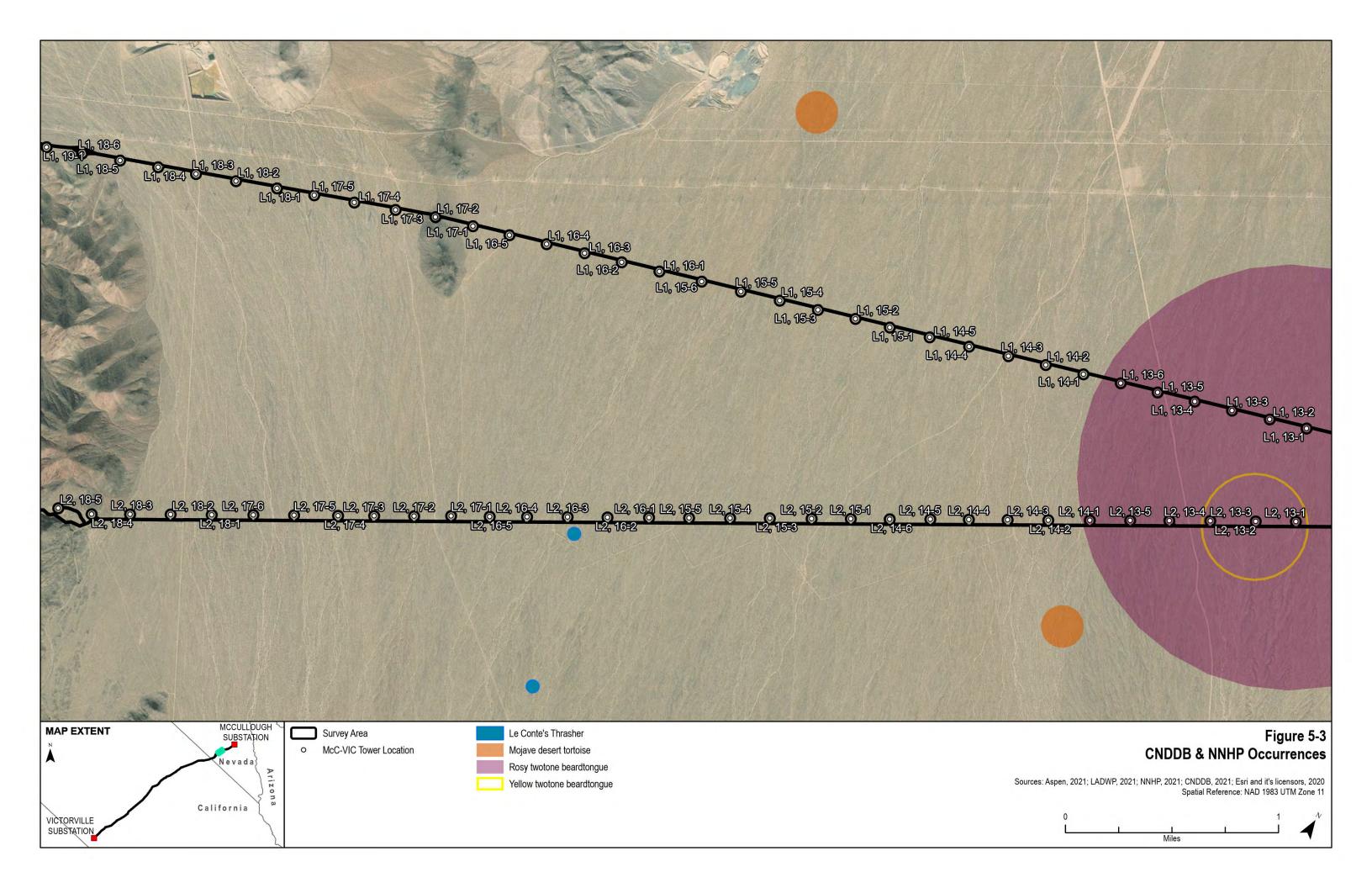




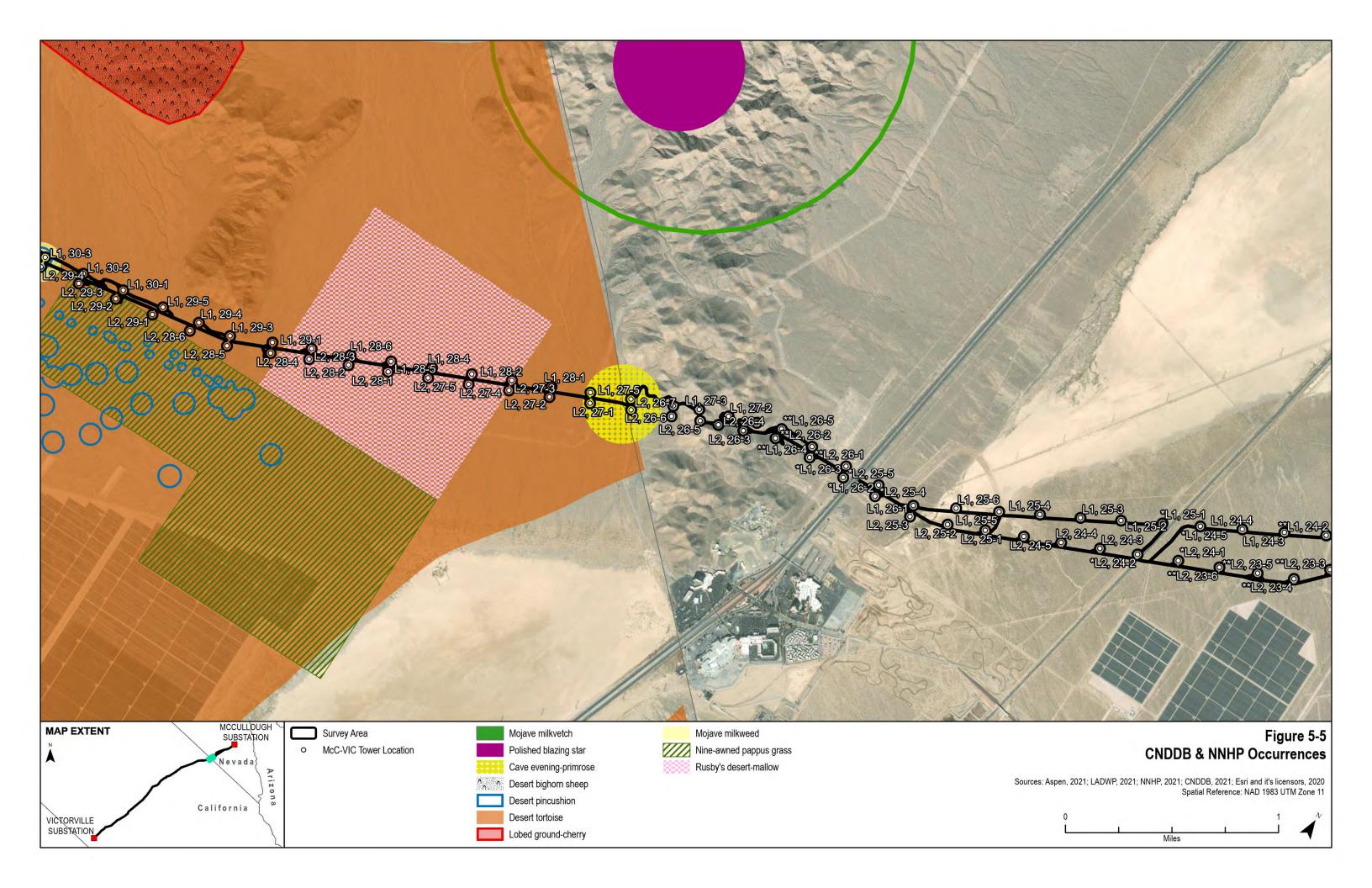


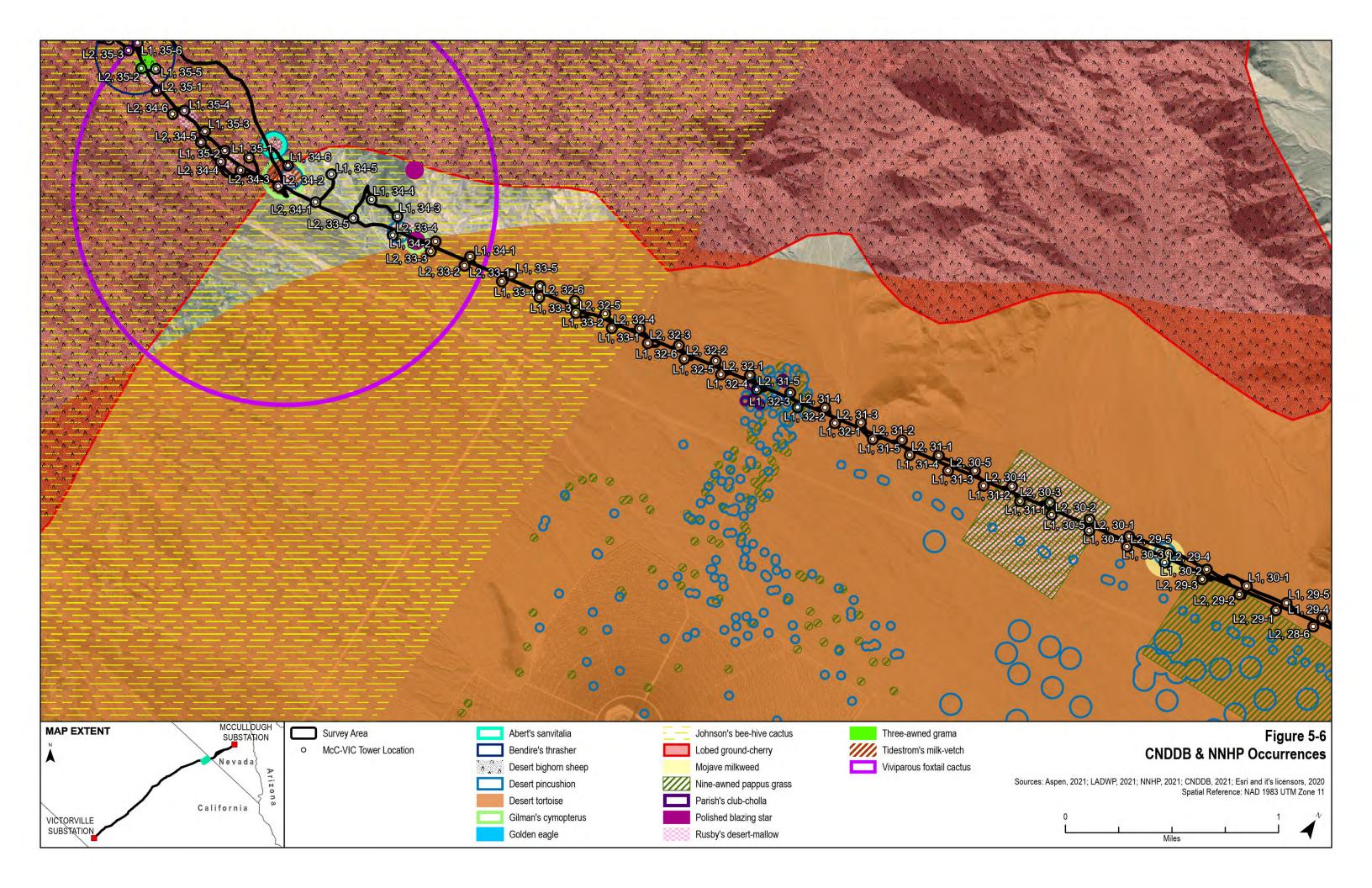


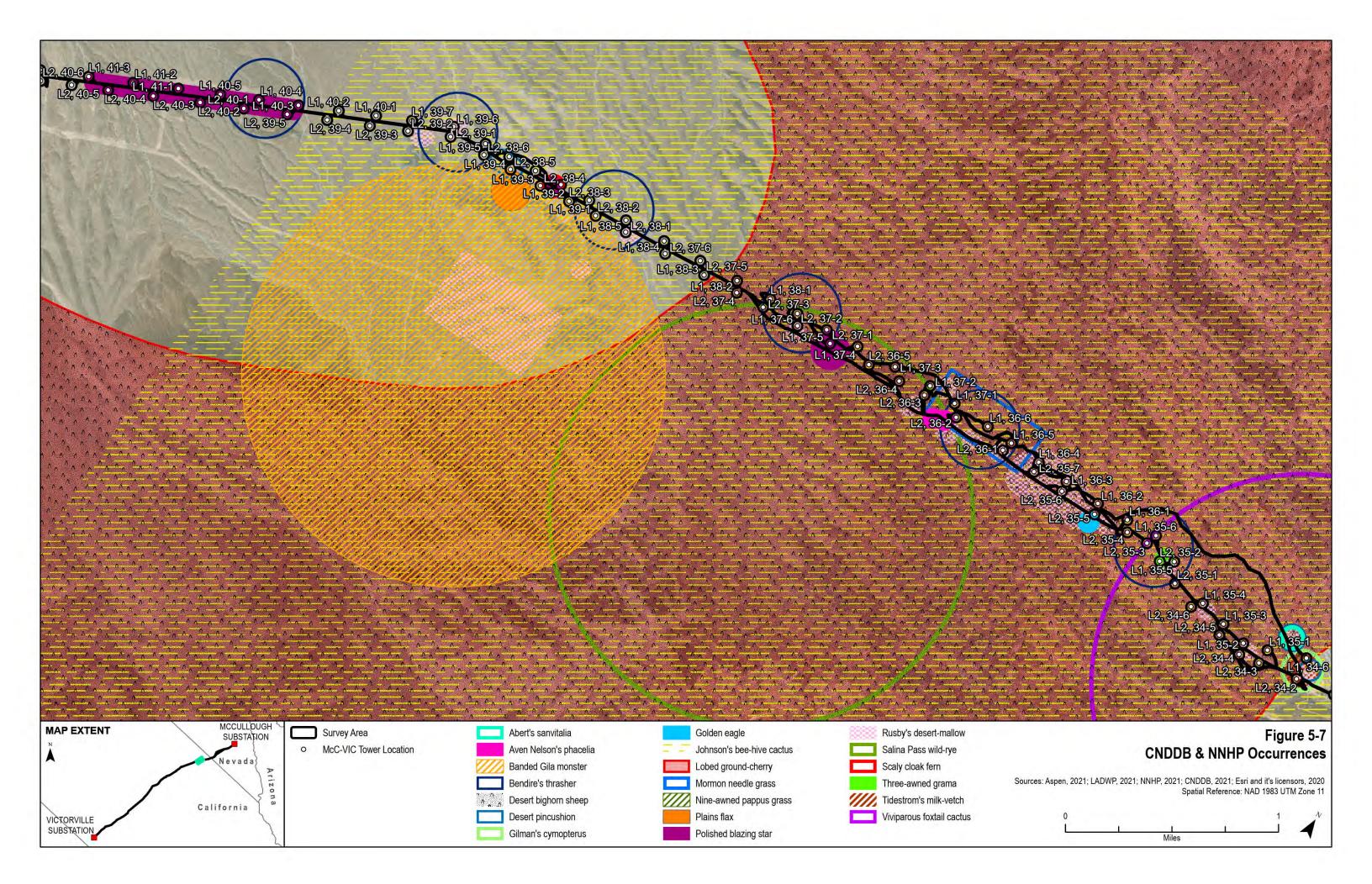


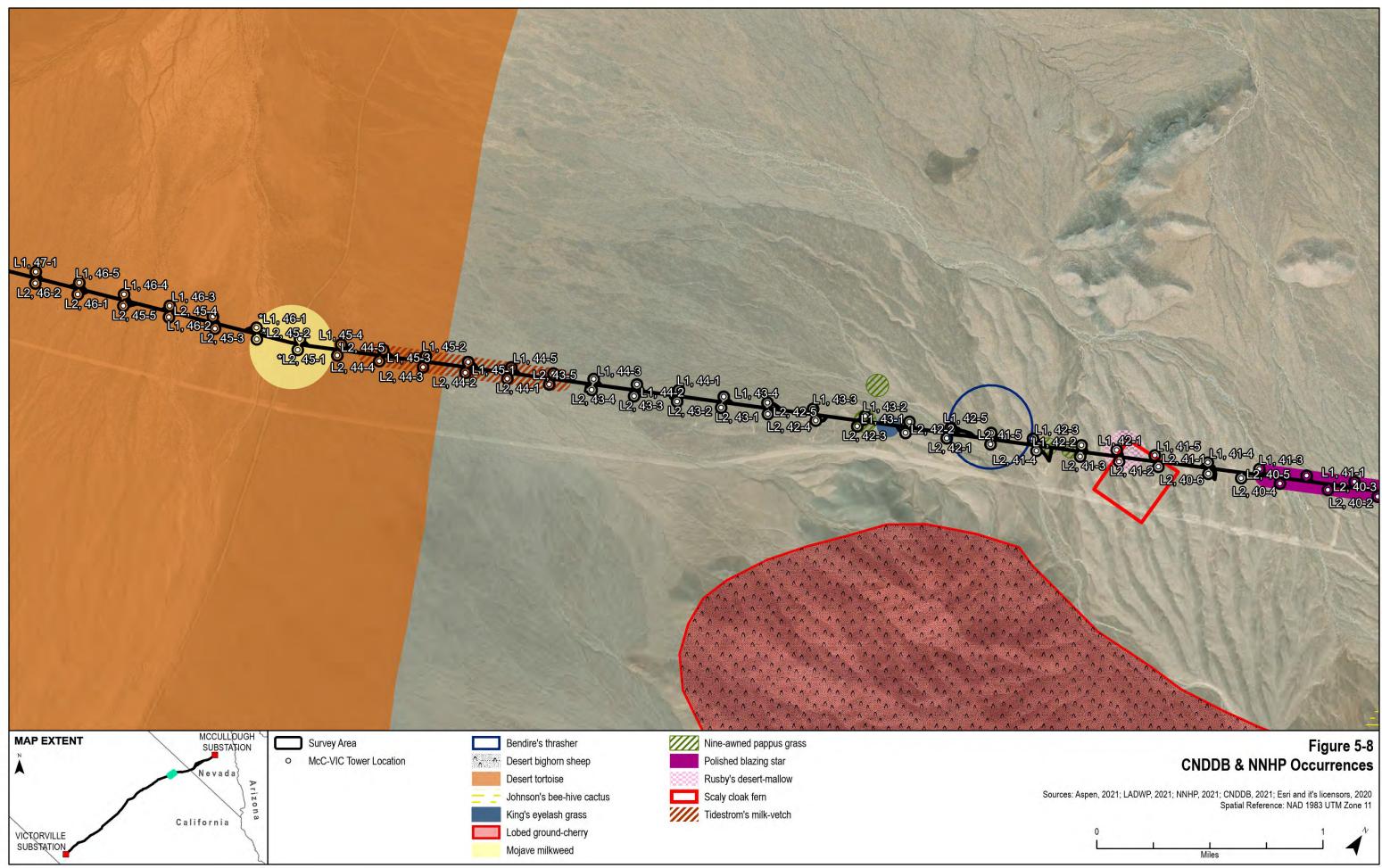


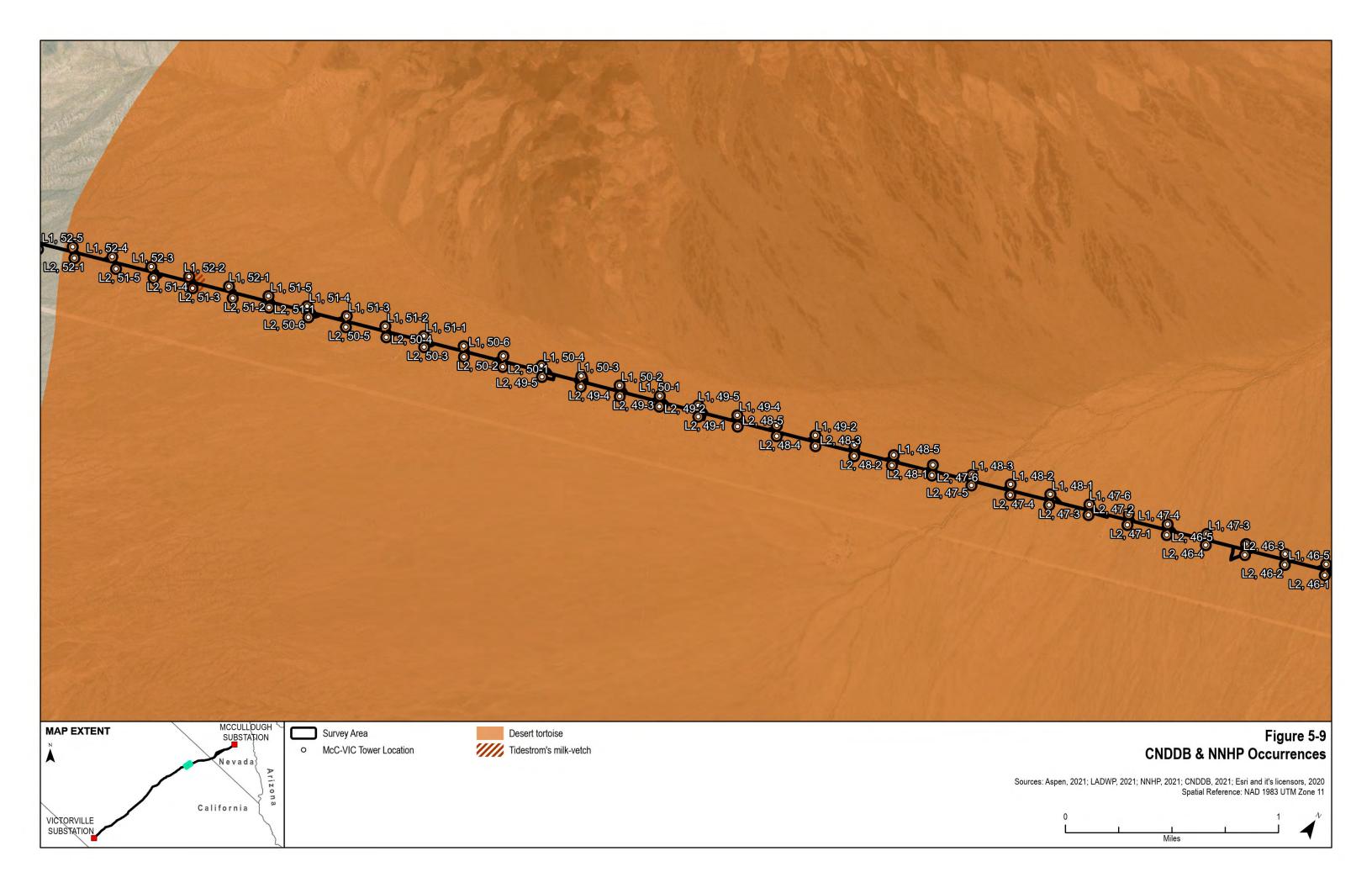


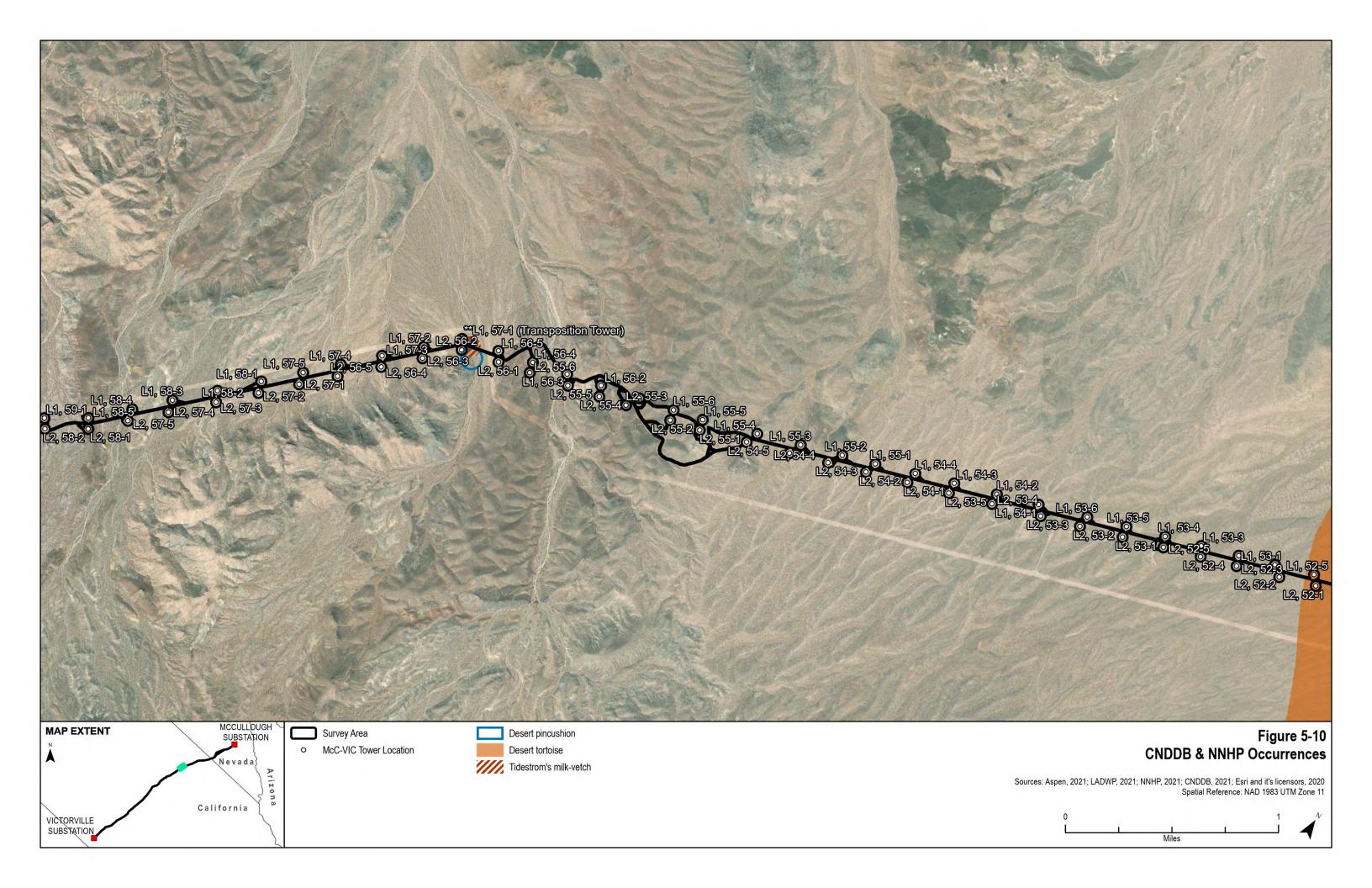


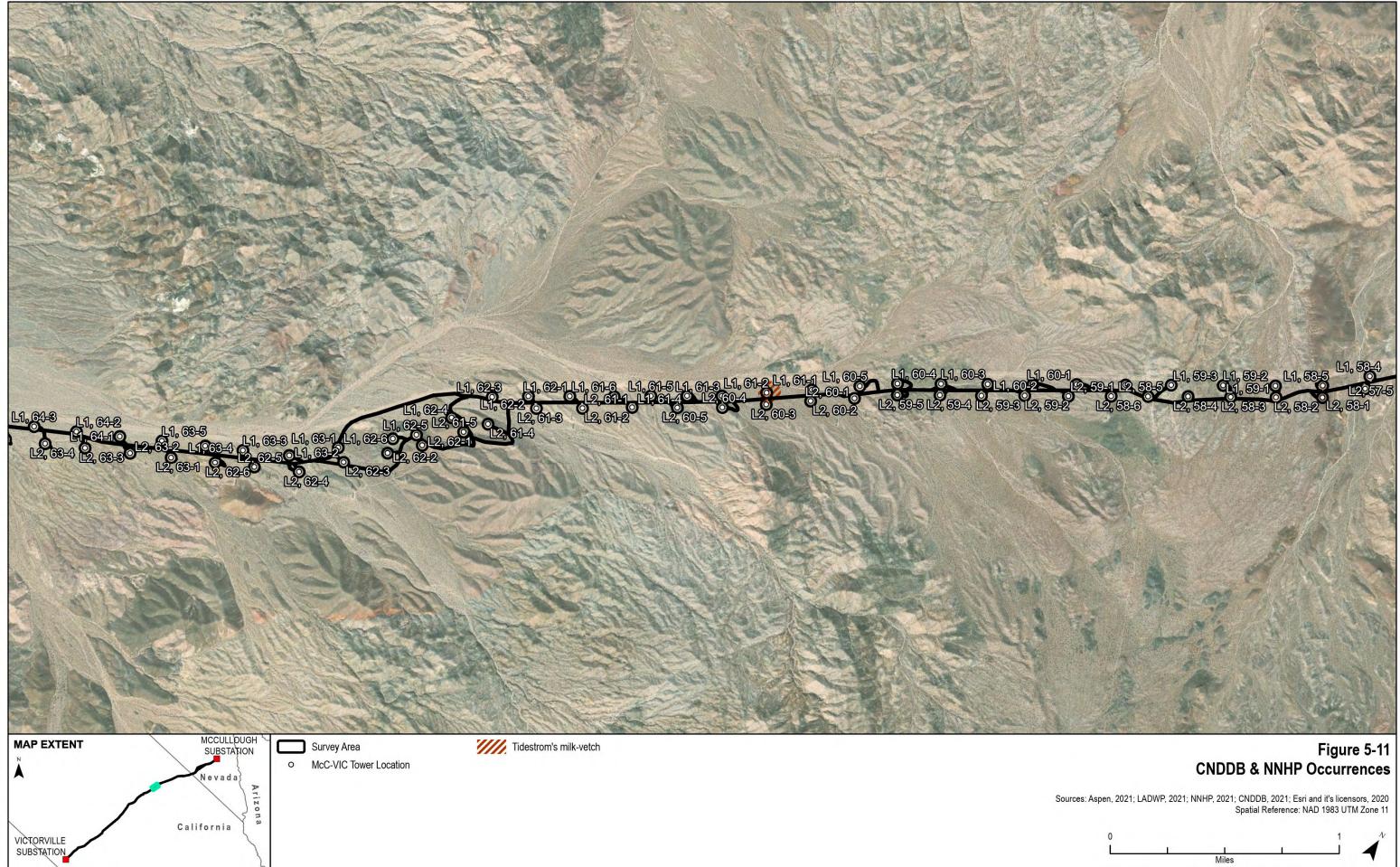














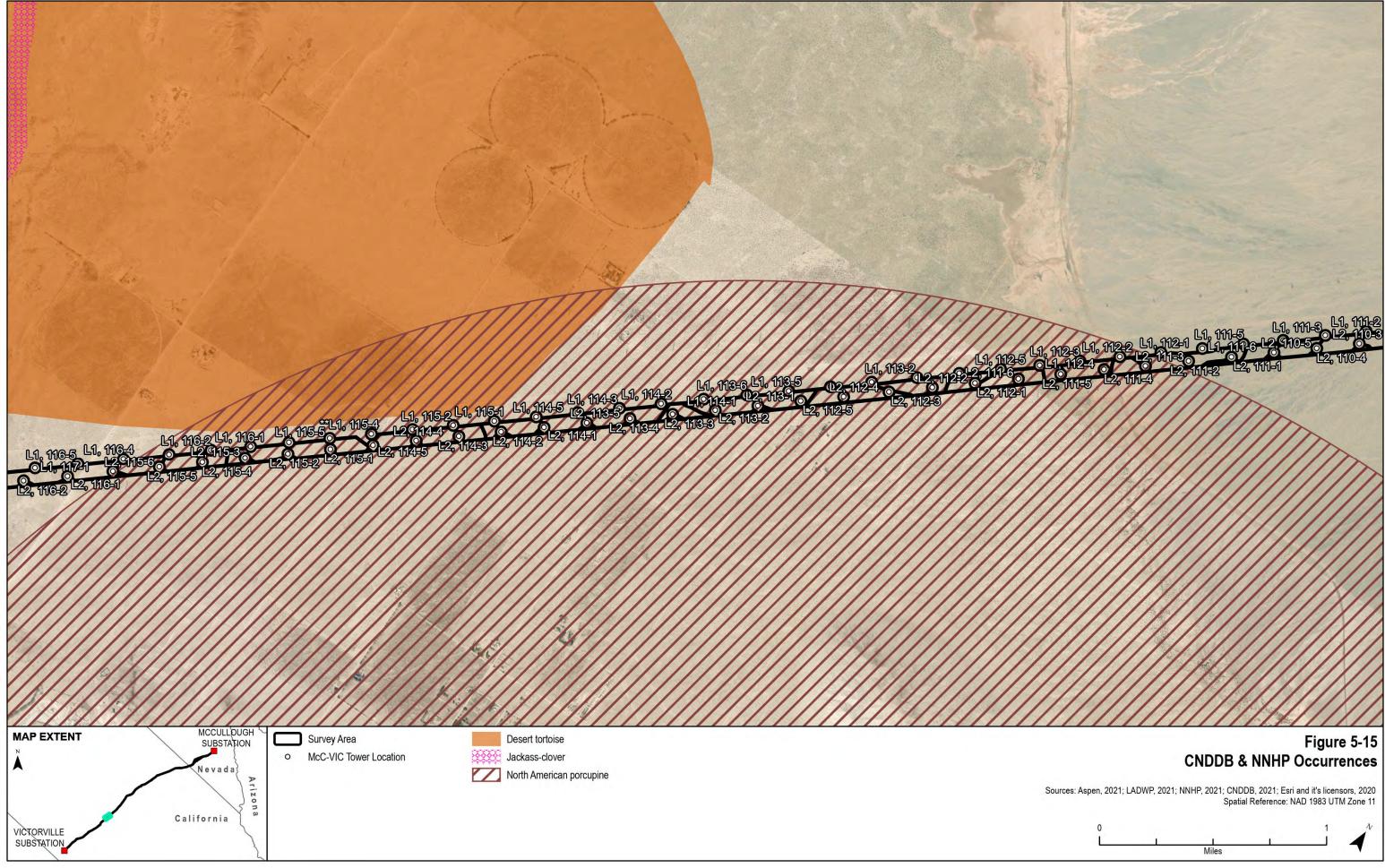
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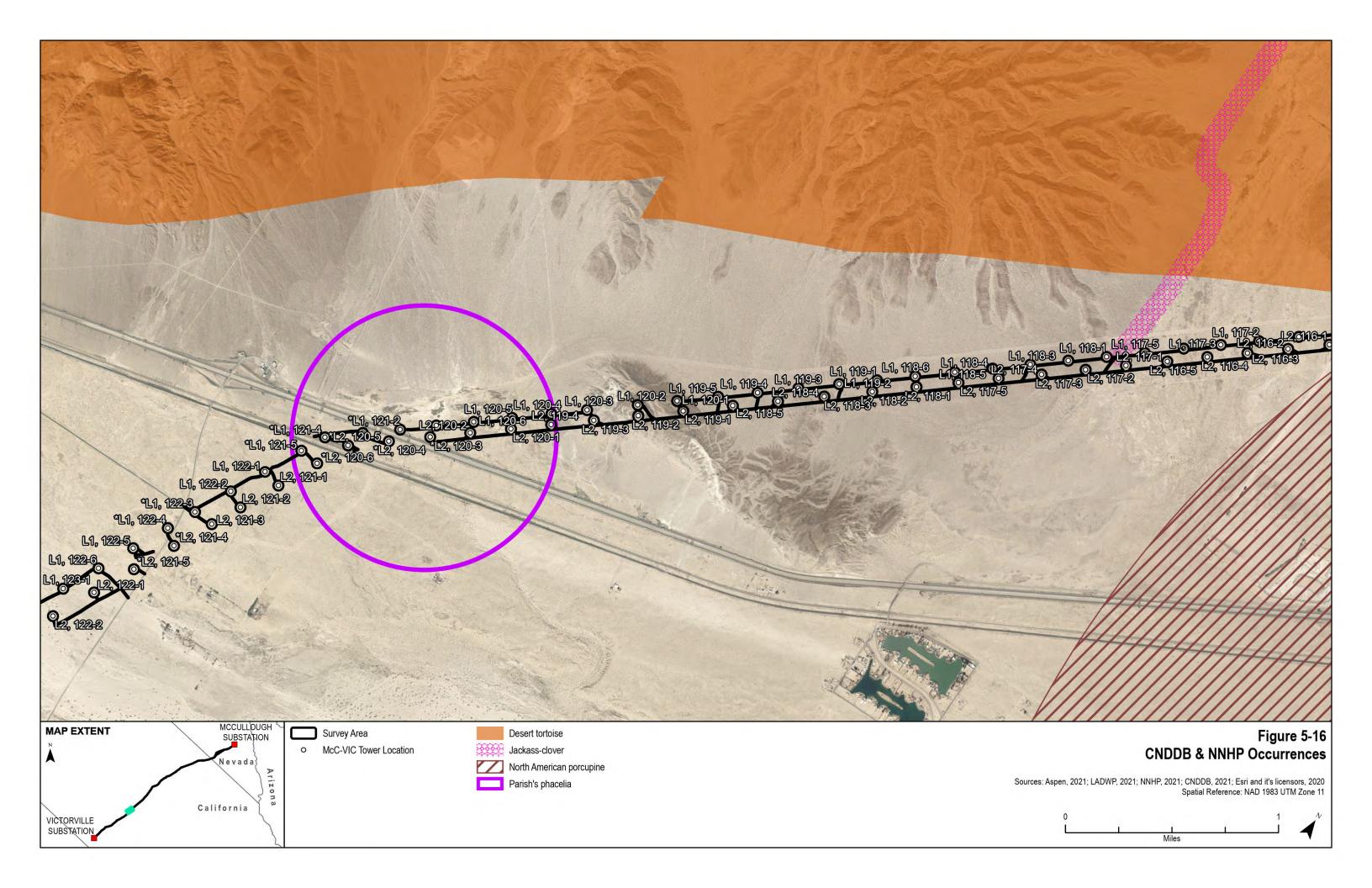


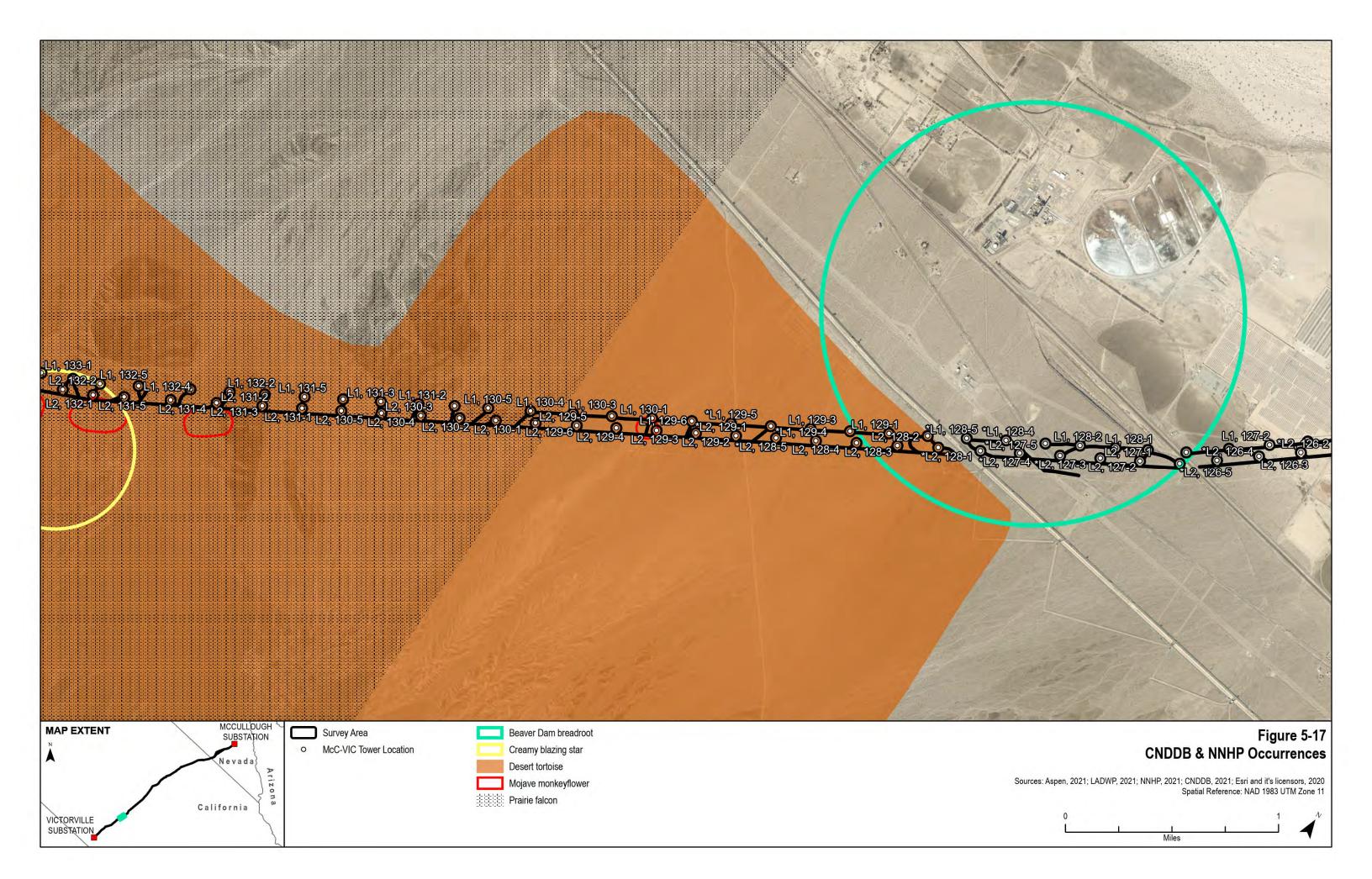


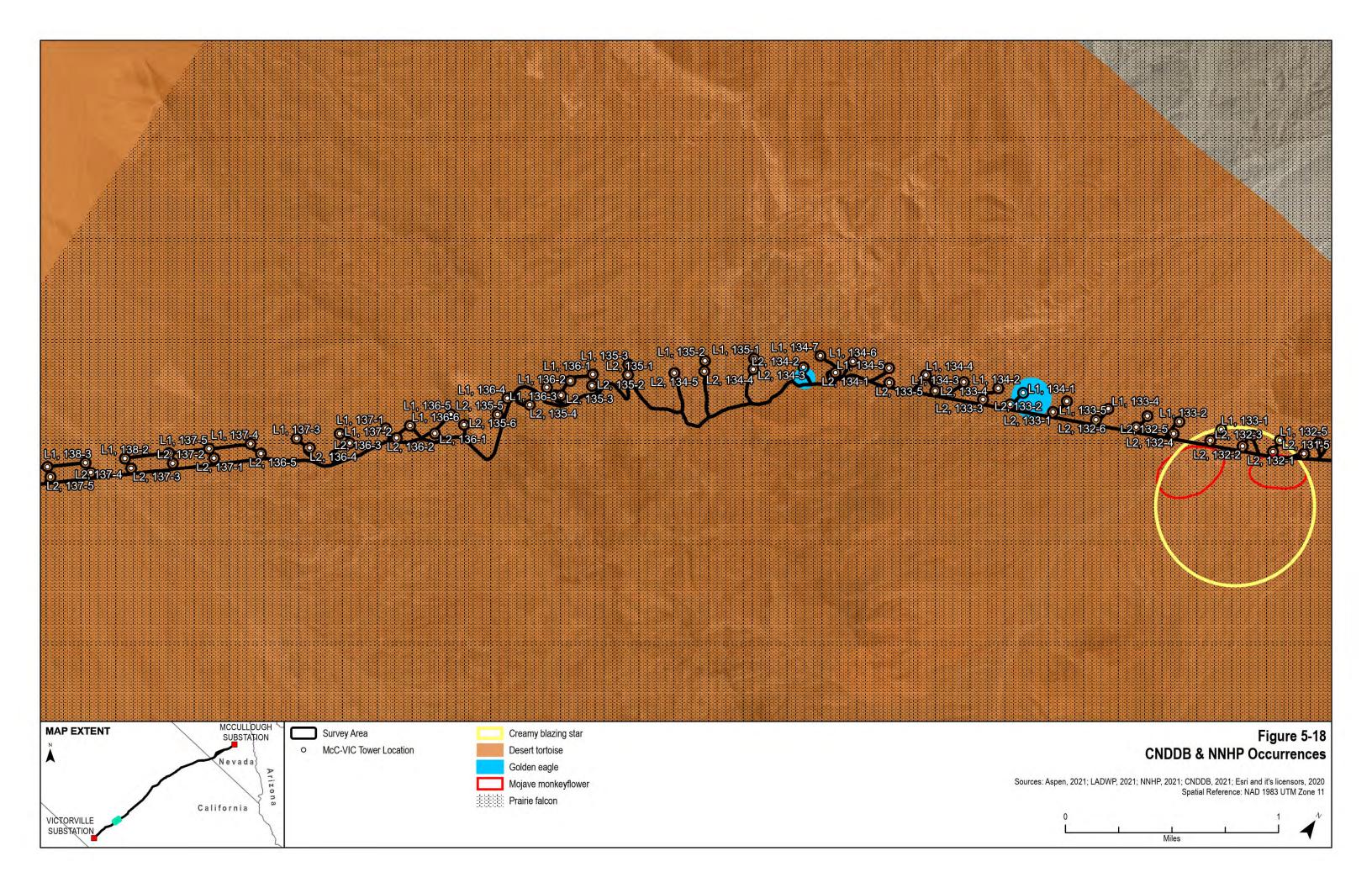




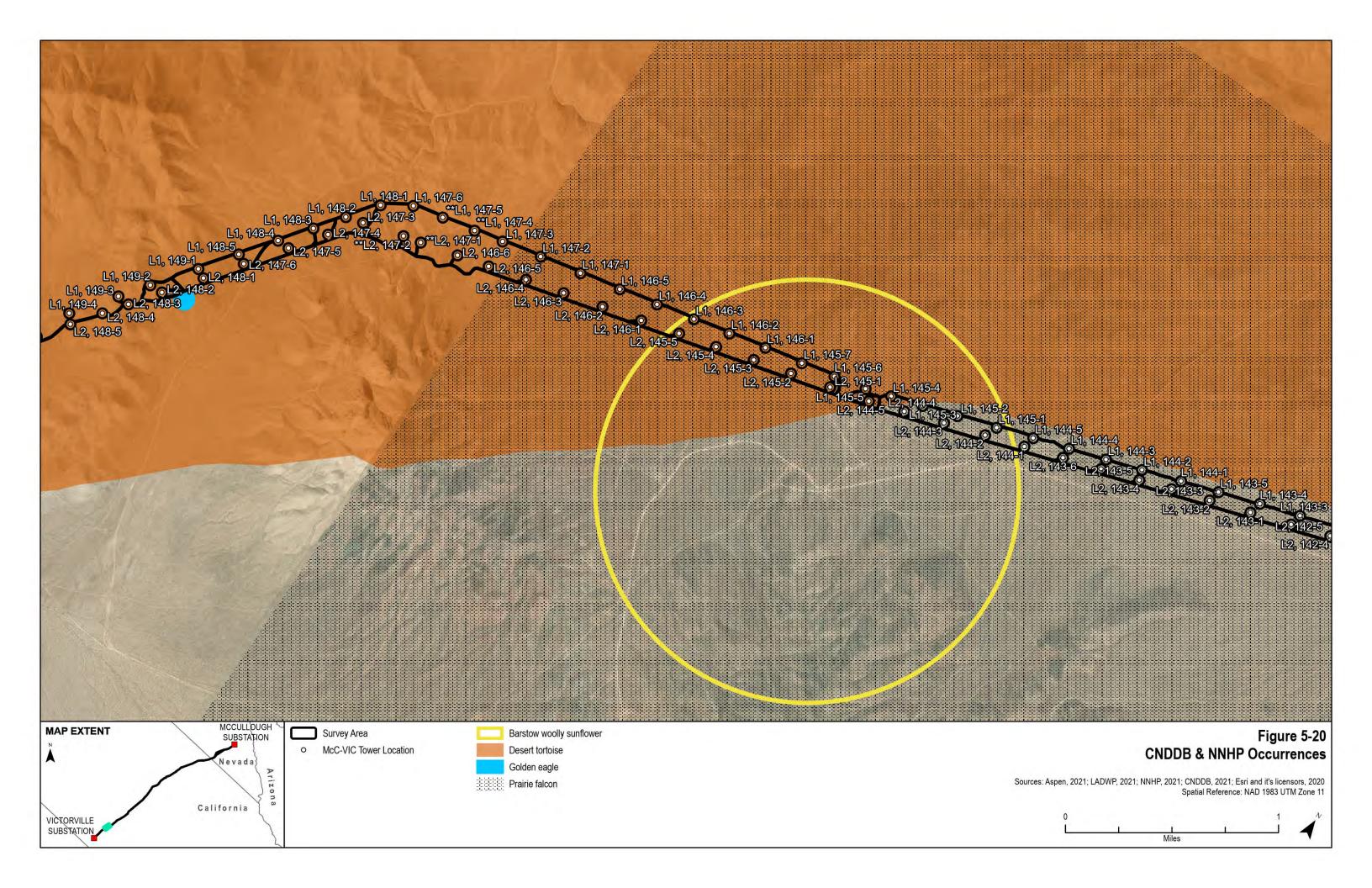


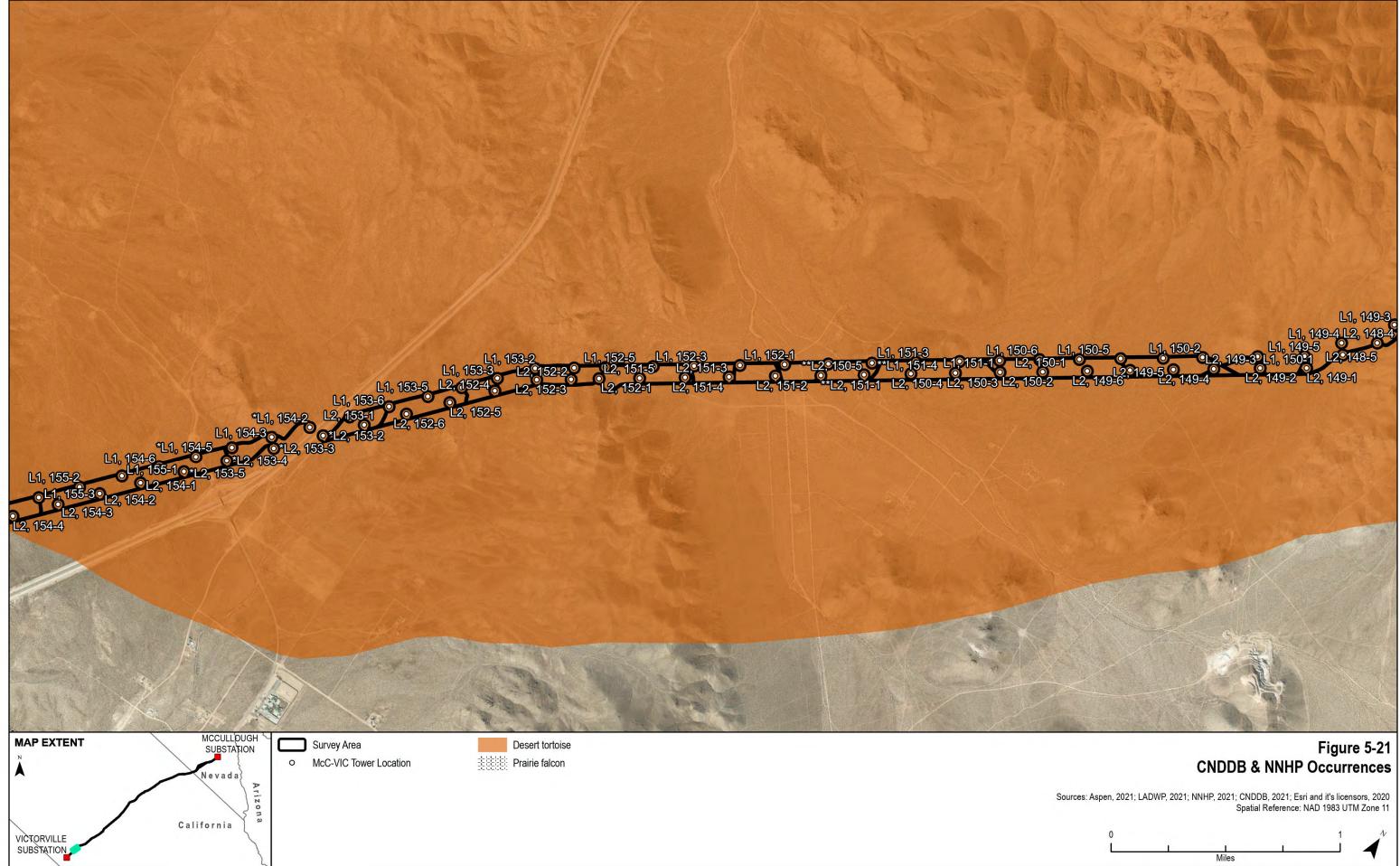


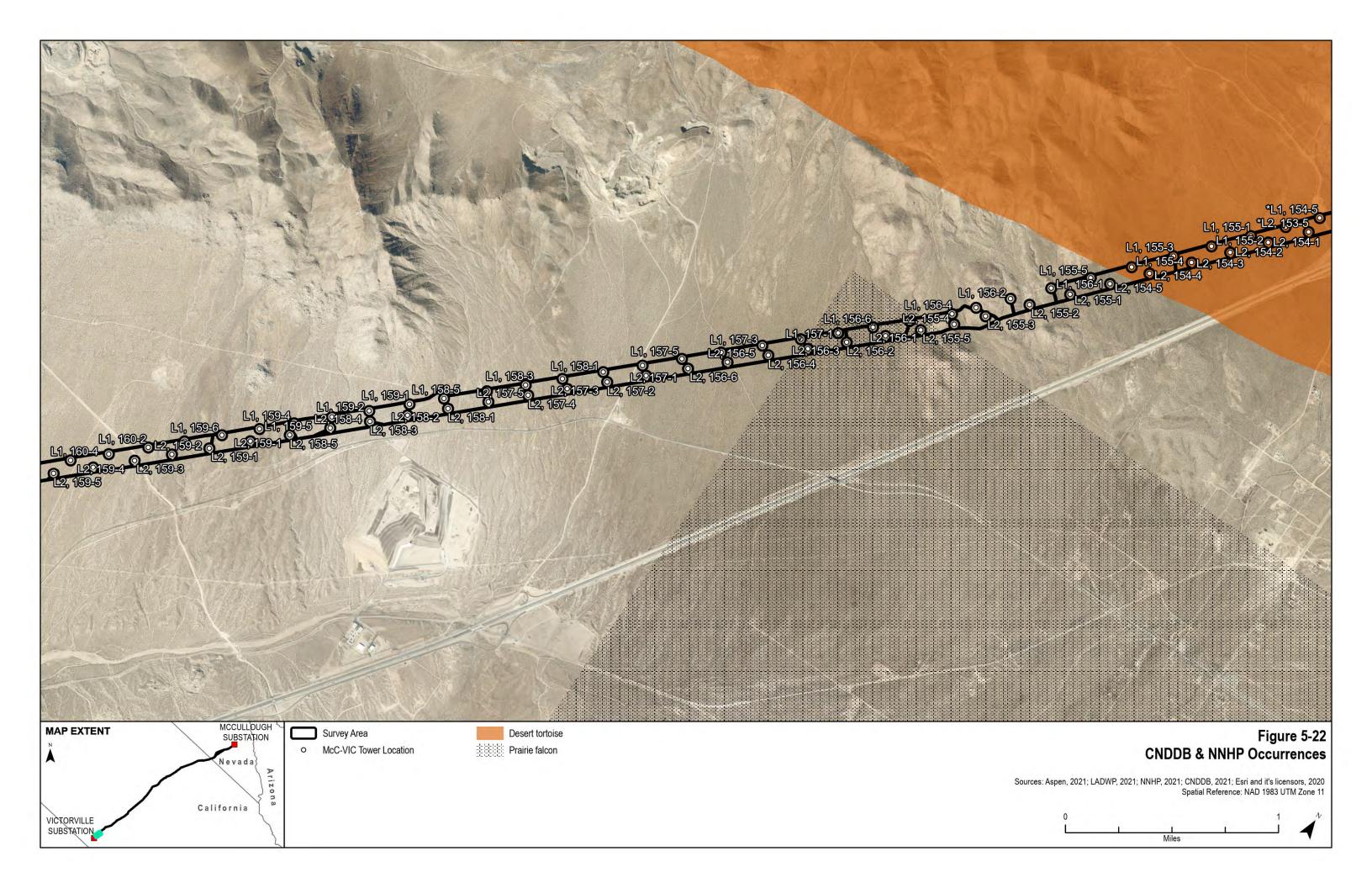


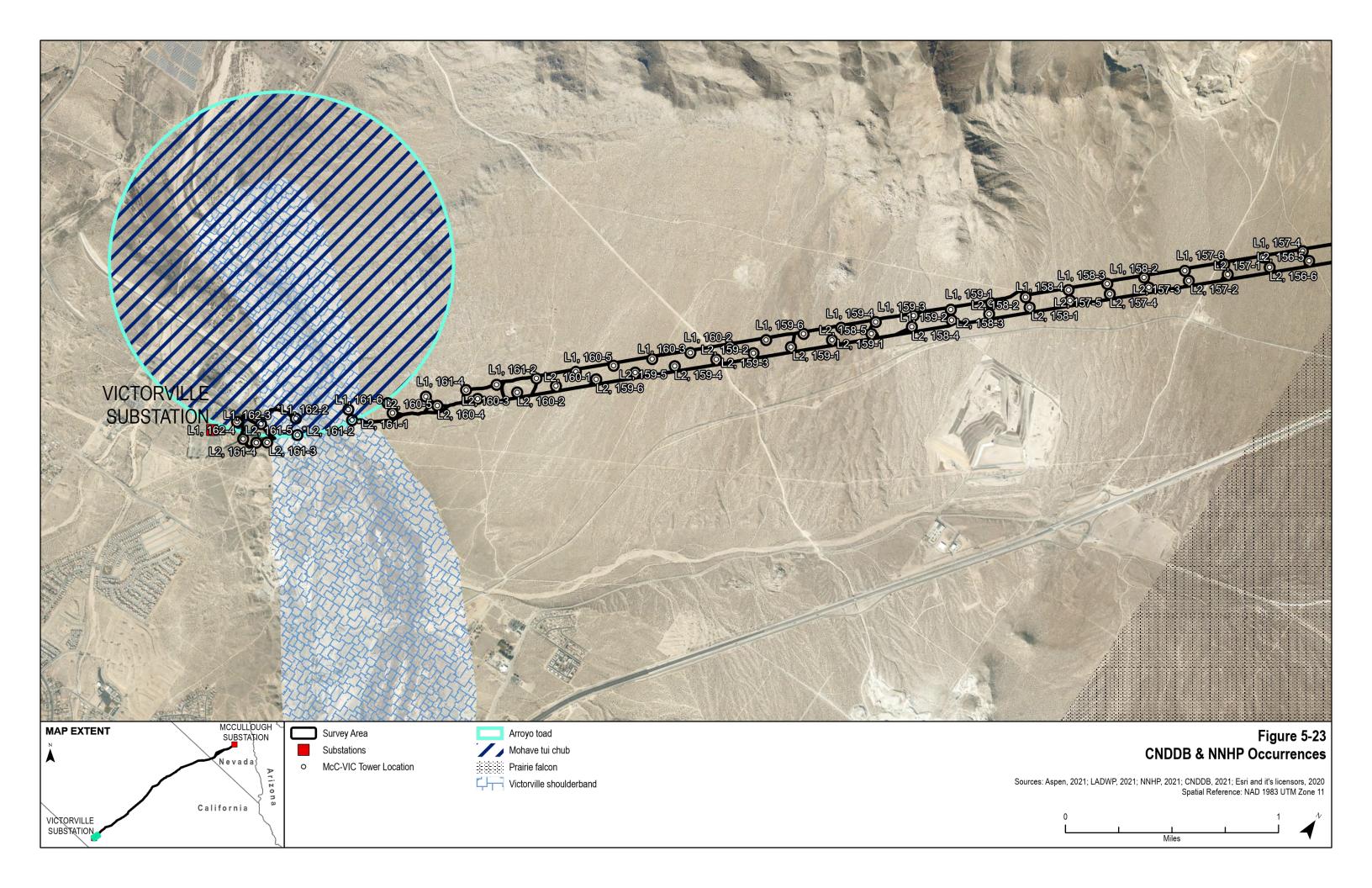


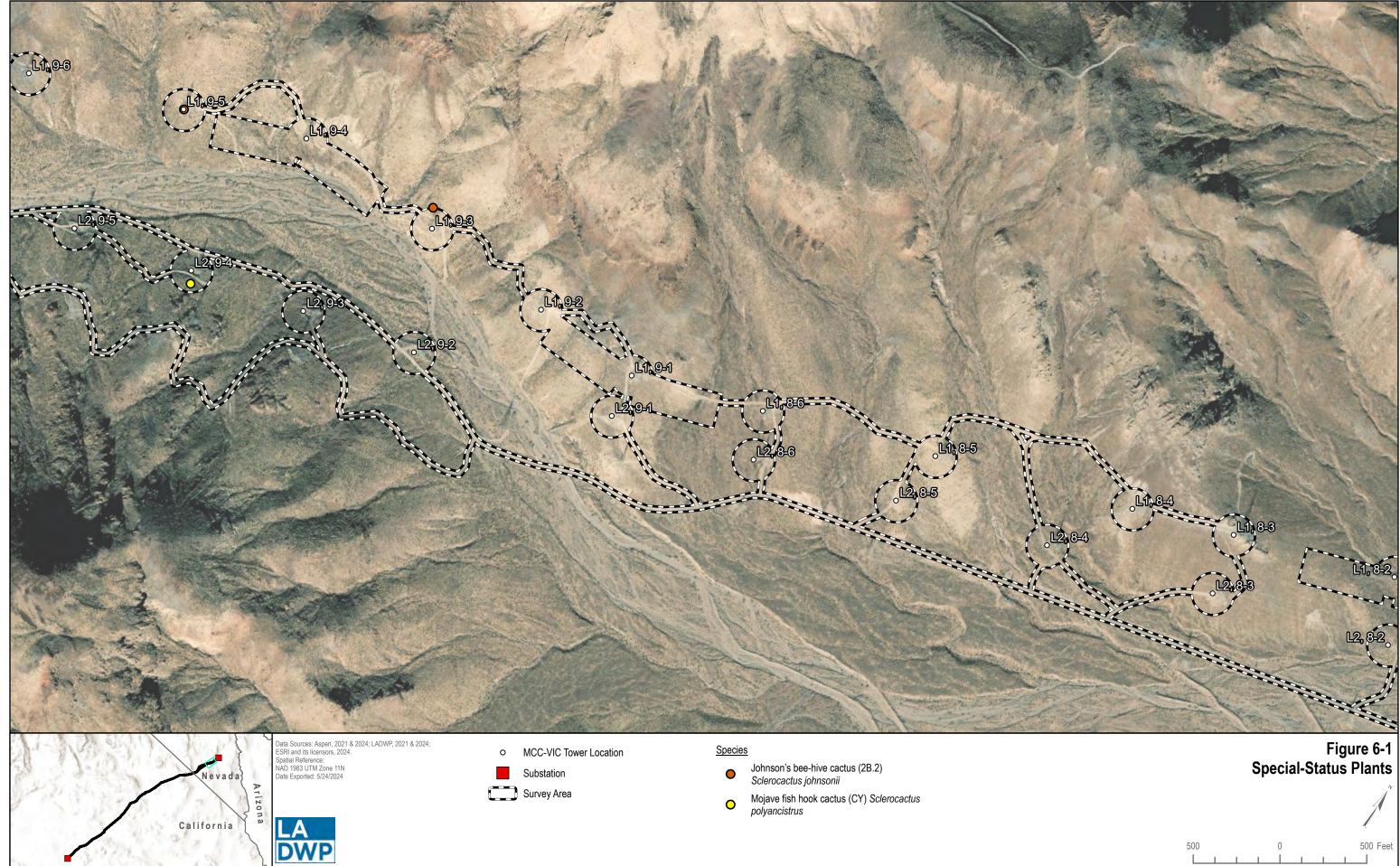


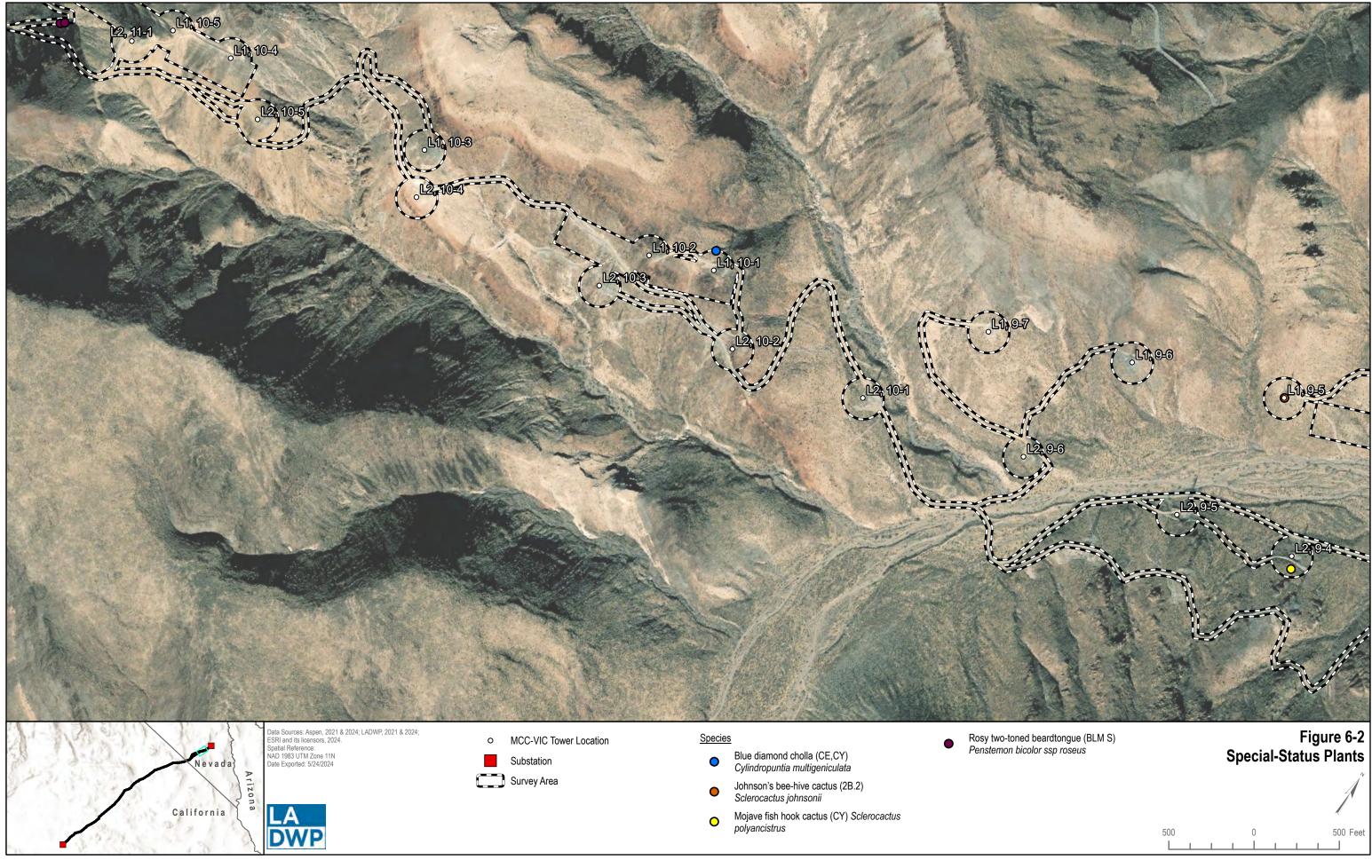


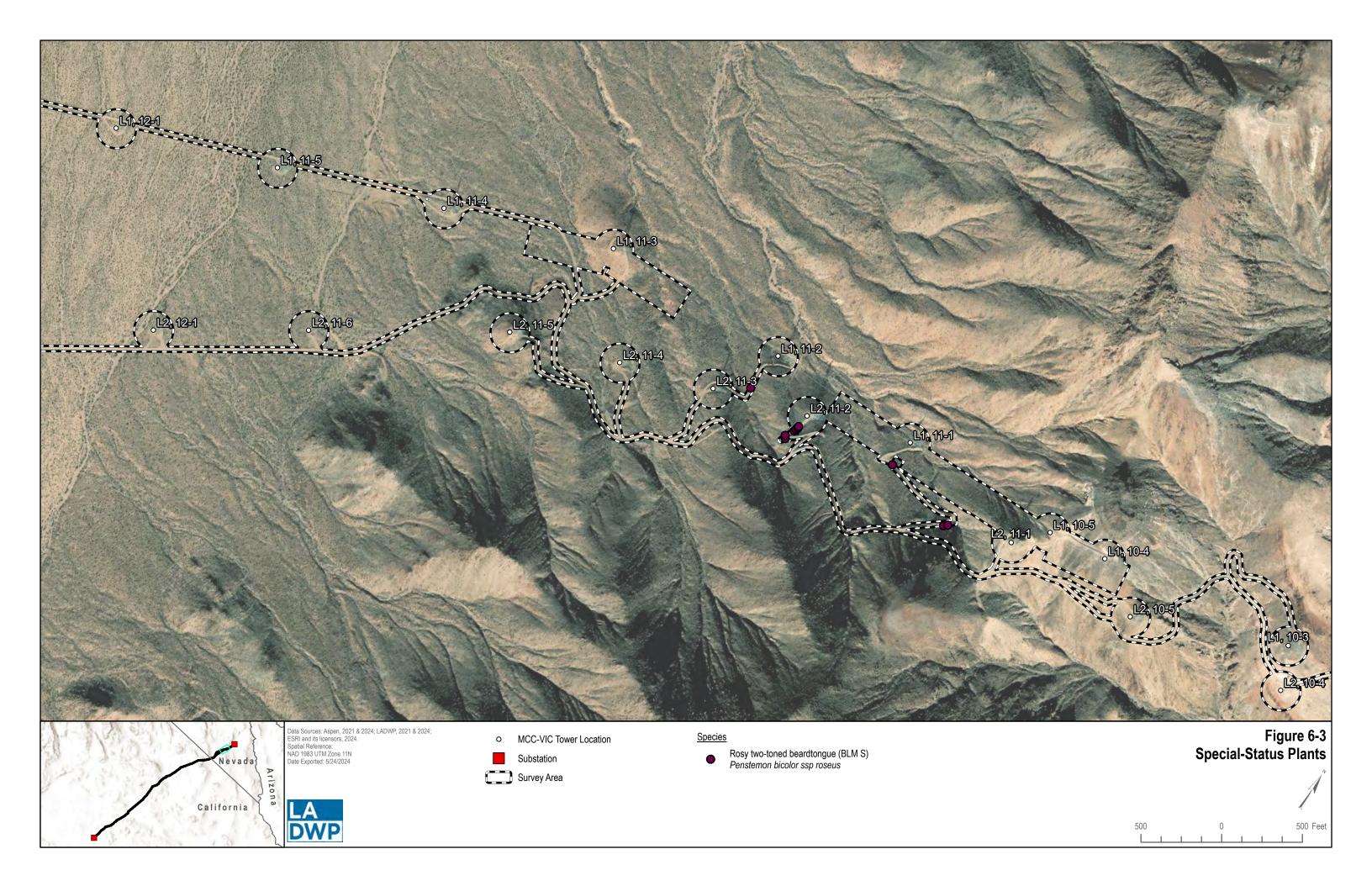


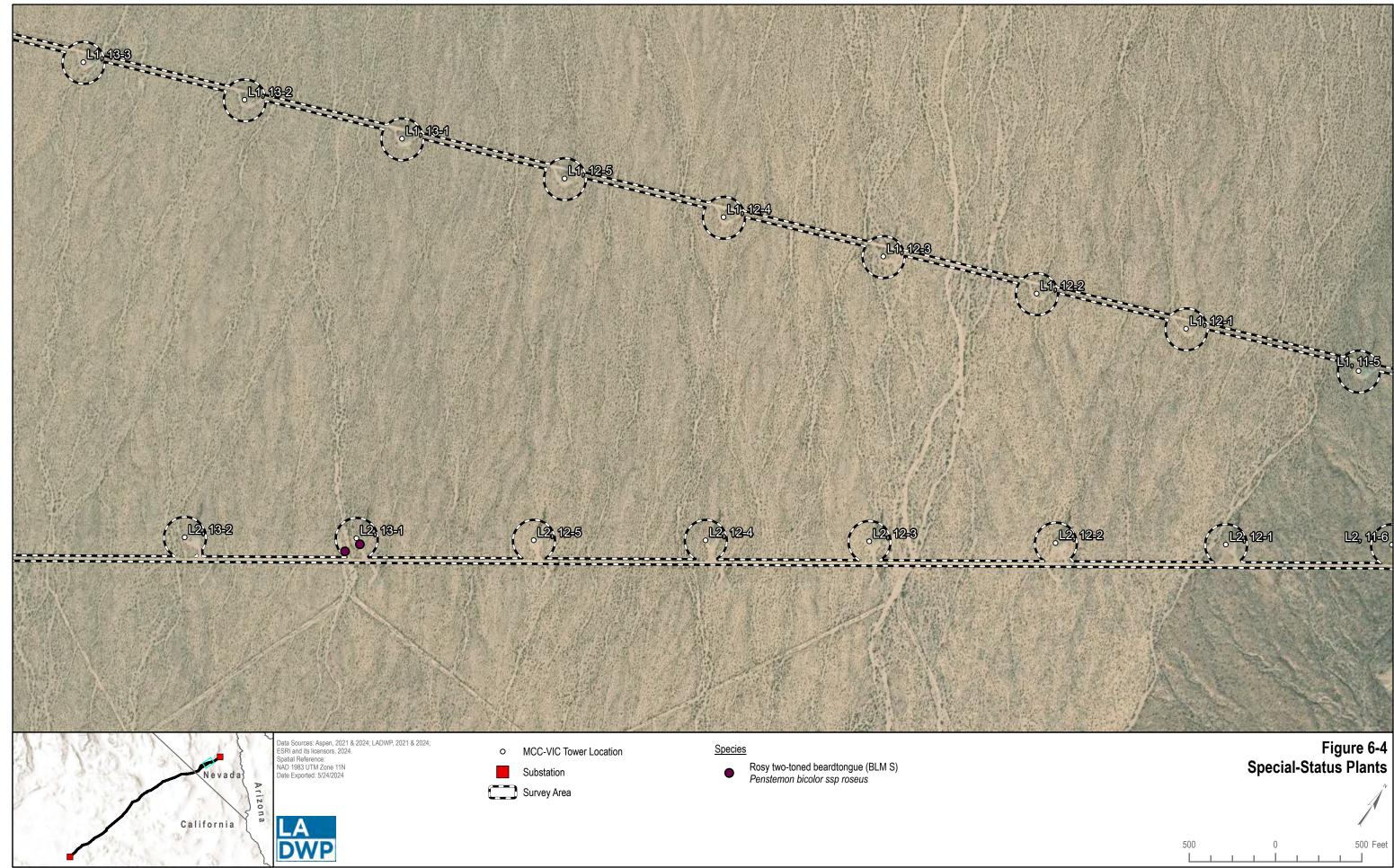


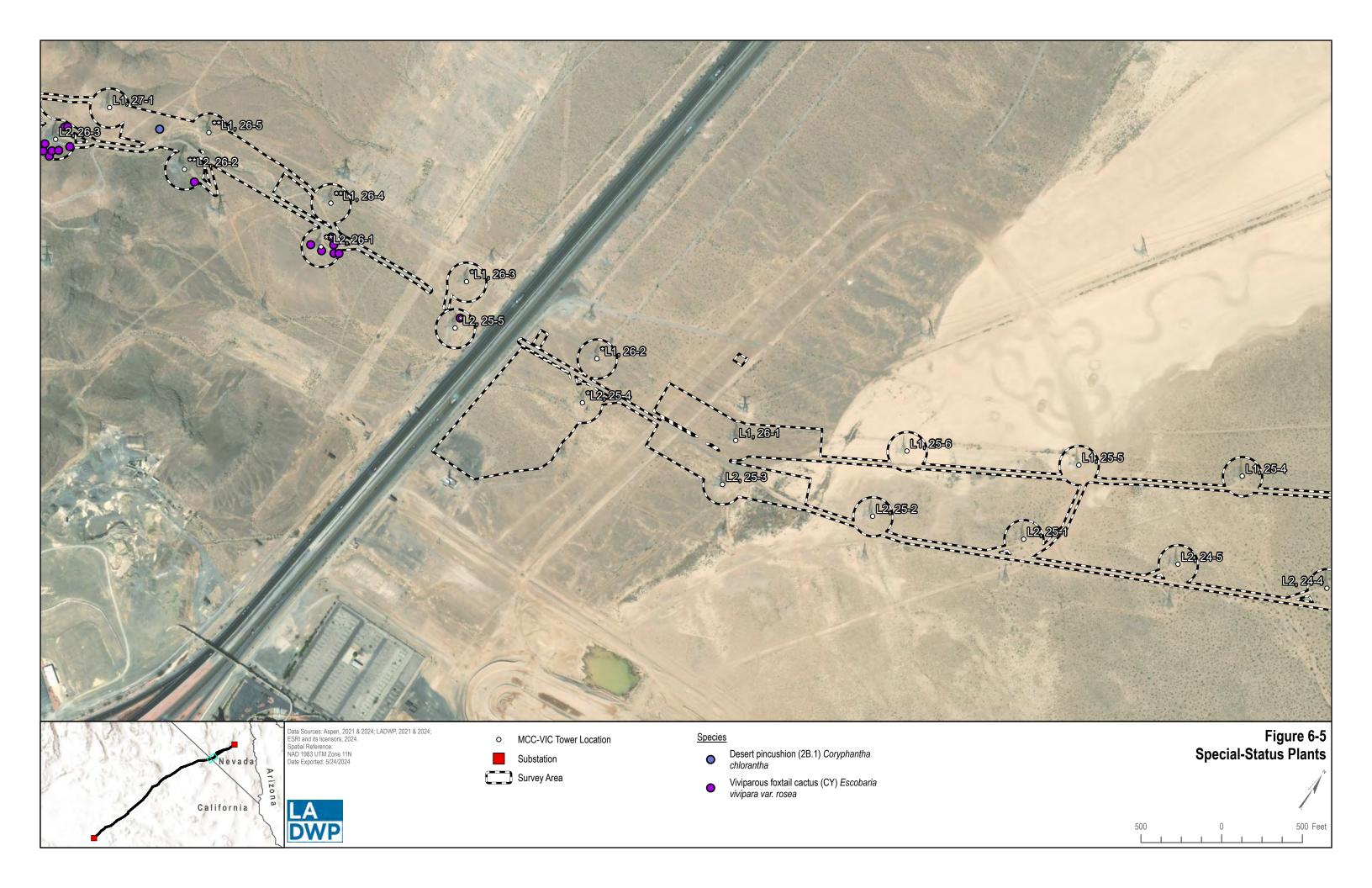


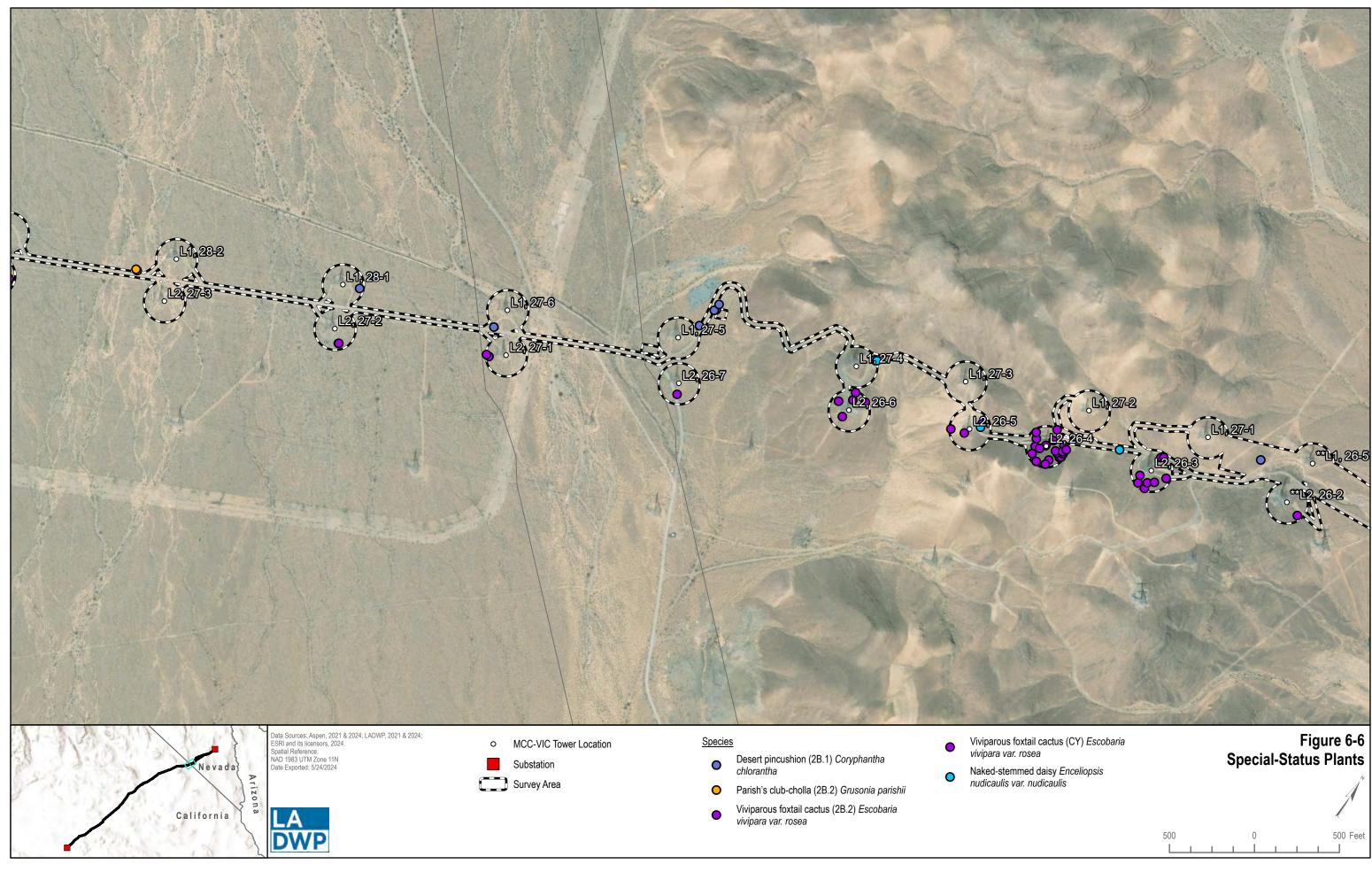


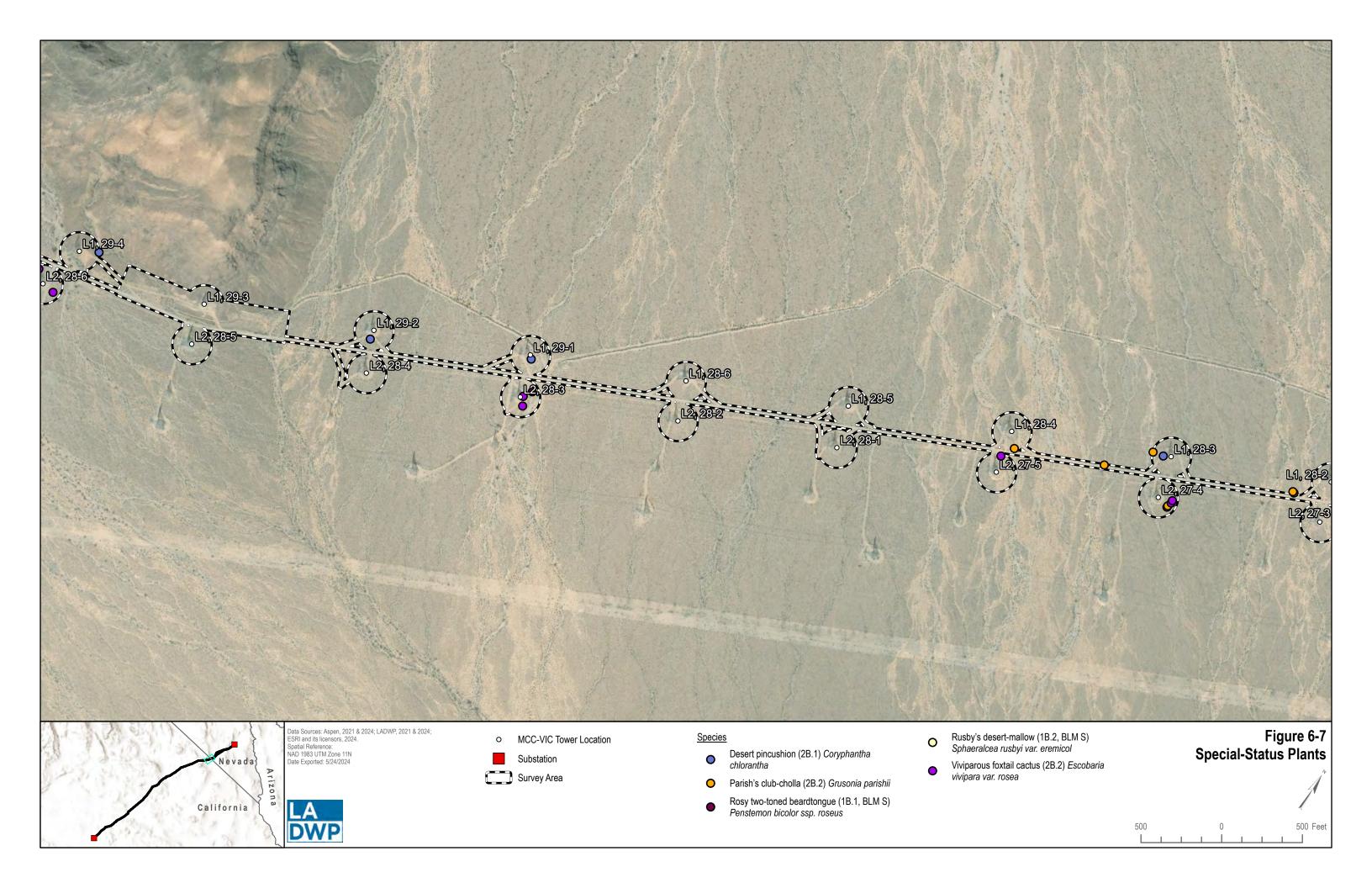


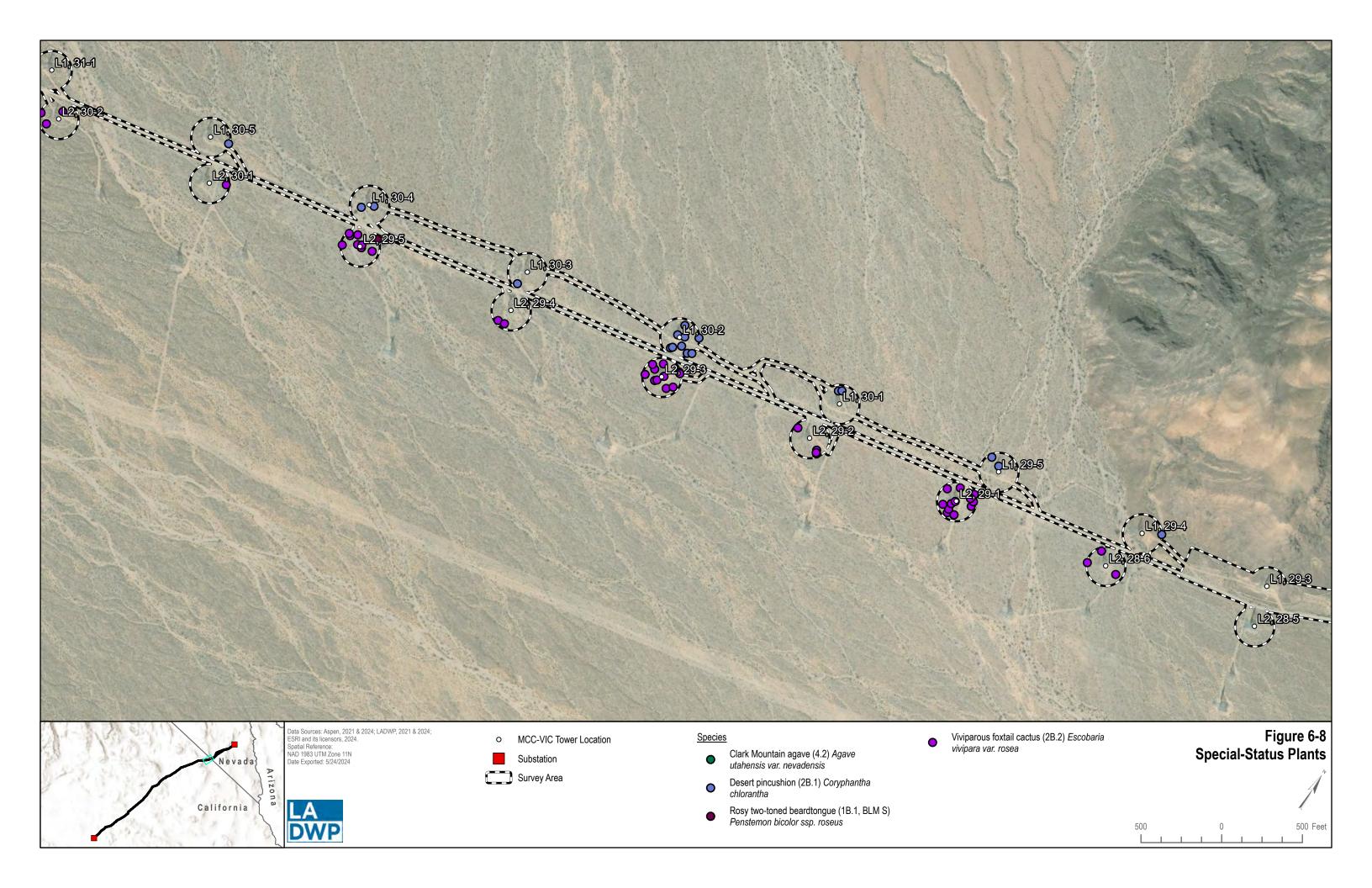


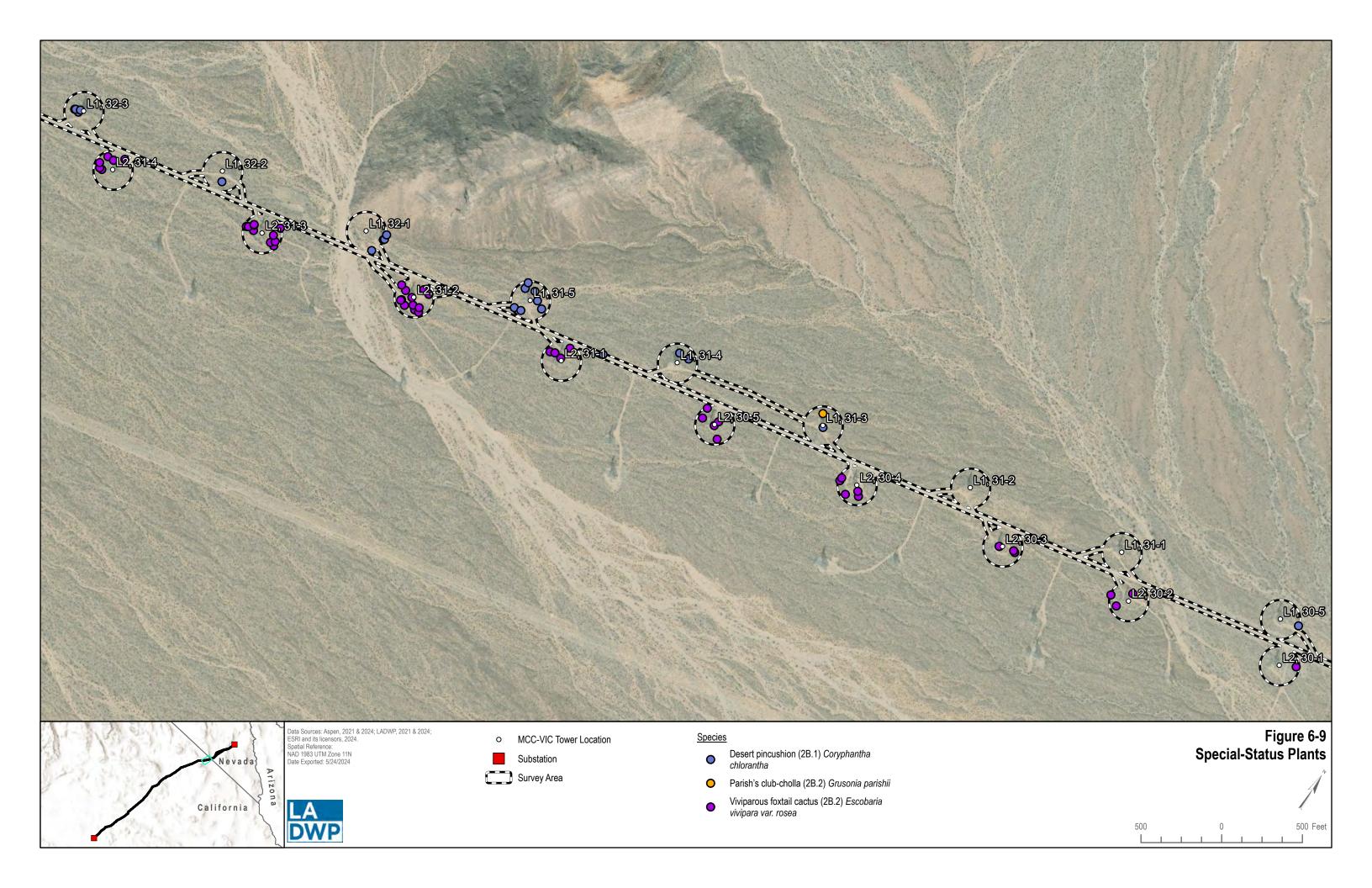


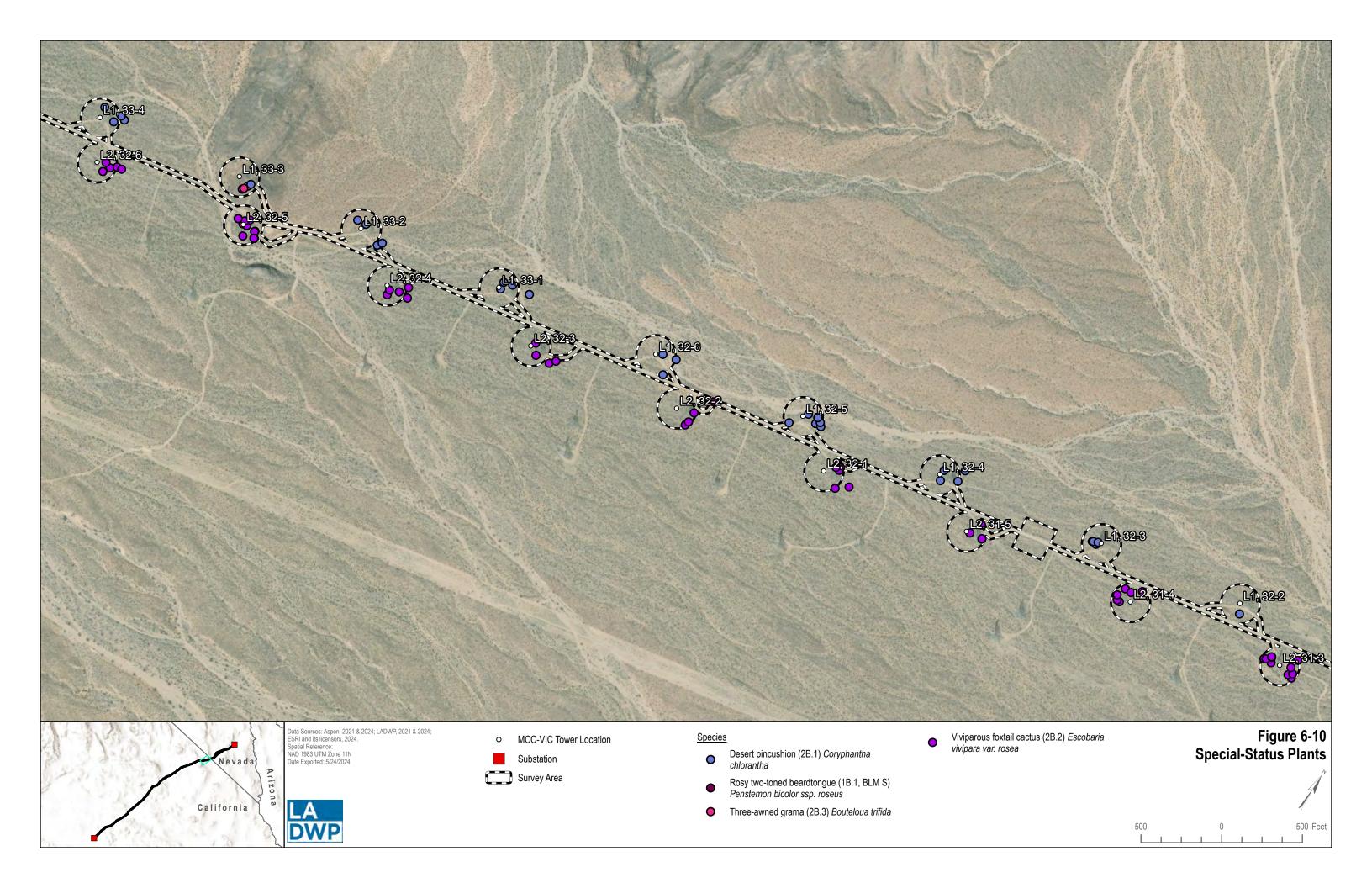


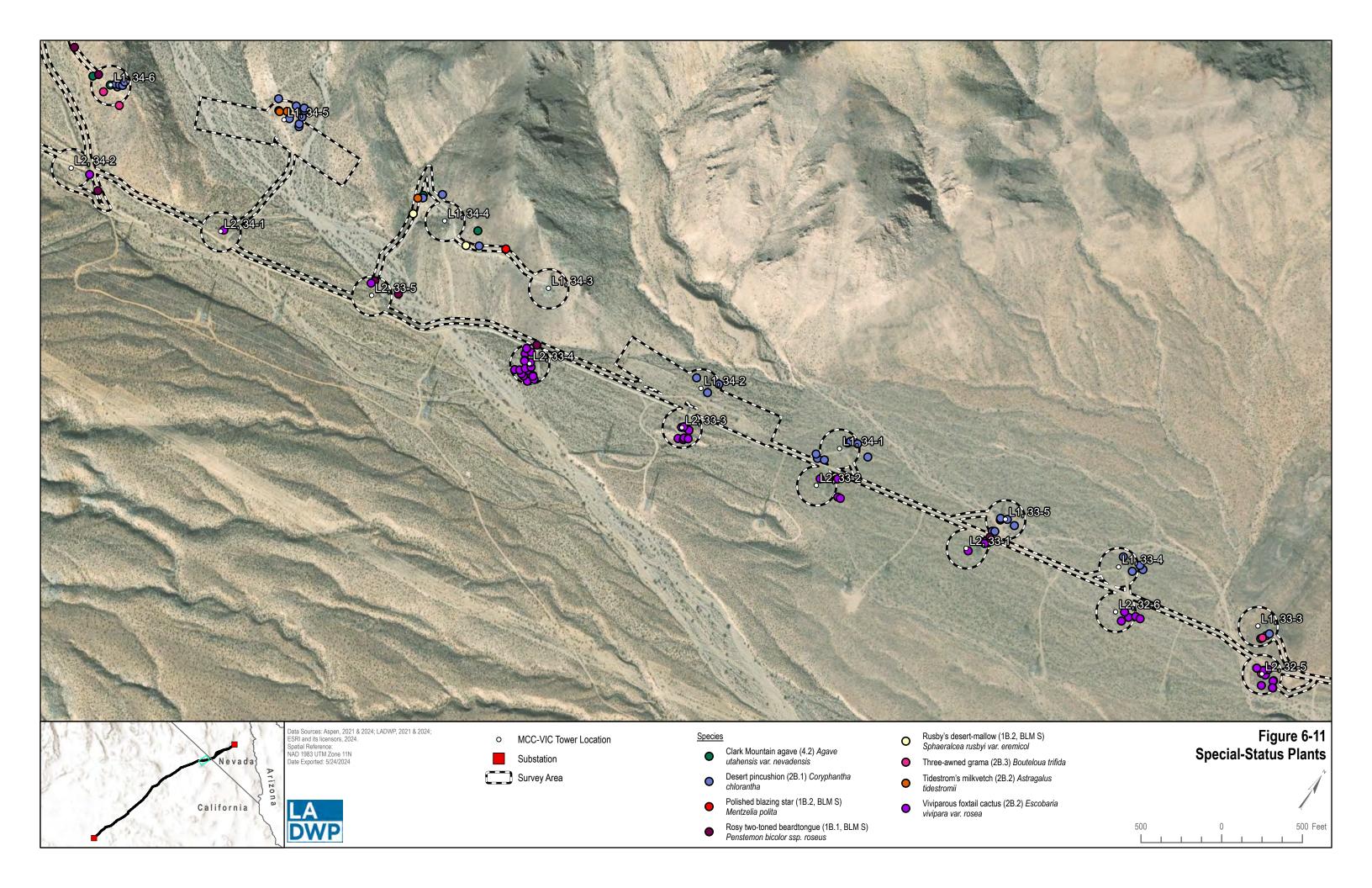


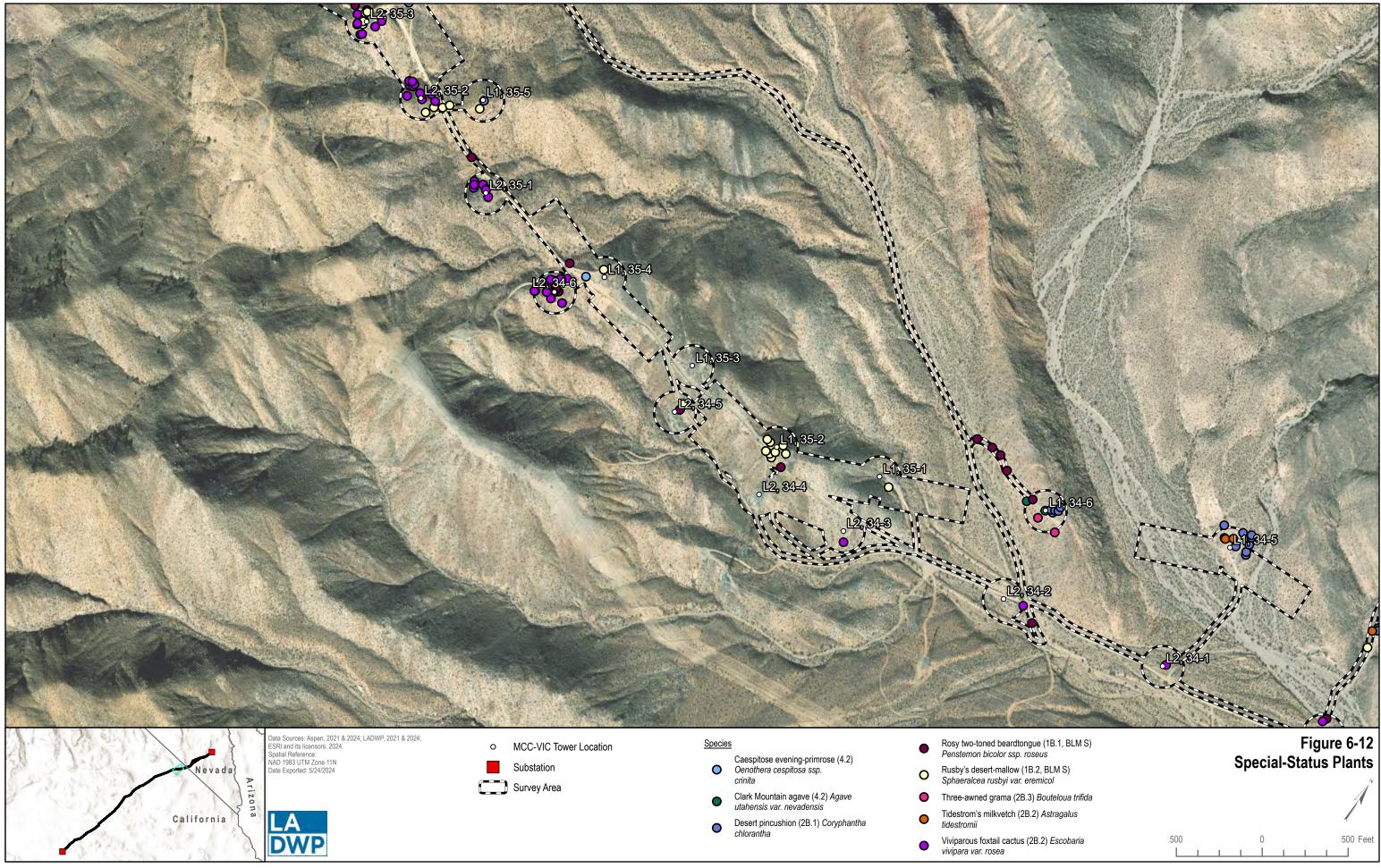




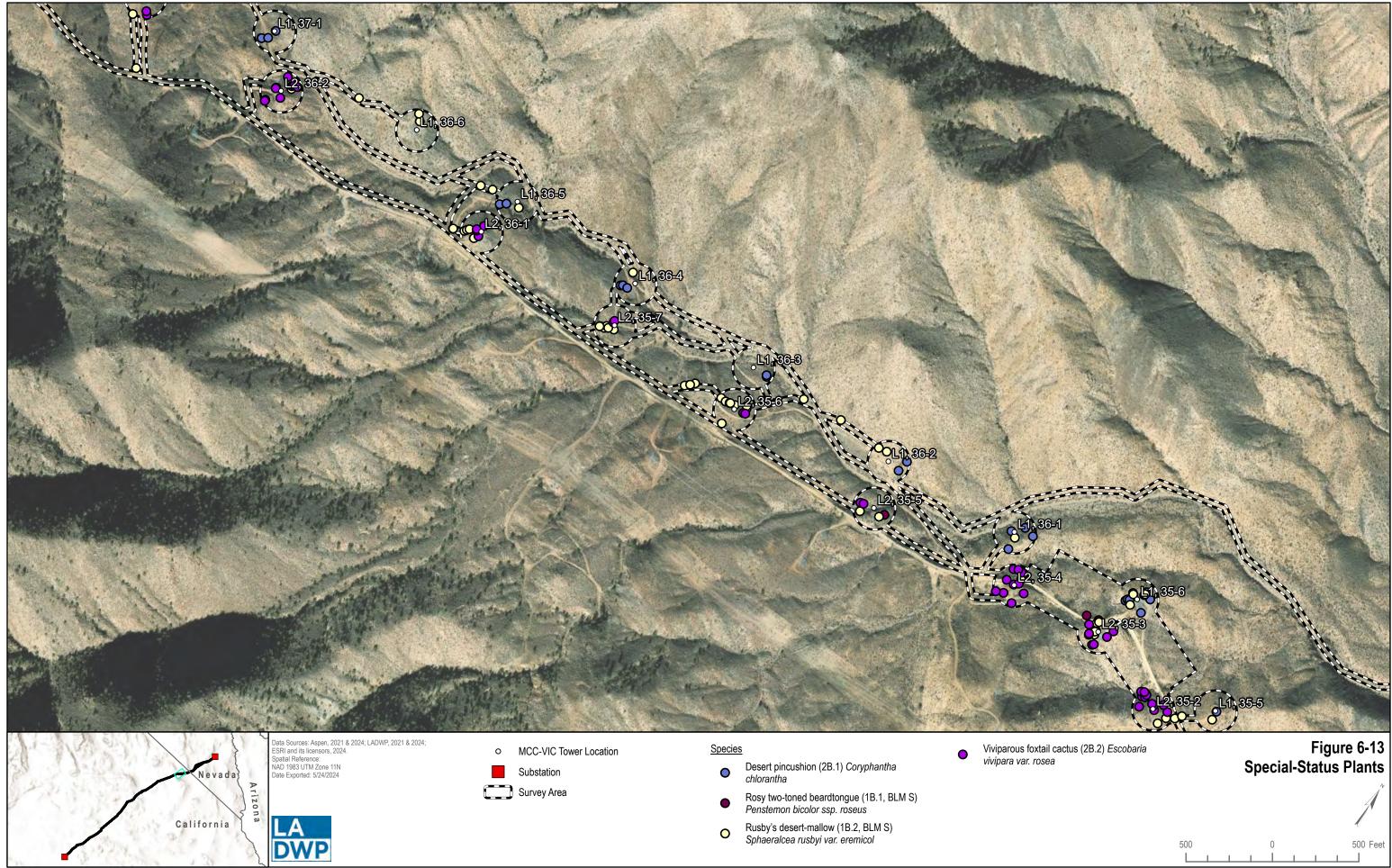


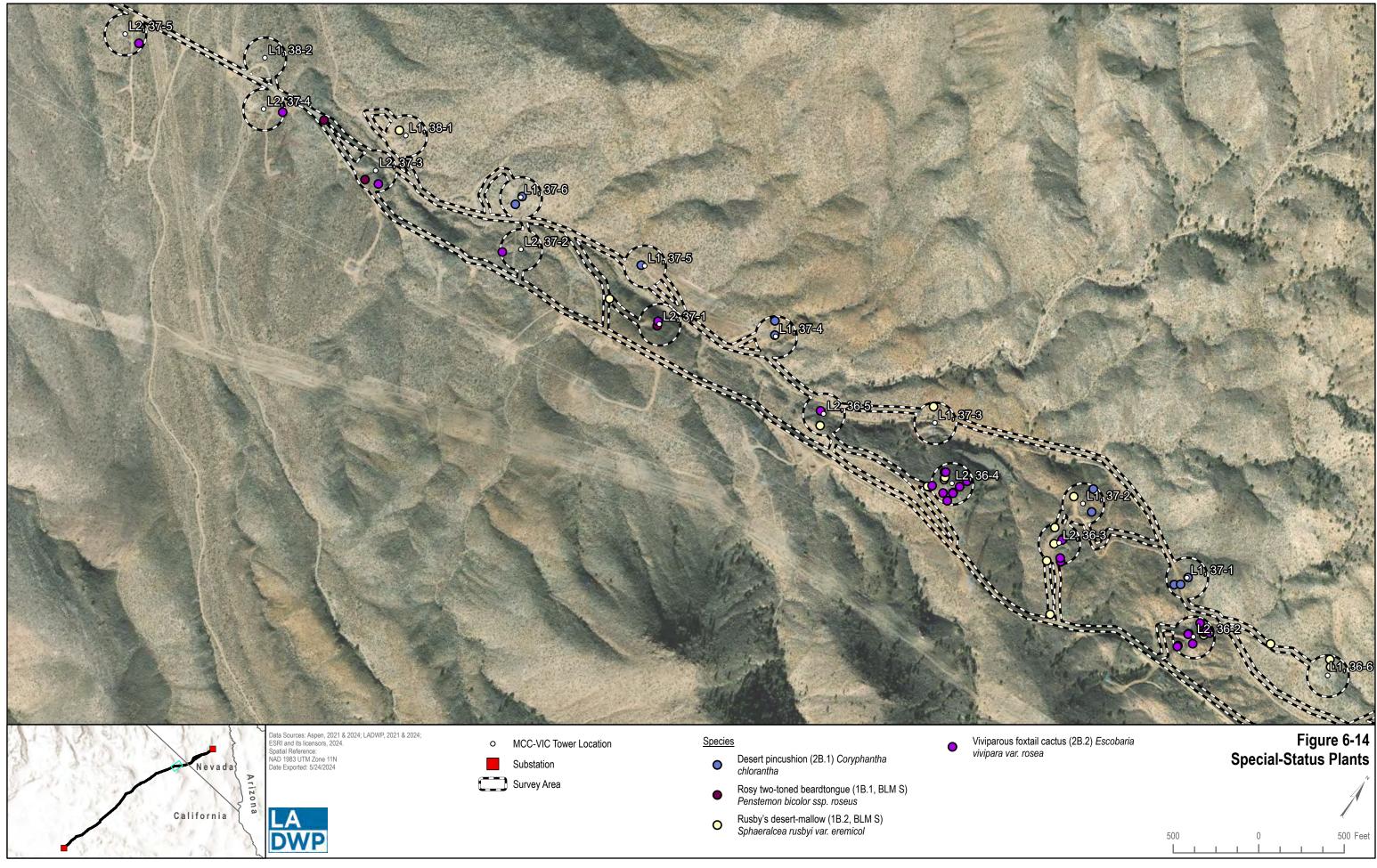


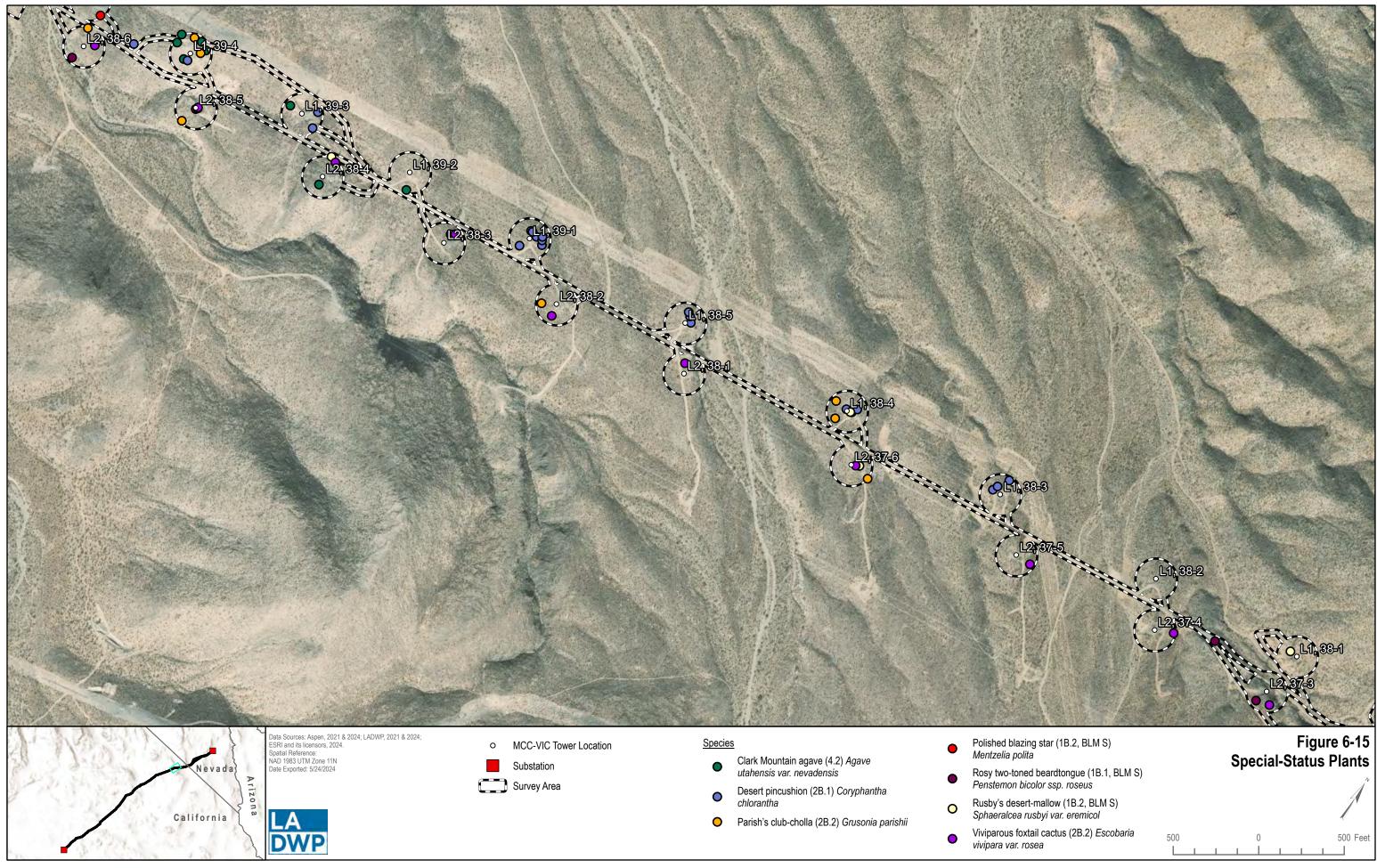




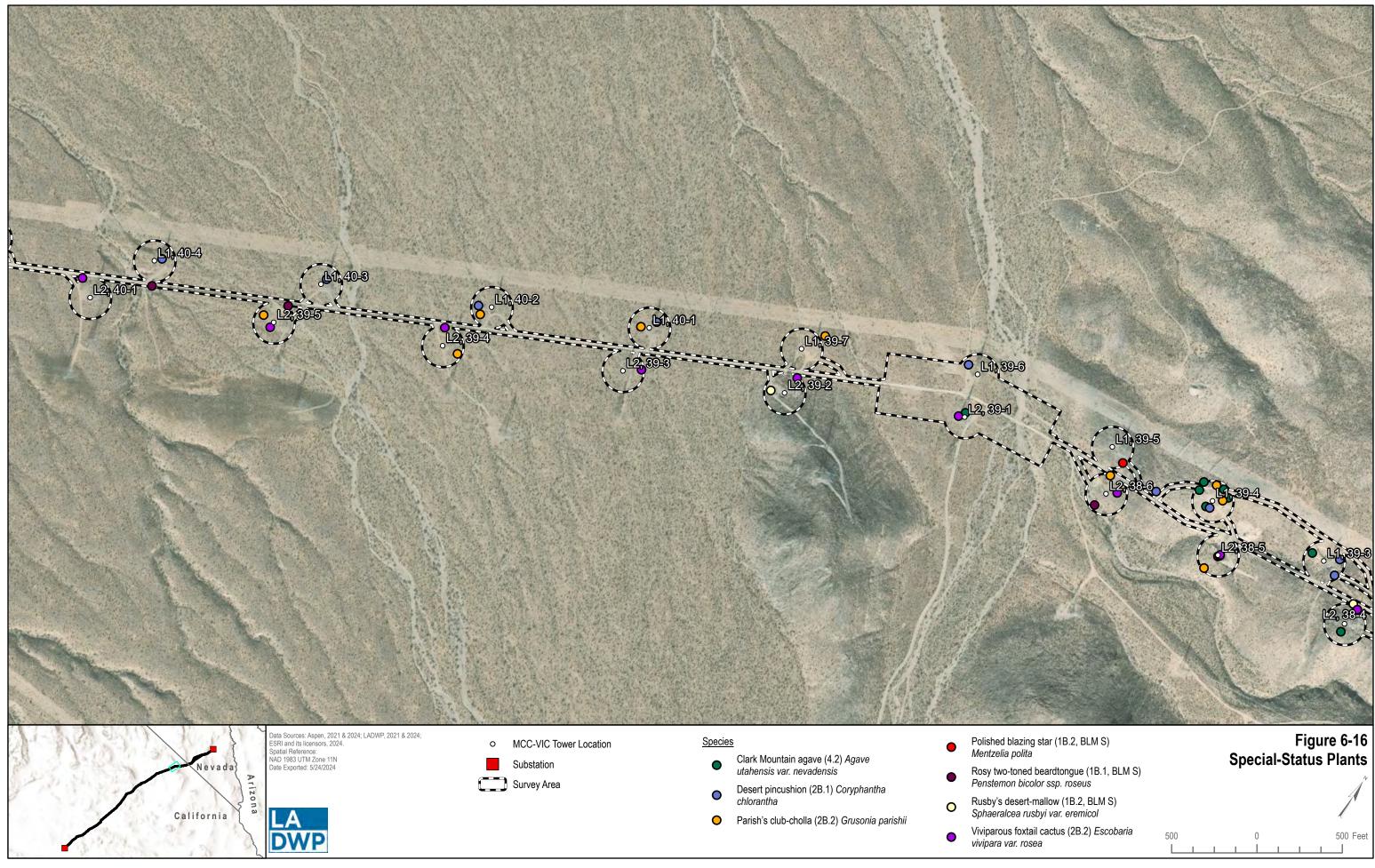
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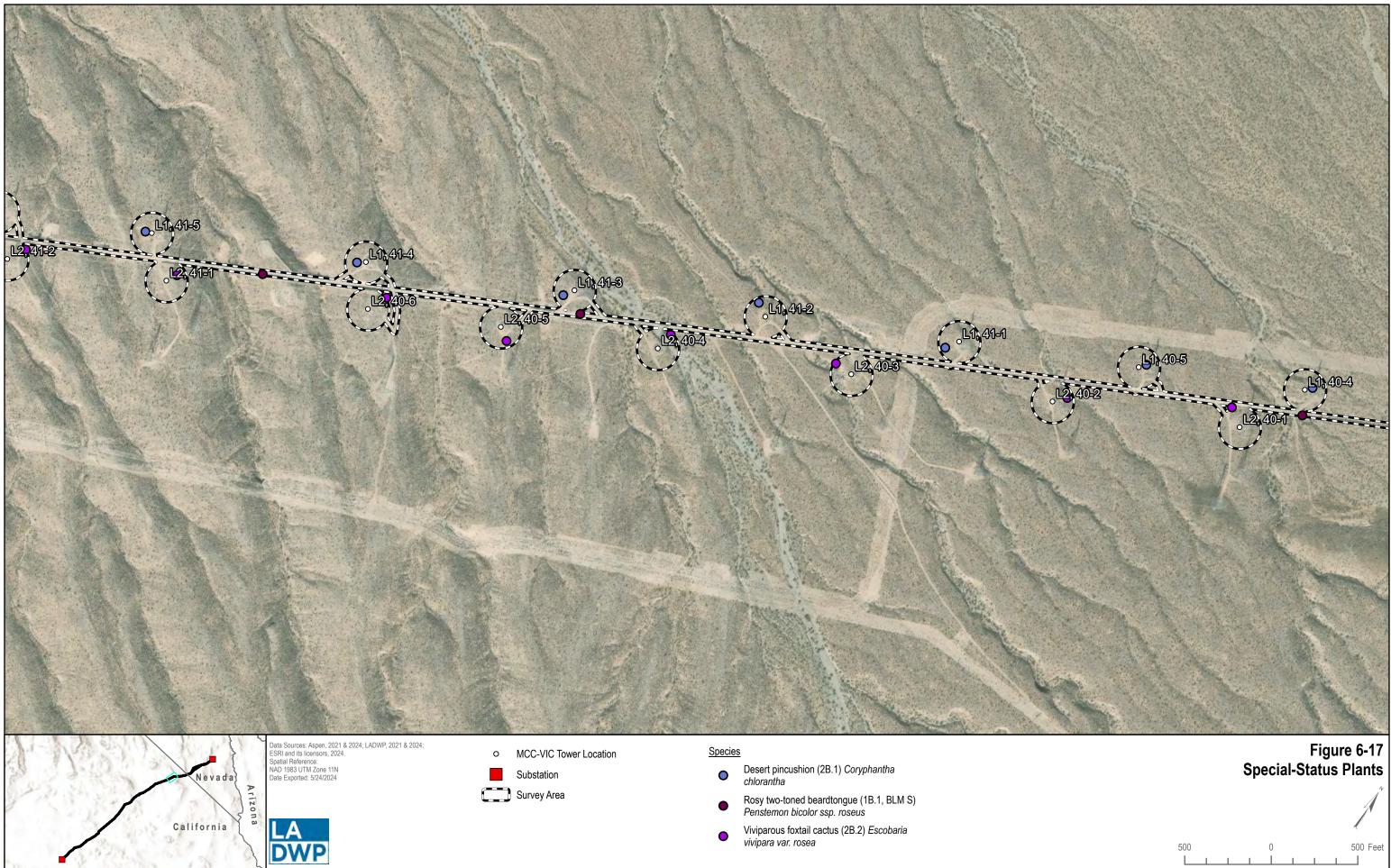


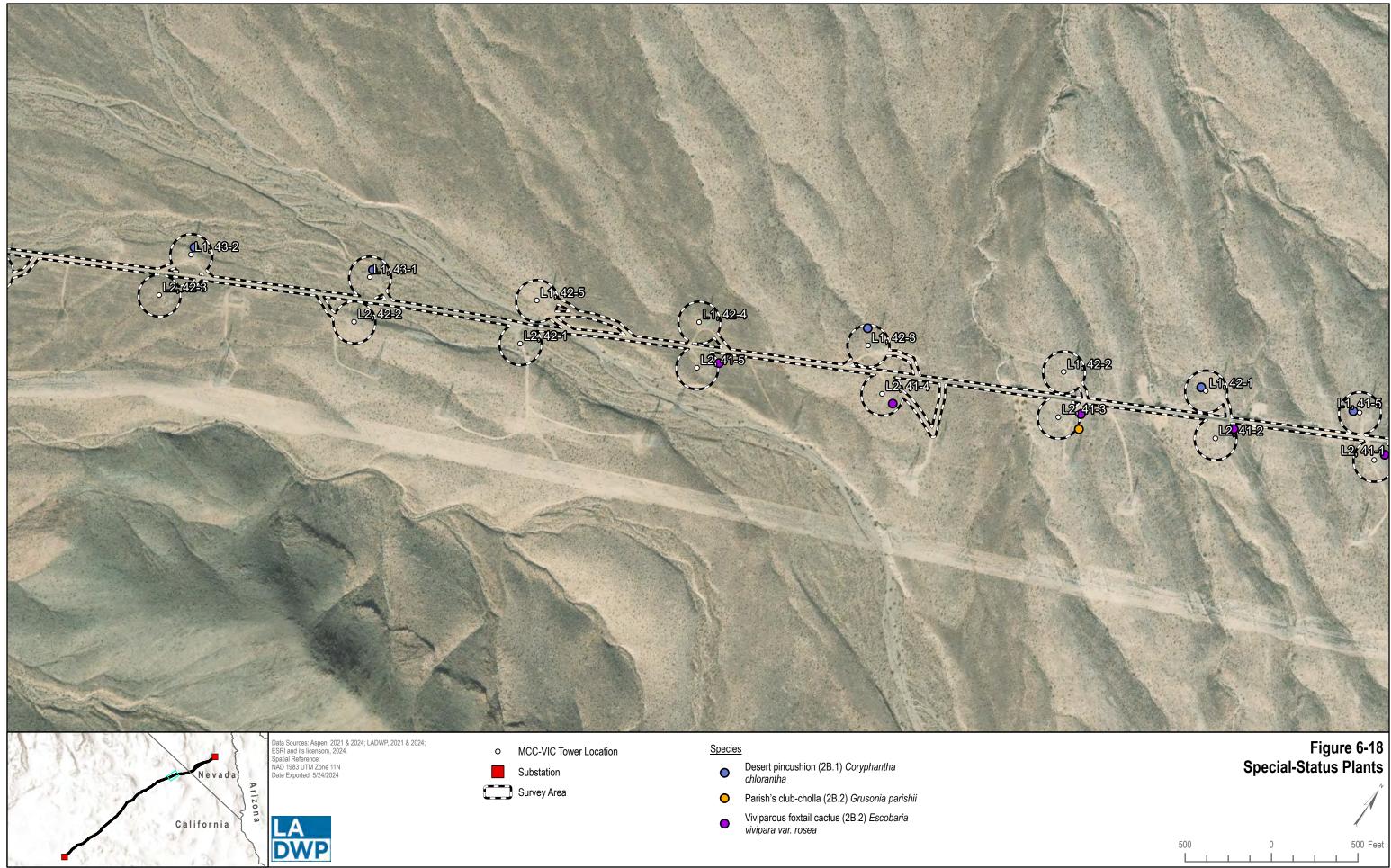


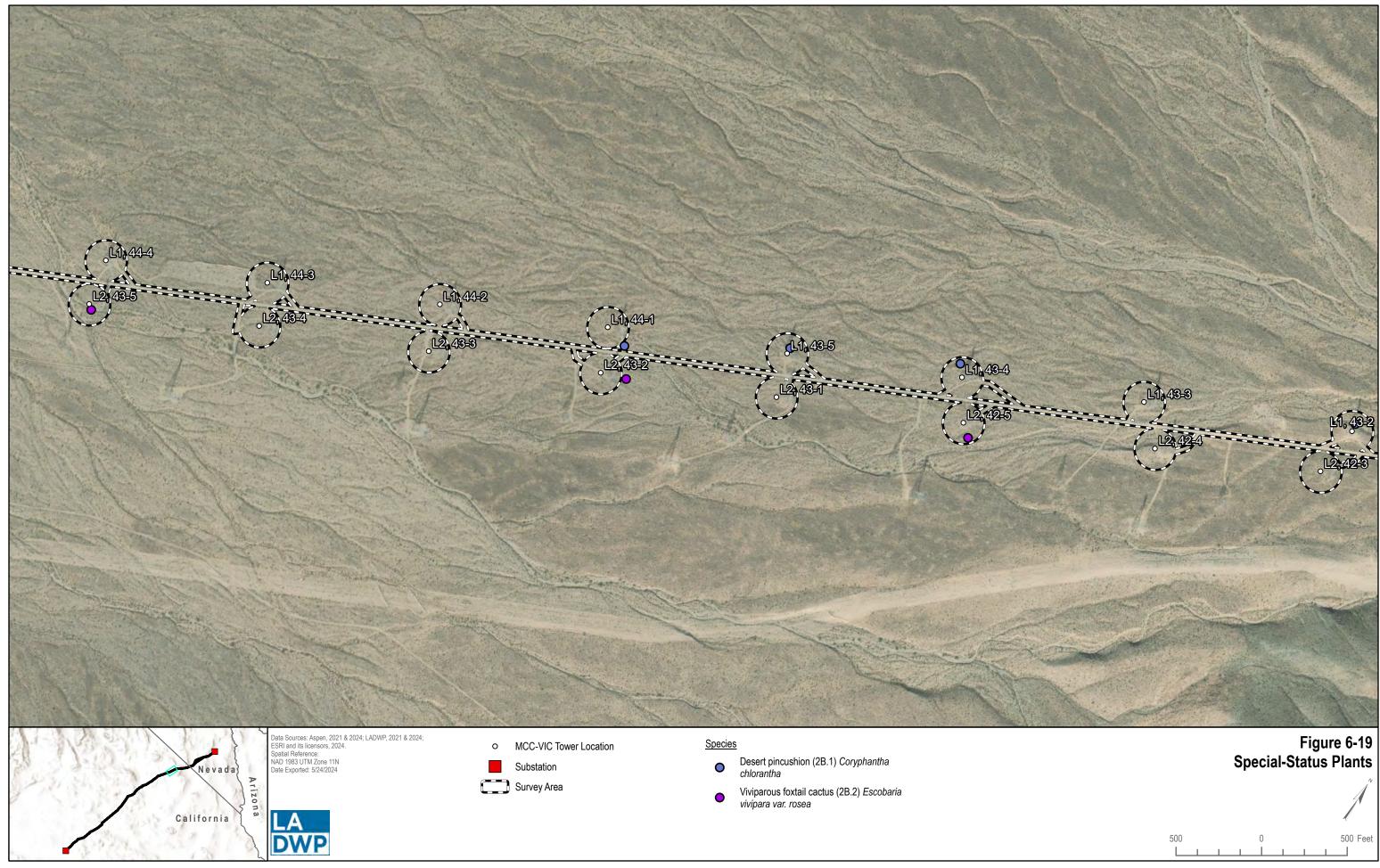
ng star (1B.2, BLM S) a	Figur Special-Status				re 6-15 Plants		
d beardtongue (1B.1, BLM S) color ssp. roseus				٩v	001		
t-mallow (1B.2, BLM S) usbyi var. eremicol							1
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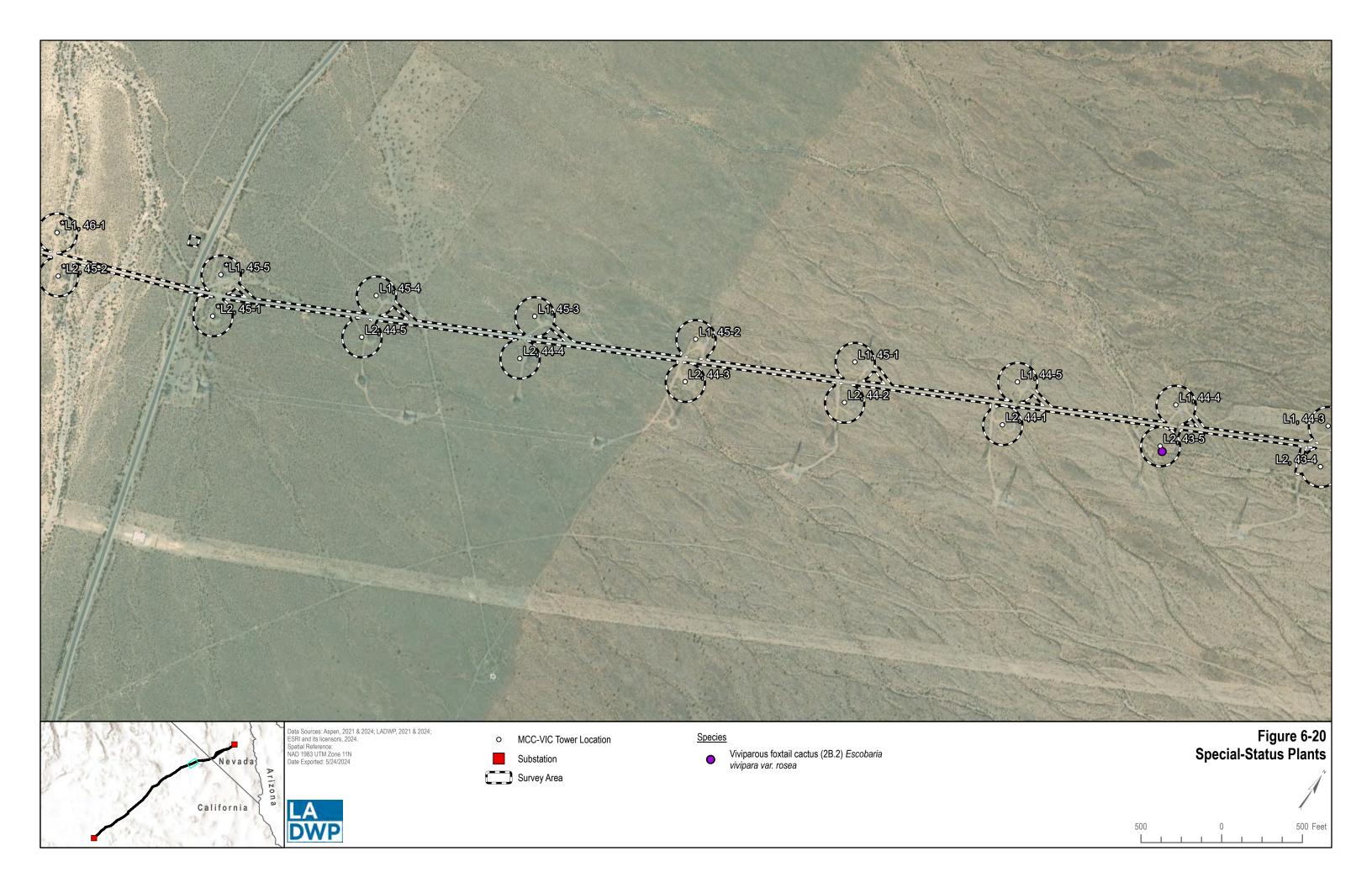


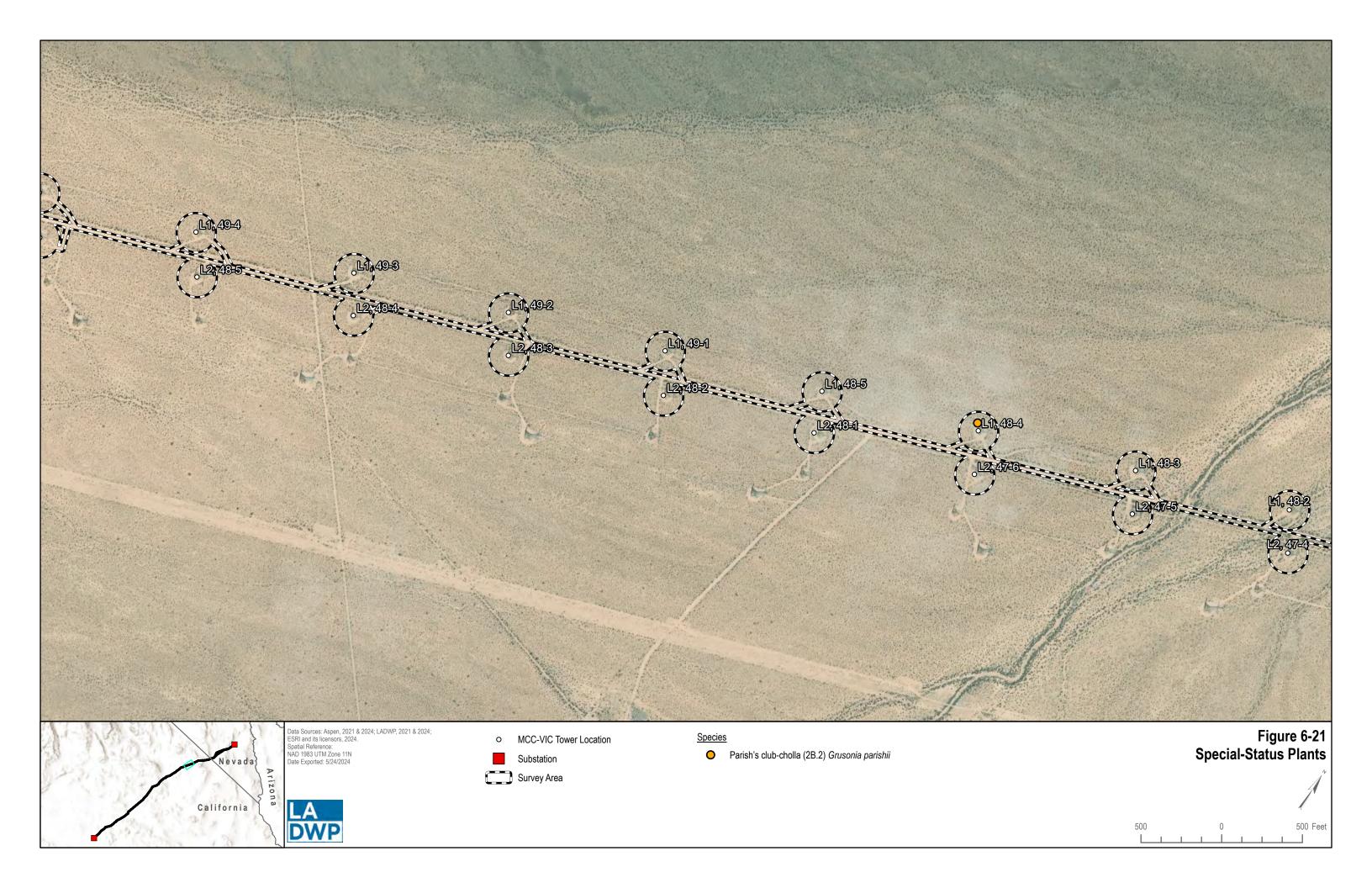
ng star (1B.2, BLM S) a	Figure 6 Special-Status Pla							
d beardtongue (1B.1, BLM S) color ssp. roseus								Ň
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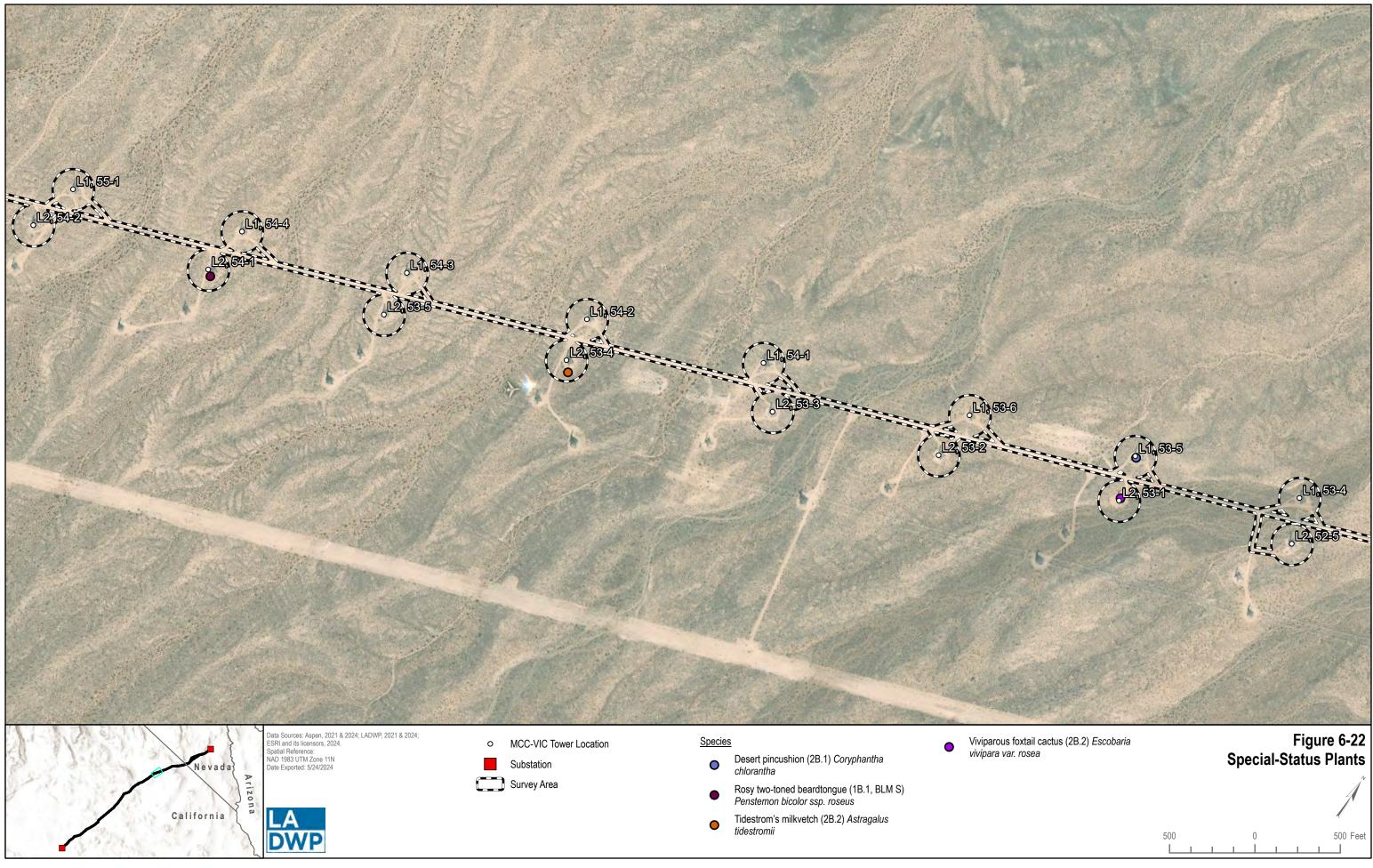


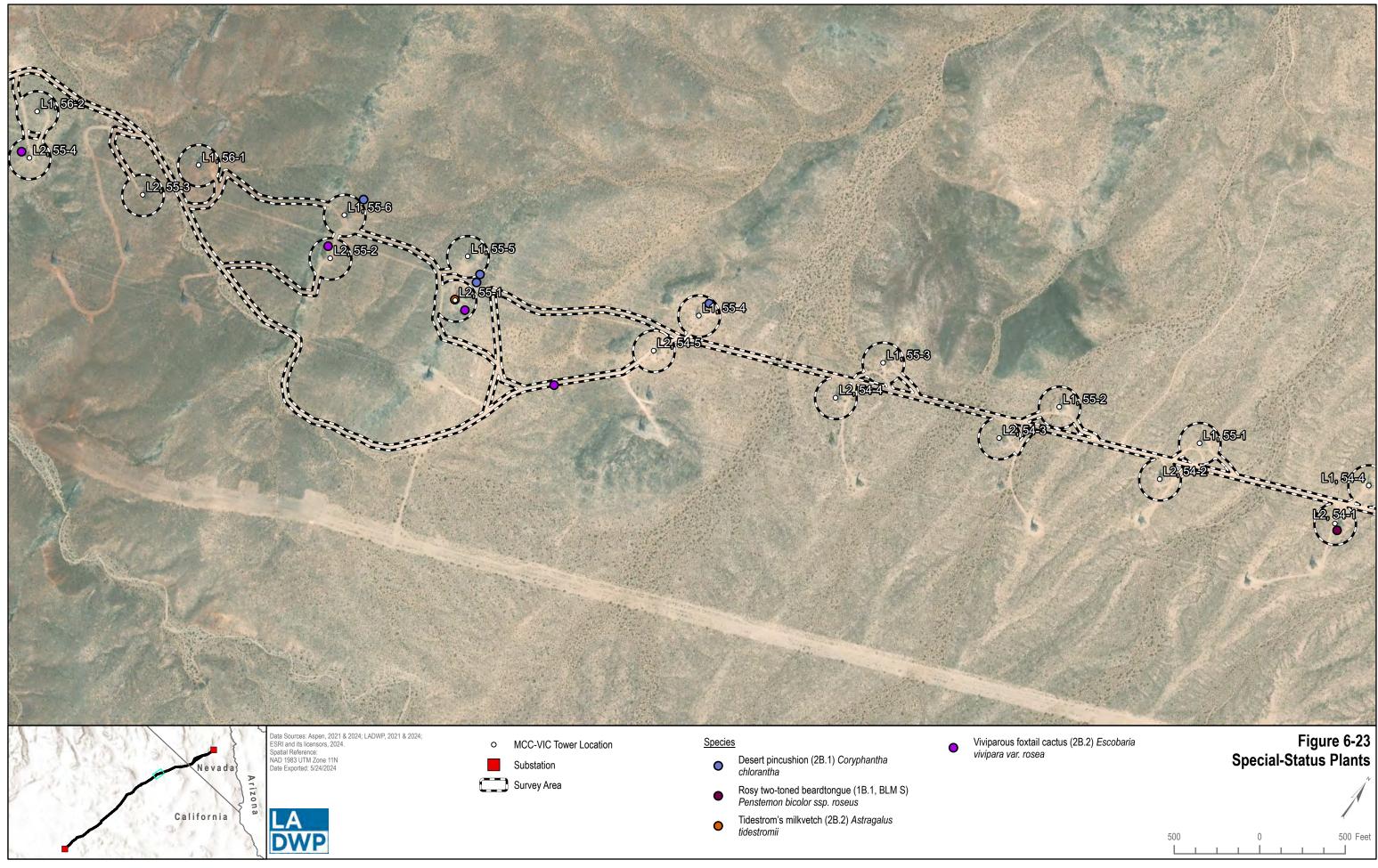


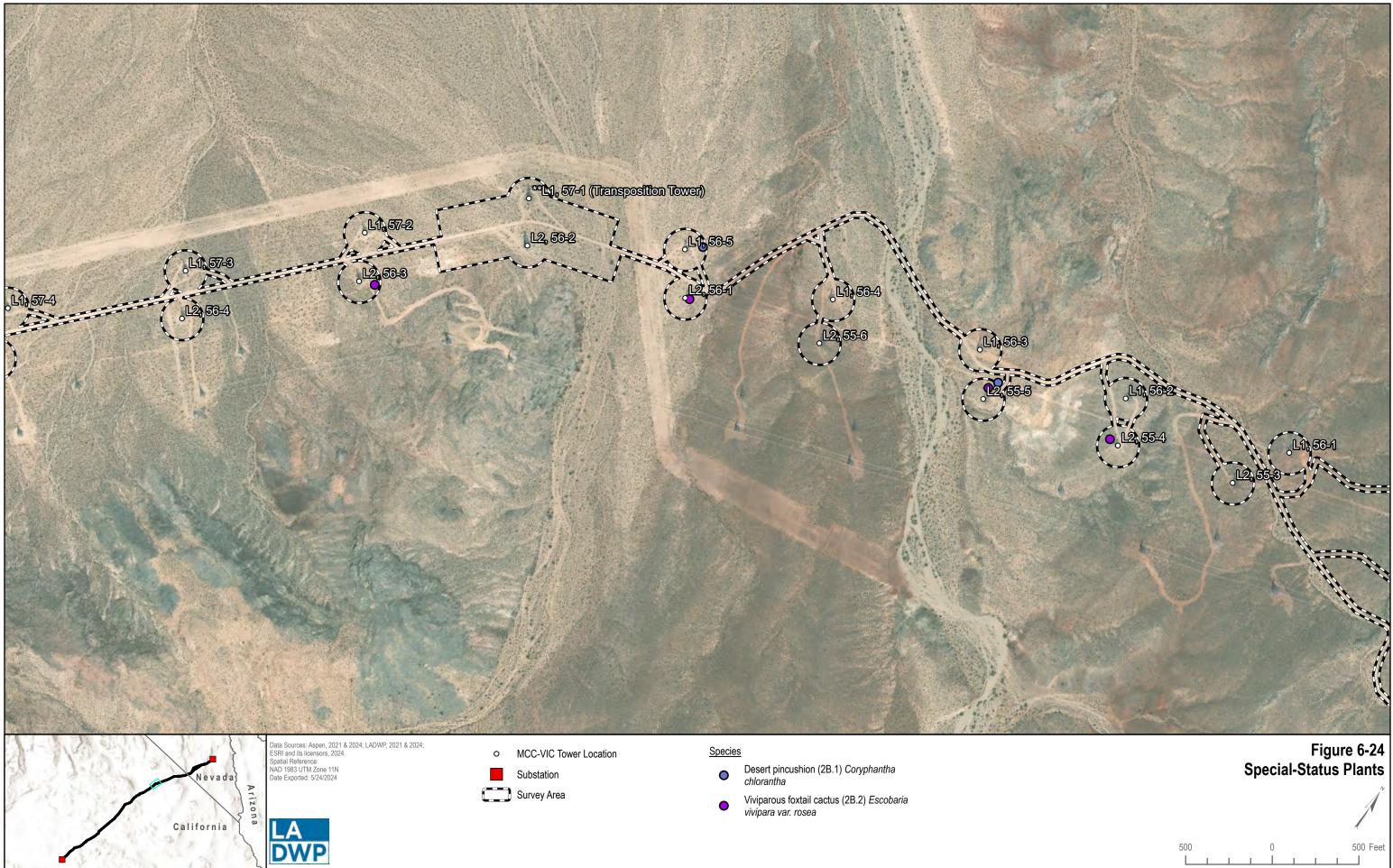


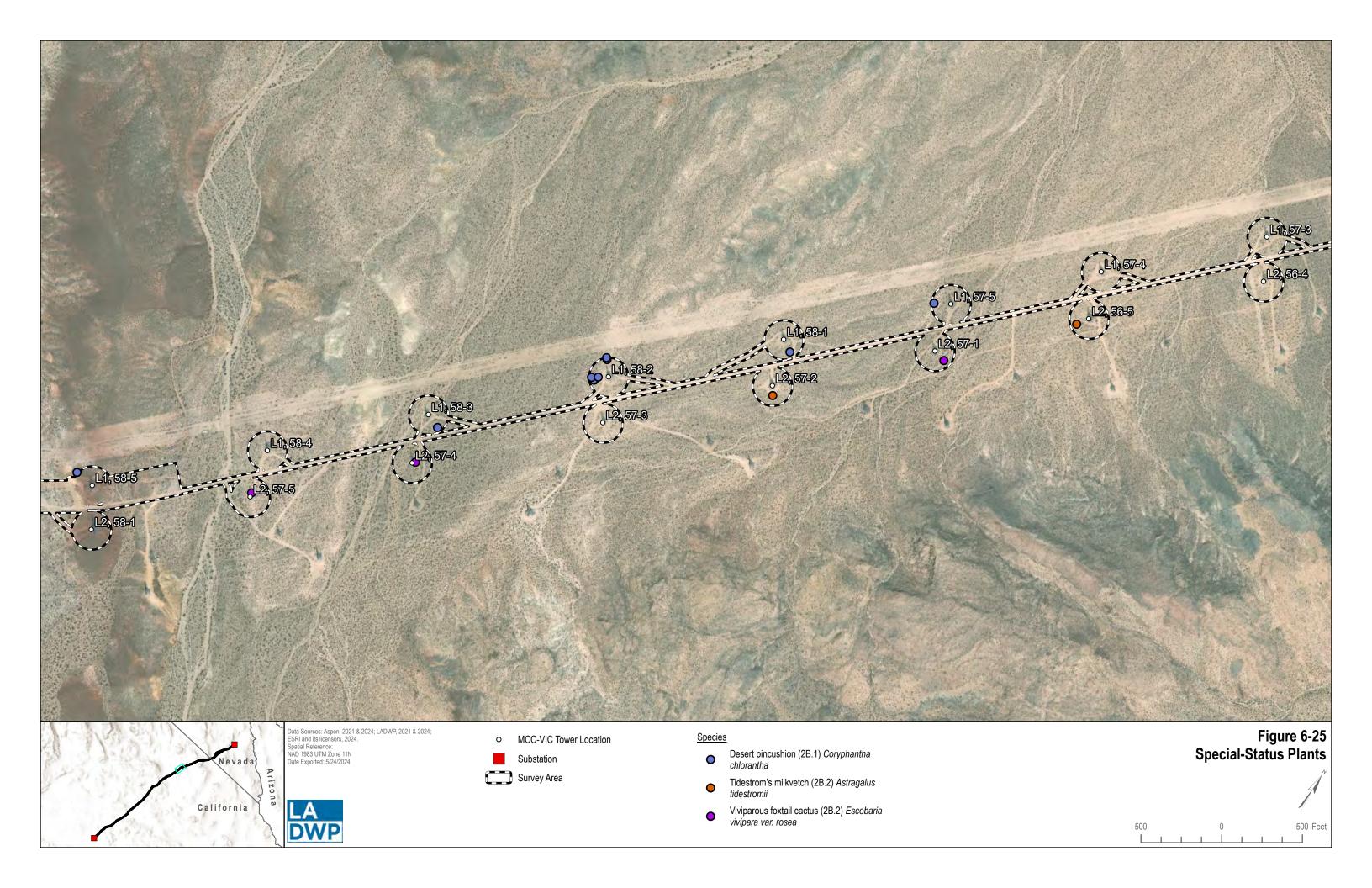


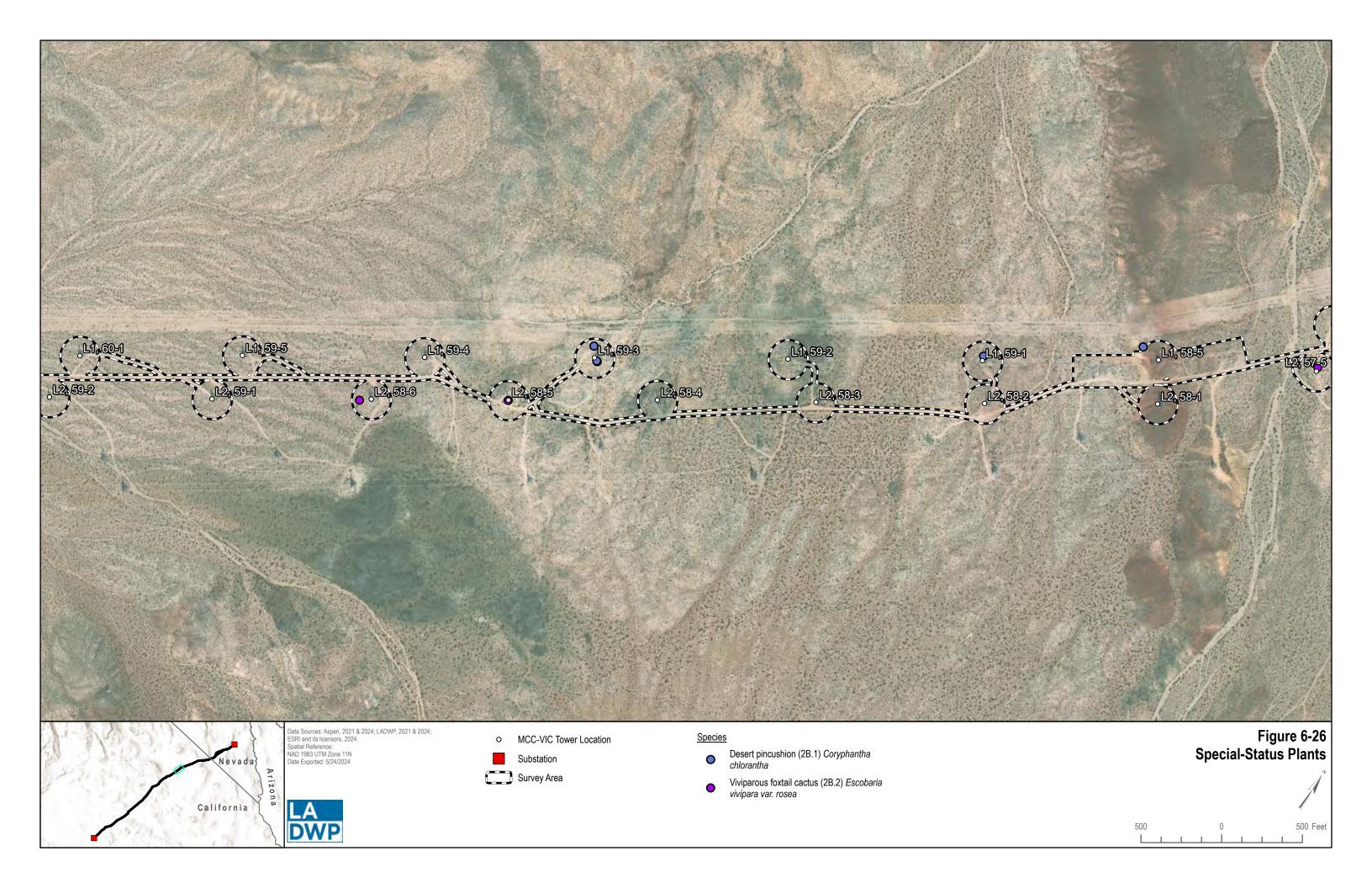


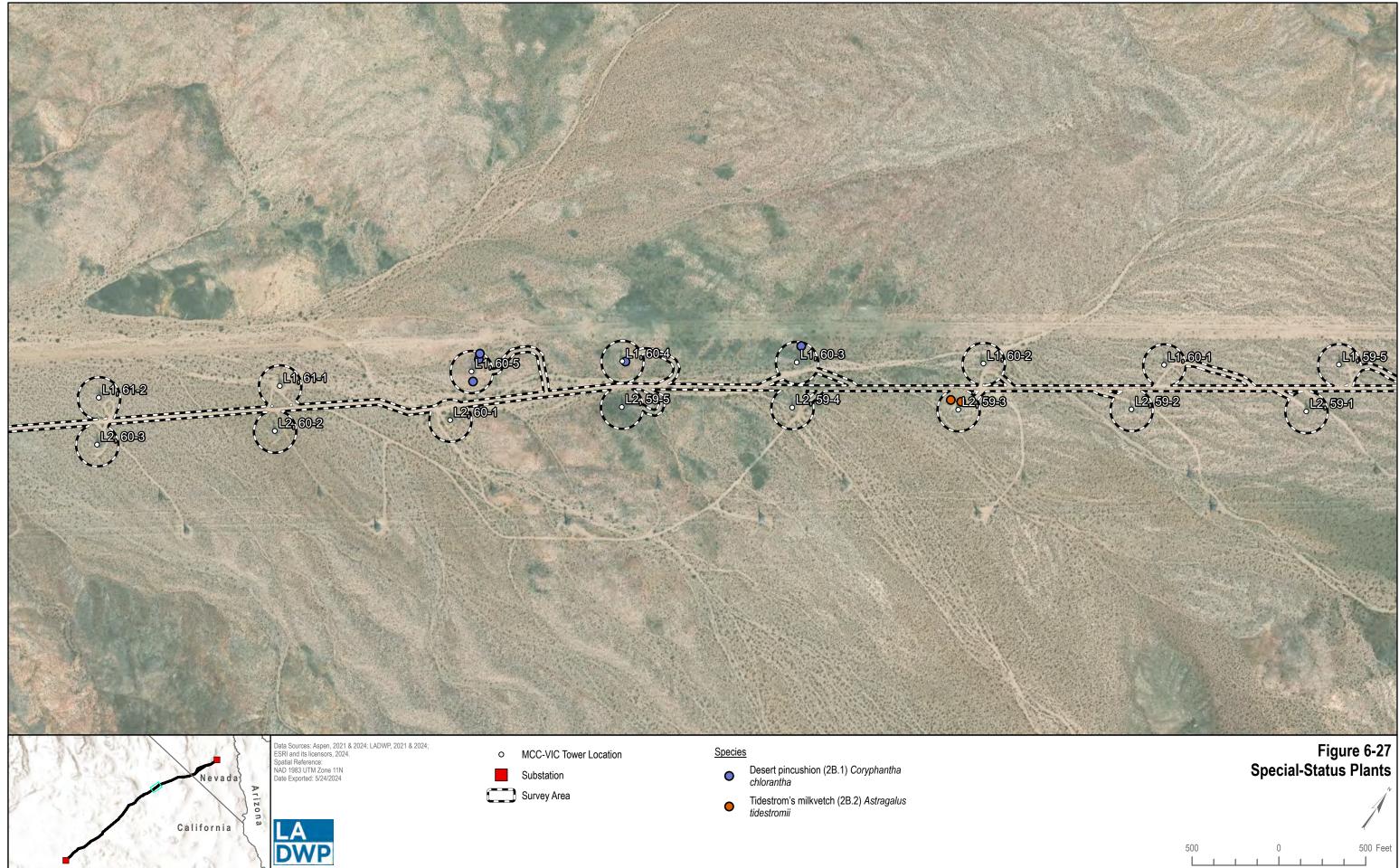


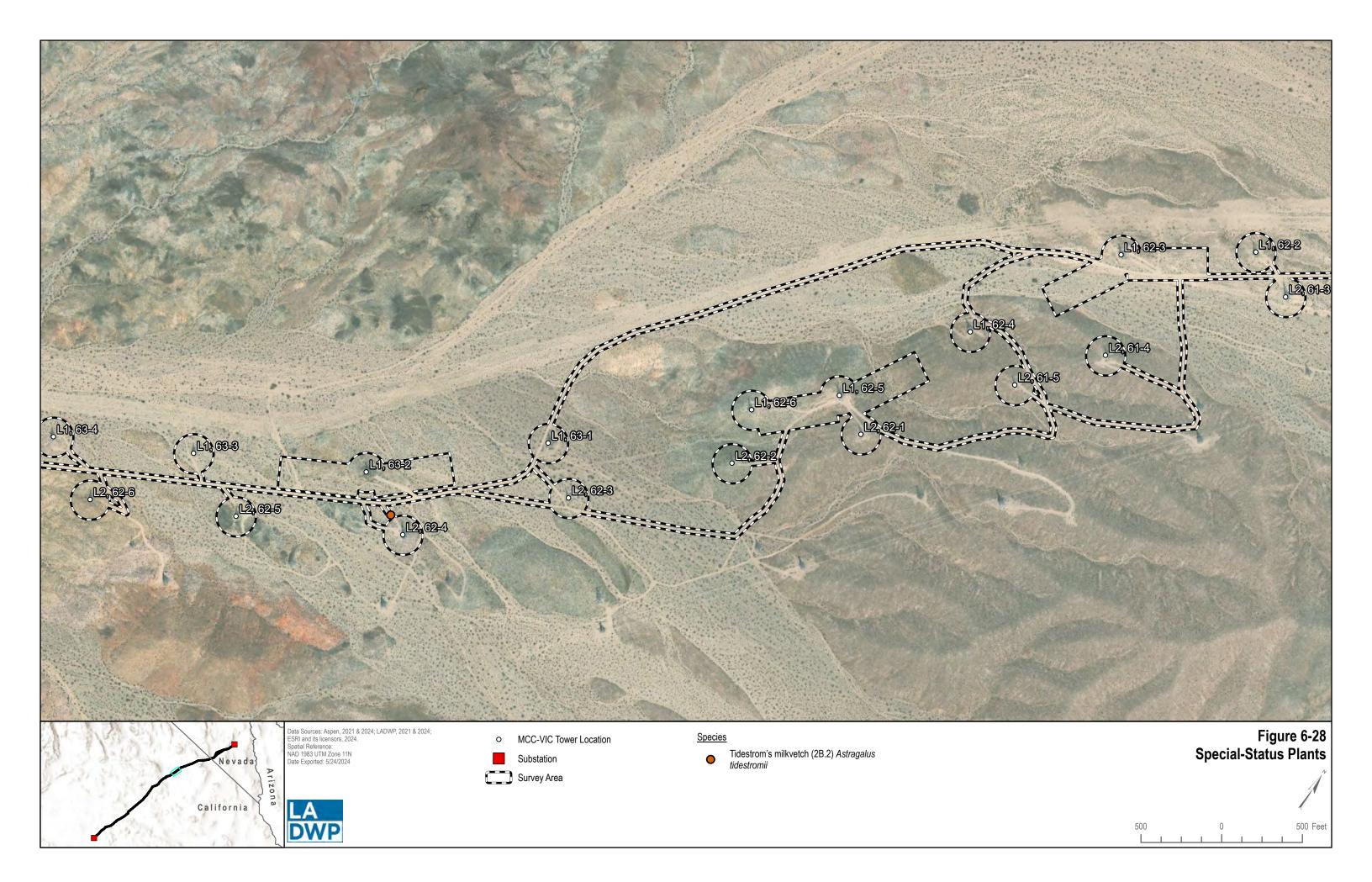


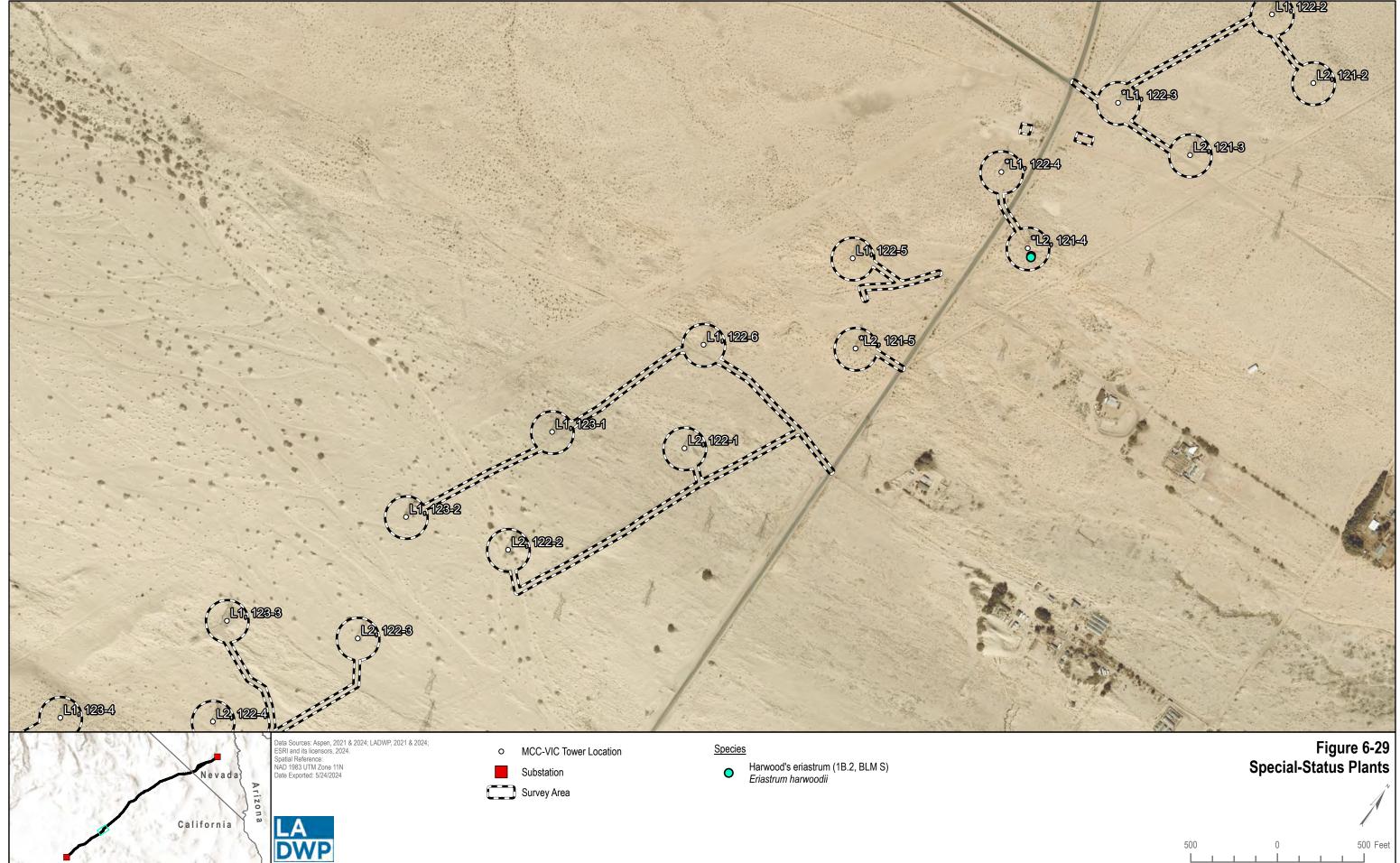




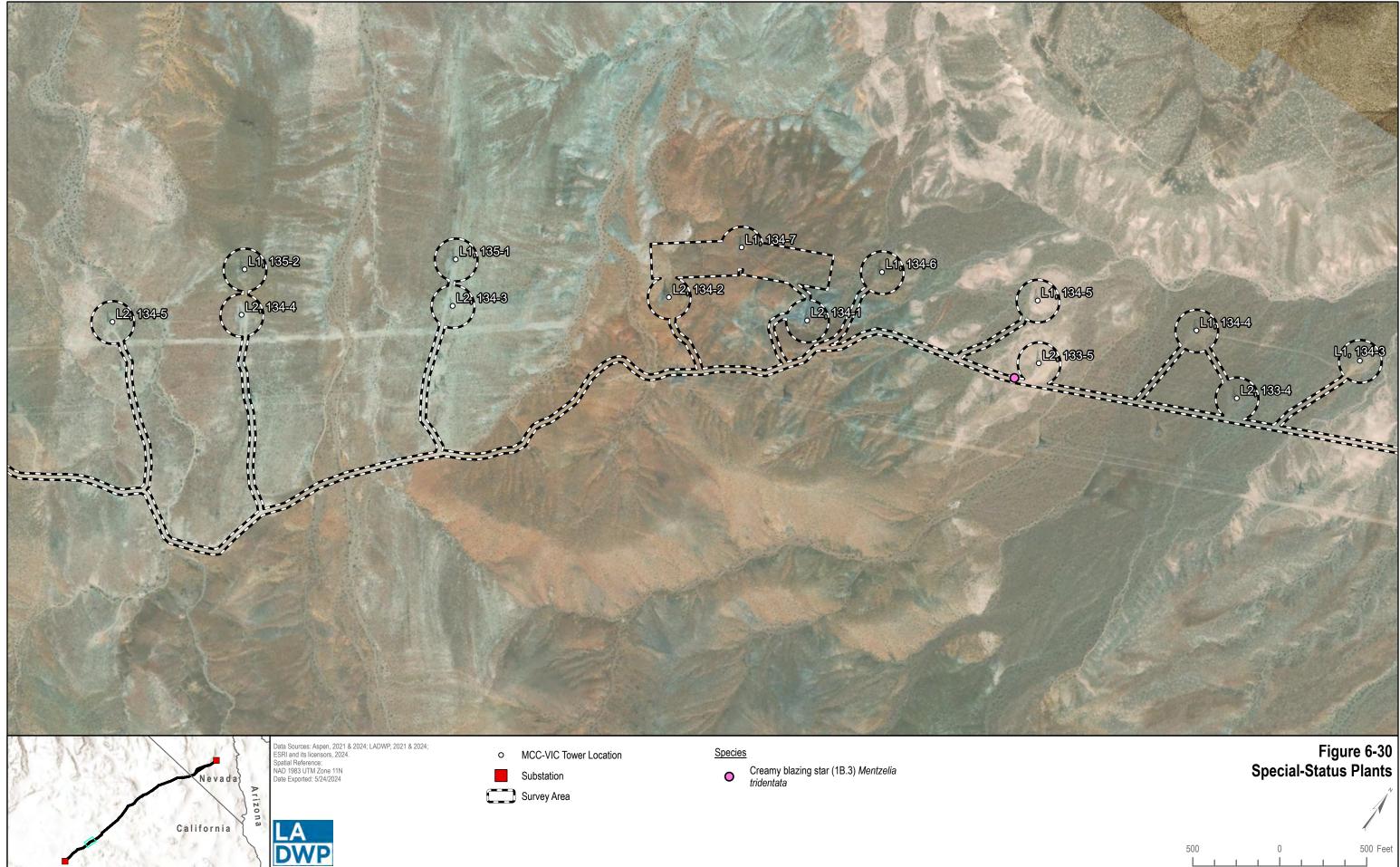




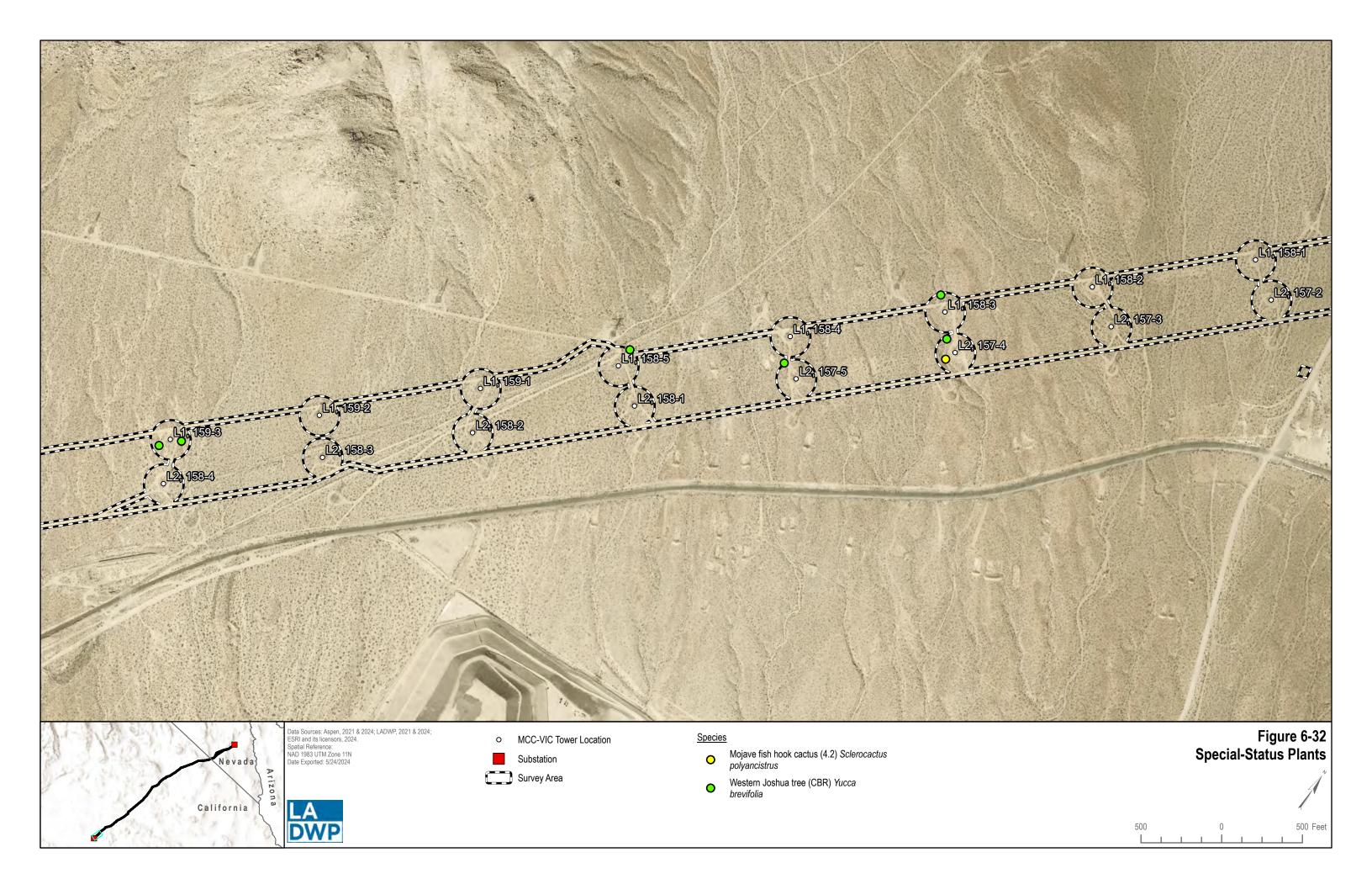


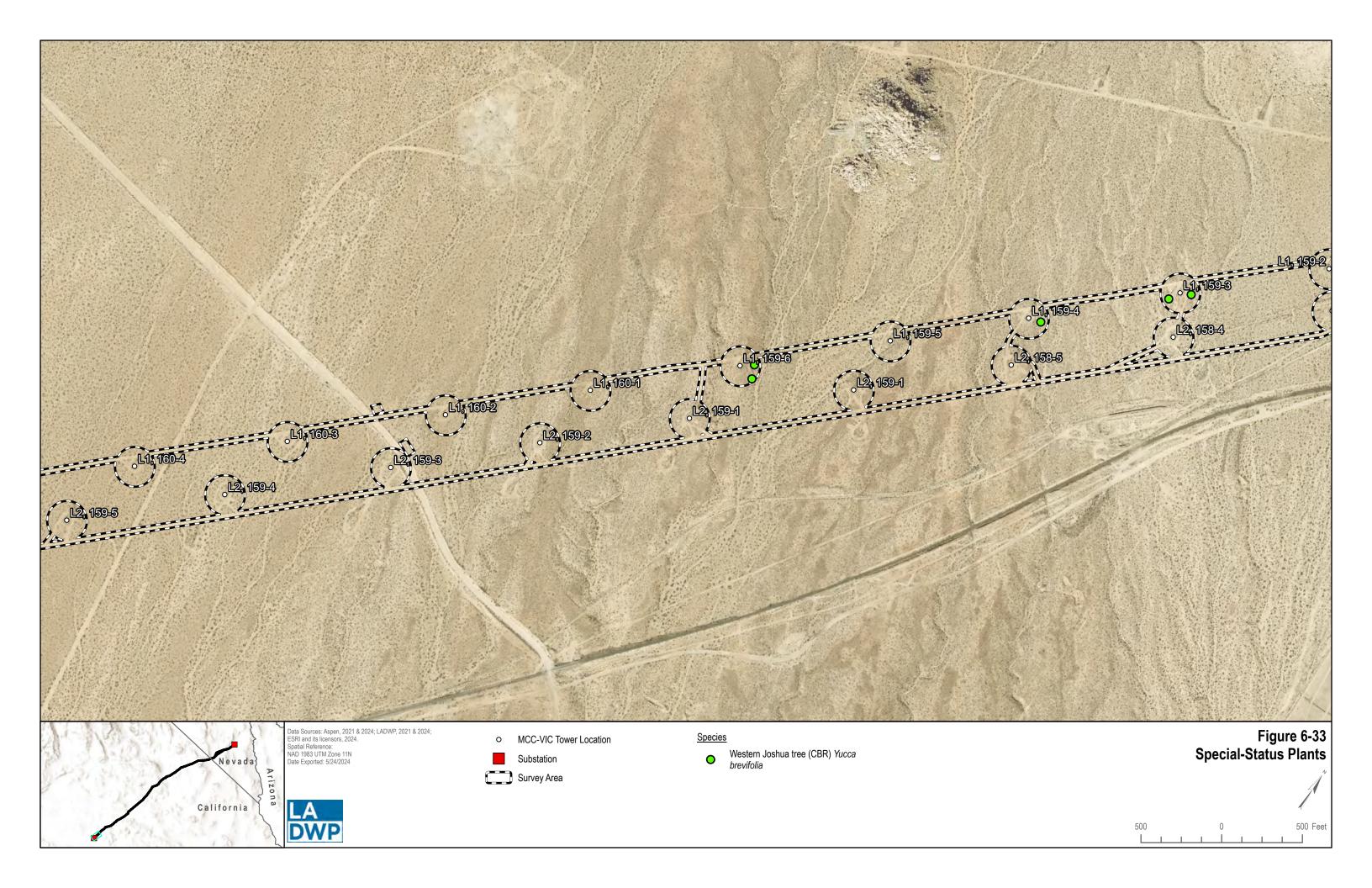


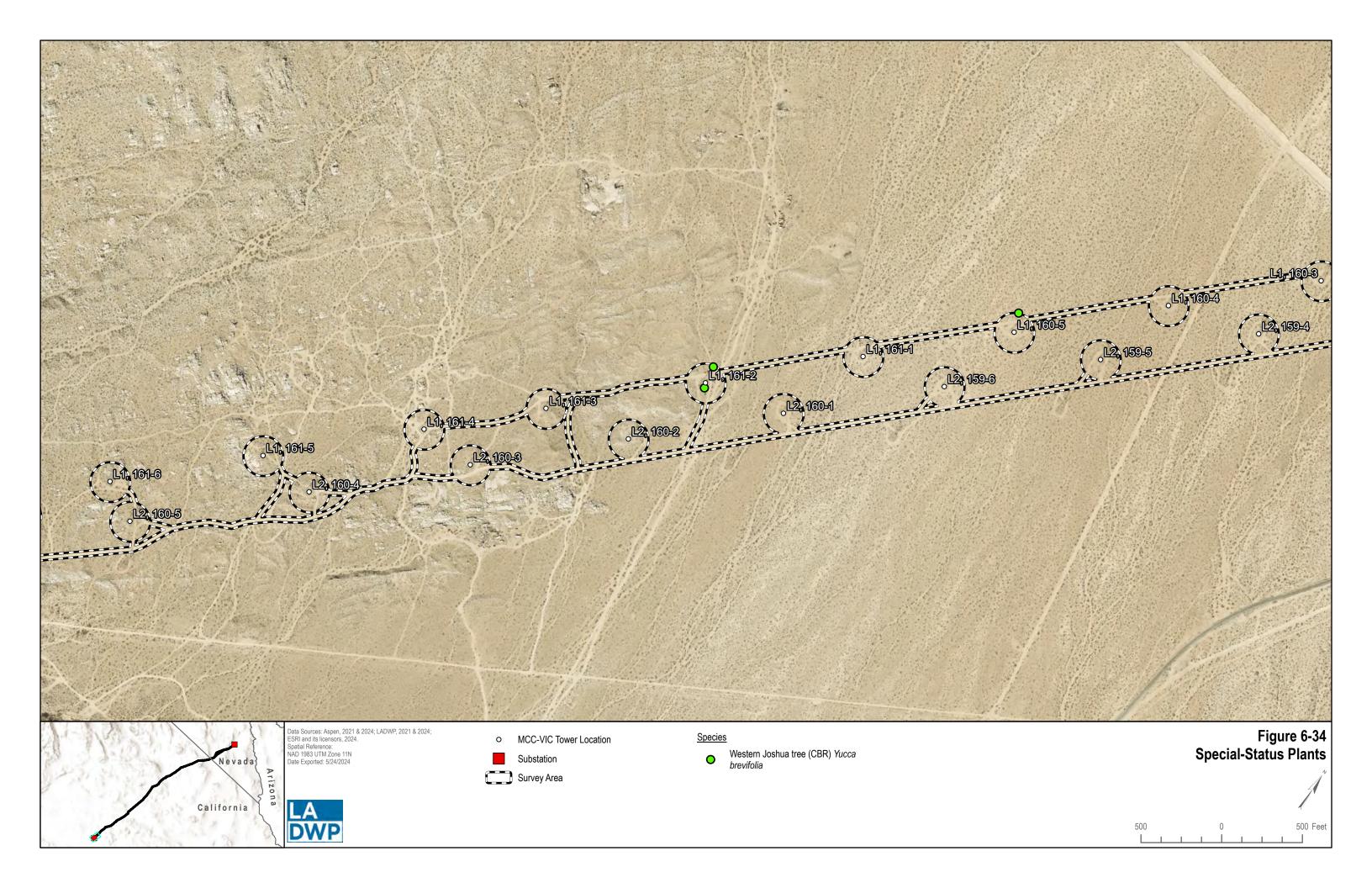
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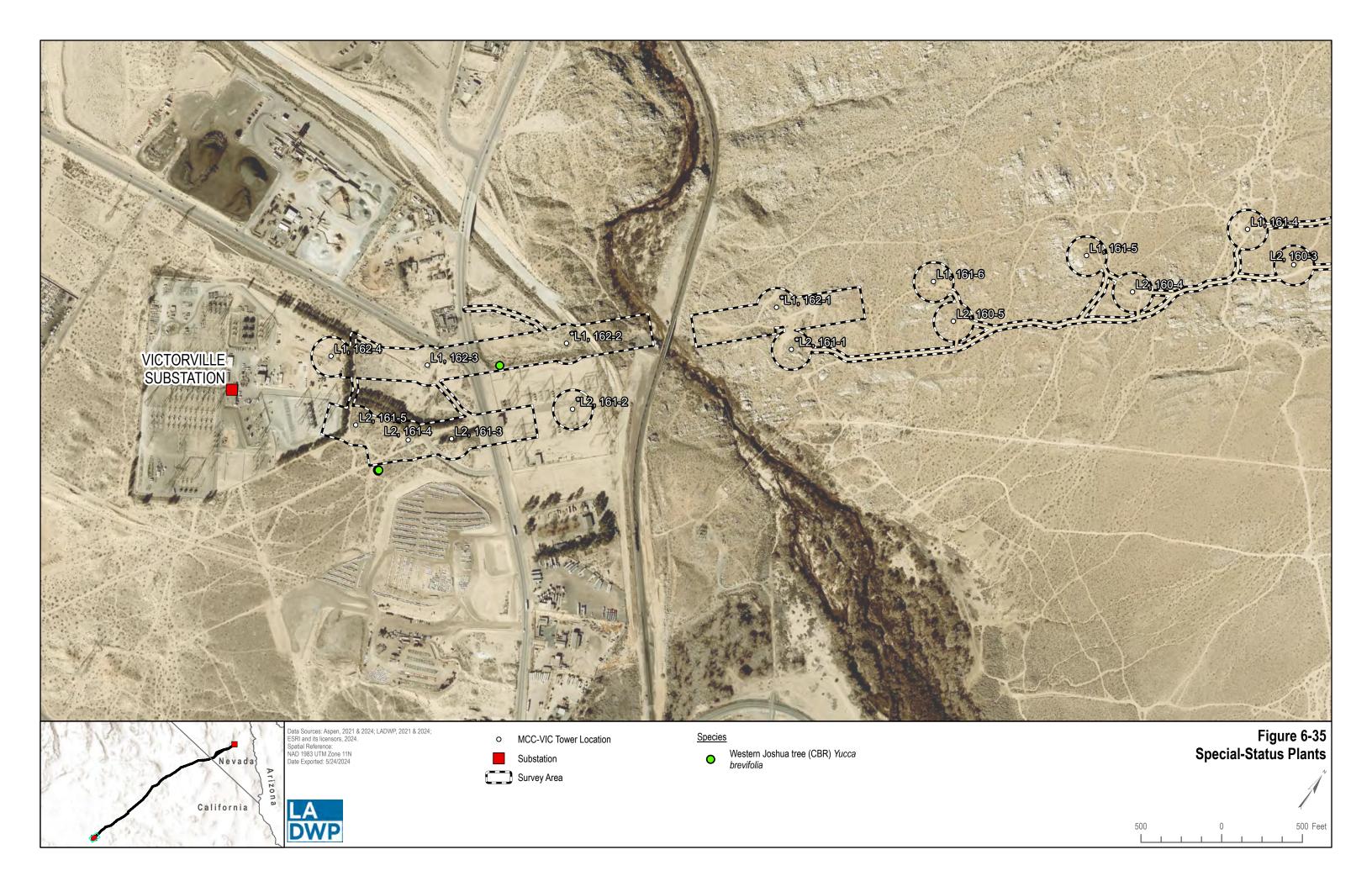


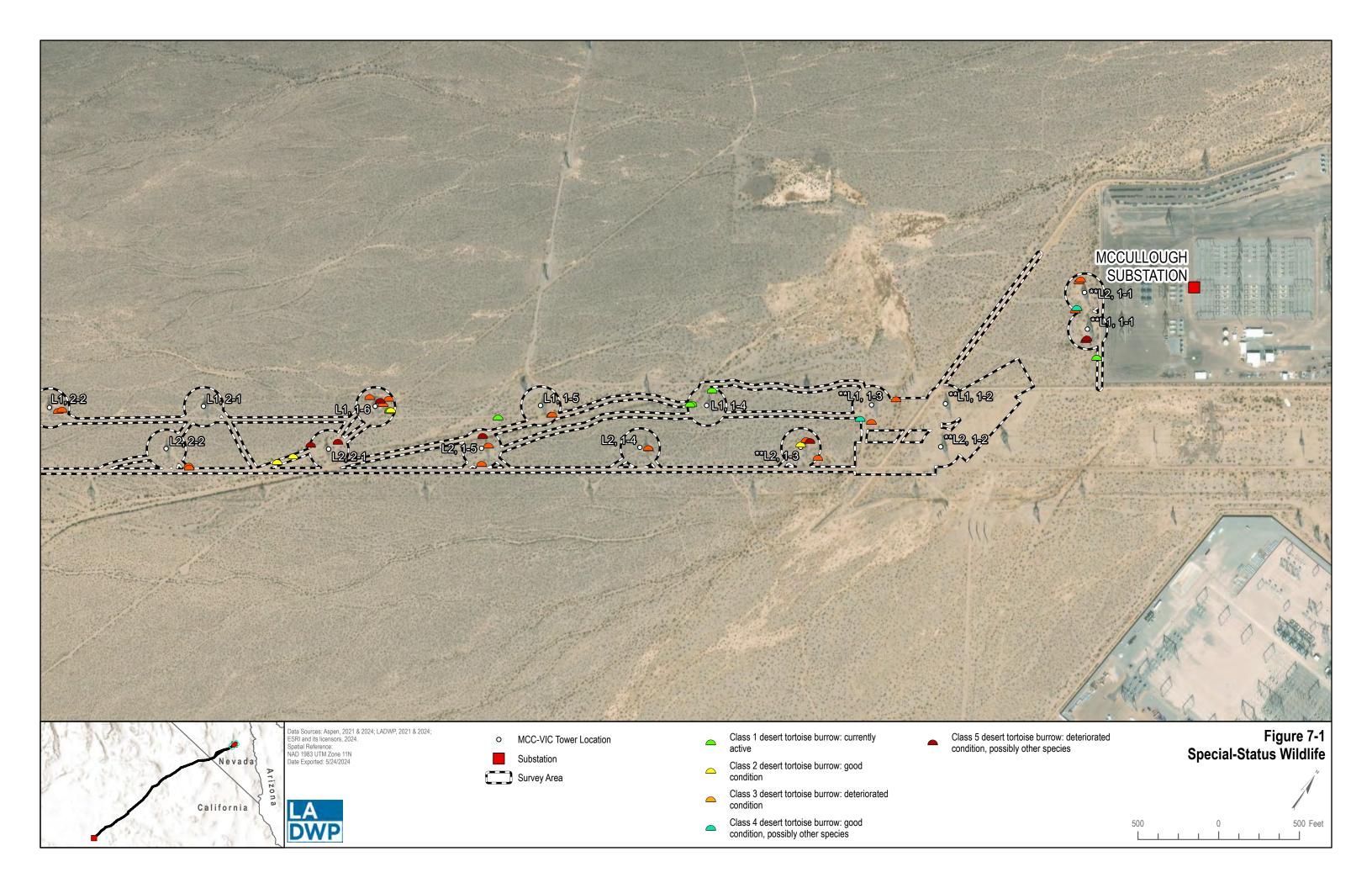


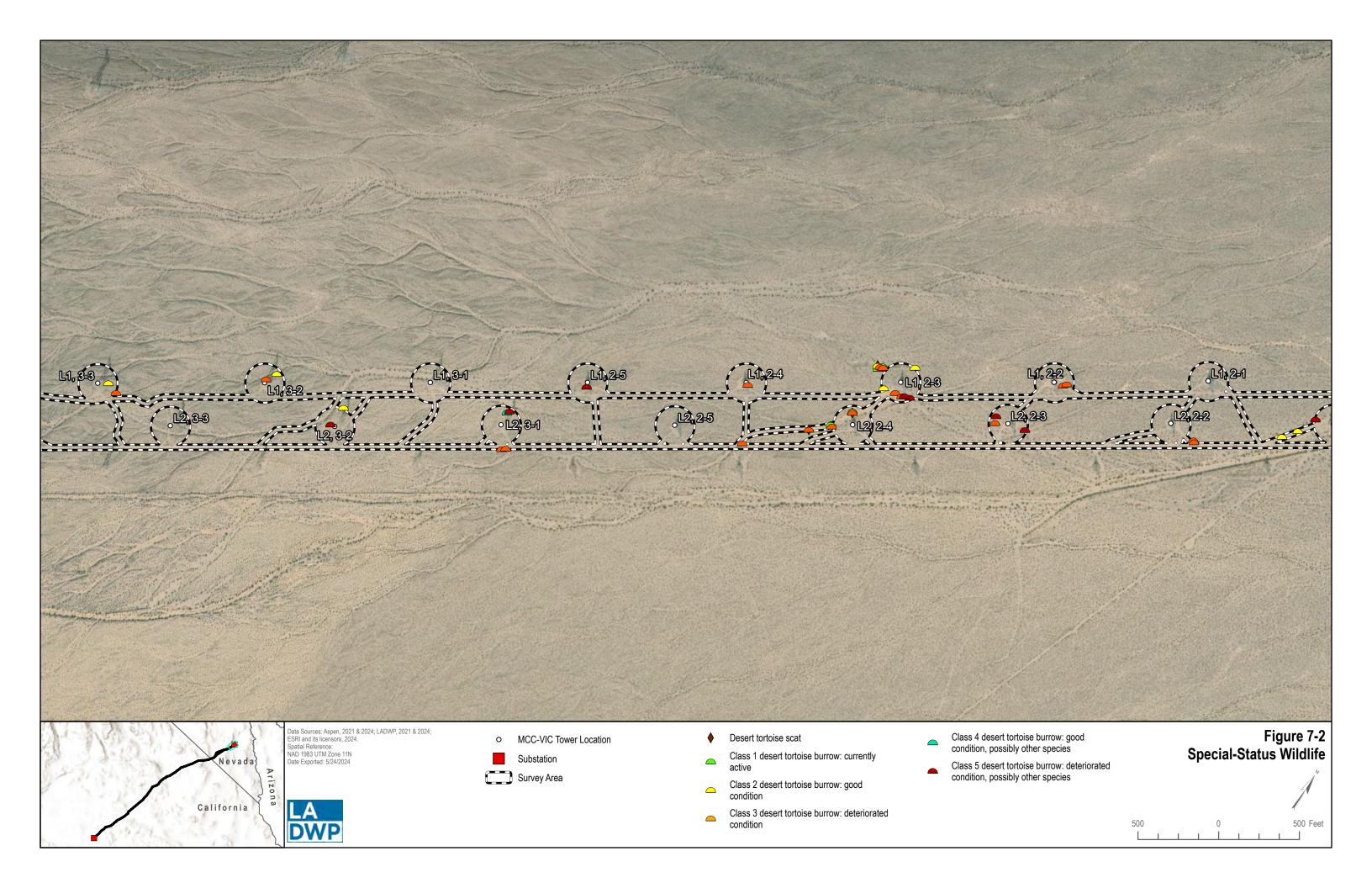


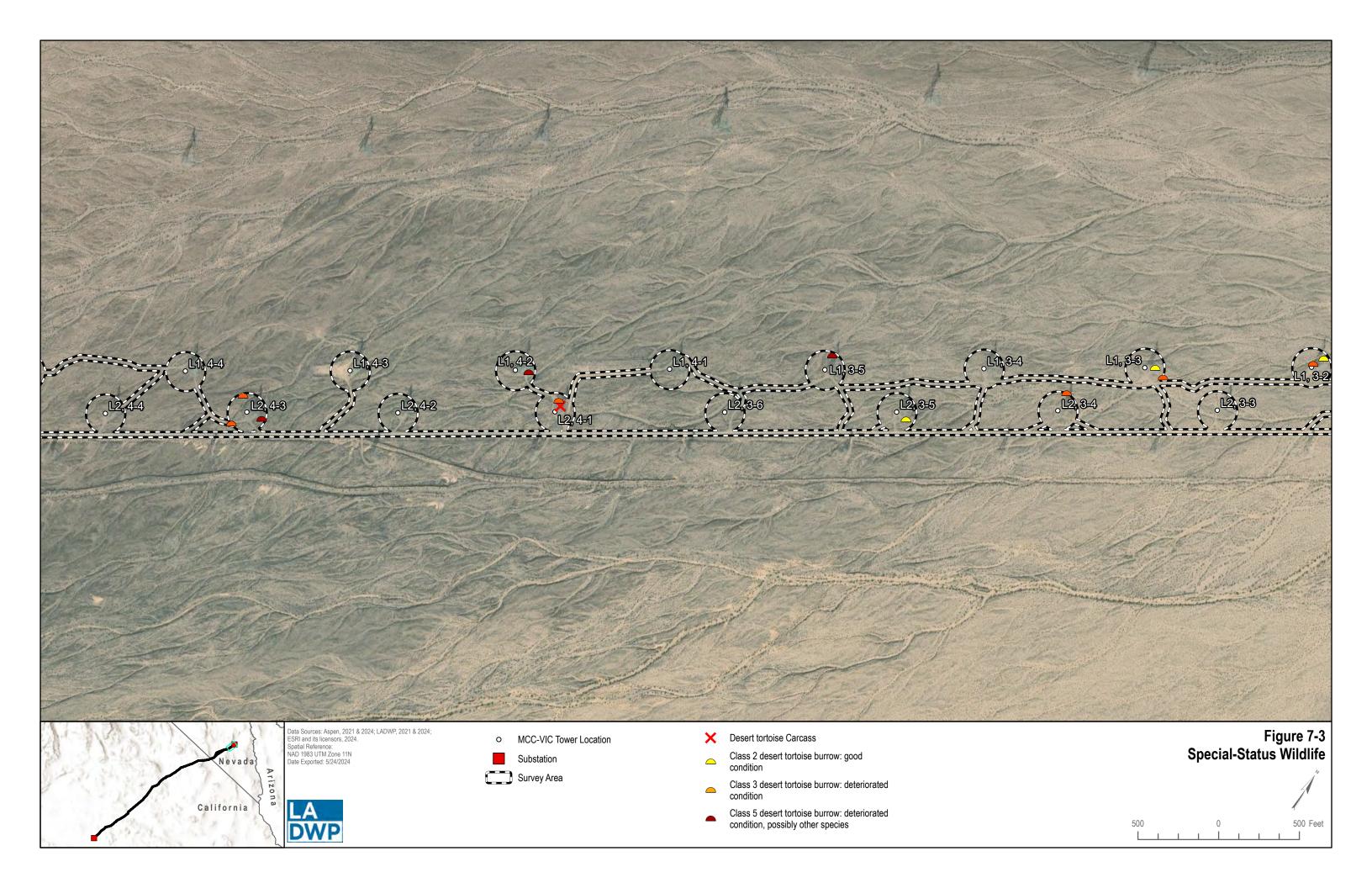


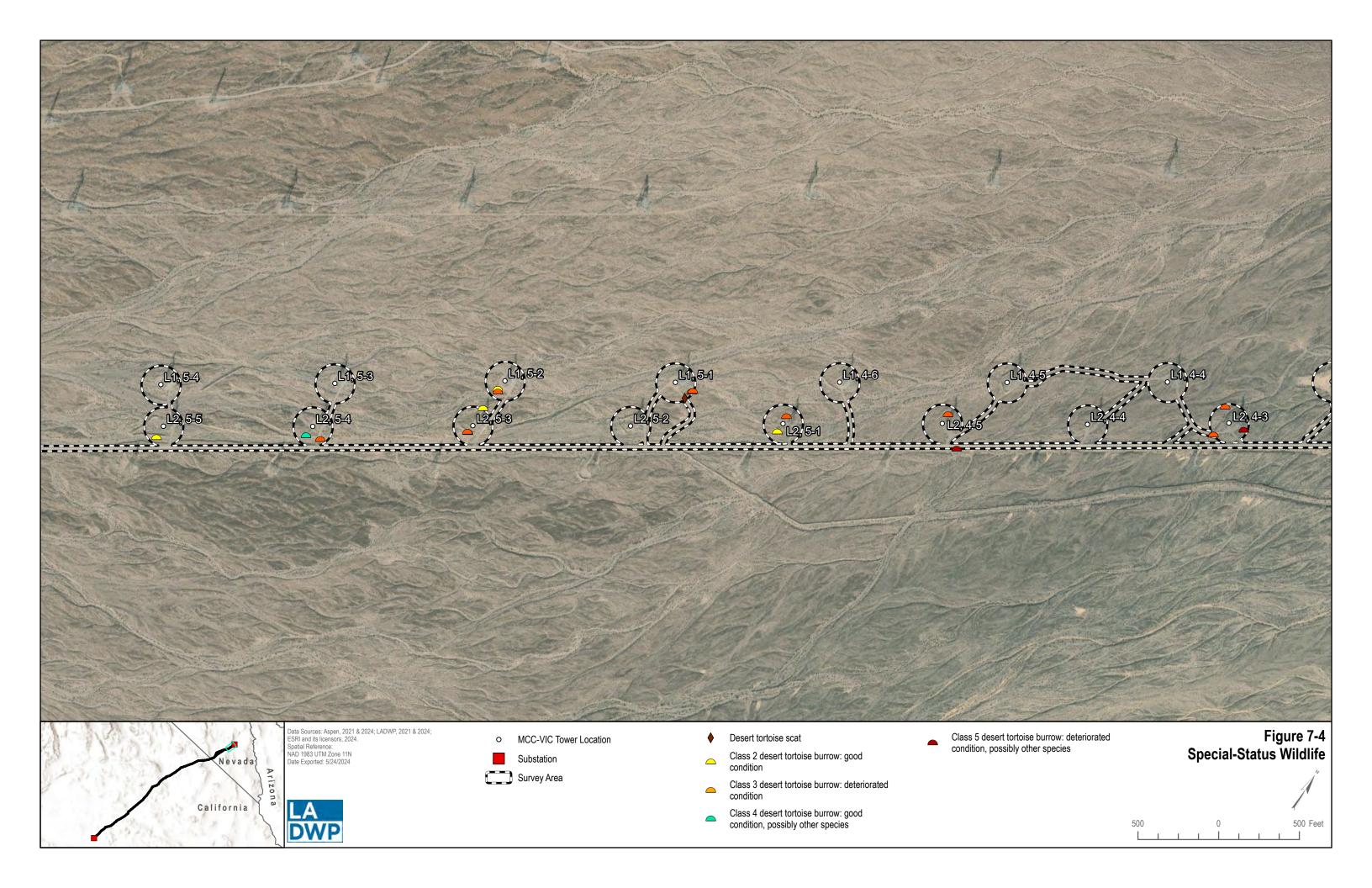


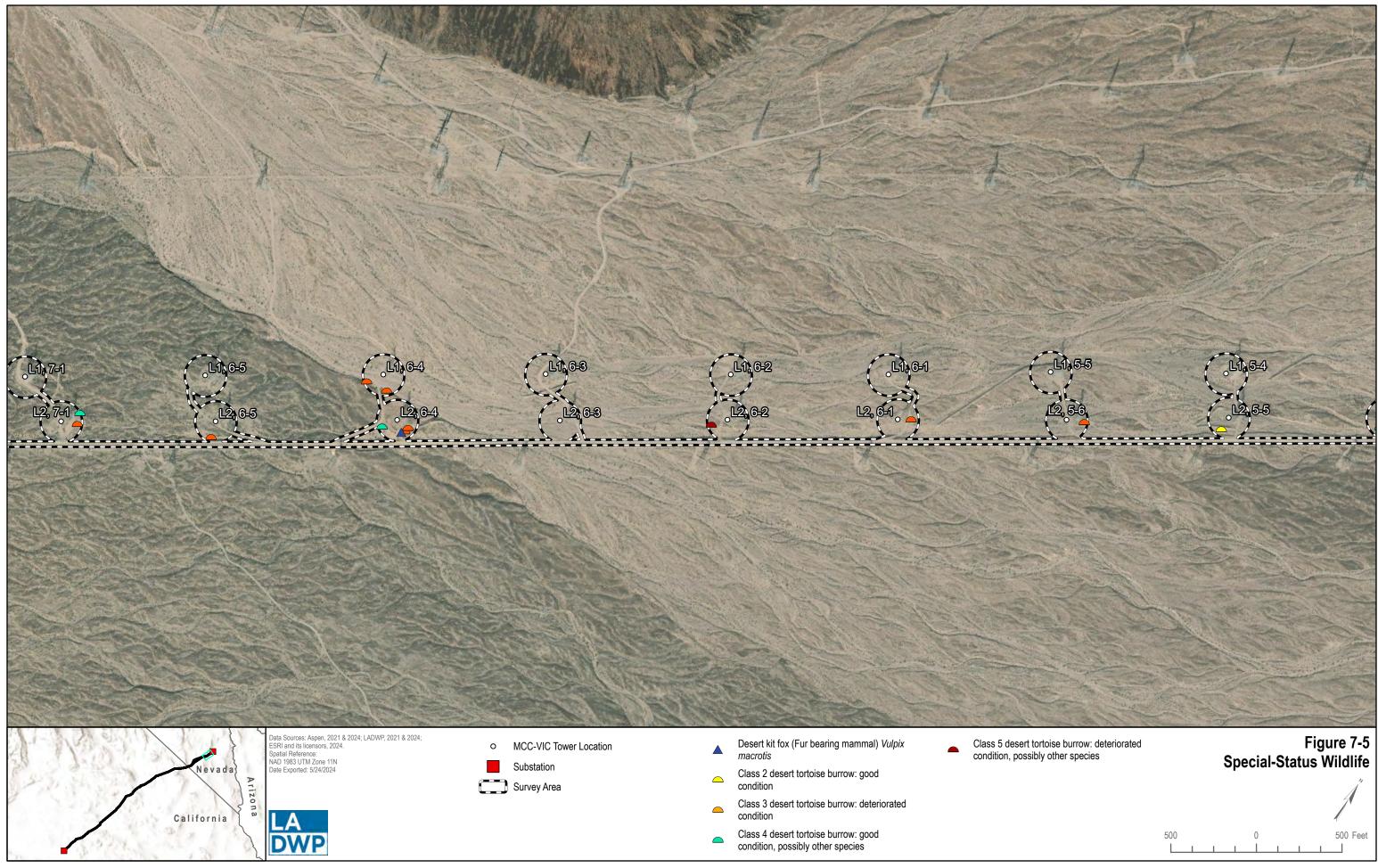


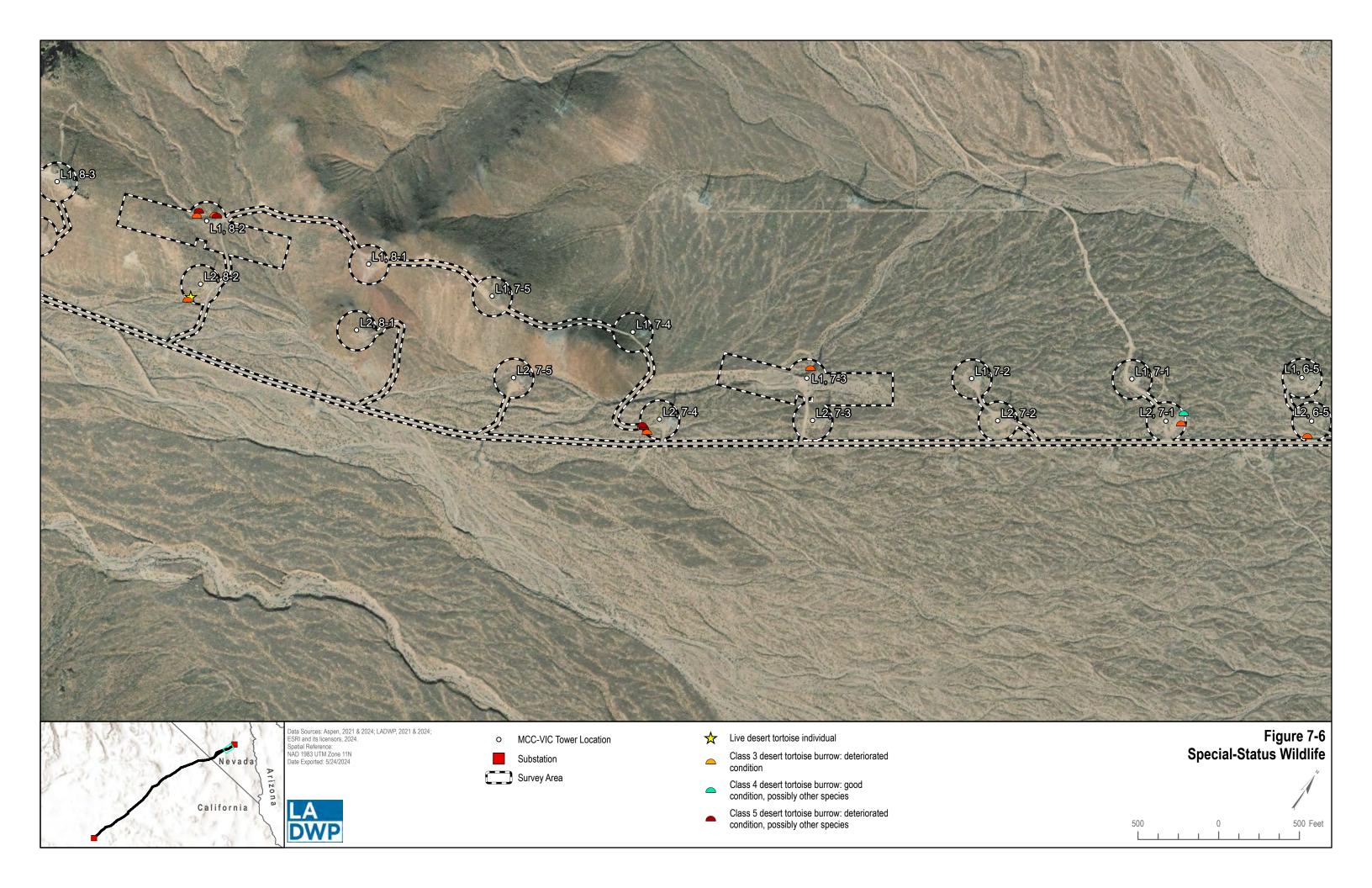


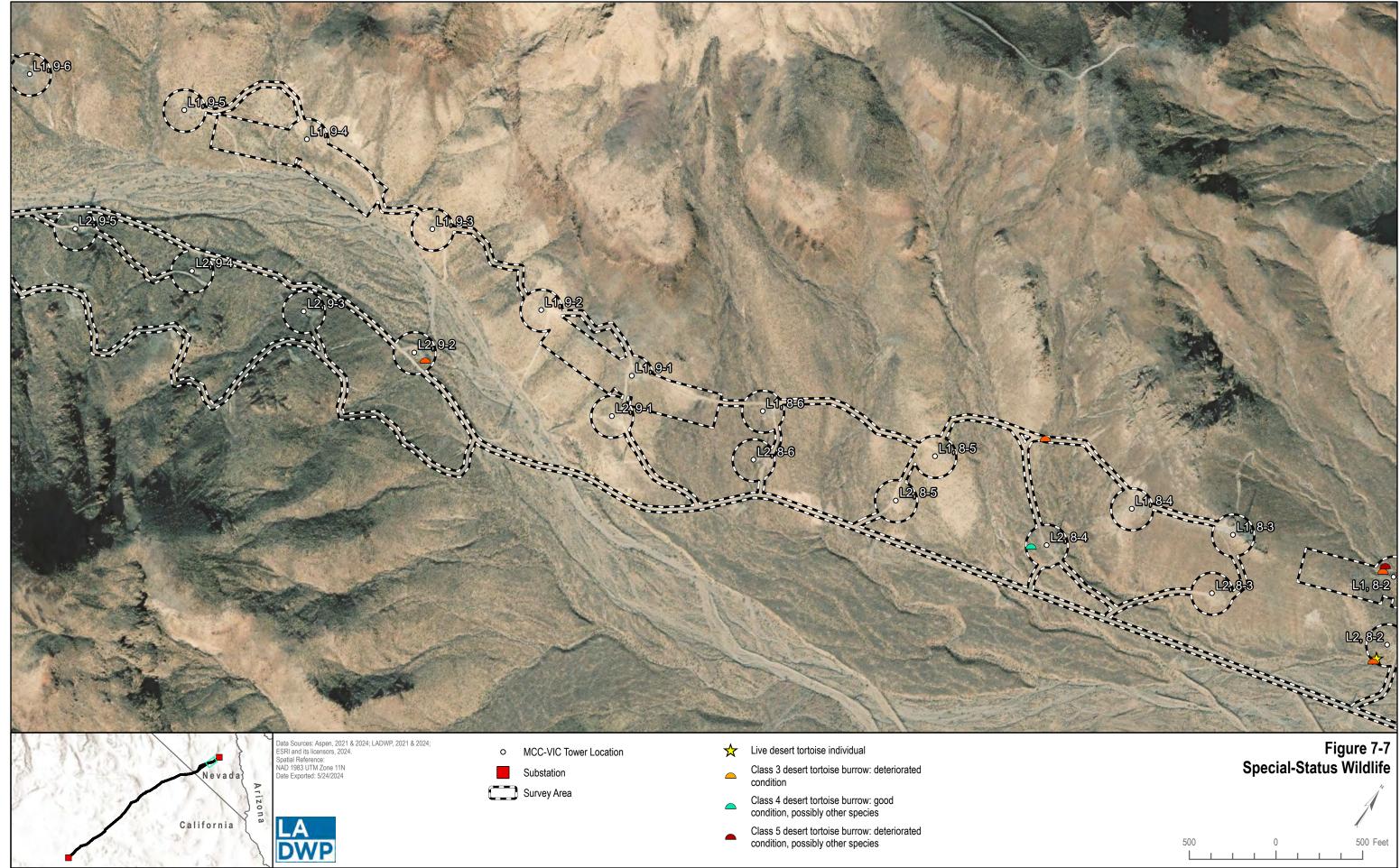


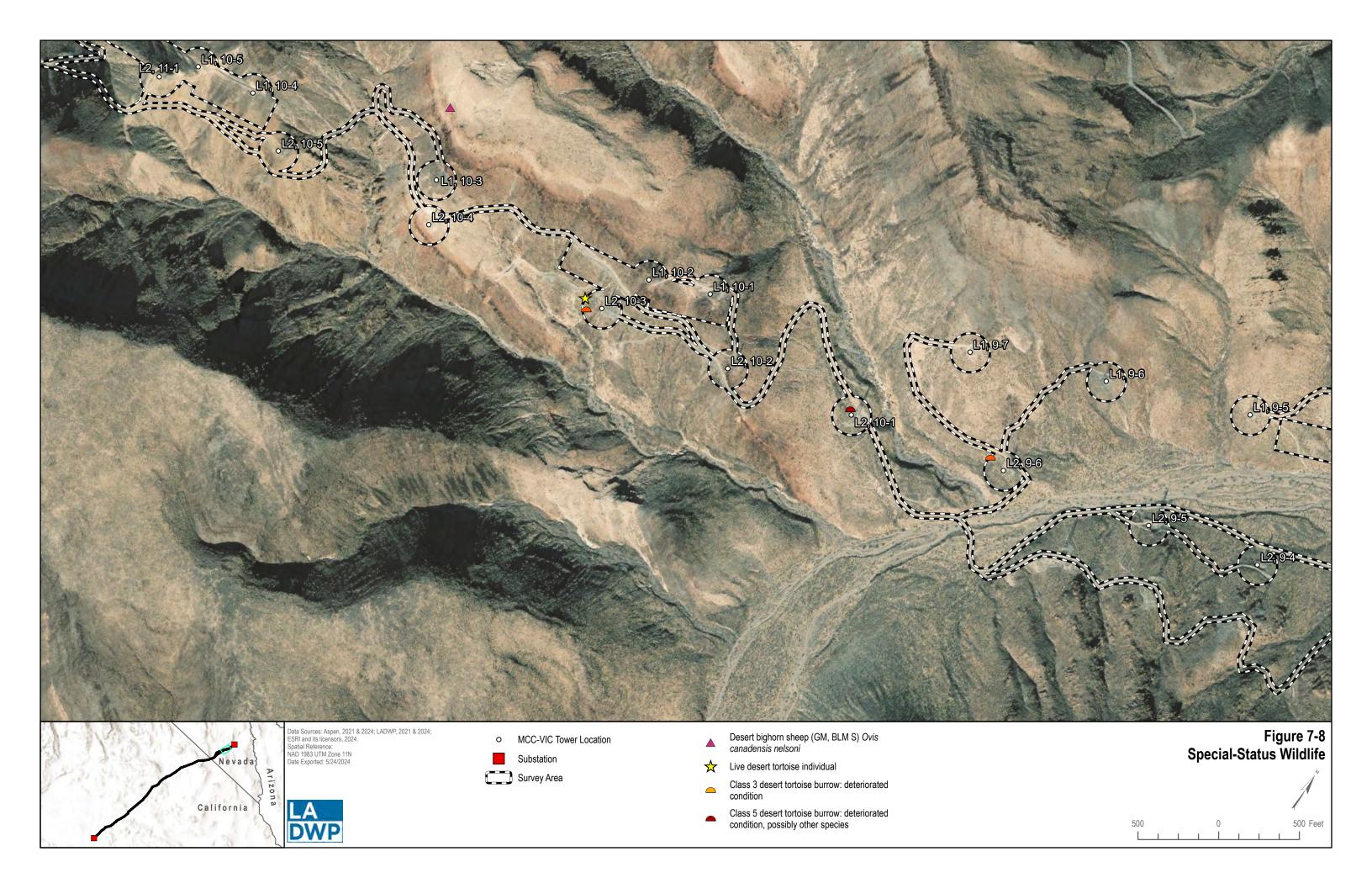


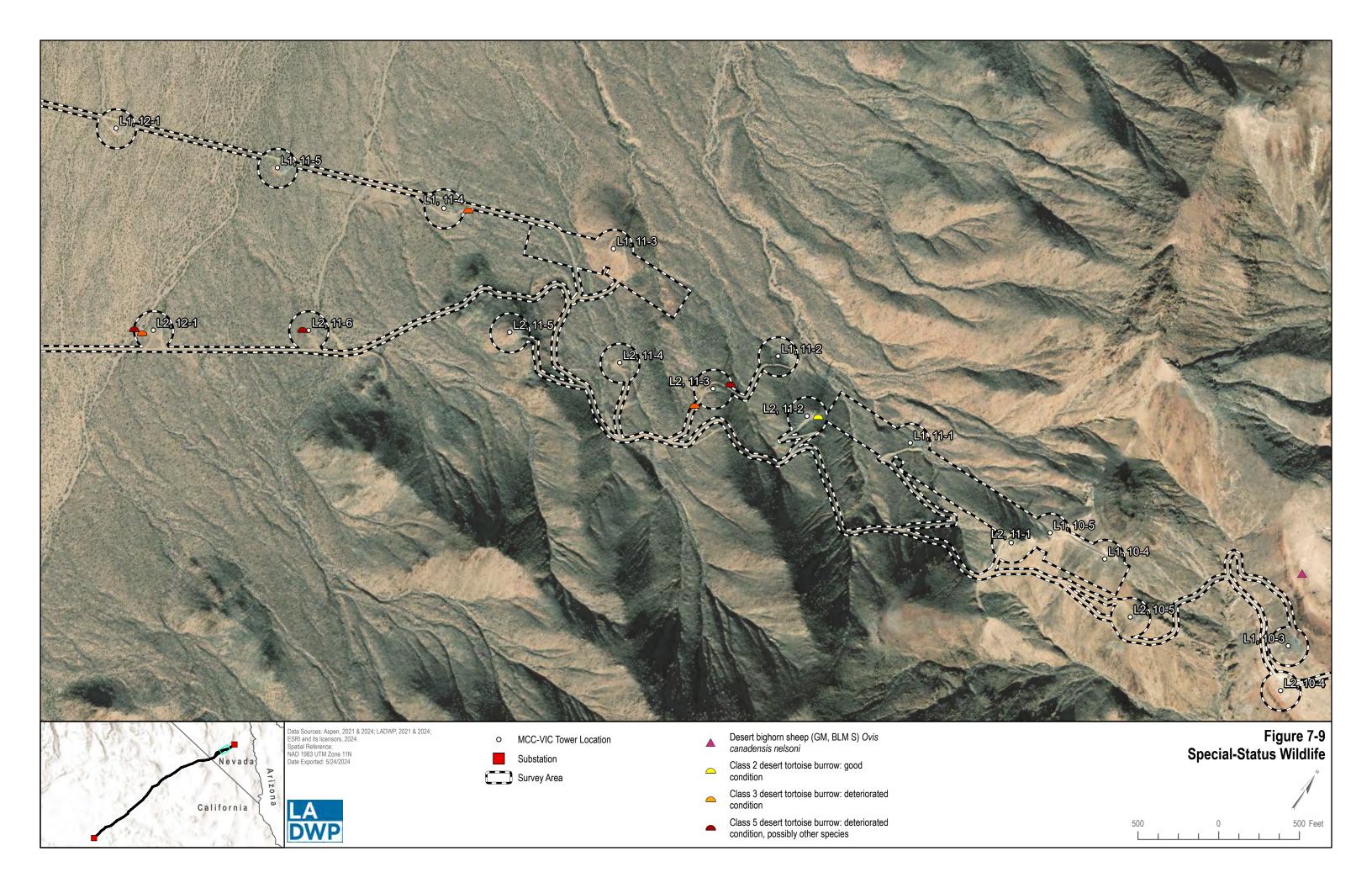


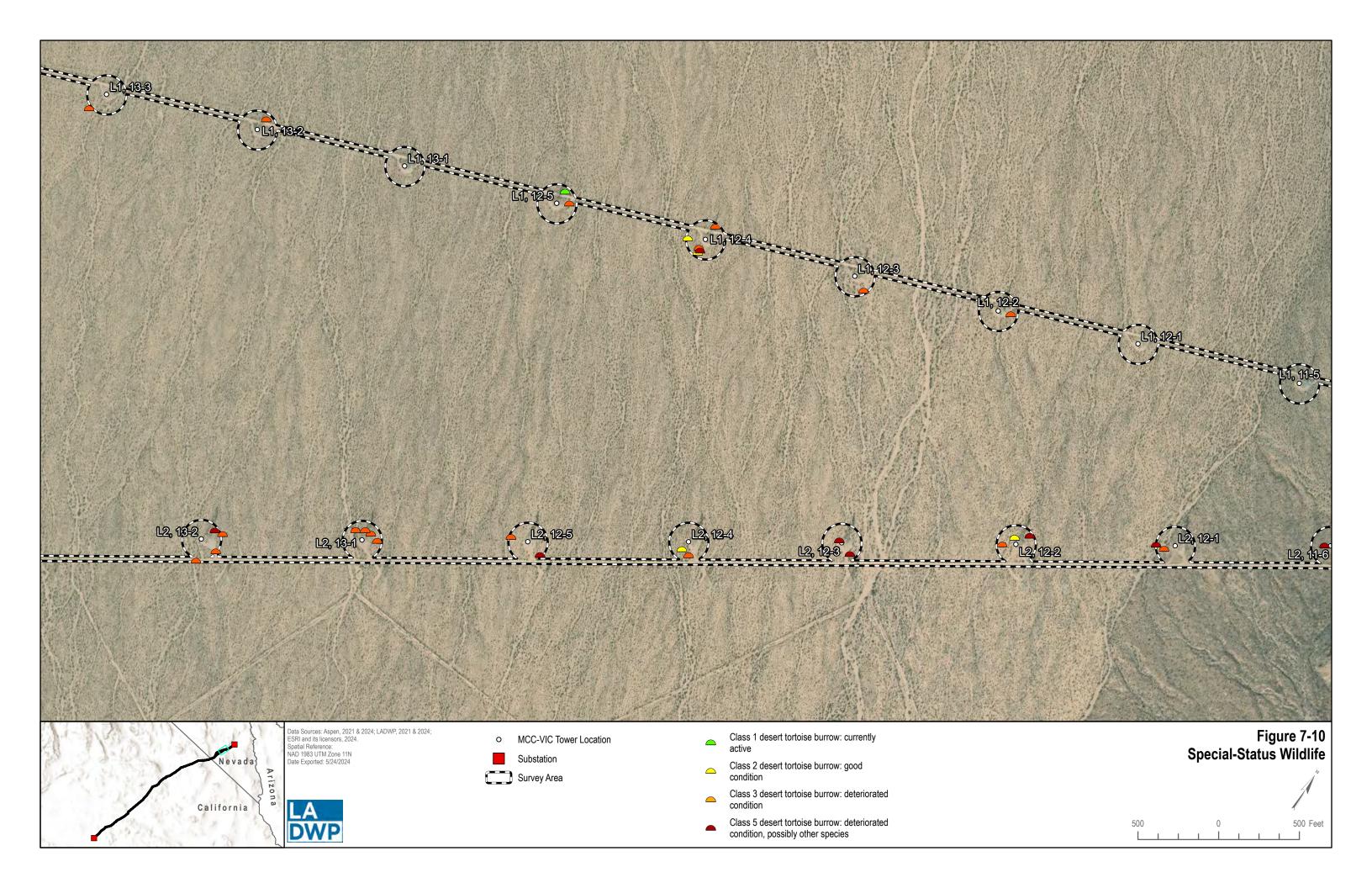


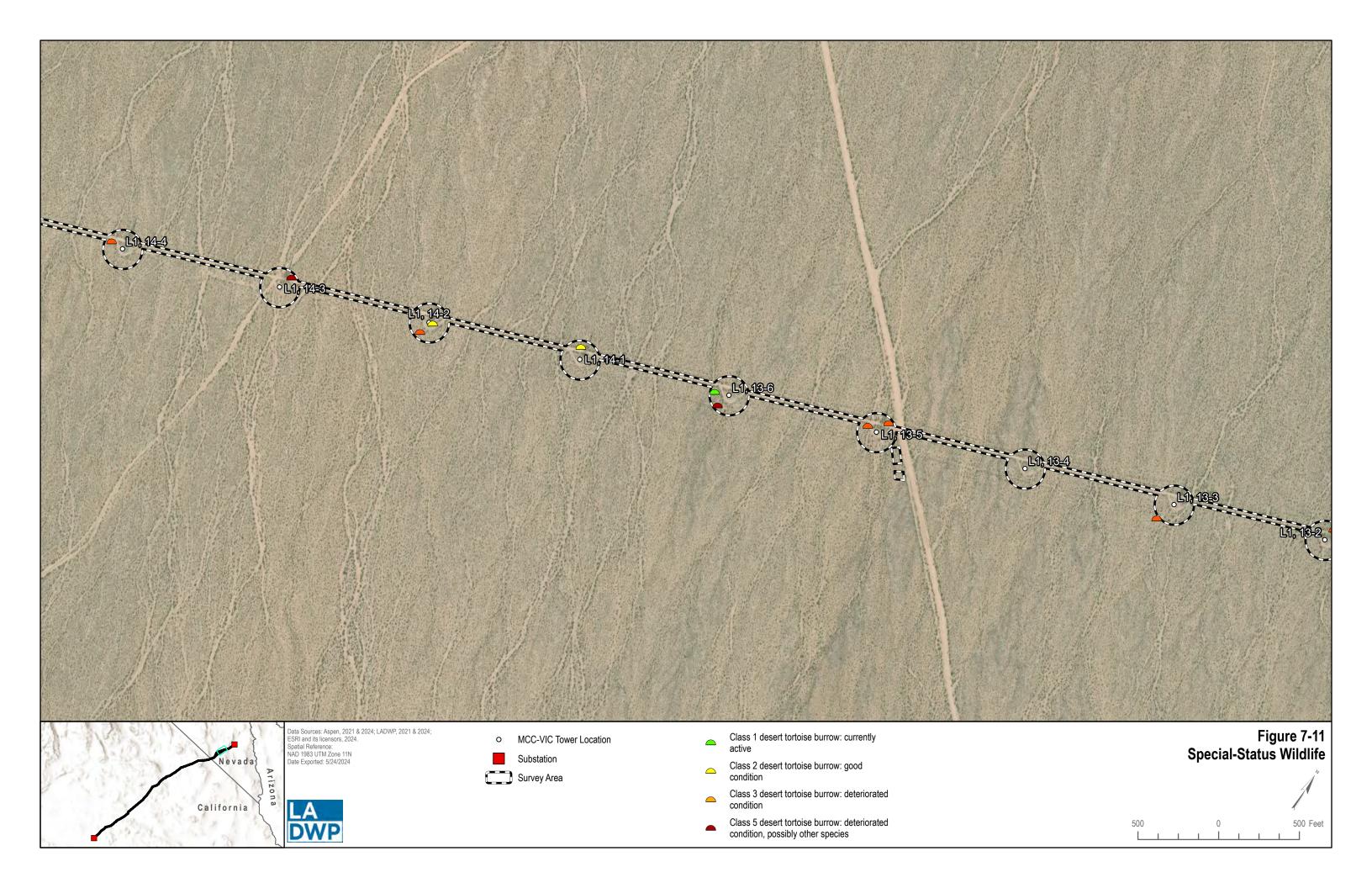


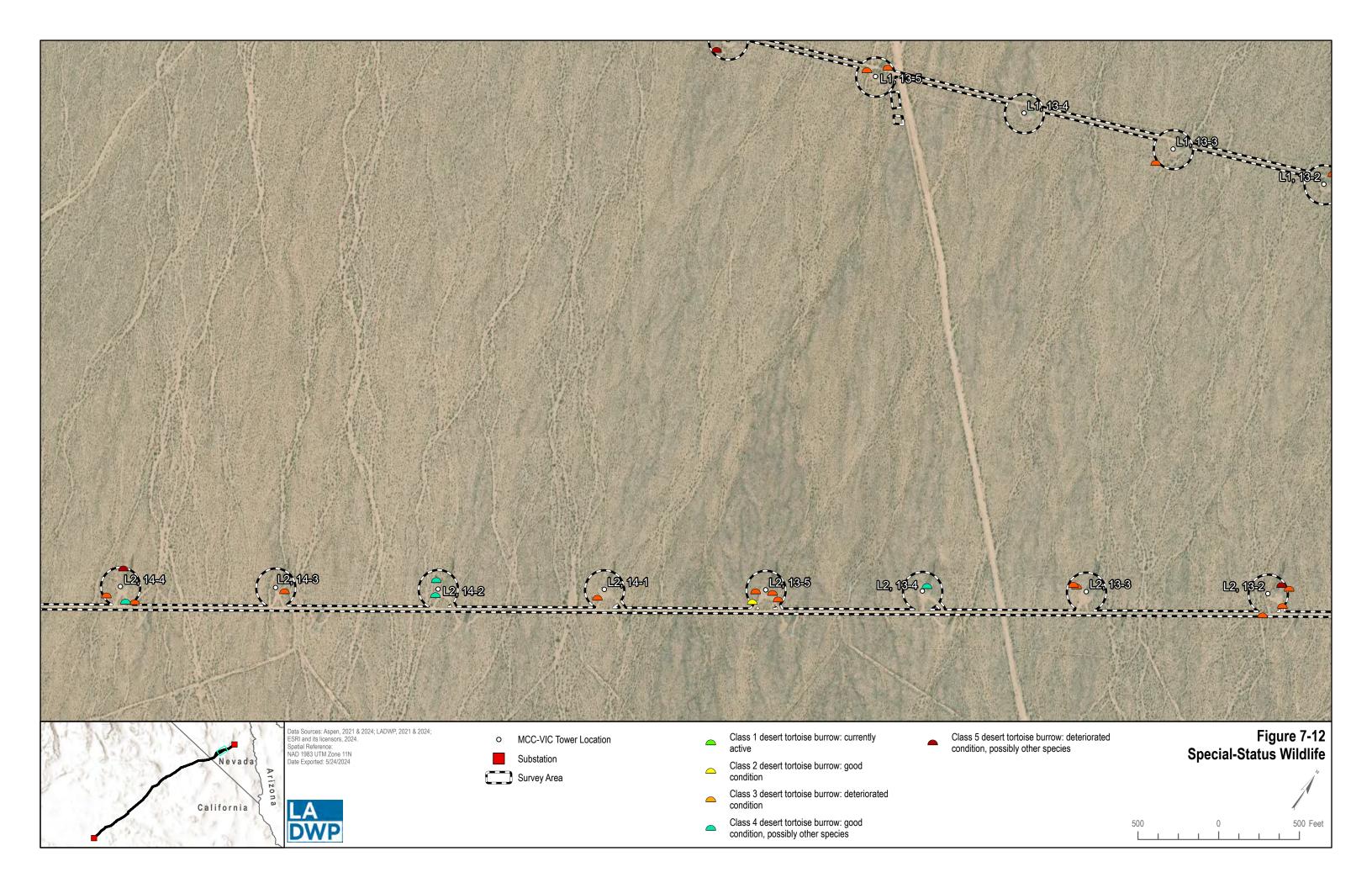


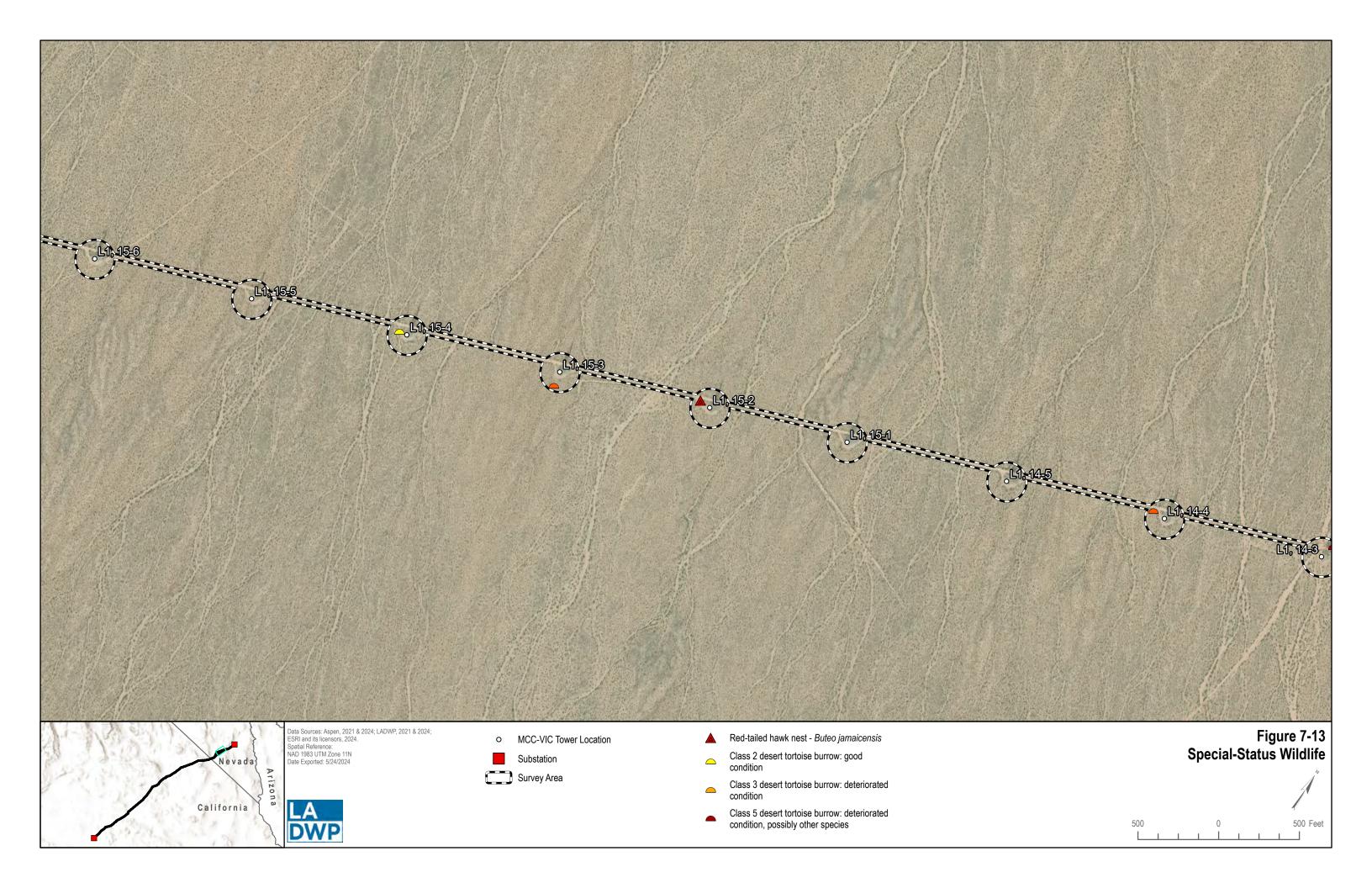


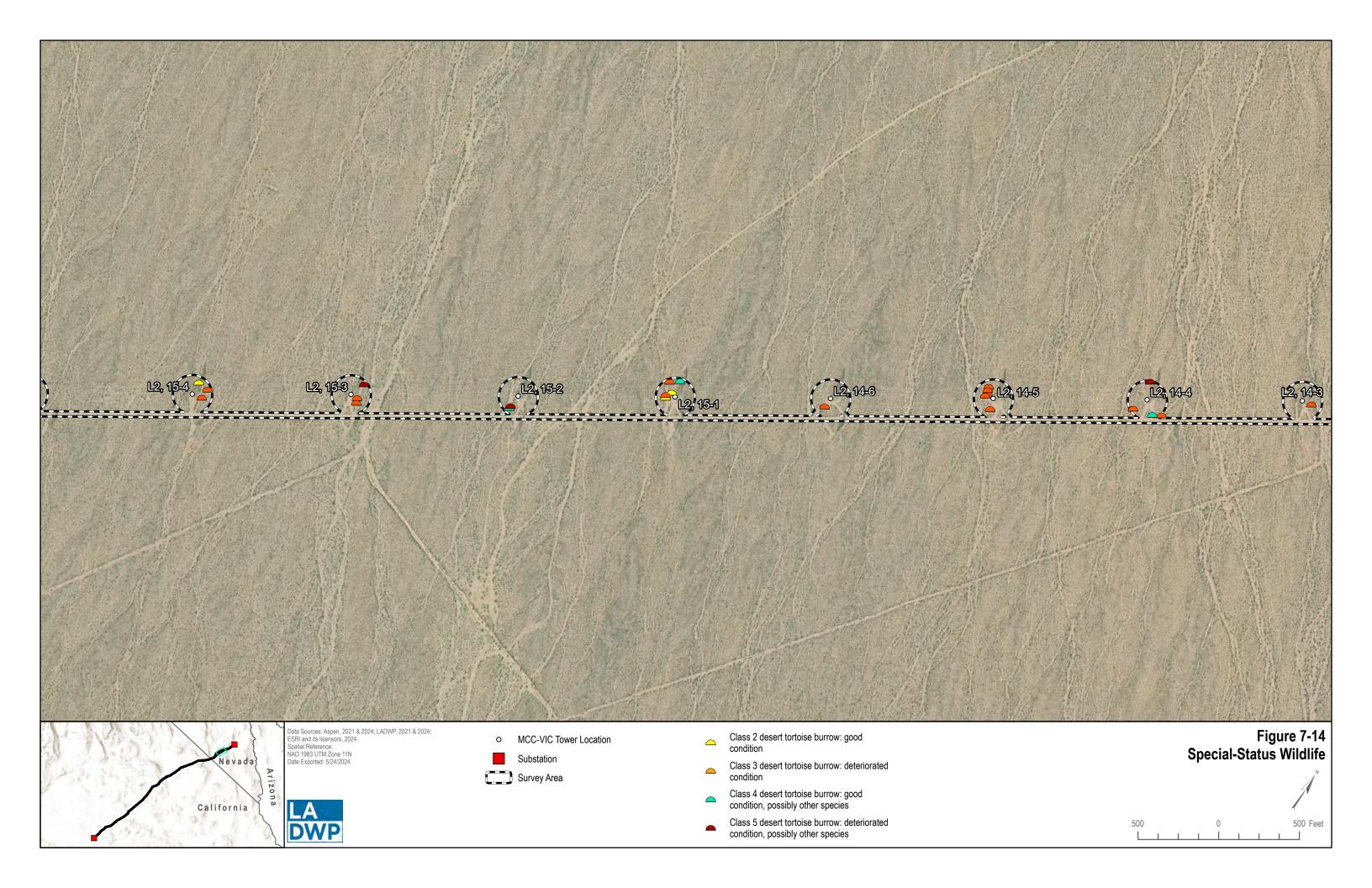




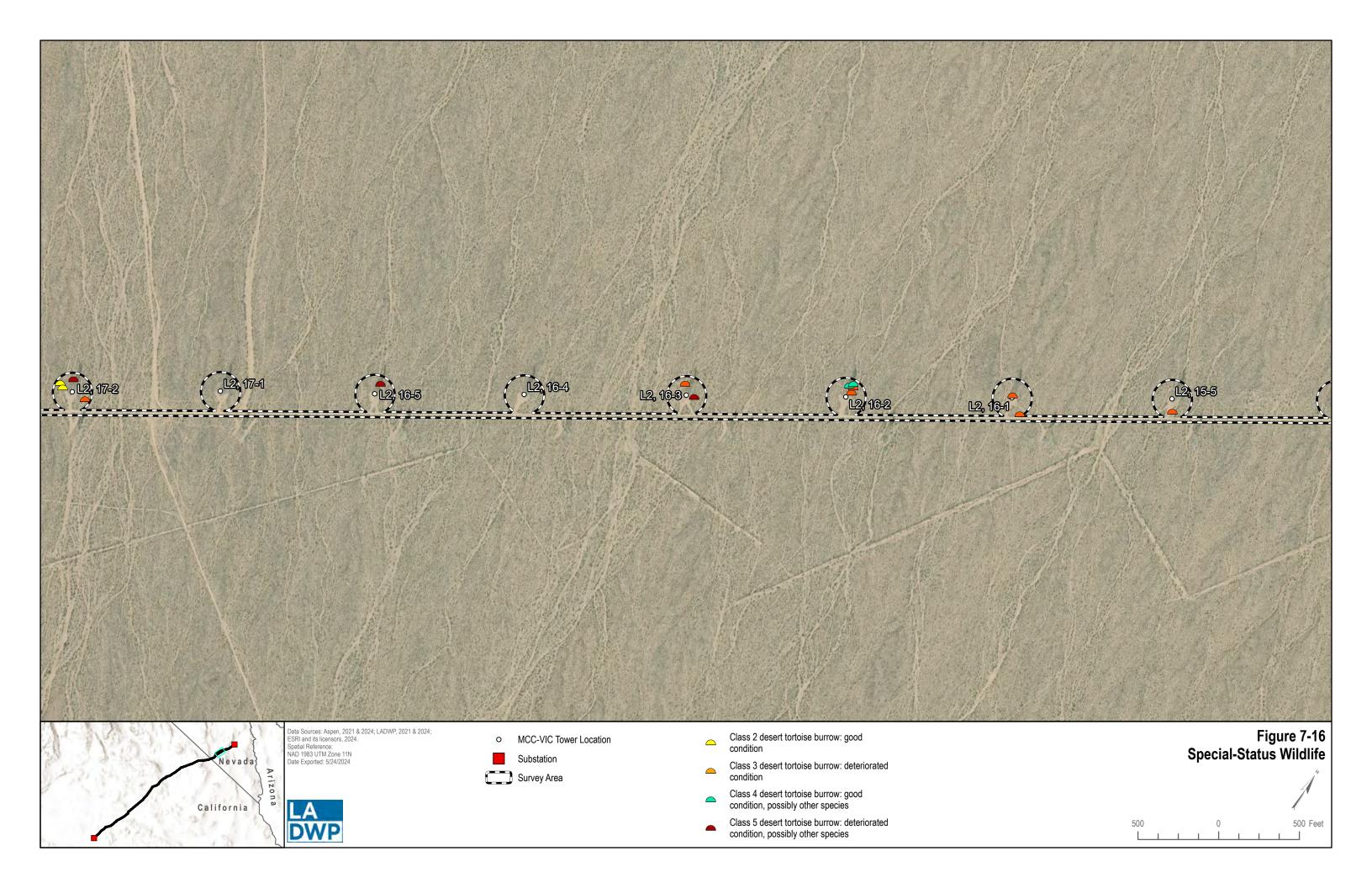


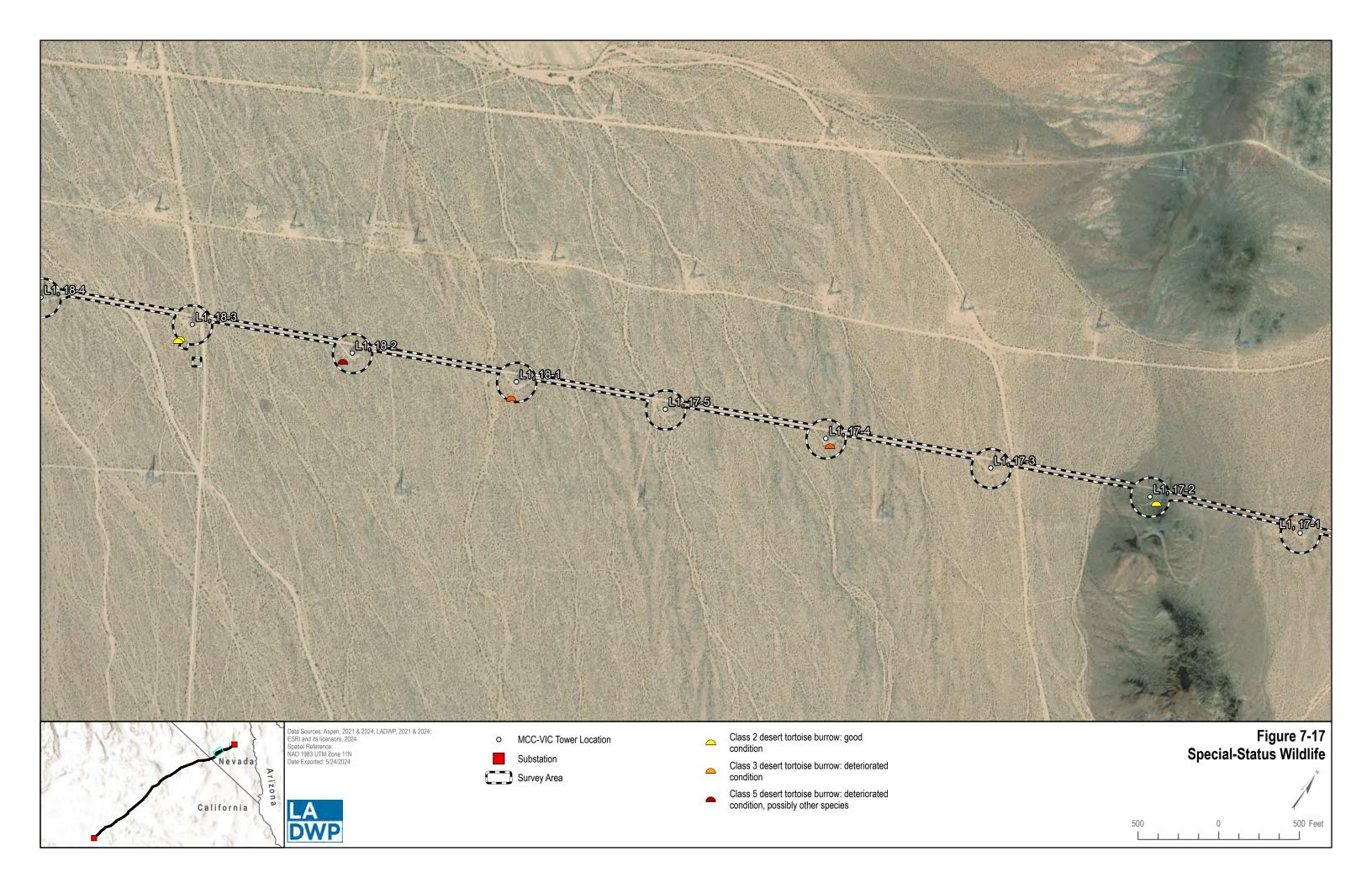


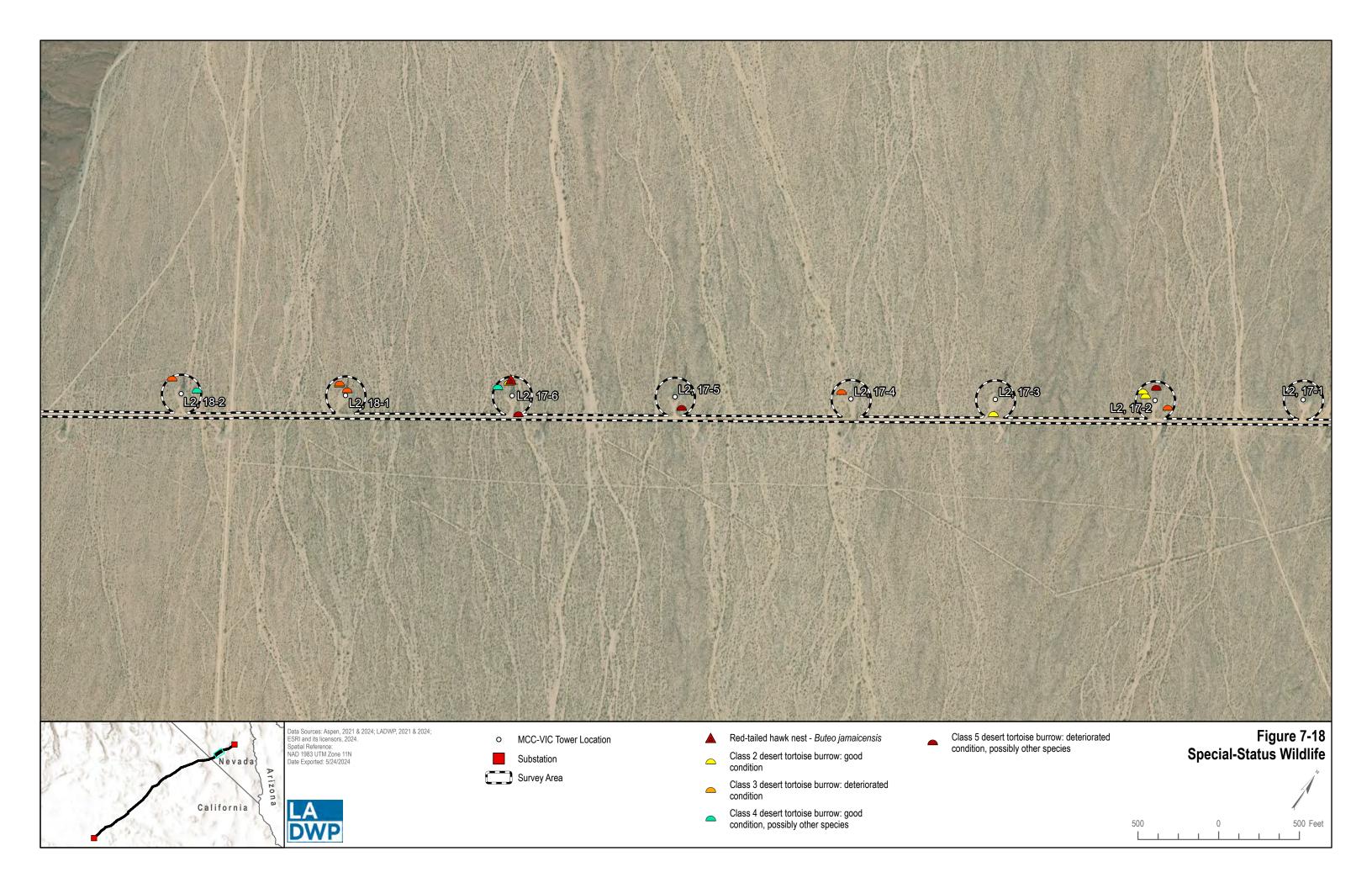


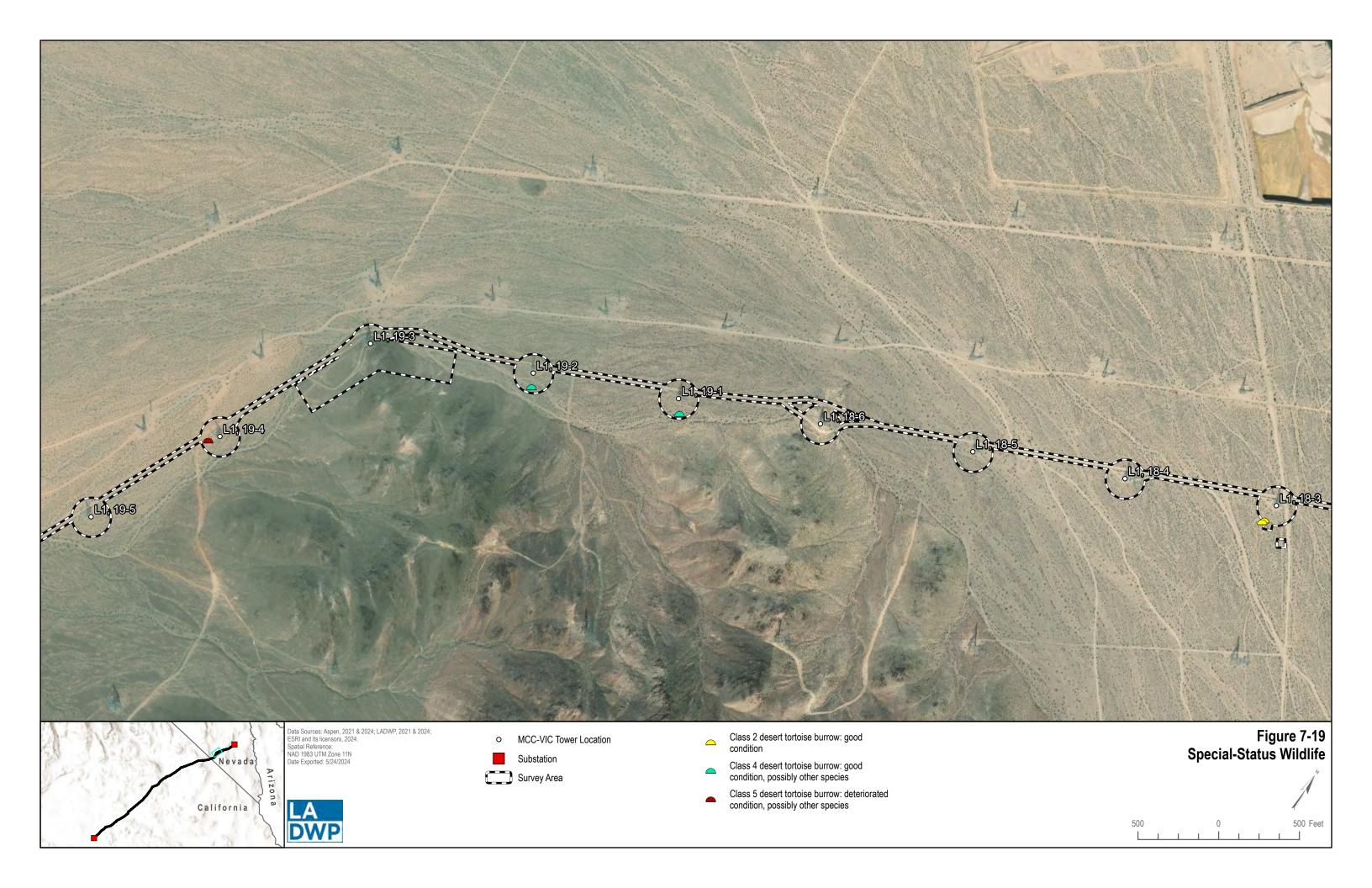


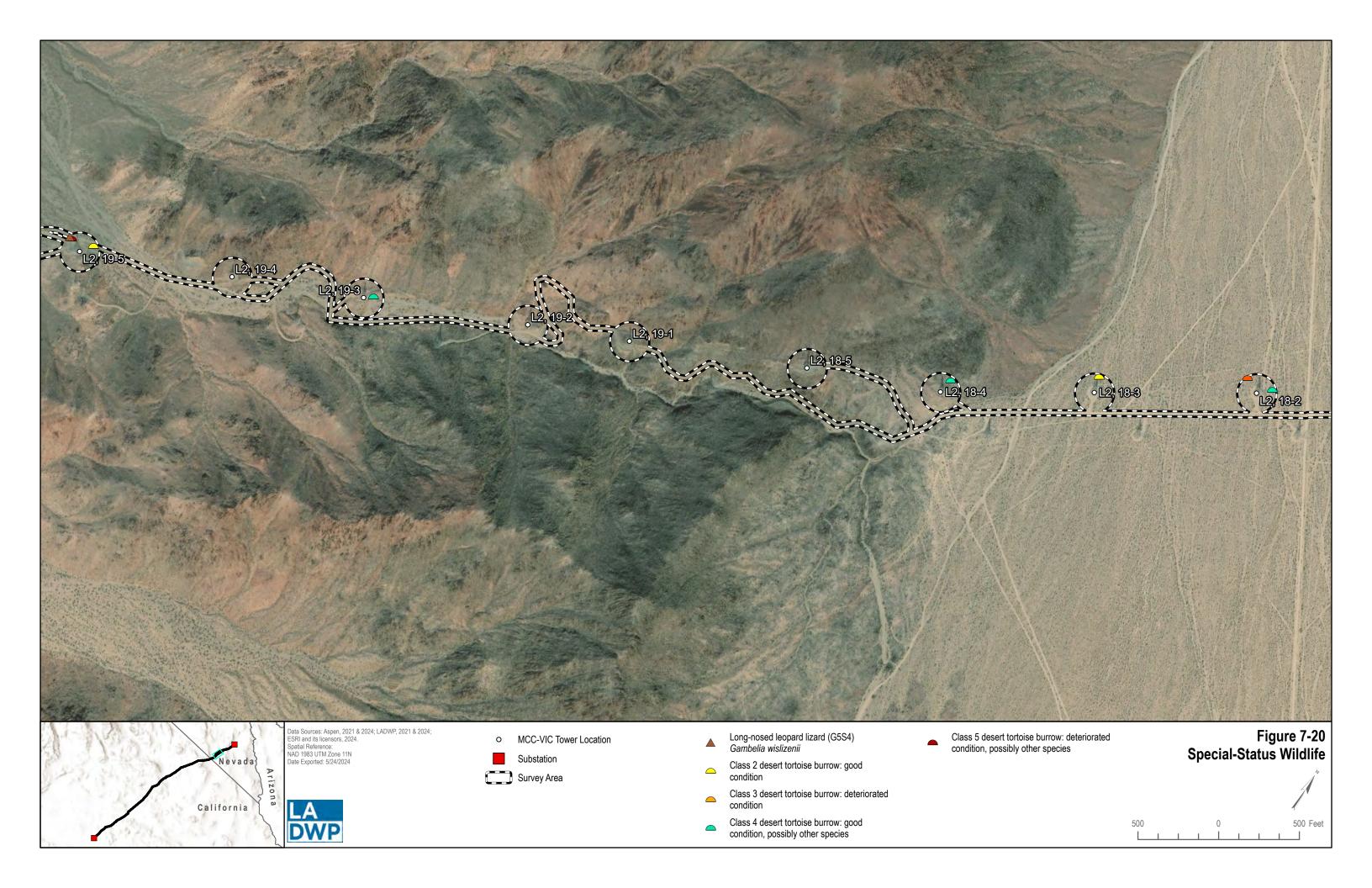


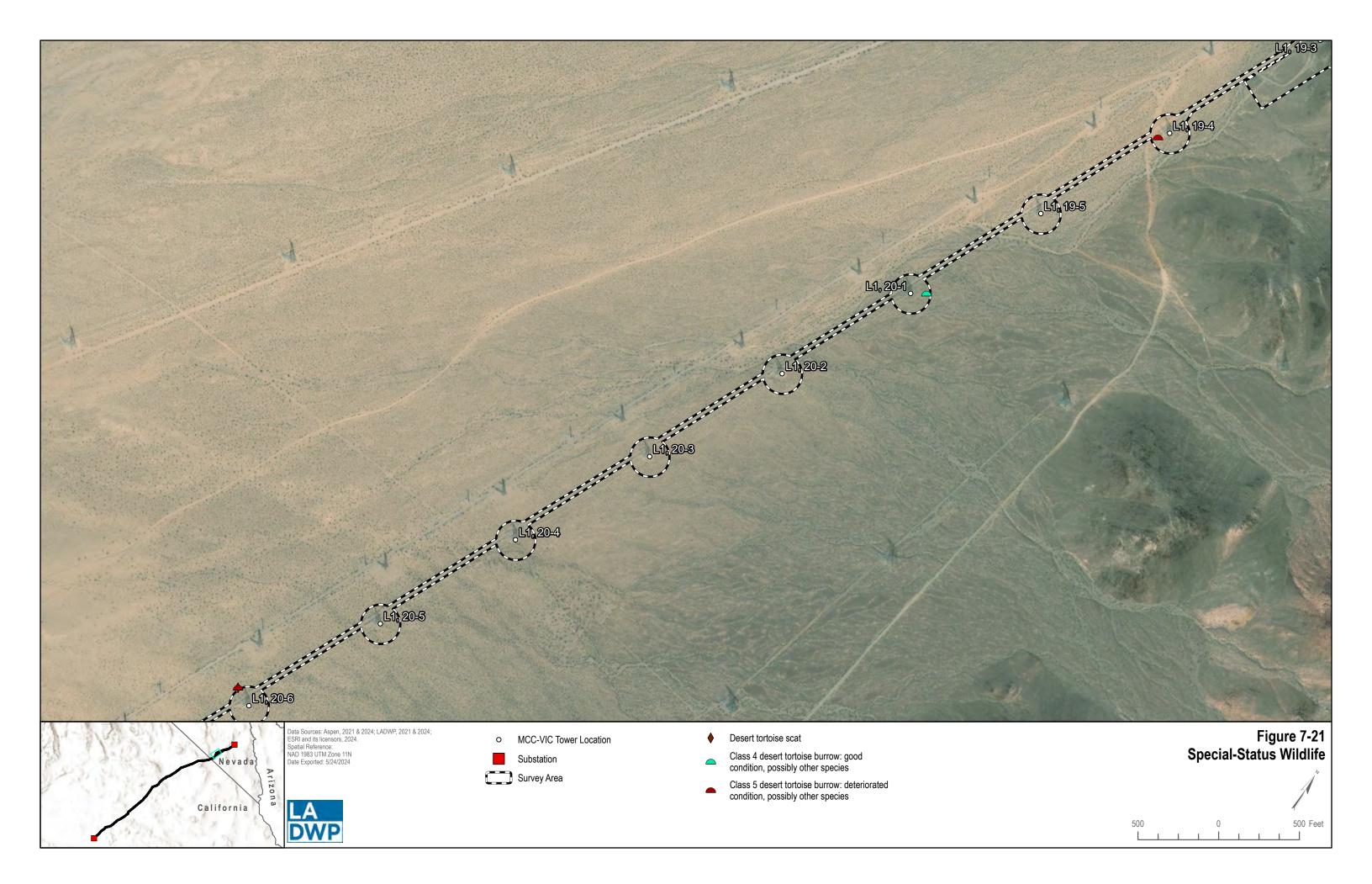


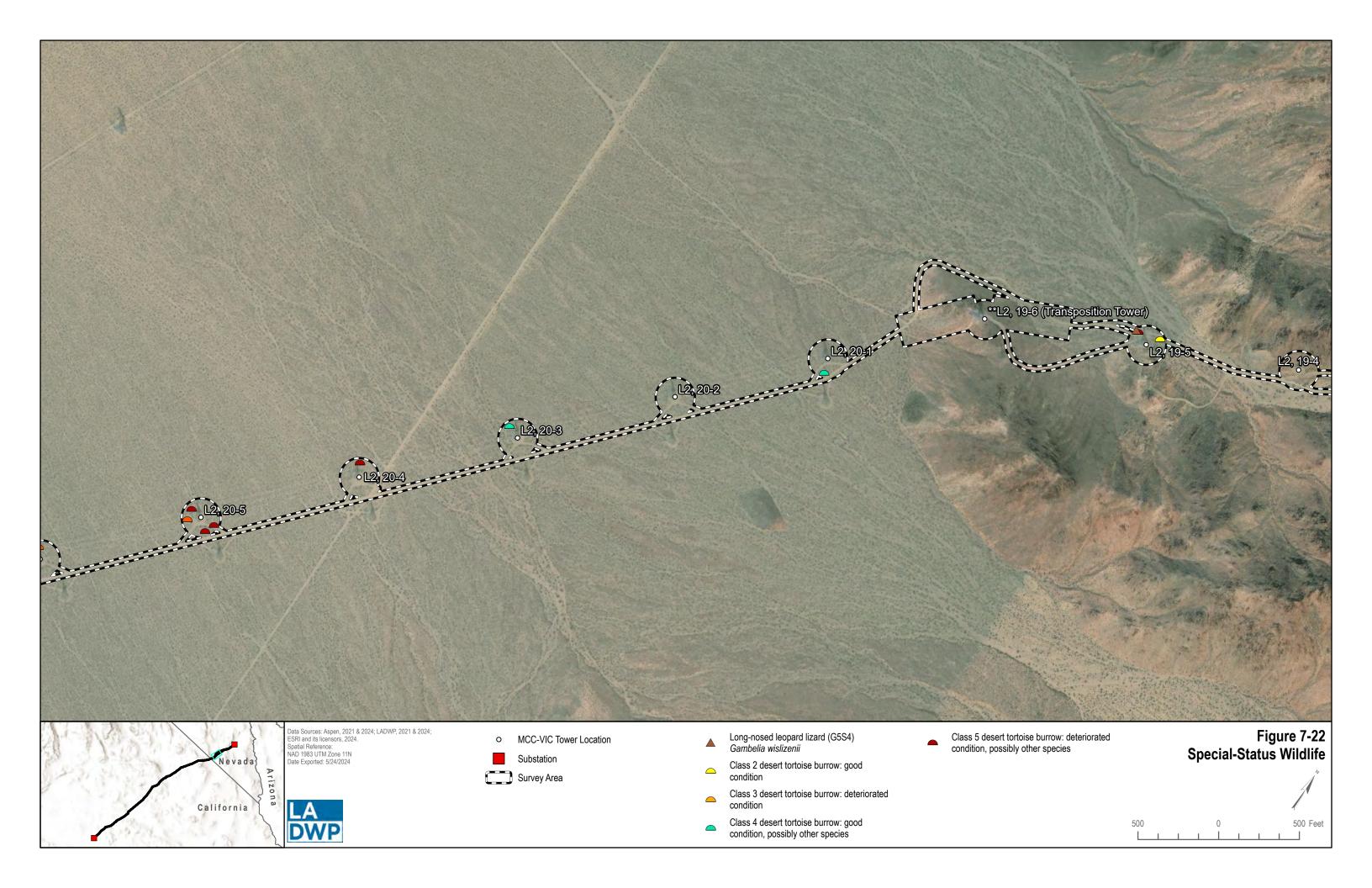


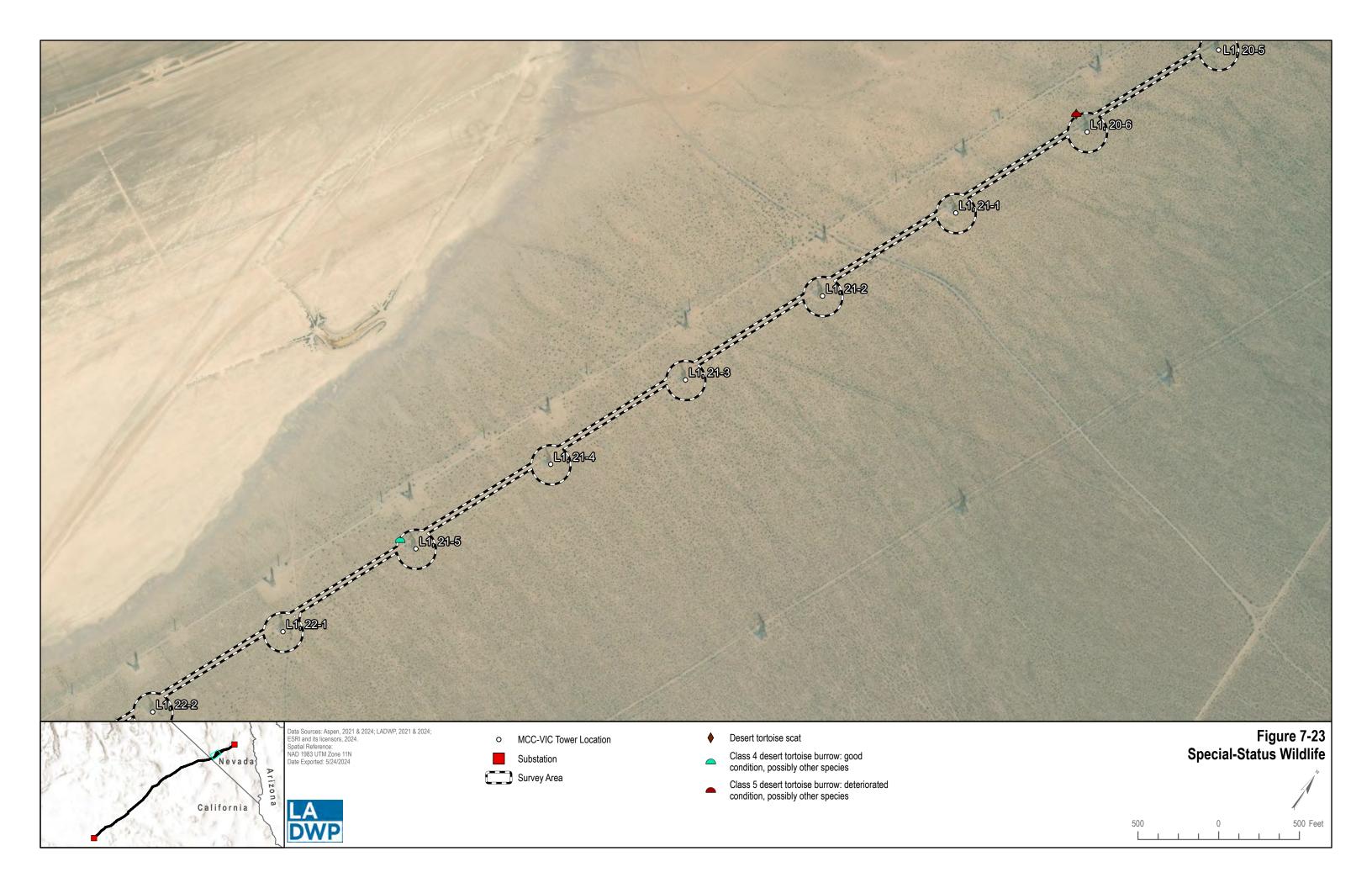


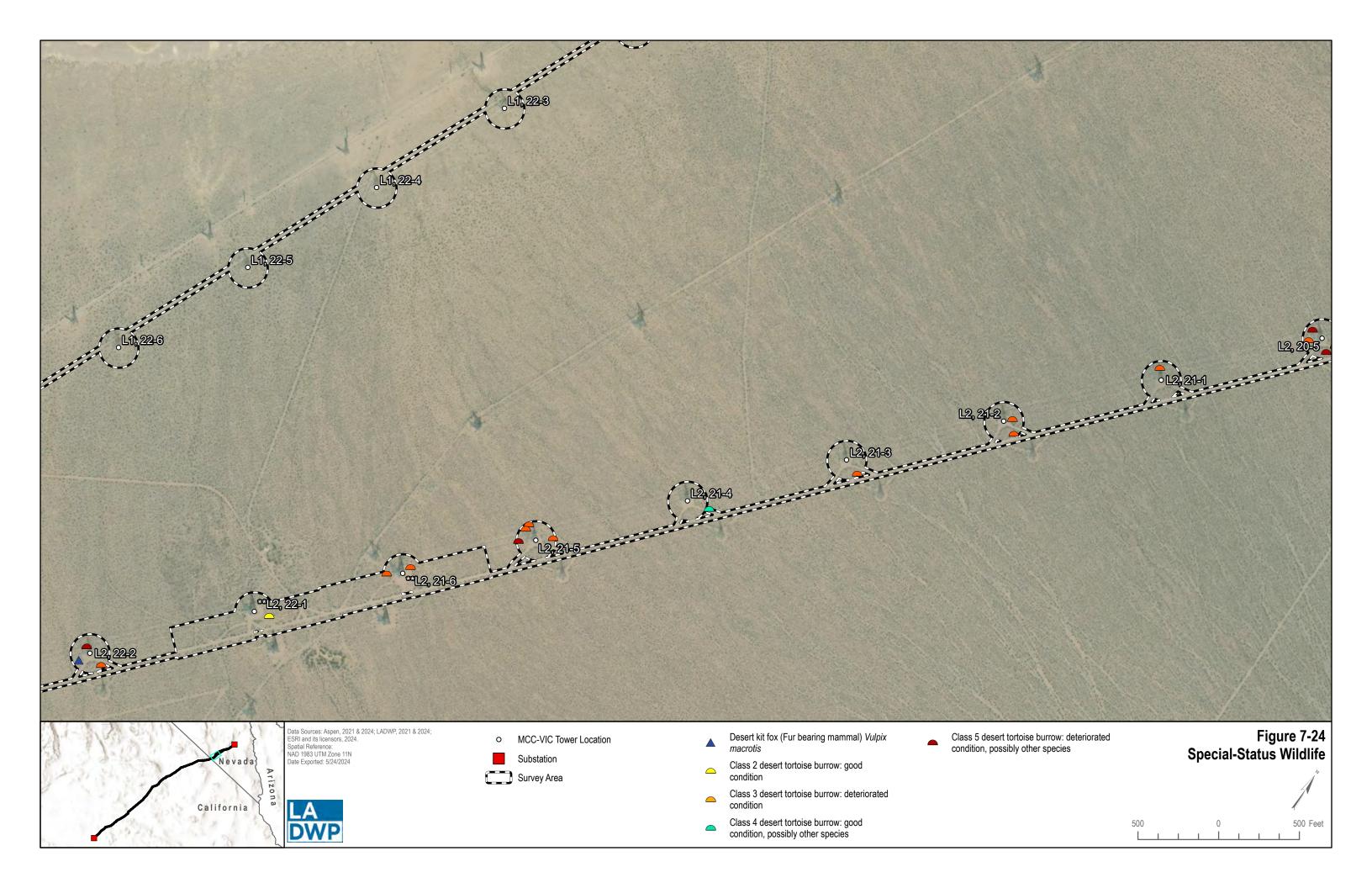


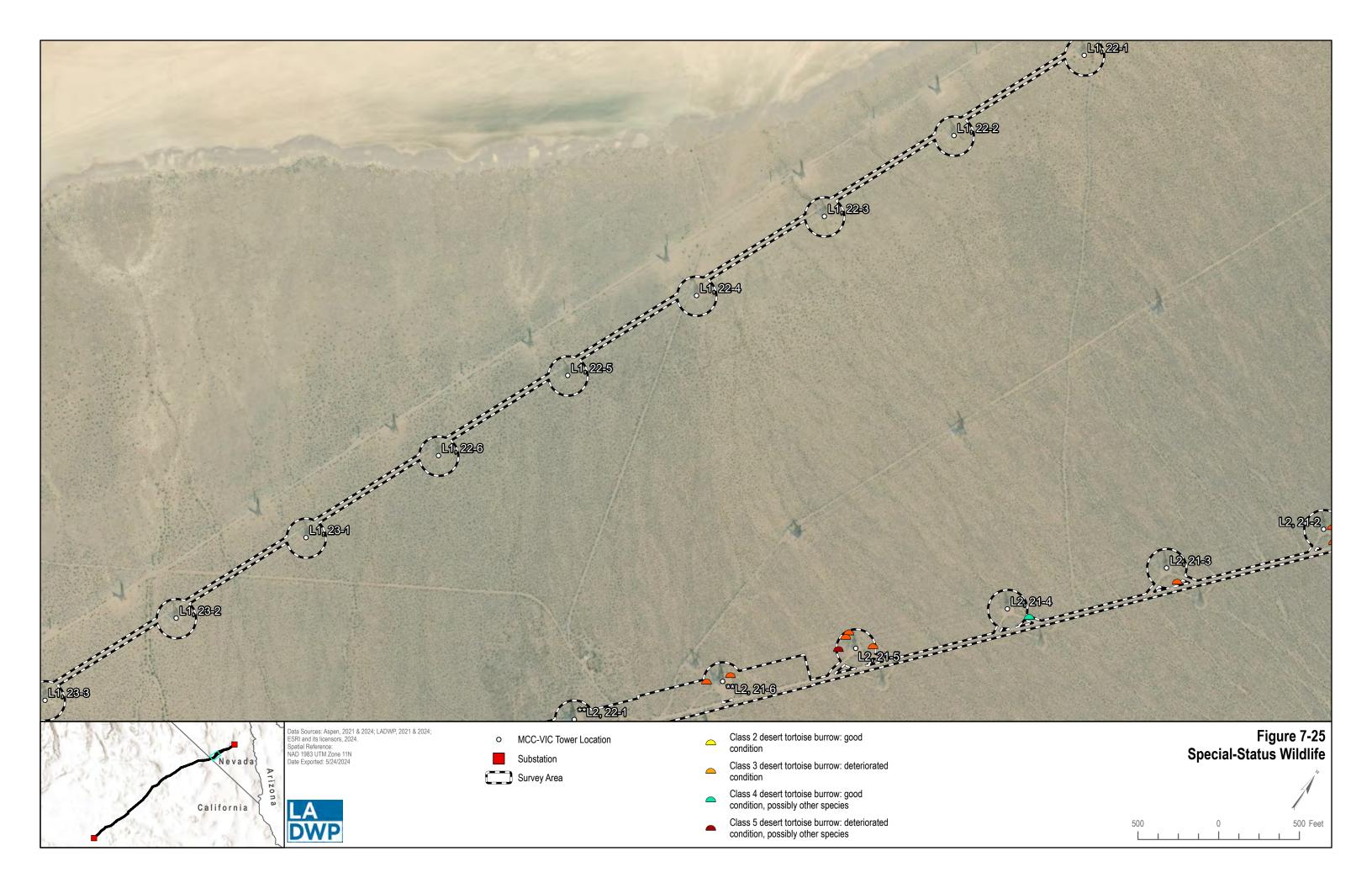


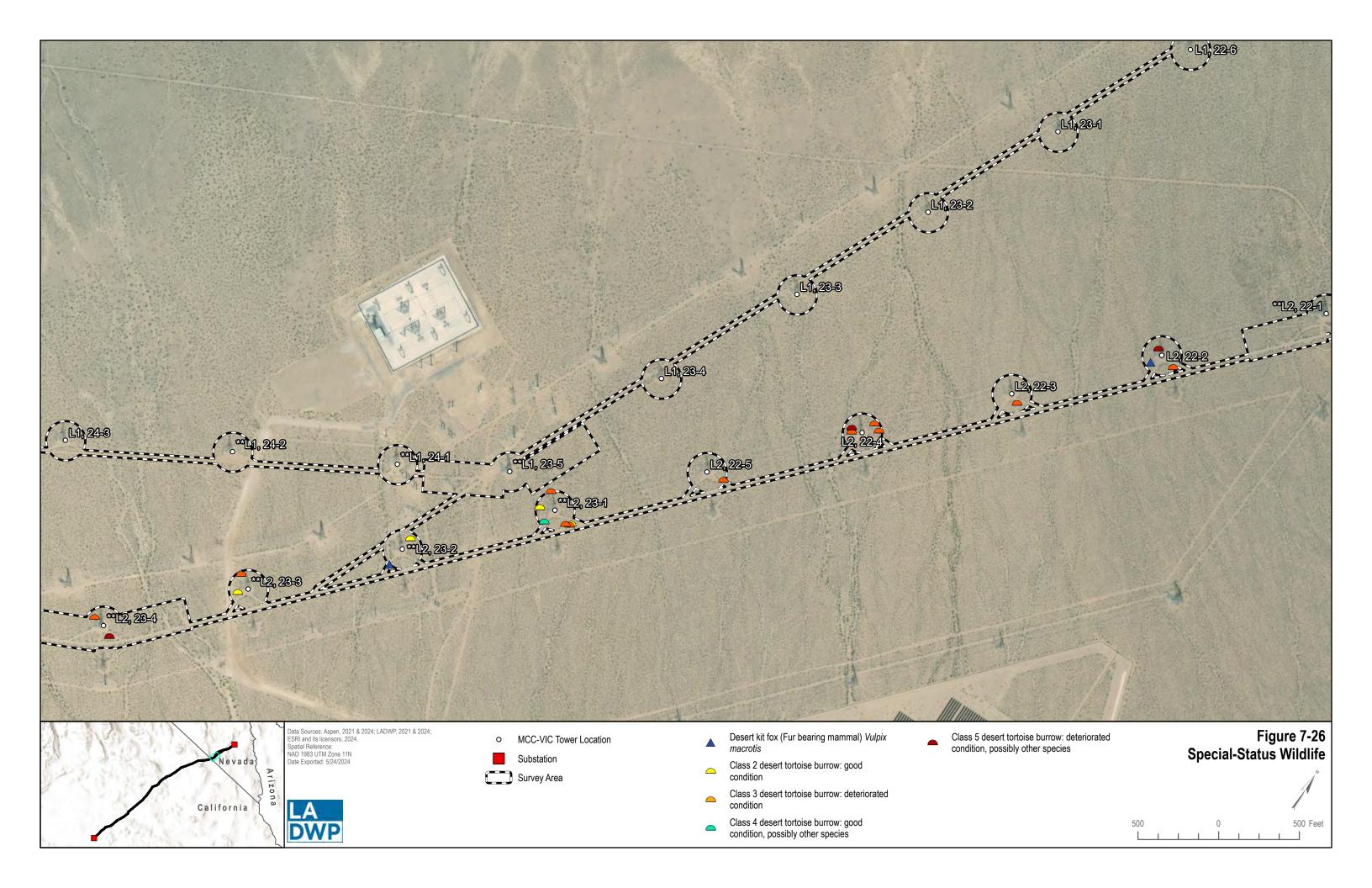


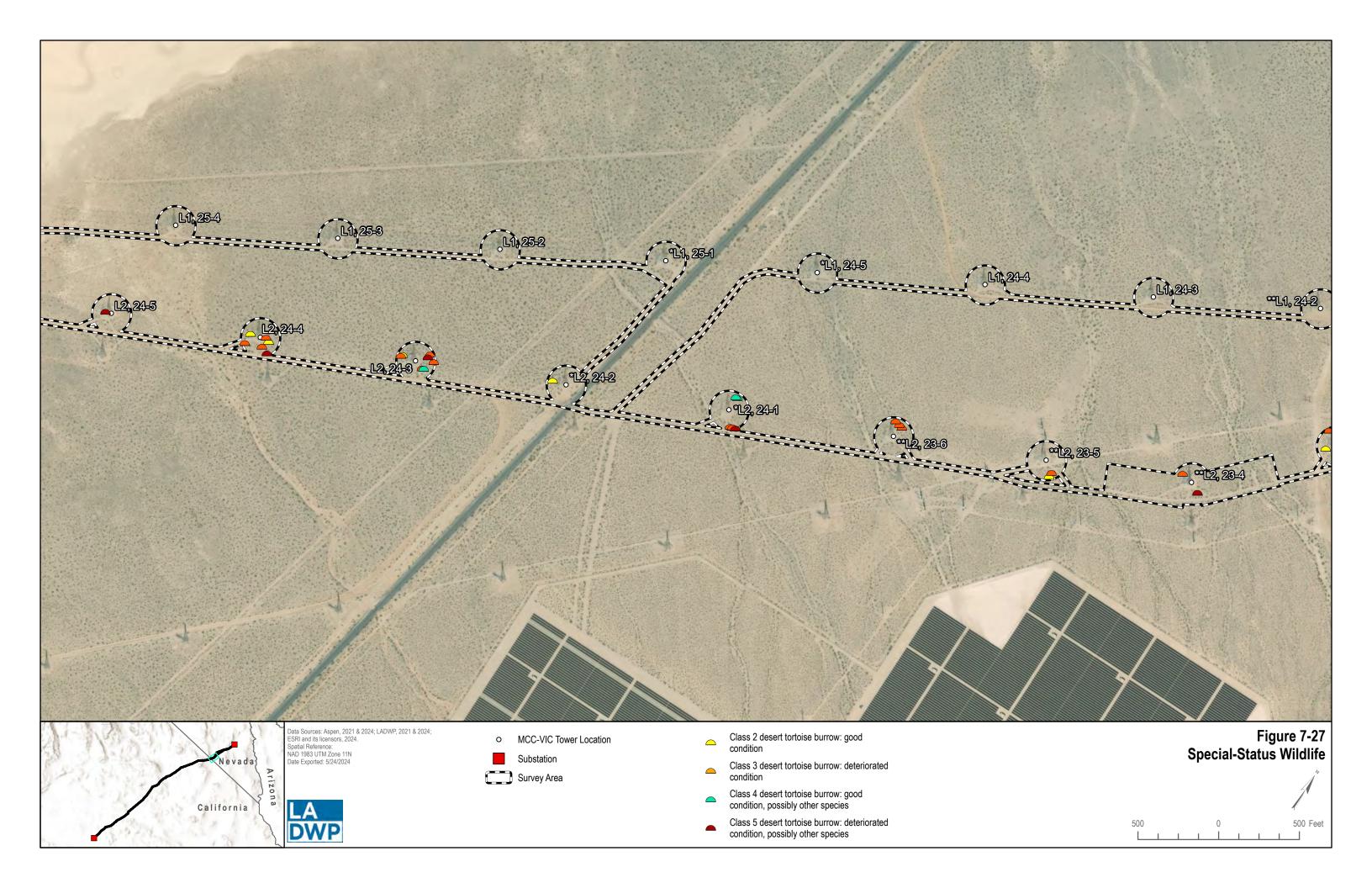


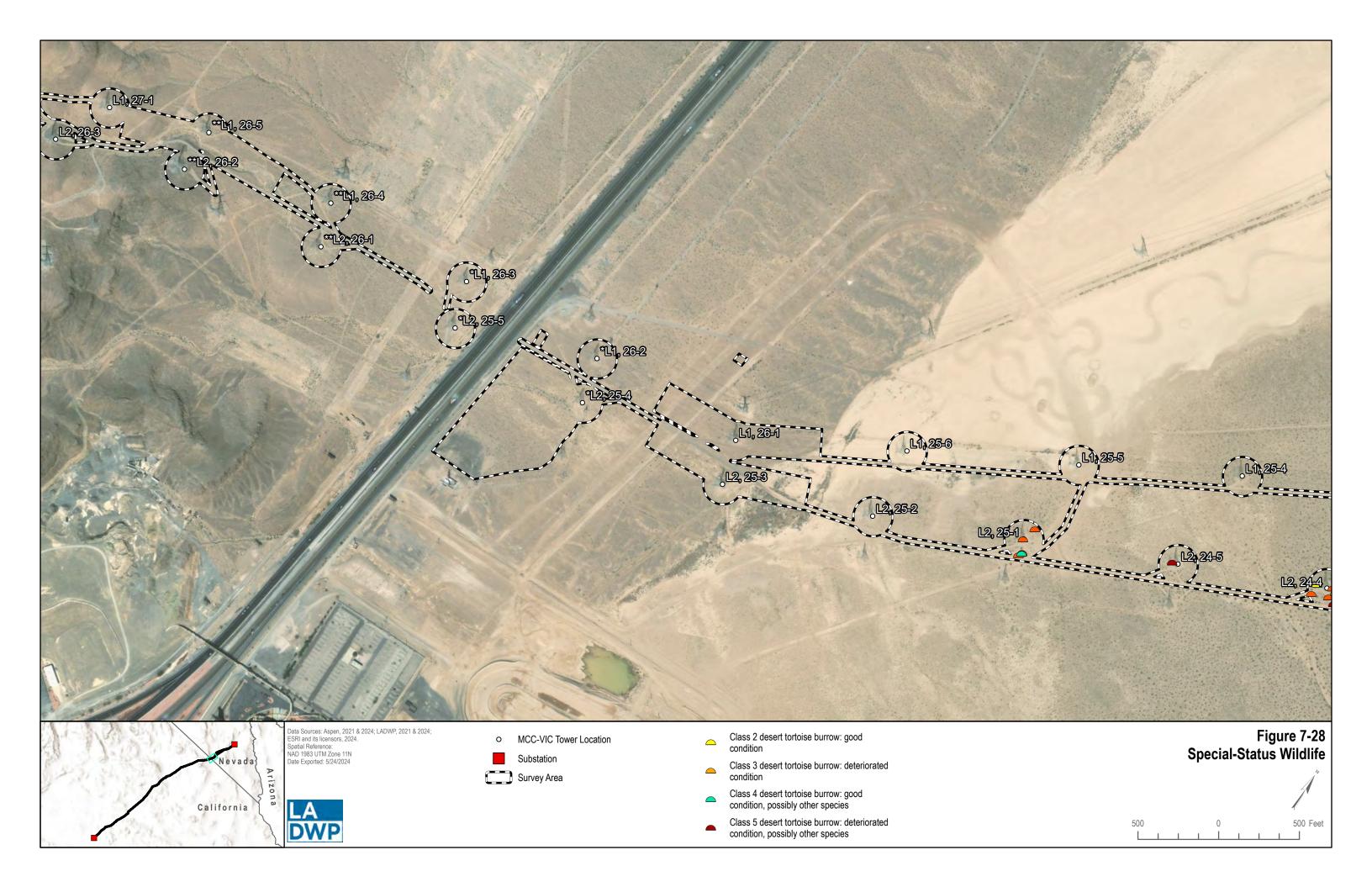


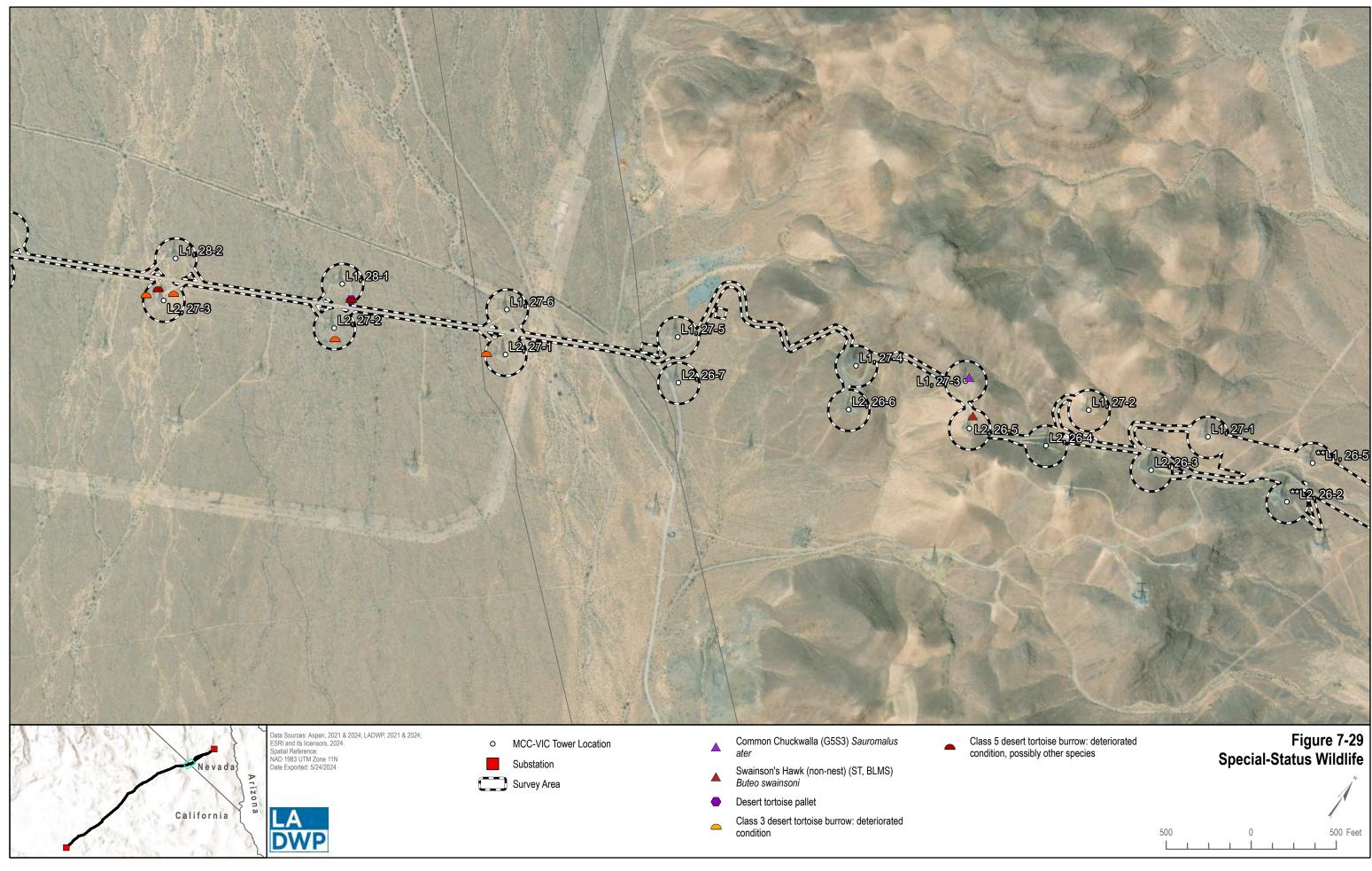


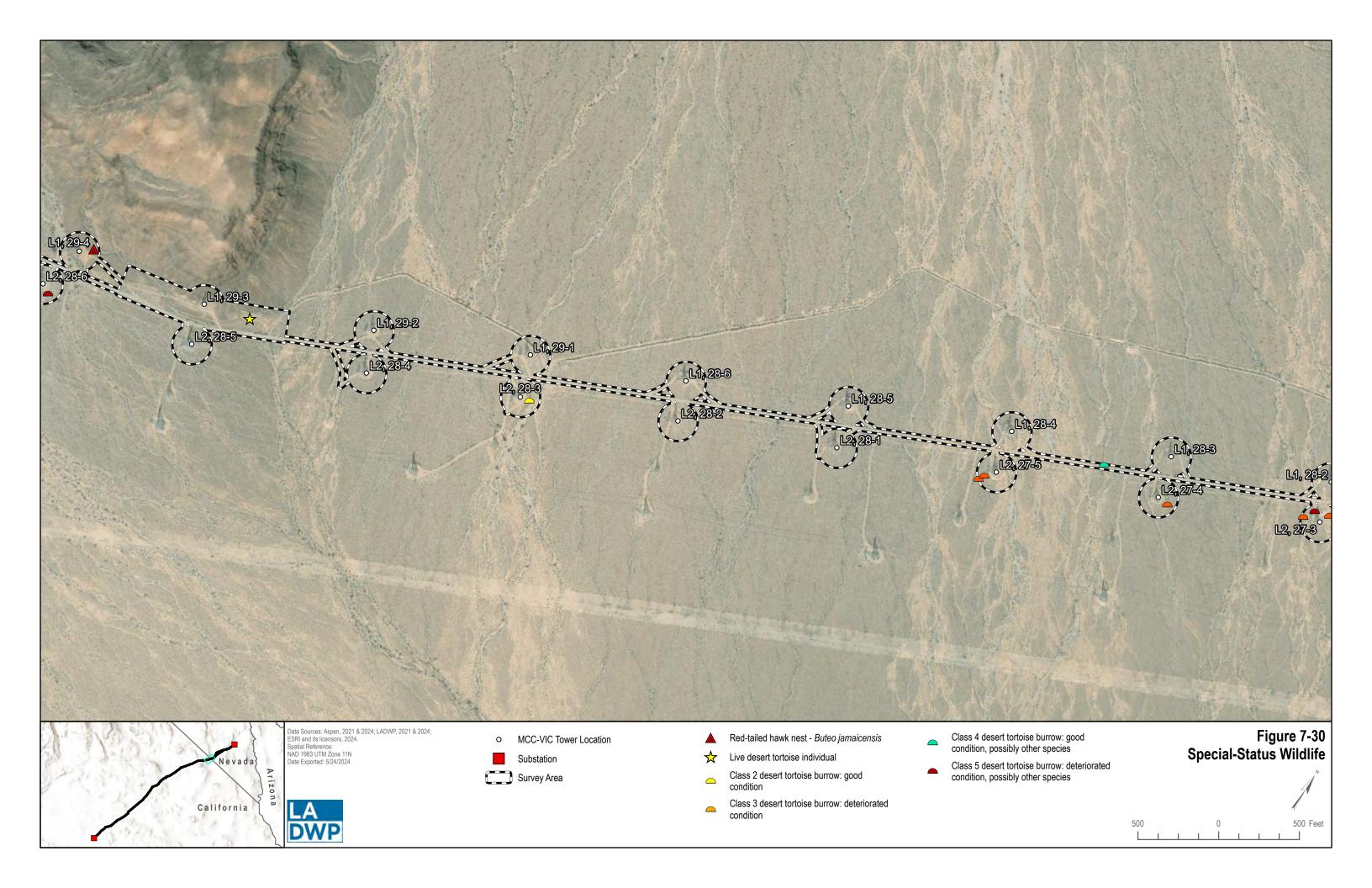


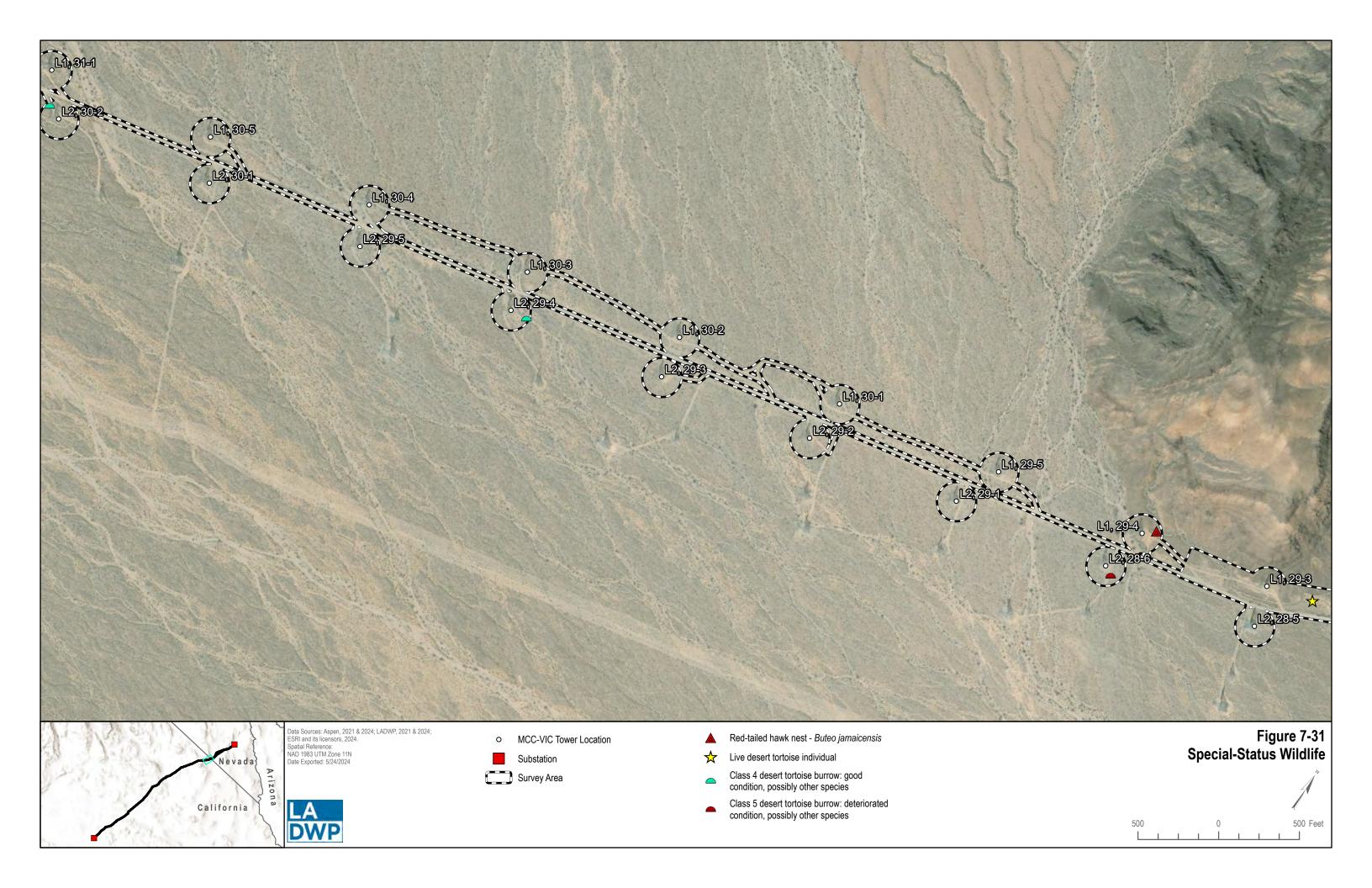


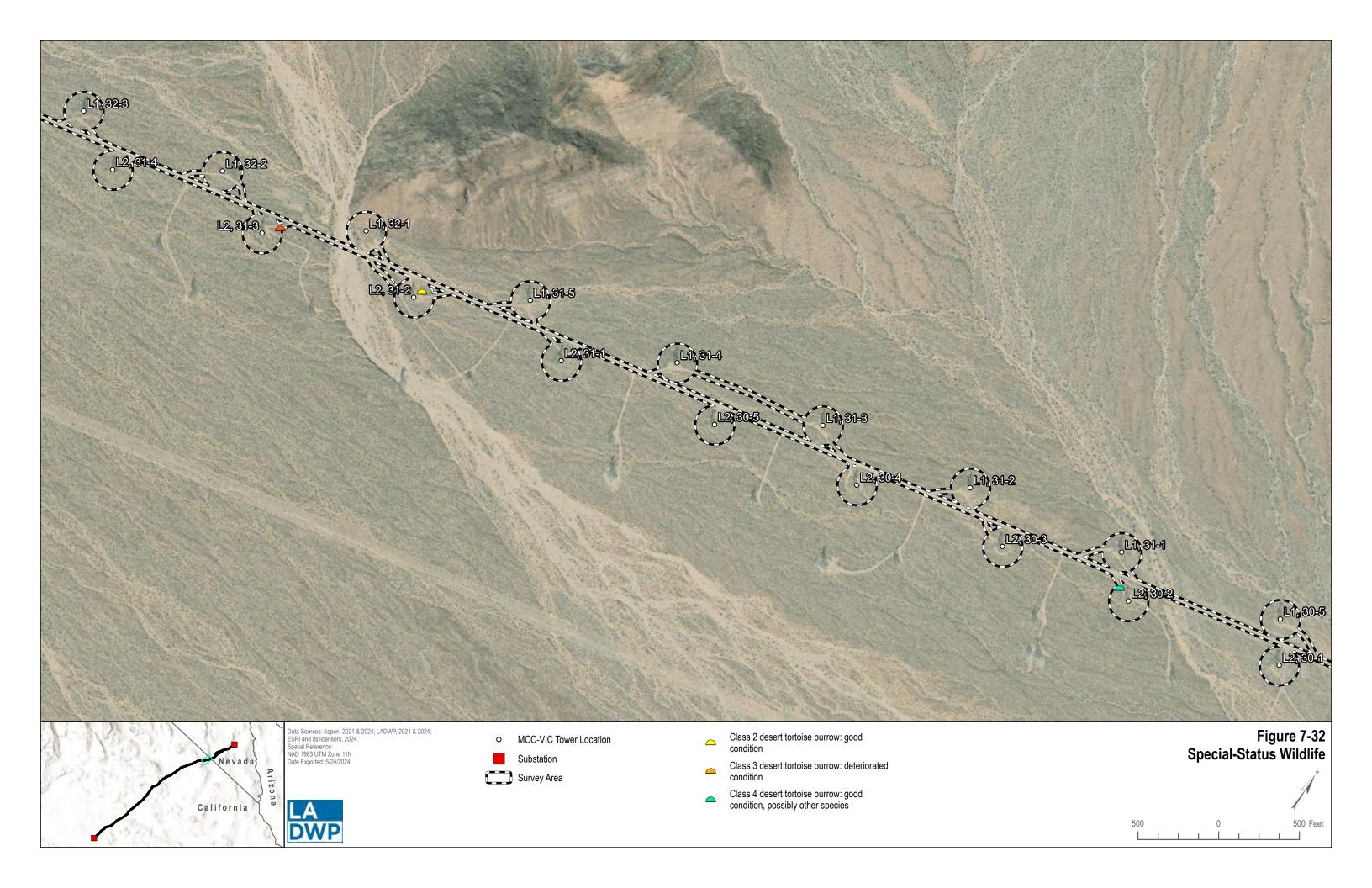


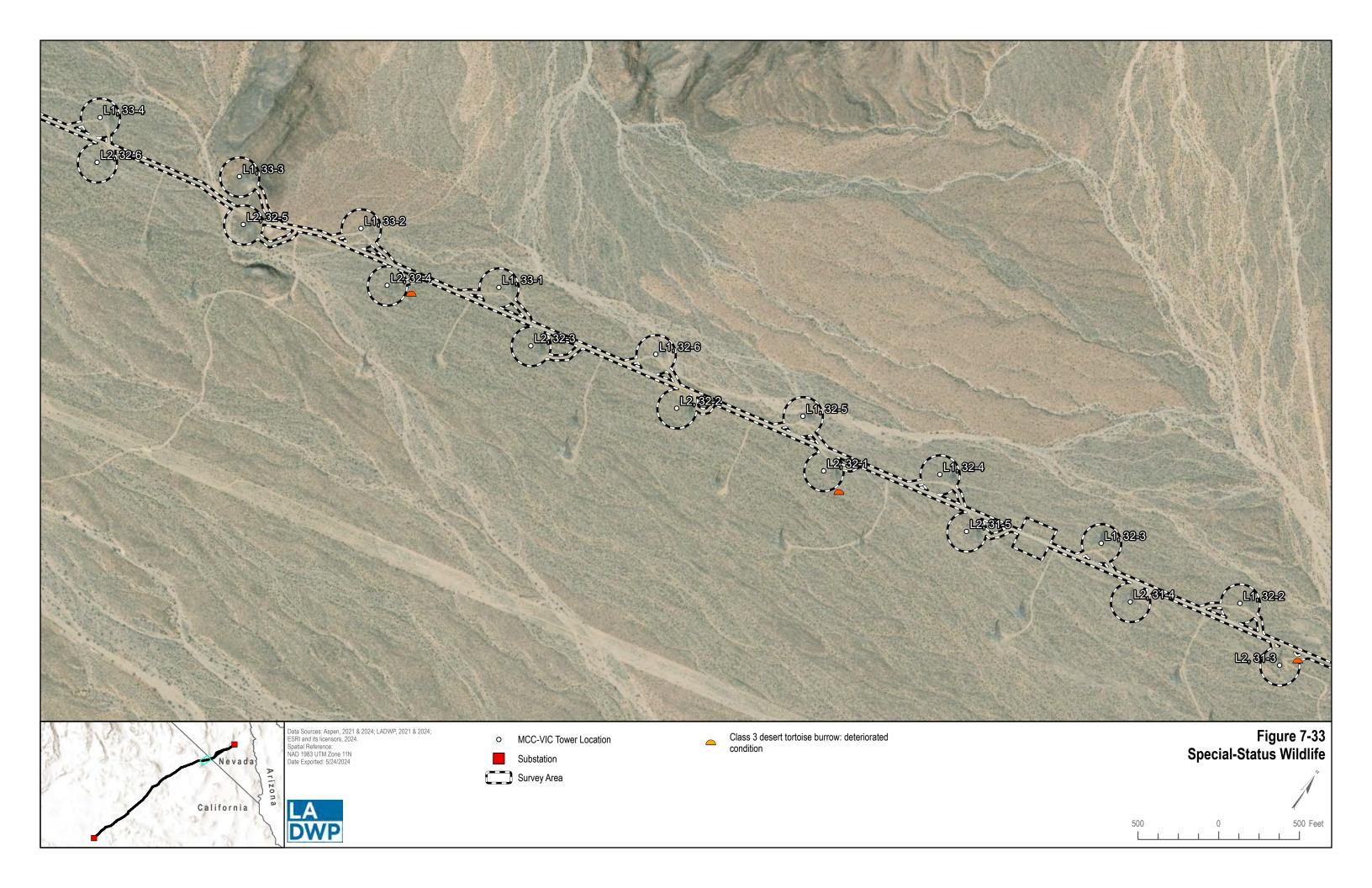


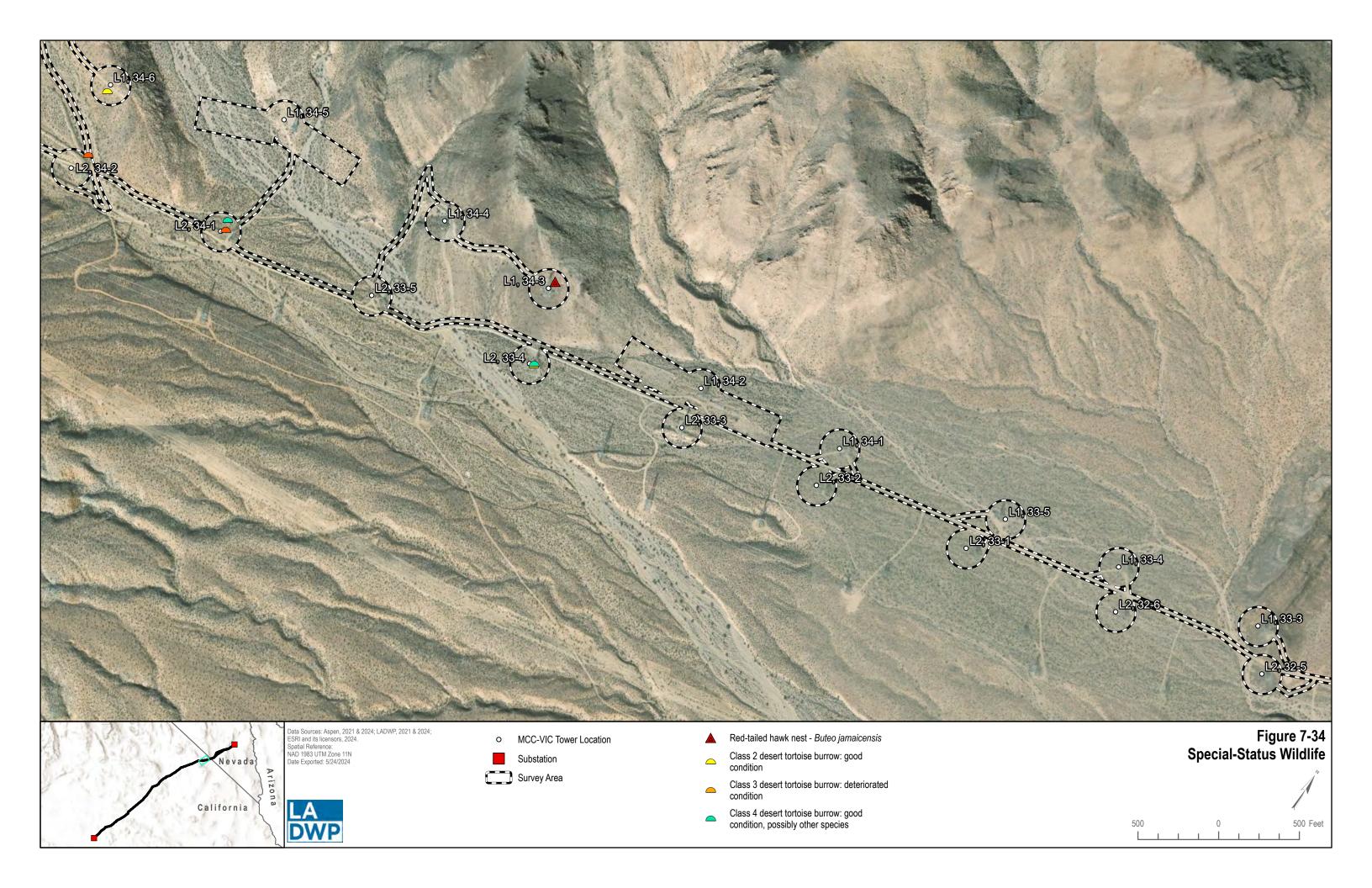


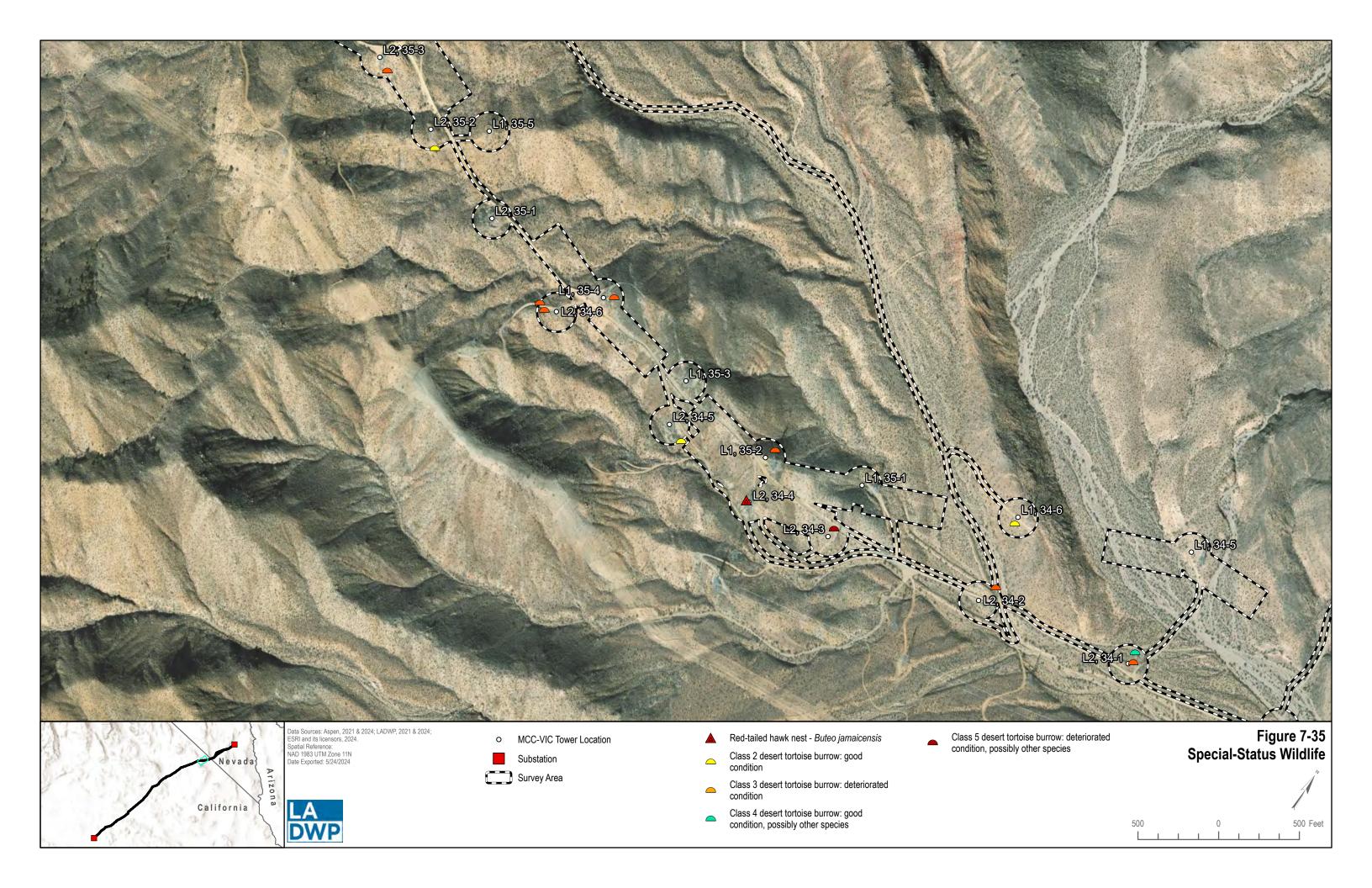


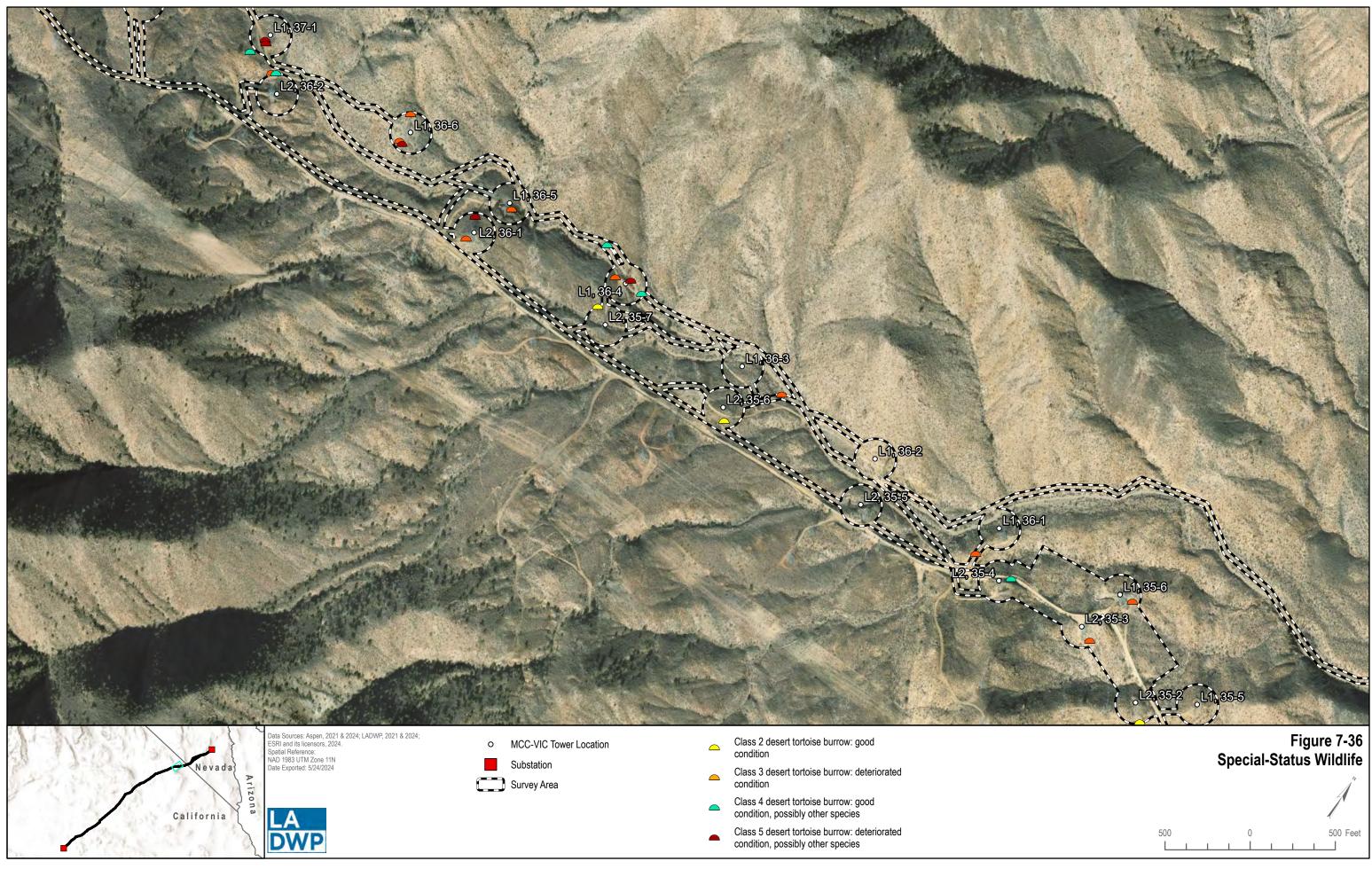


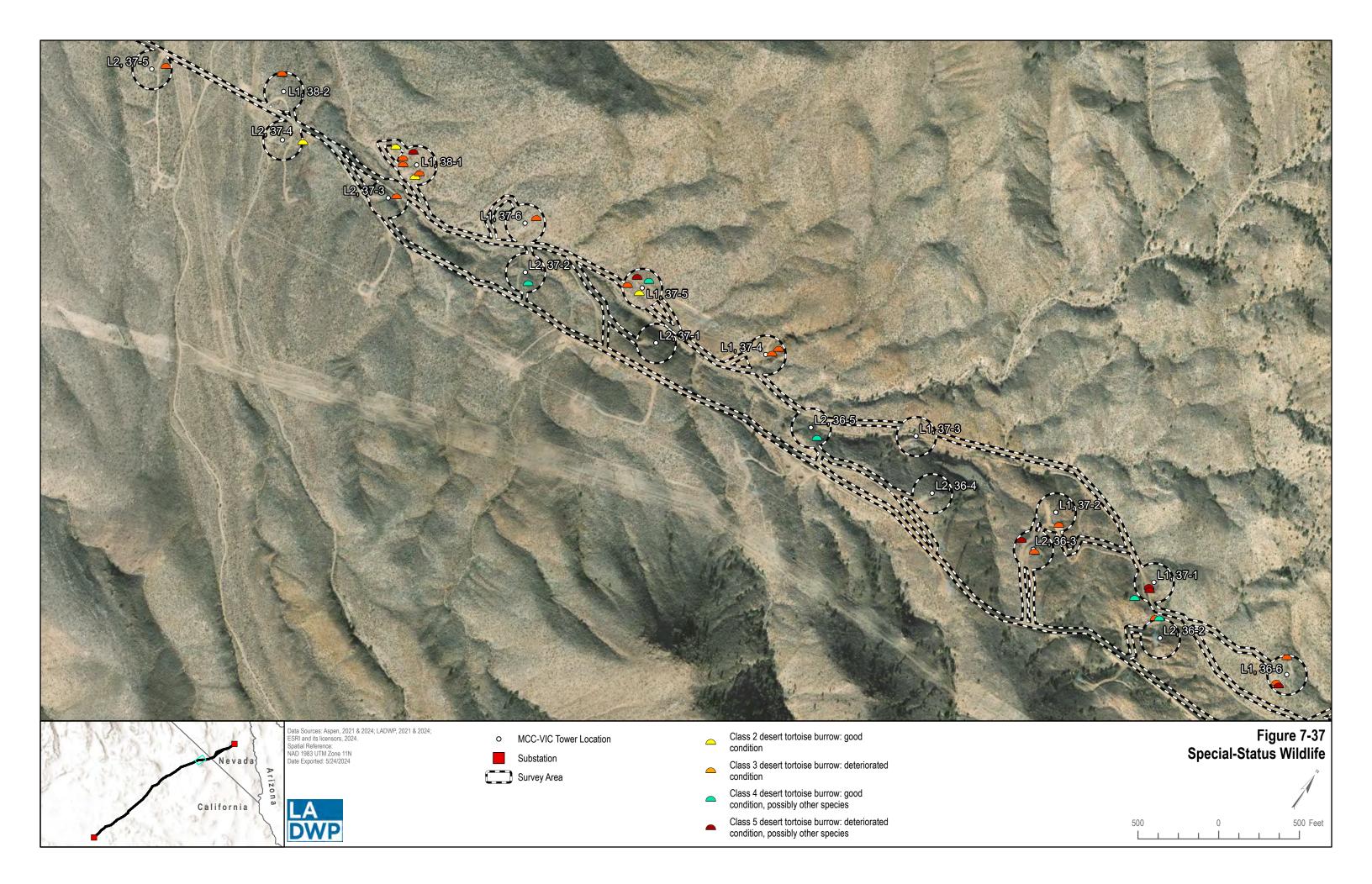


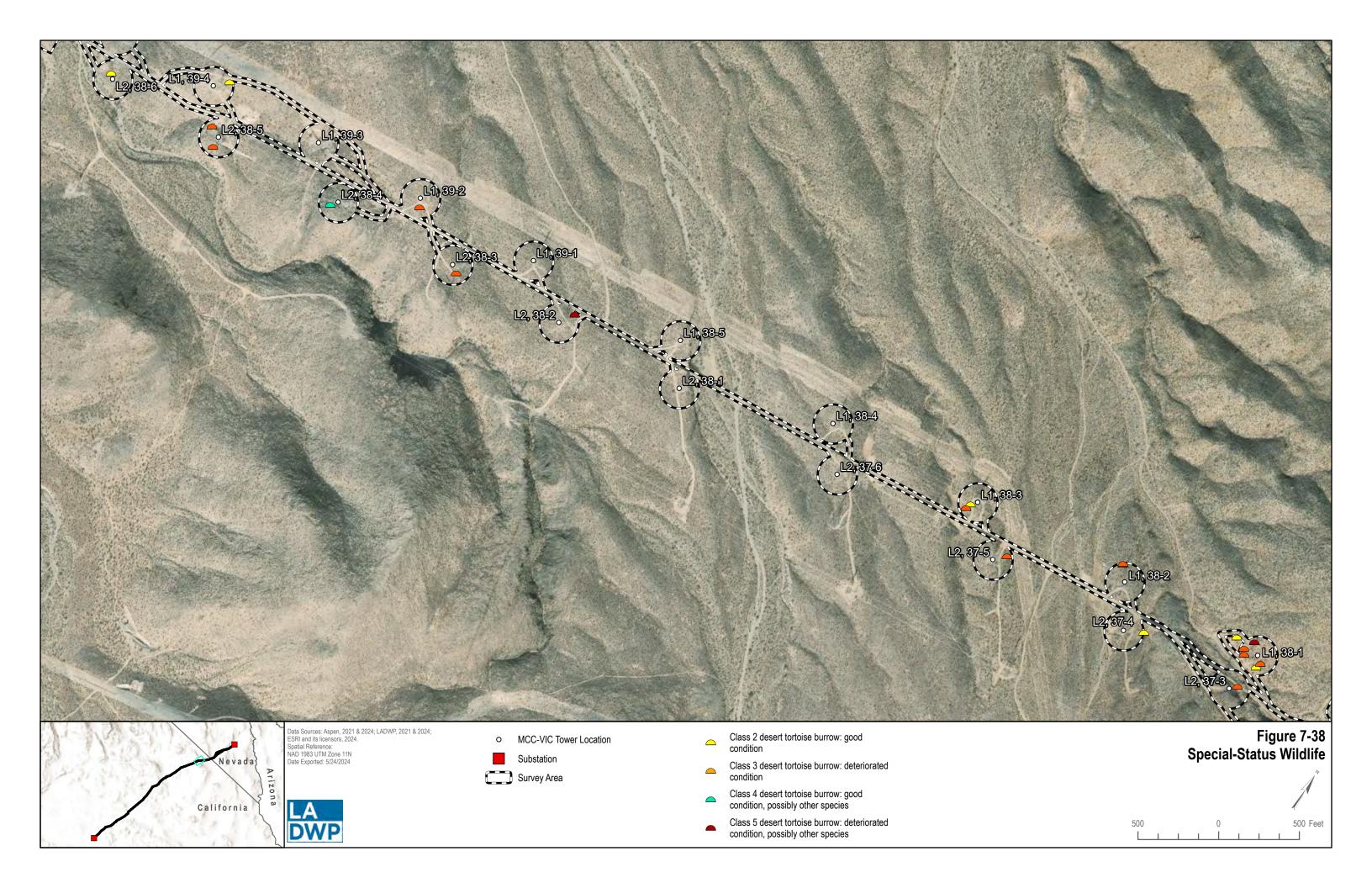


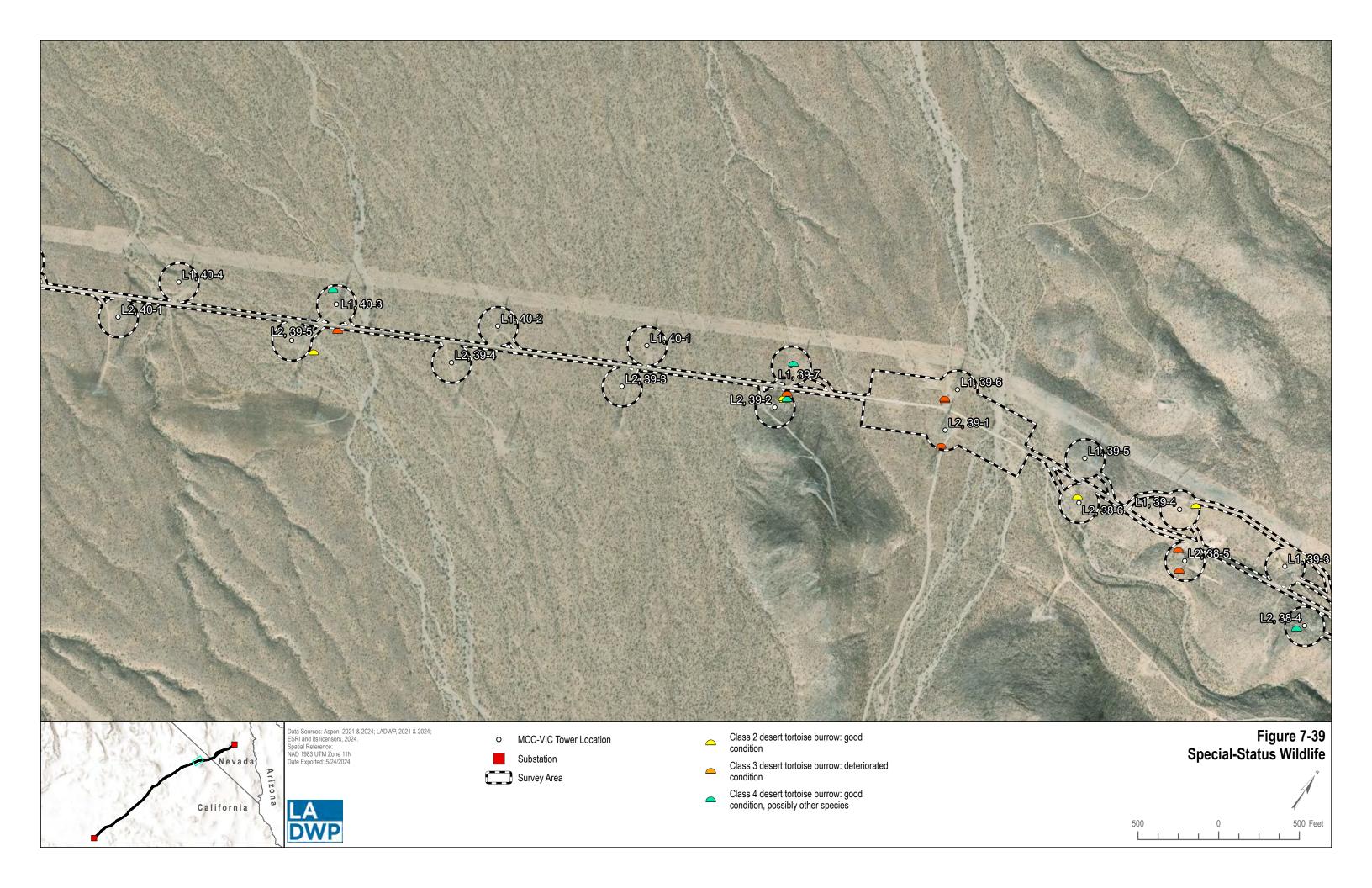


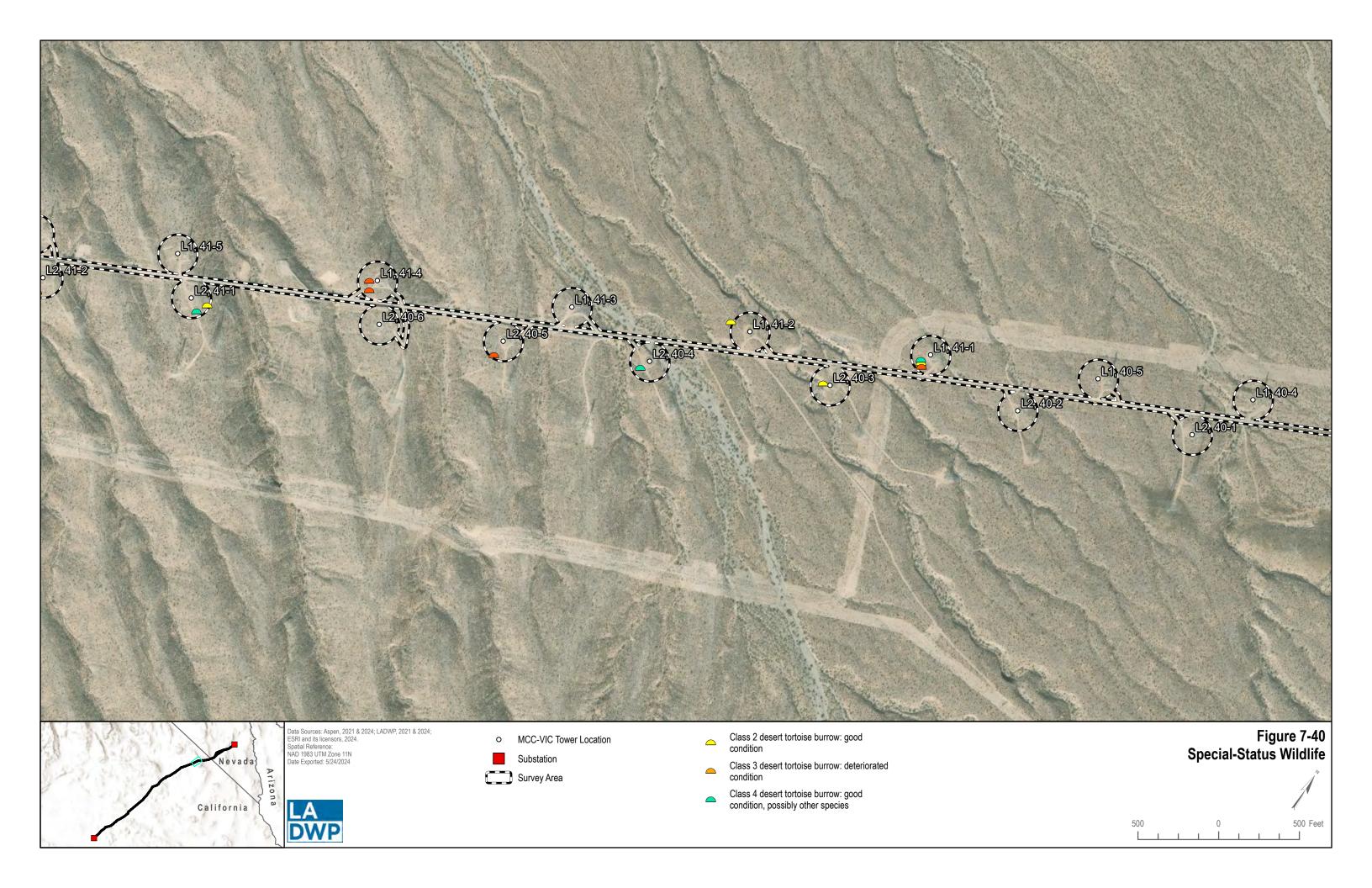


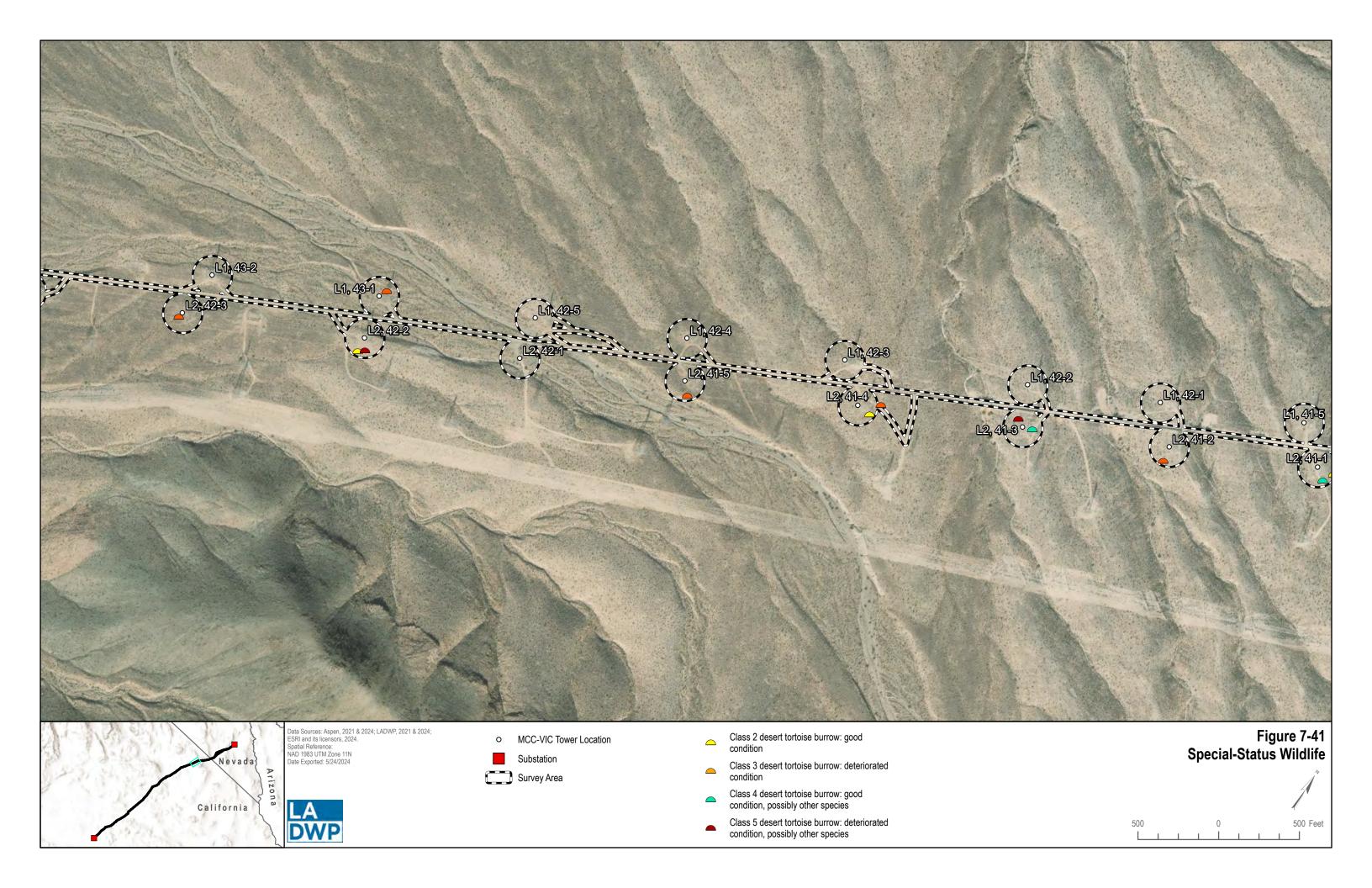


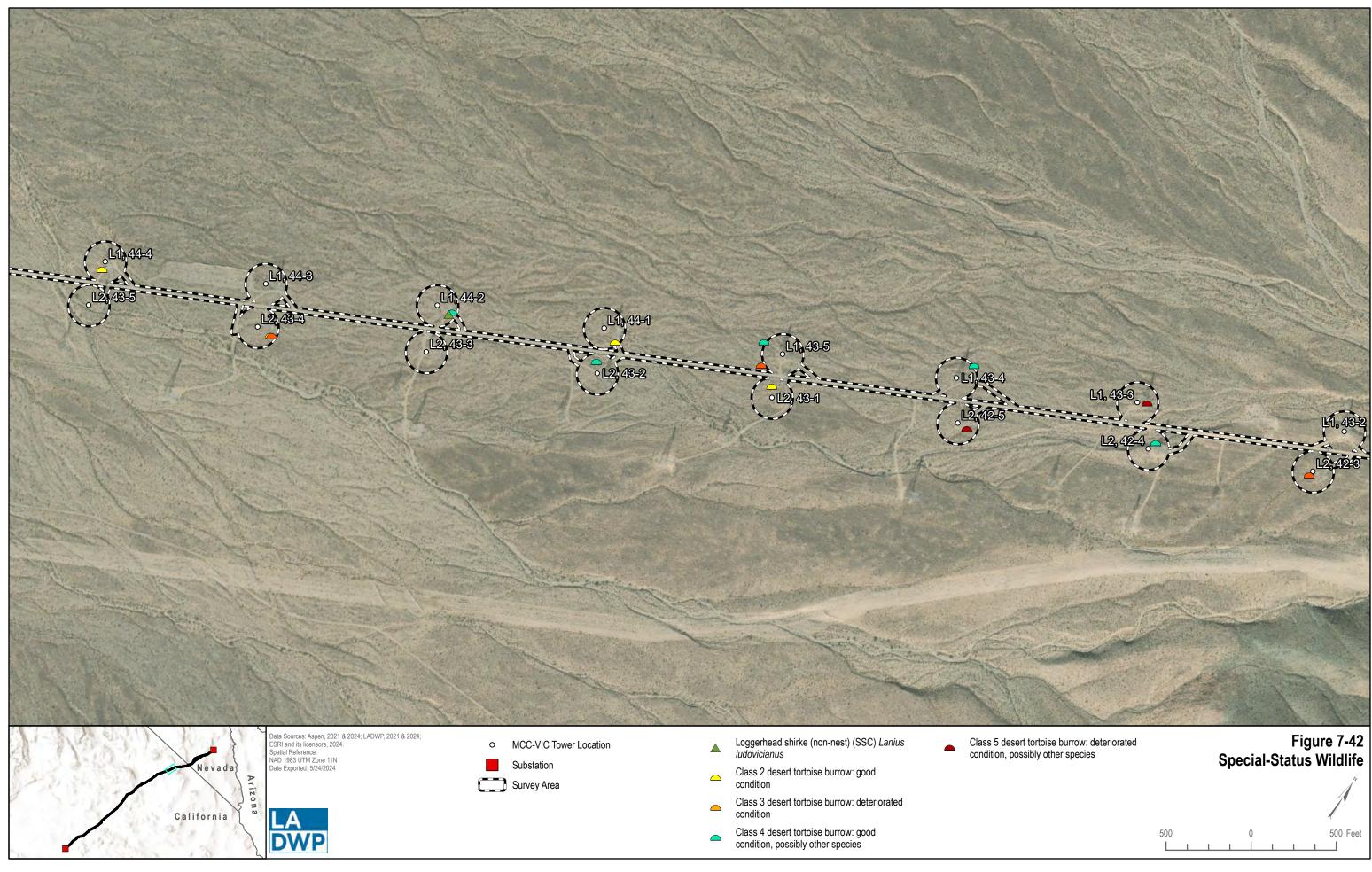


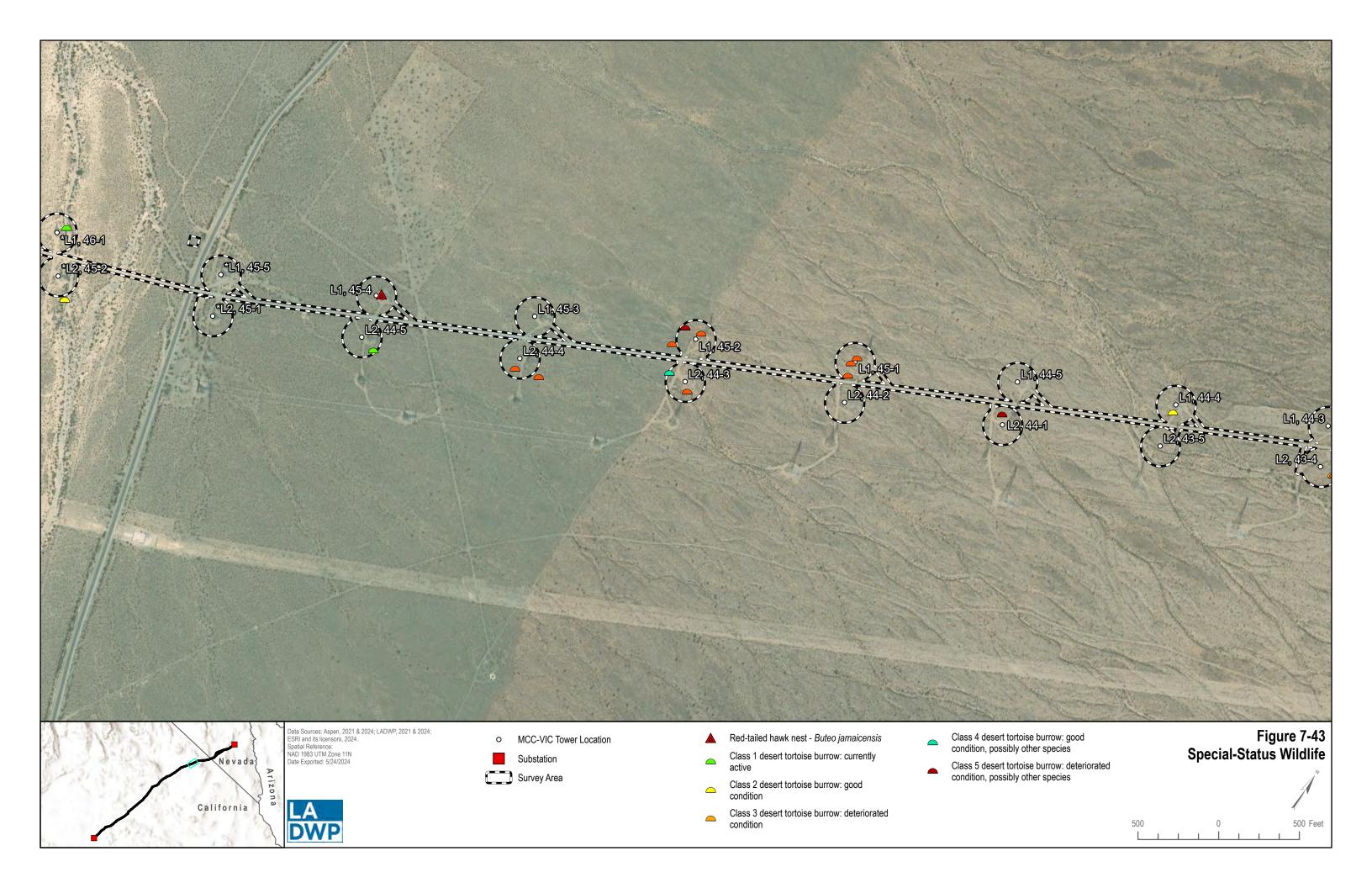


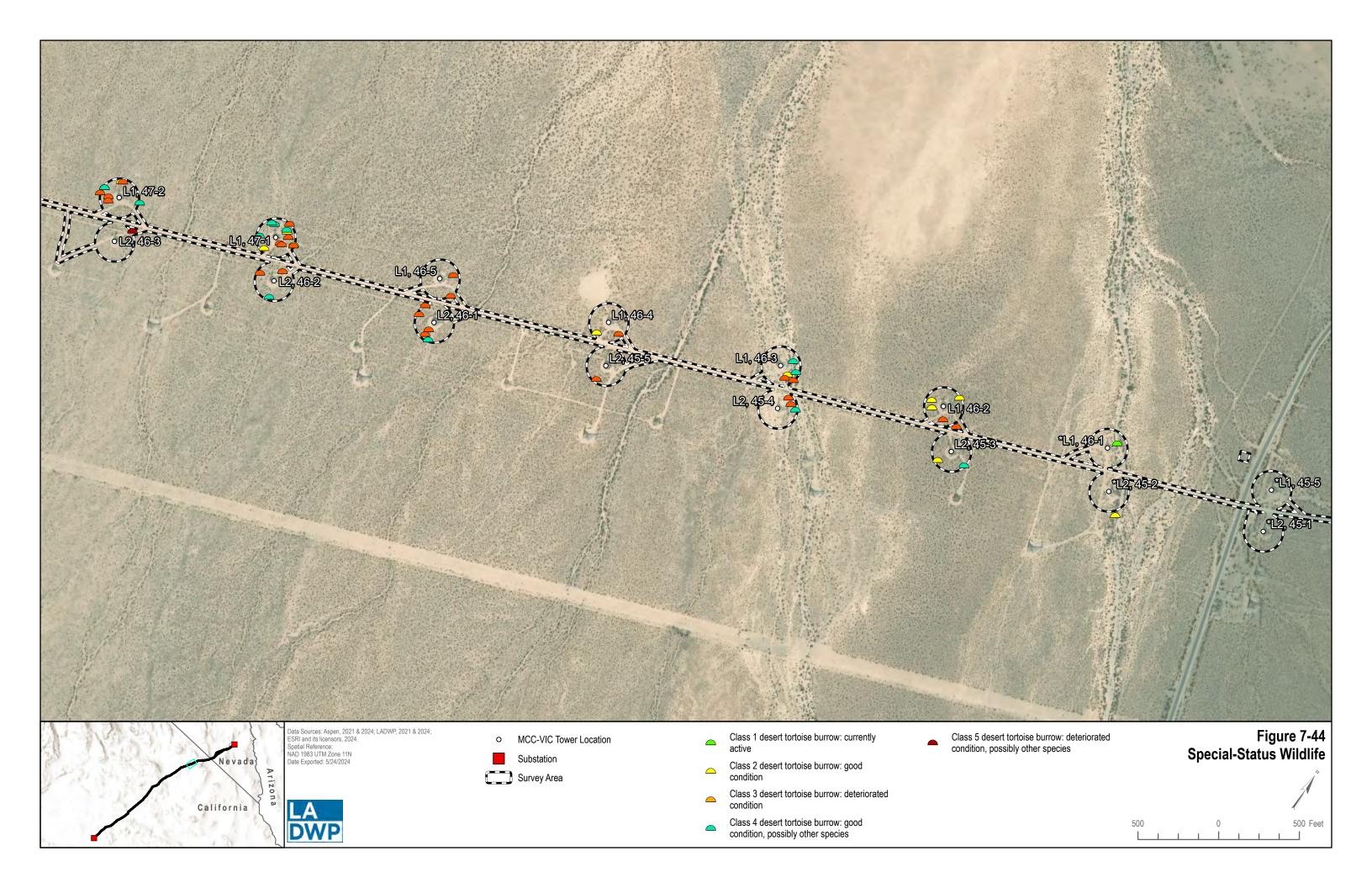


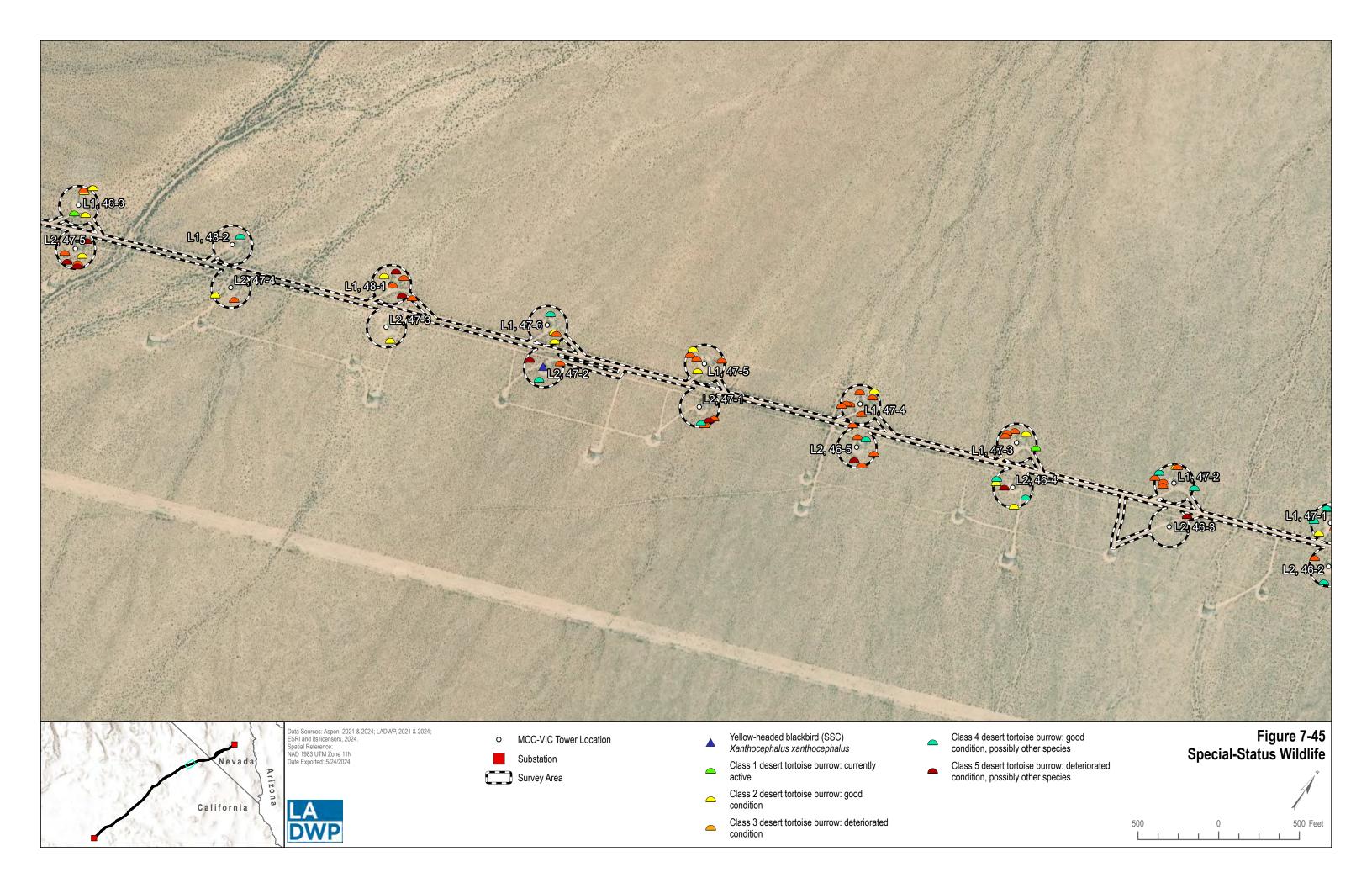


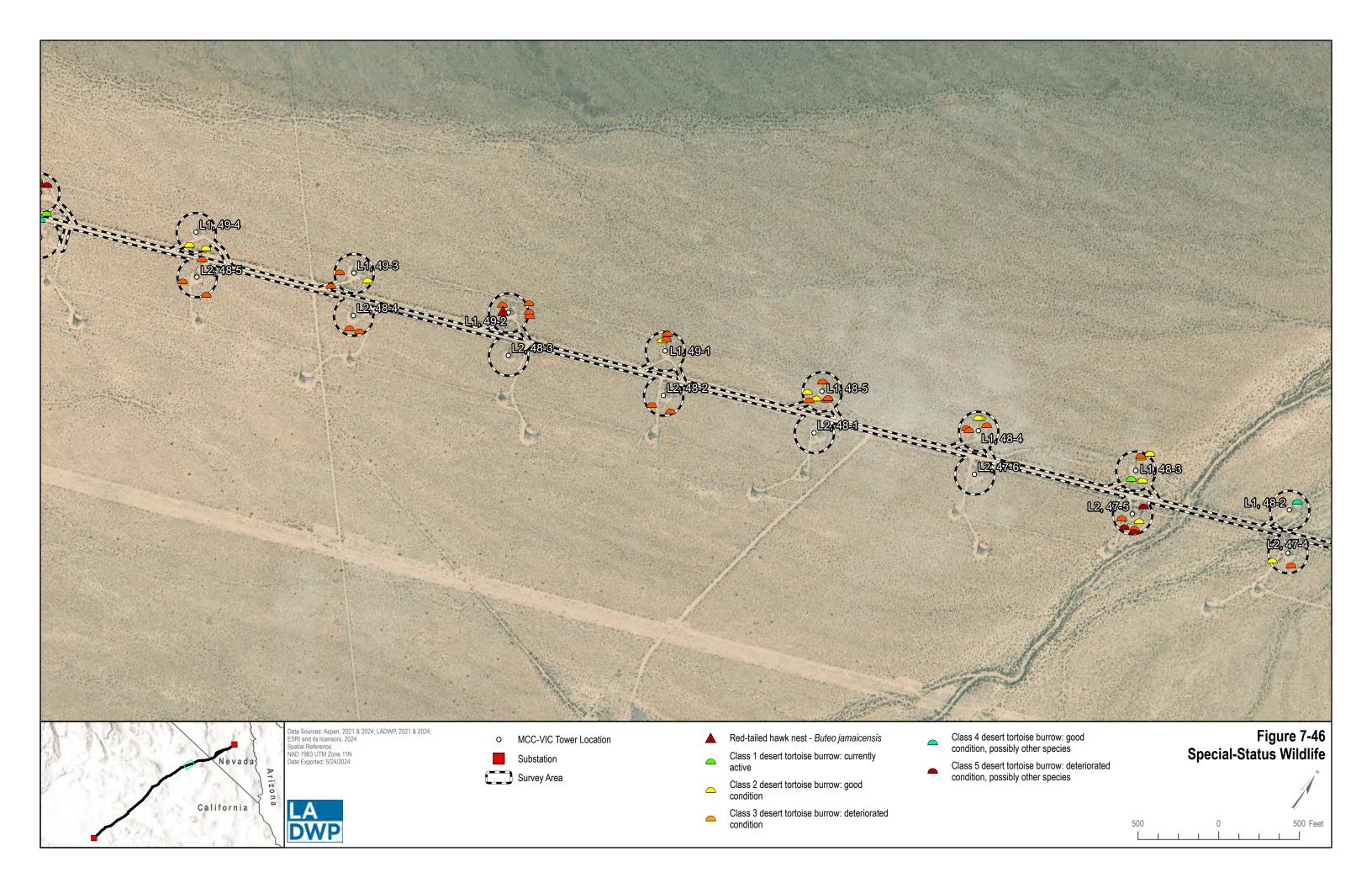


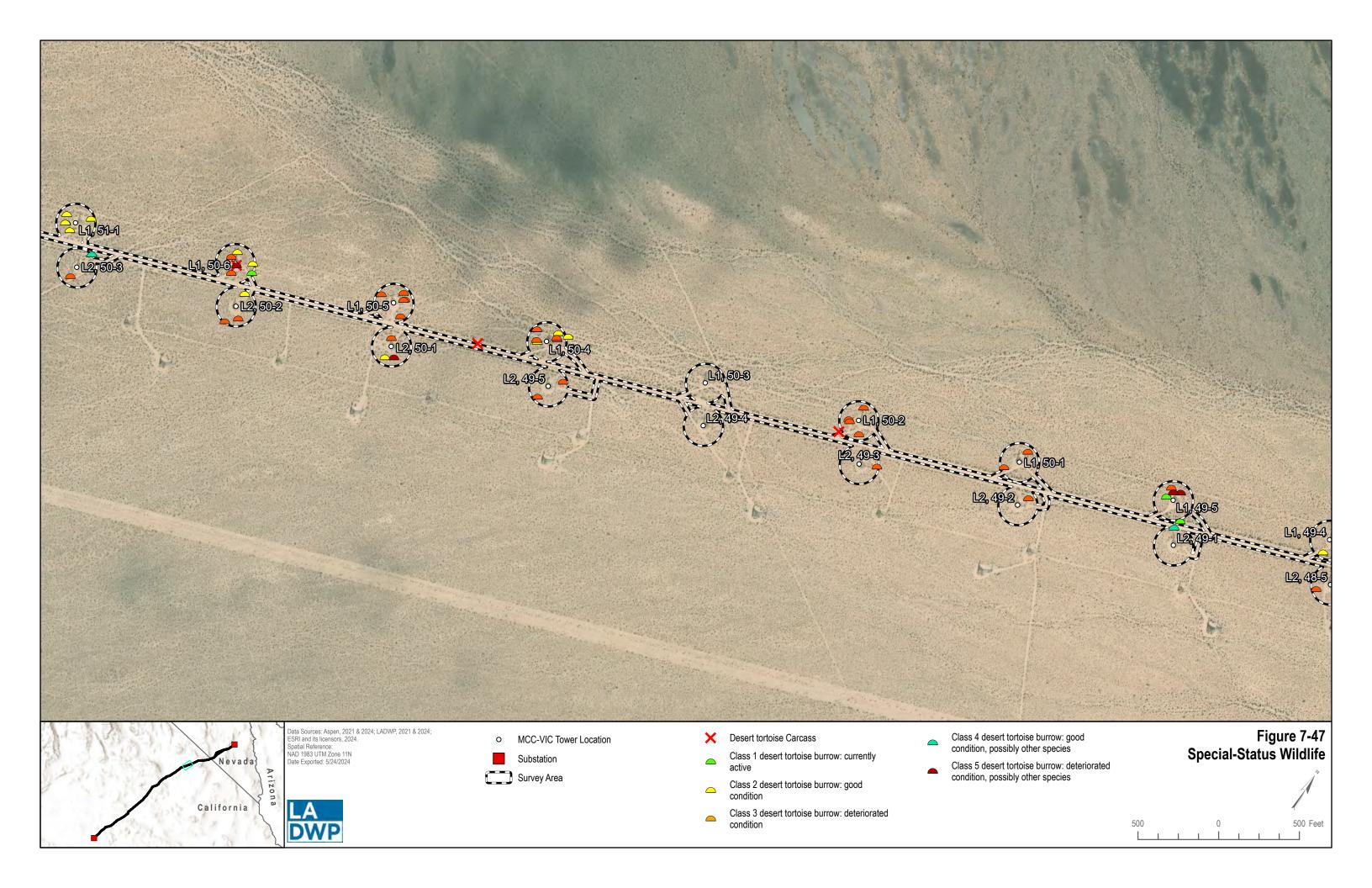


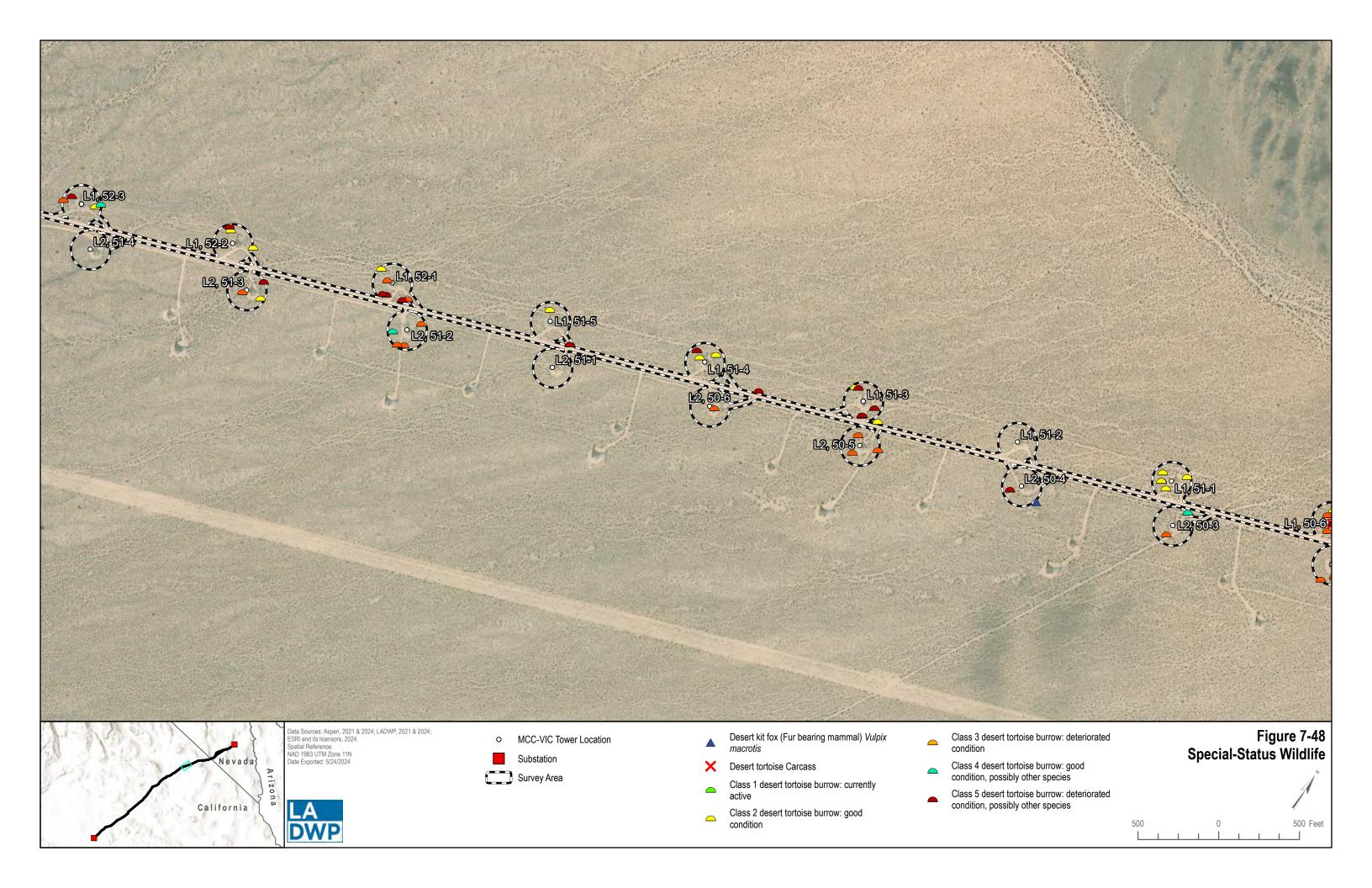


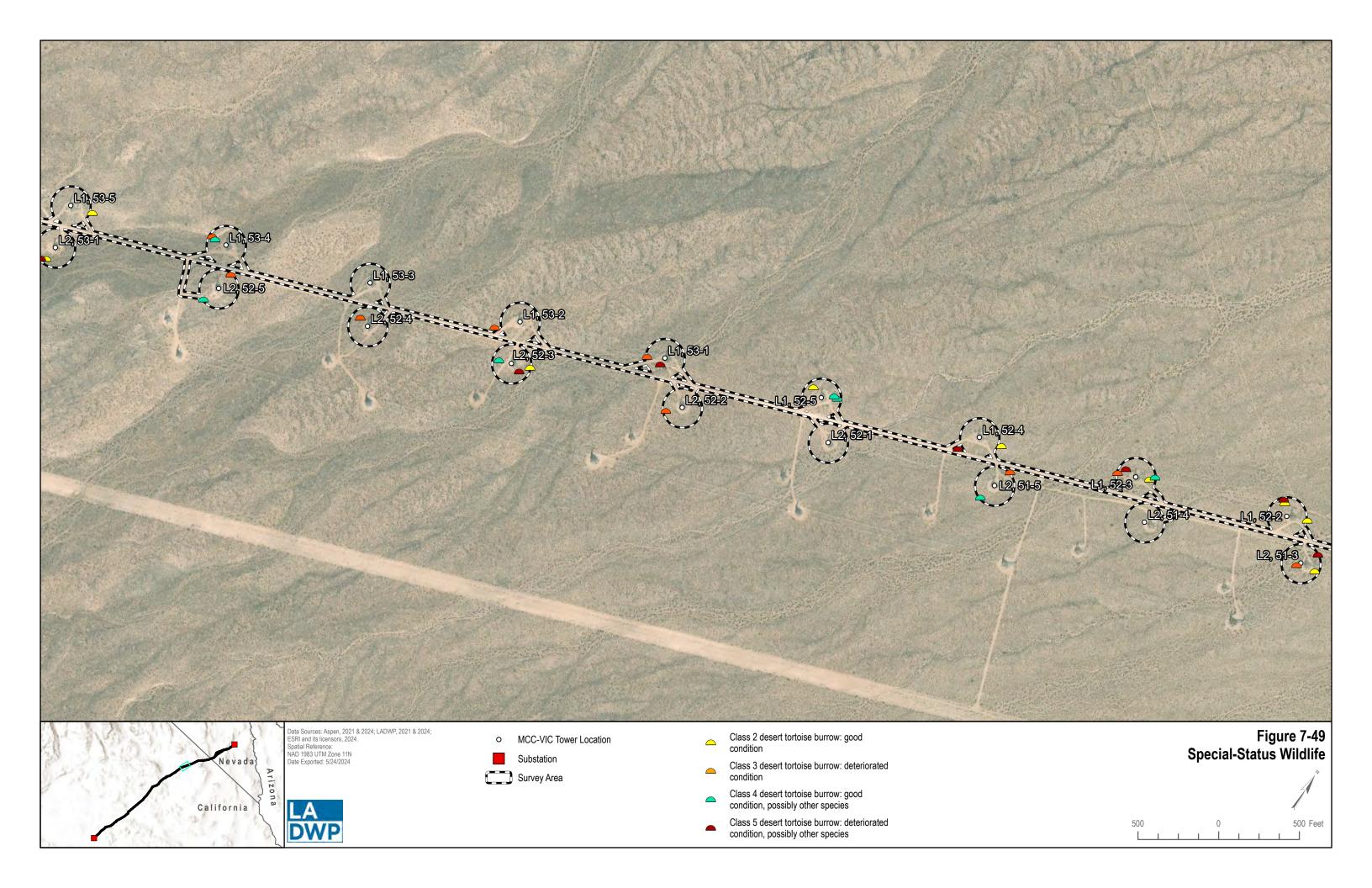


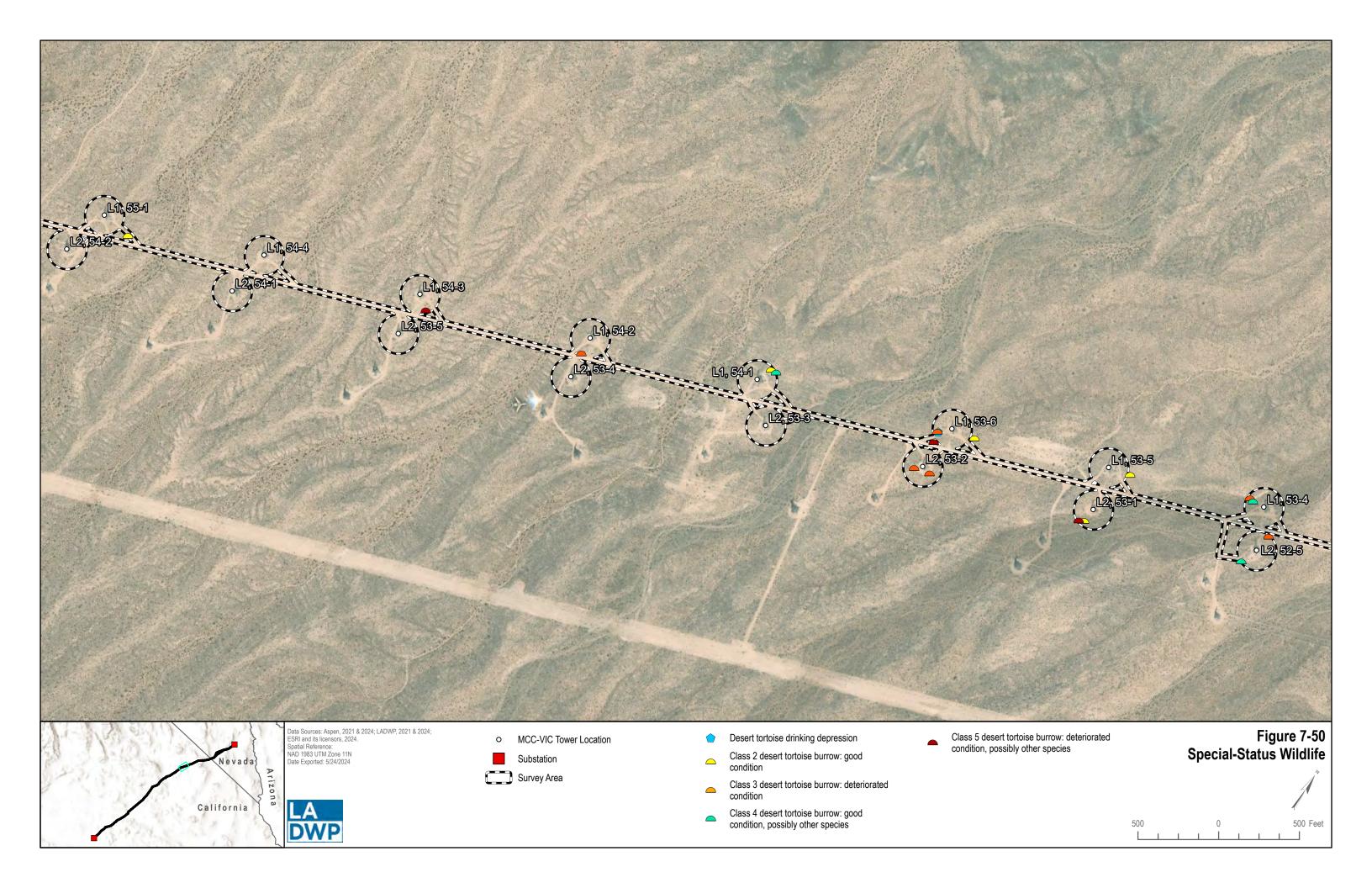


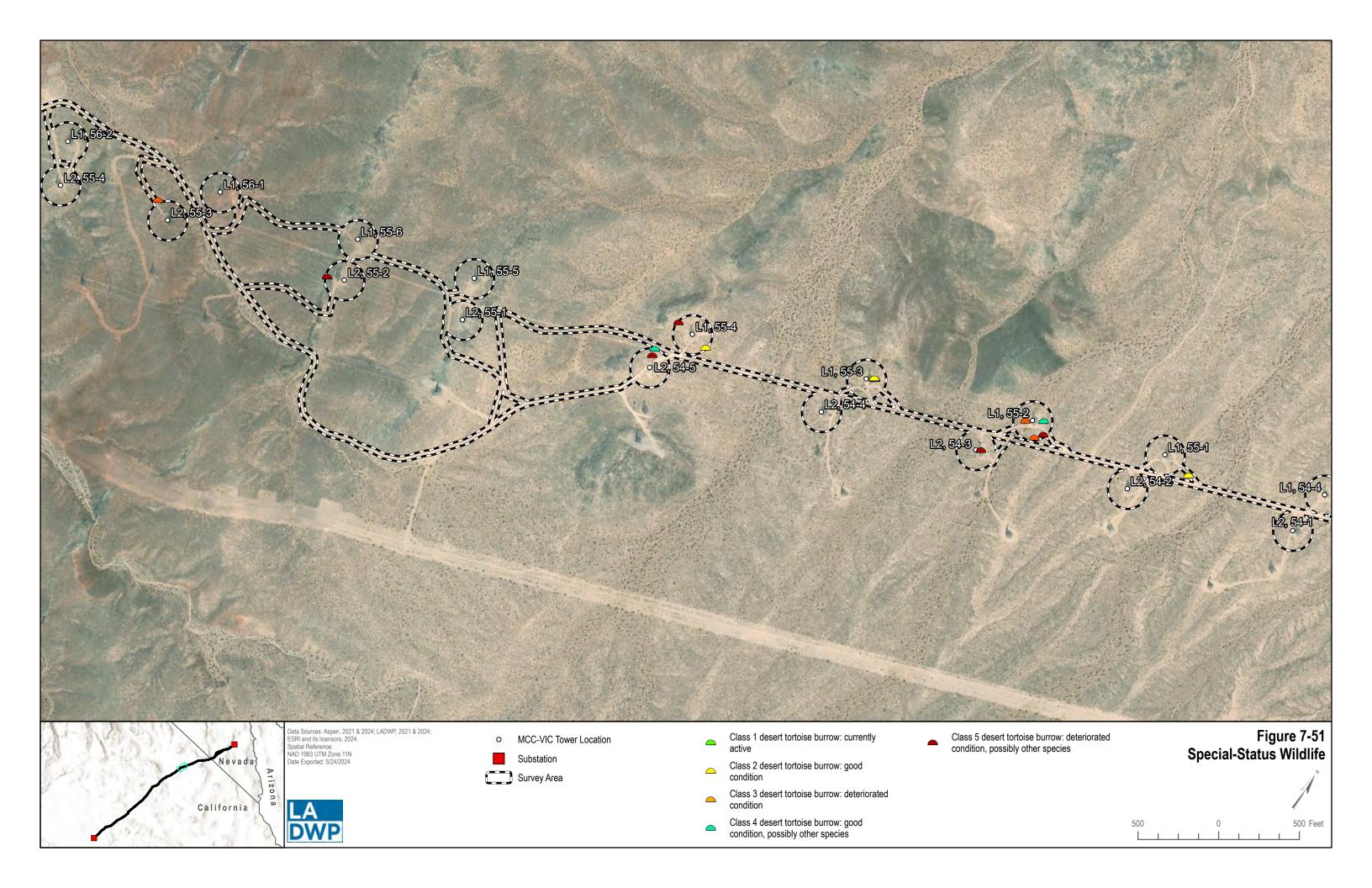


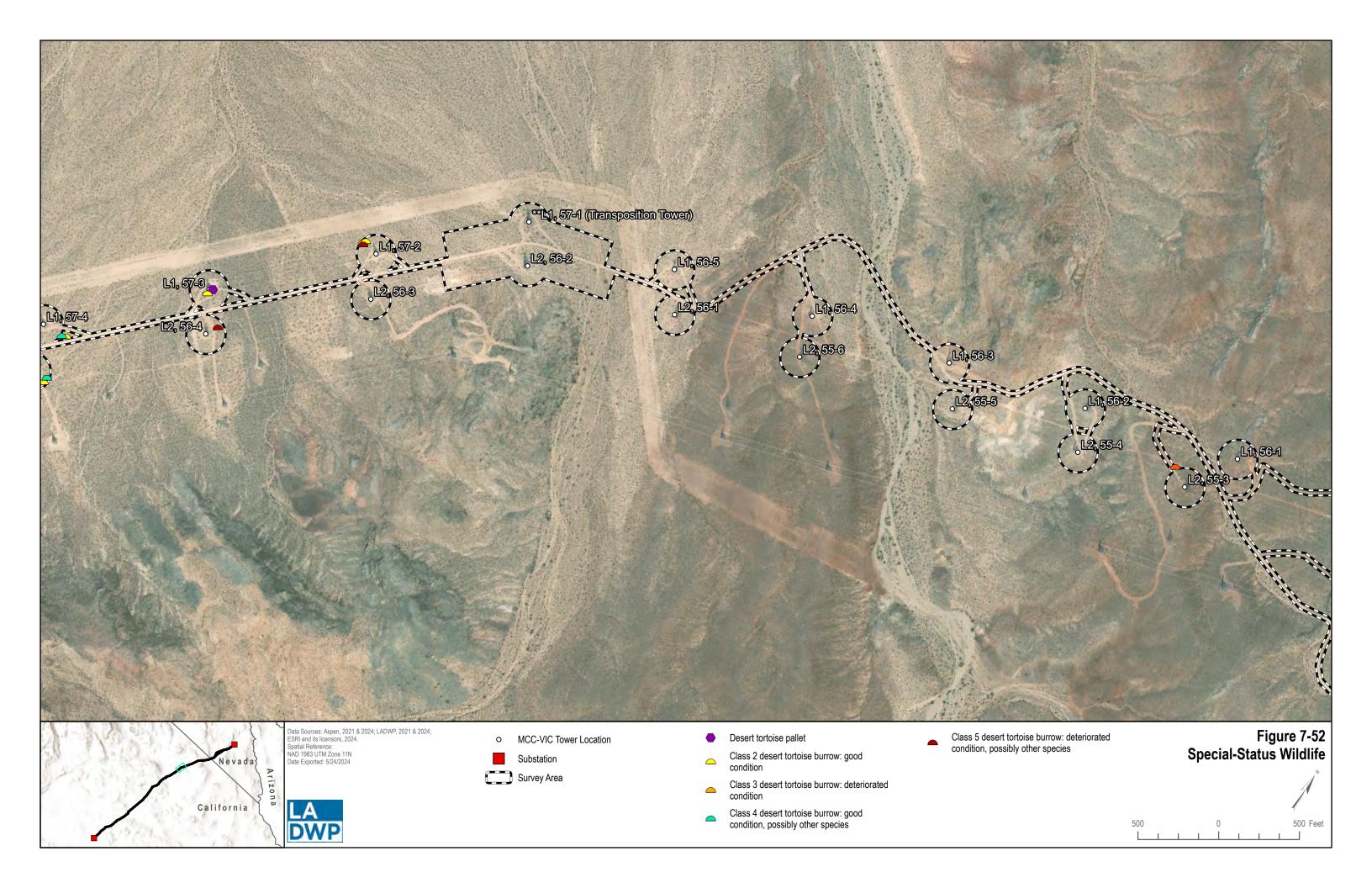


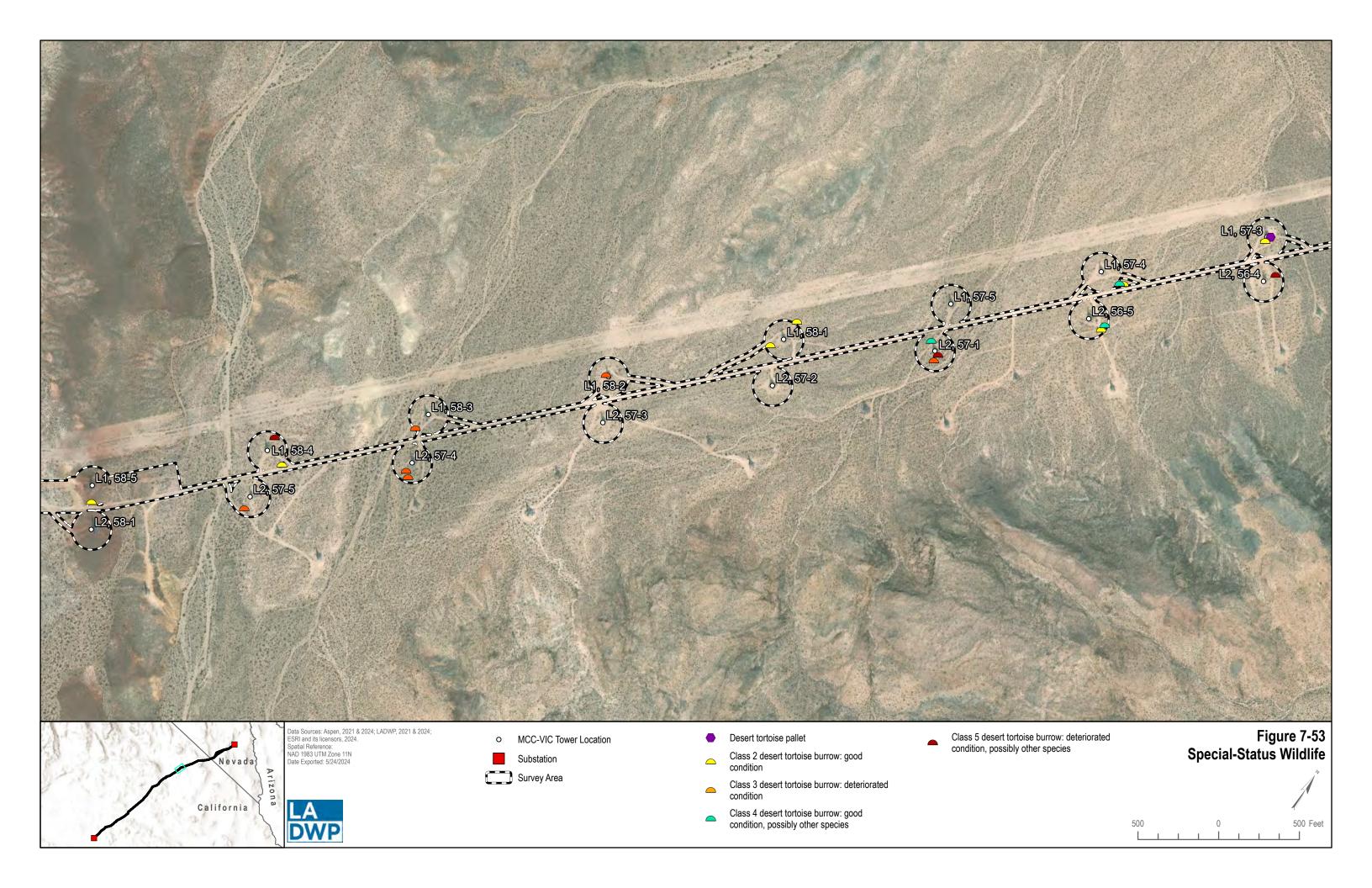


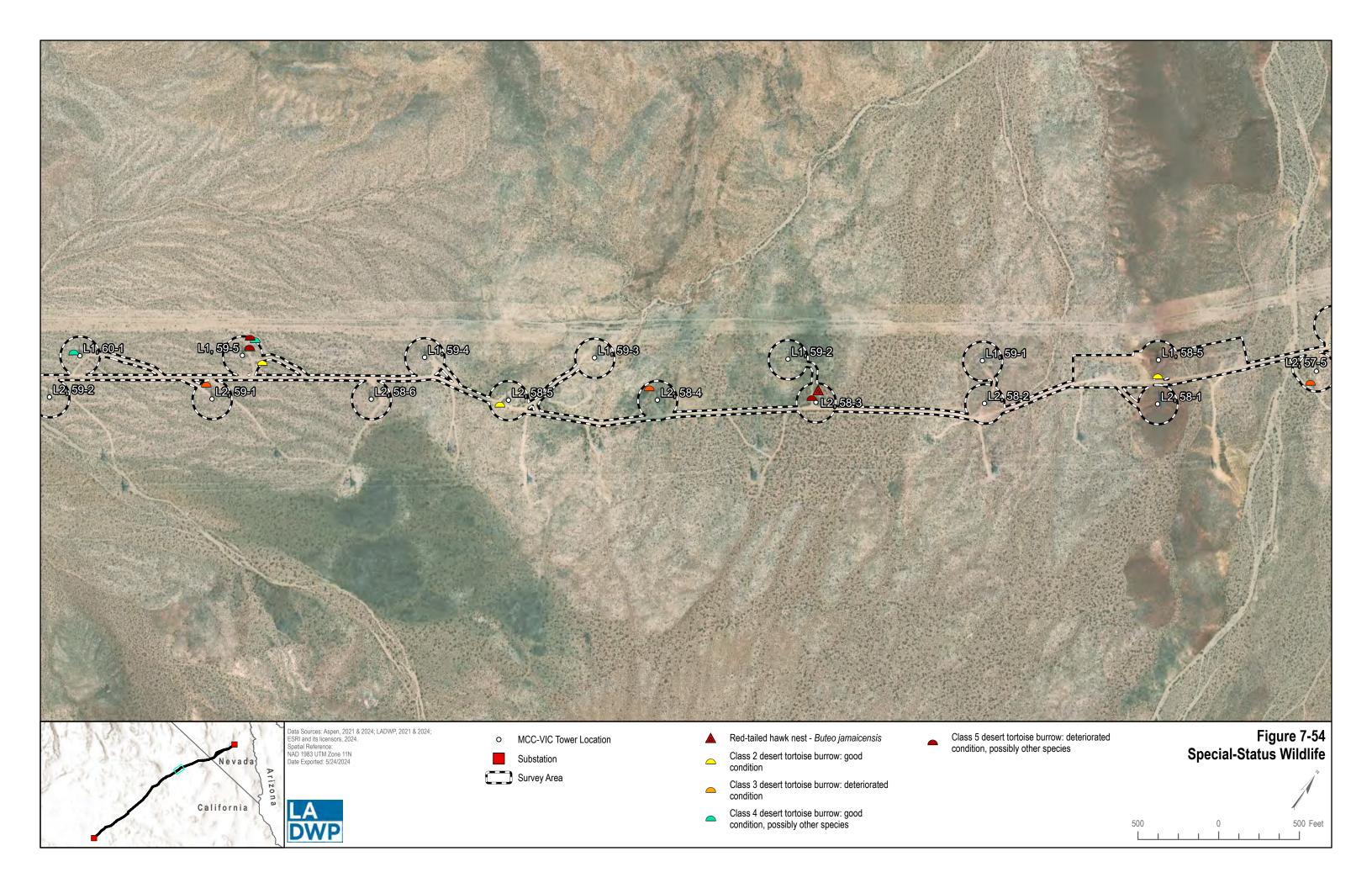


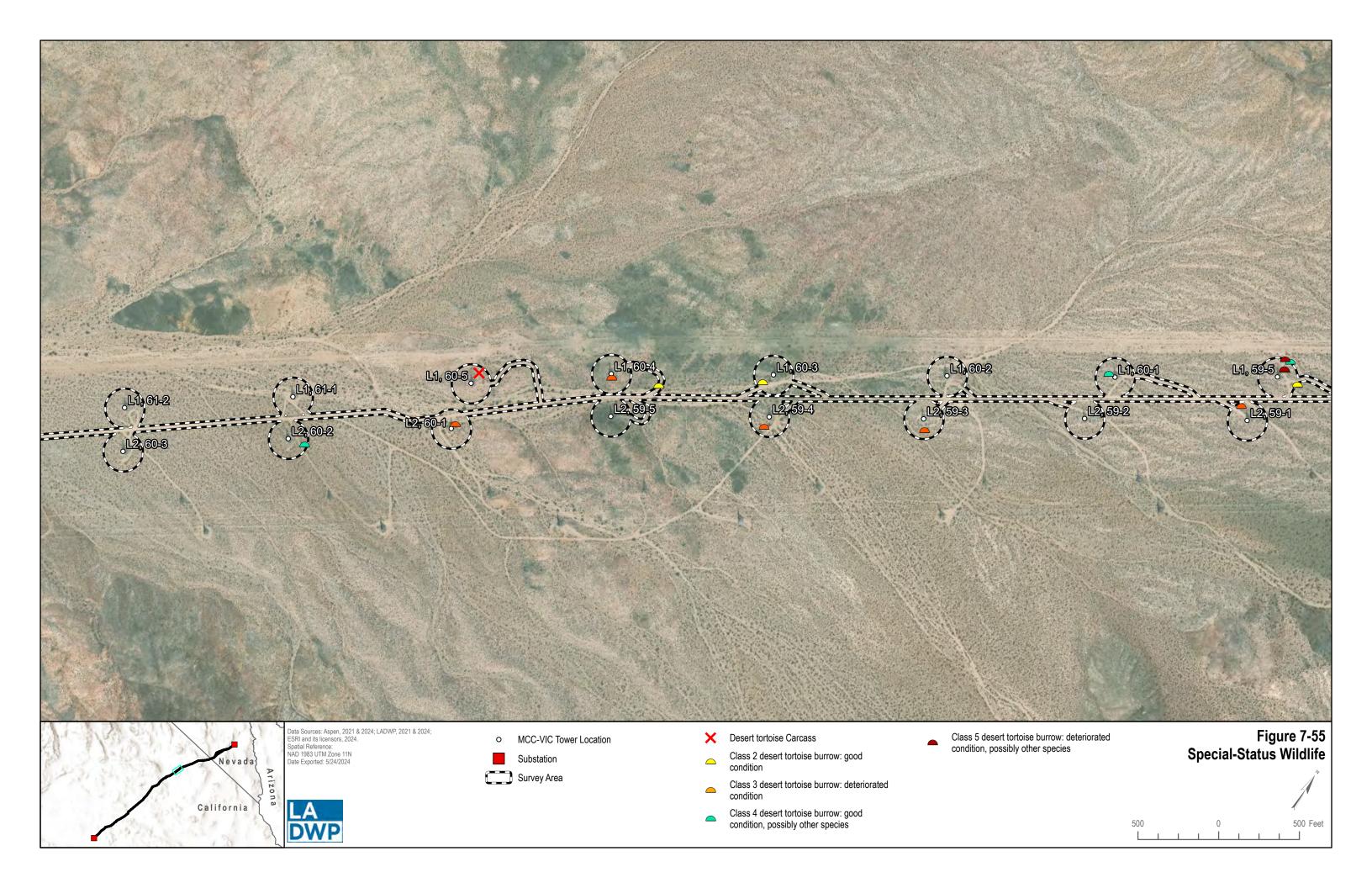


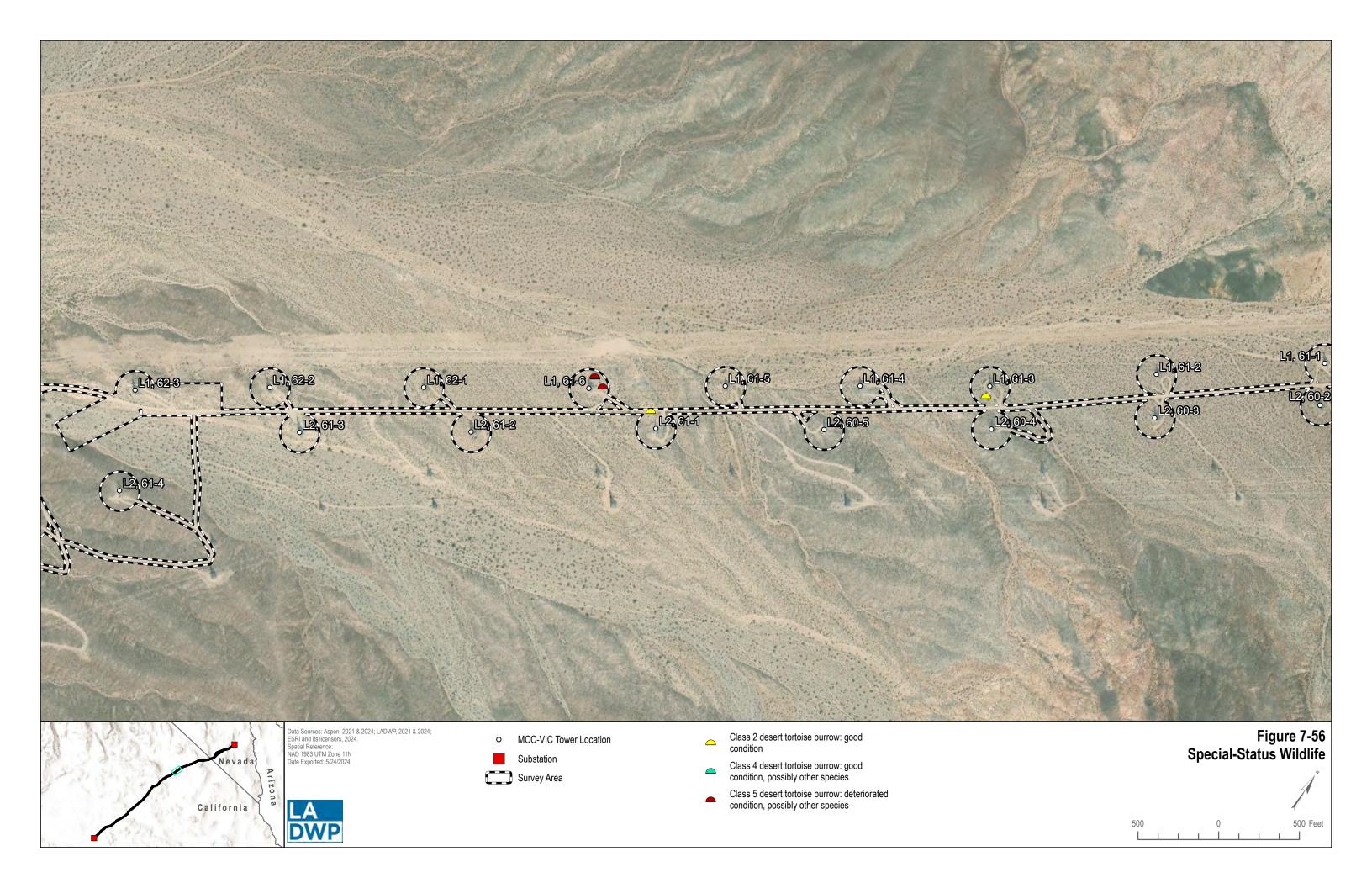


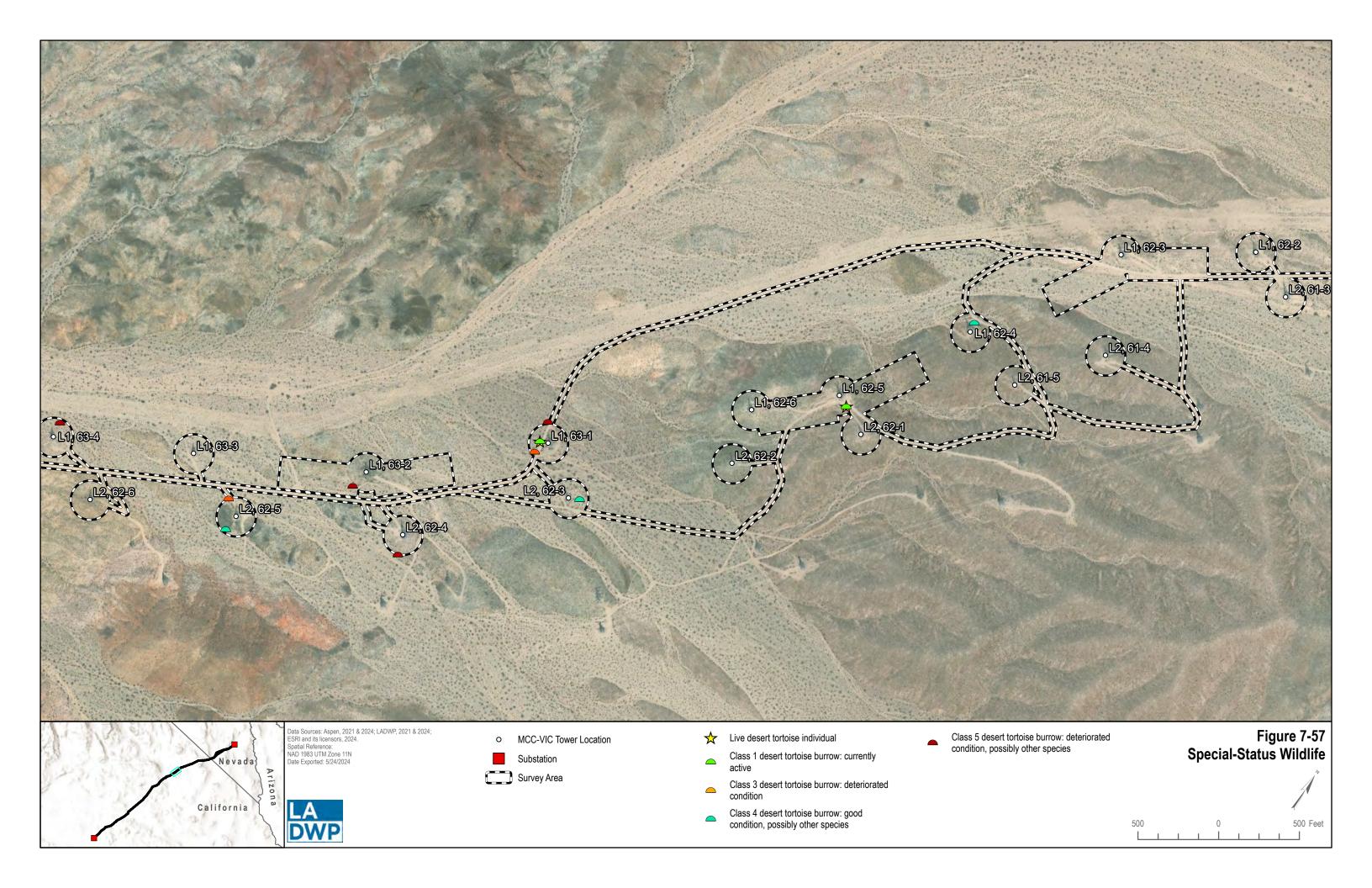


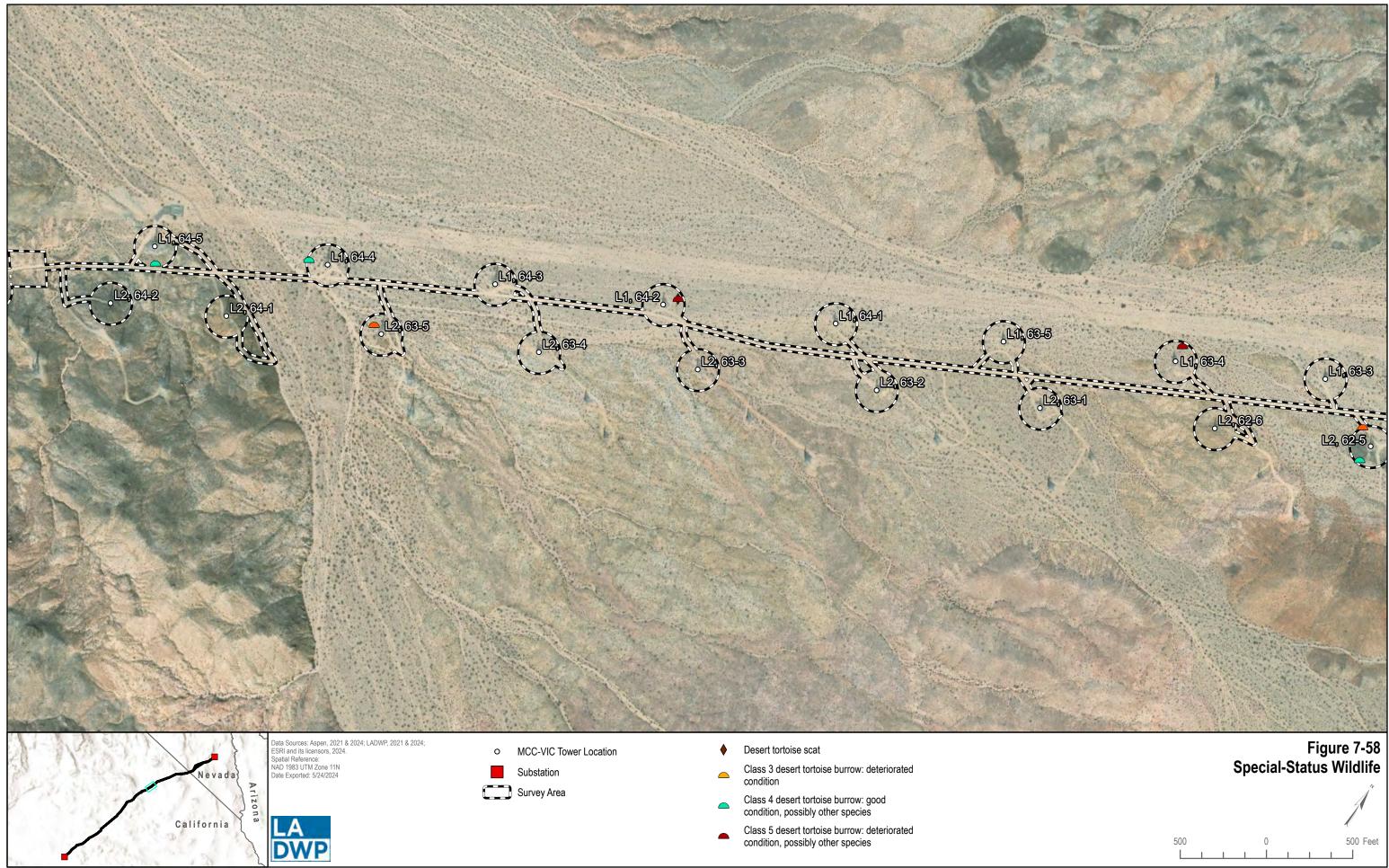


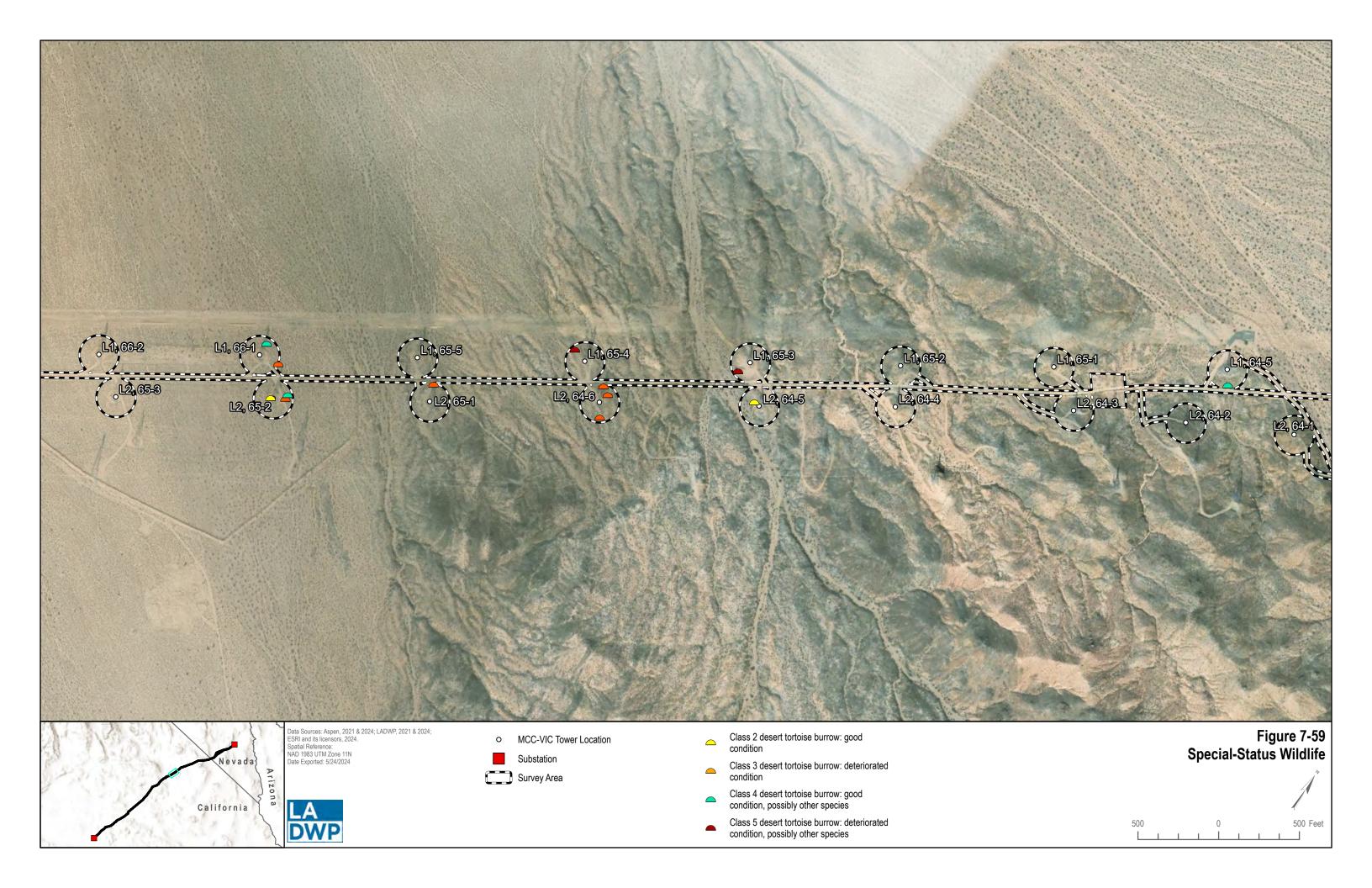


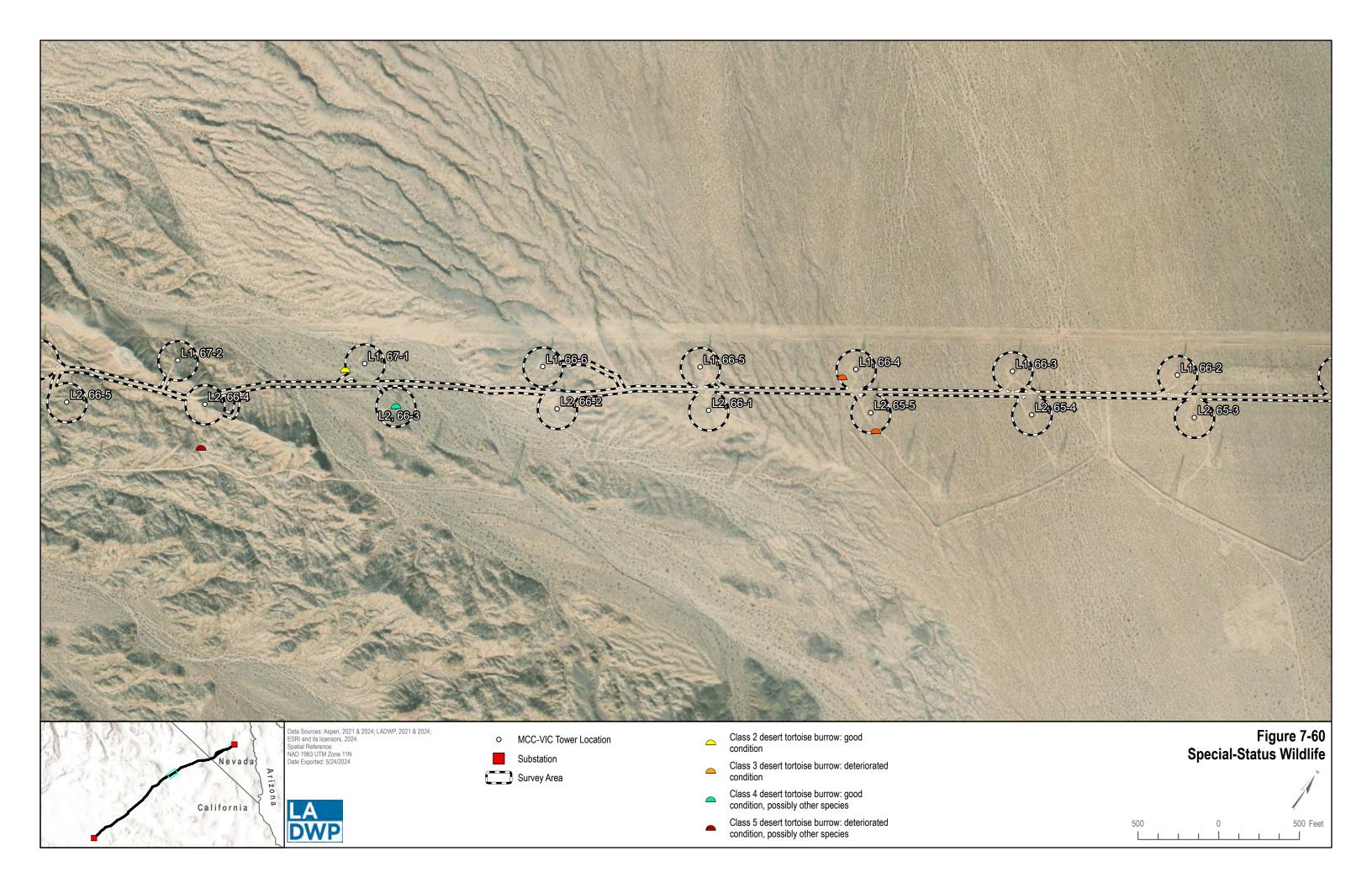


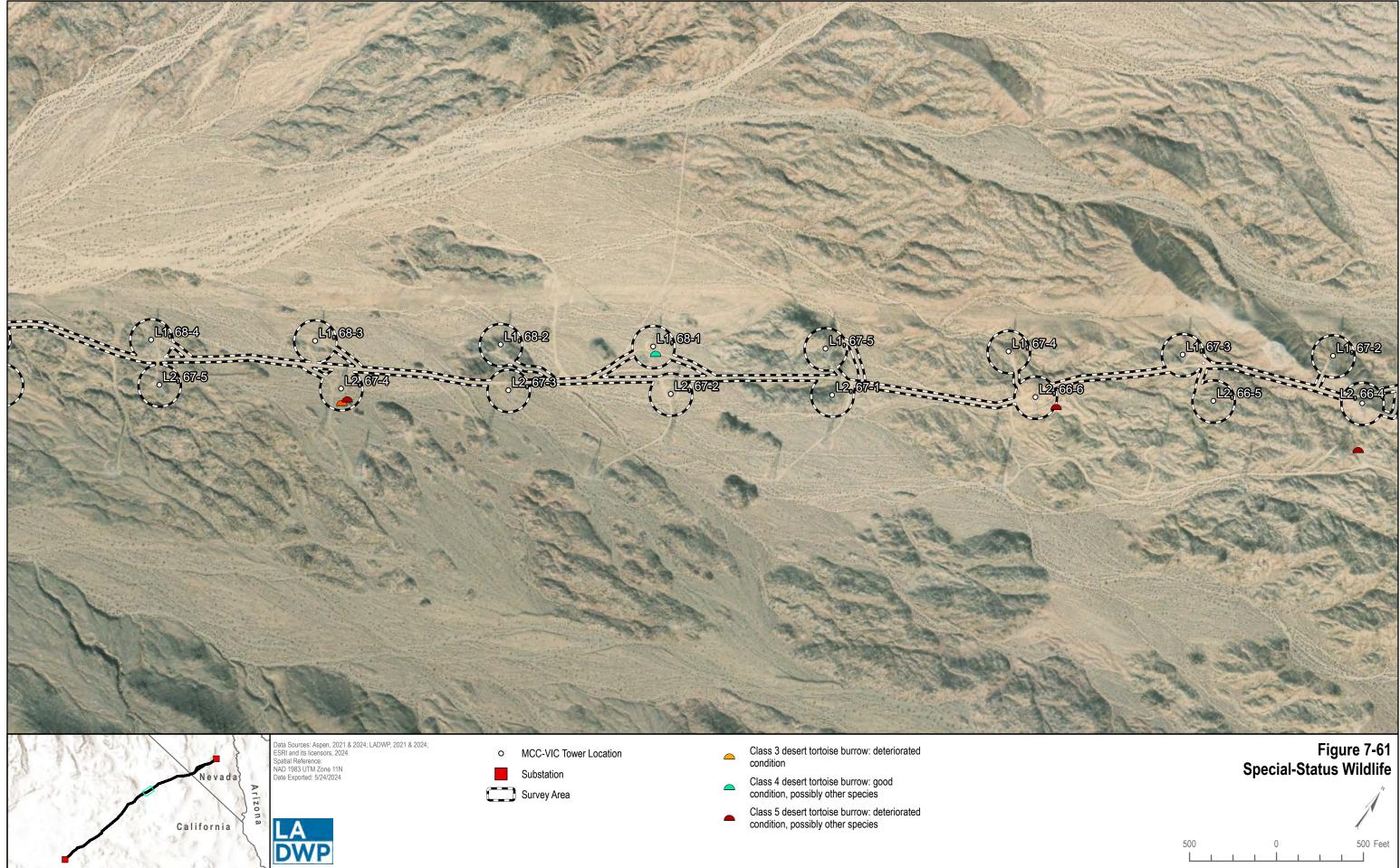


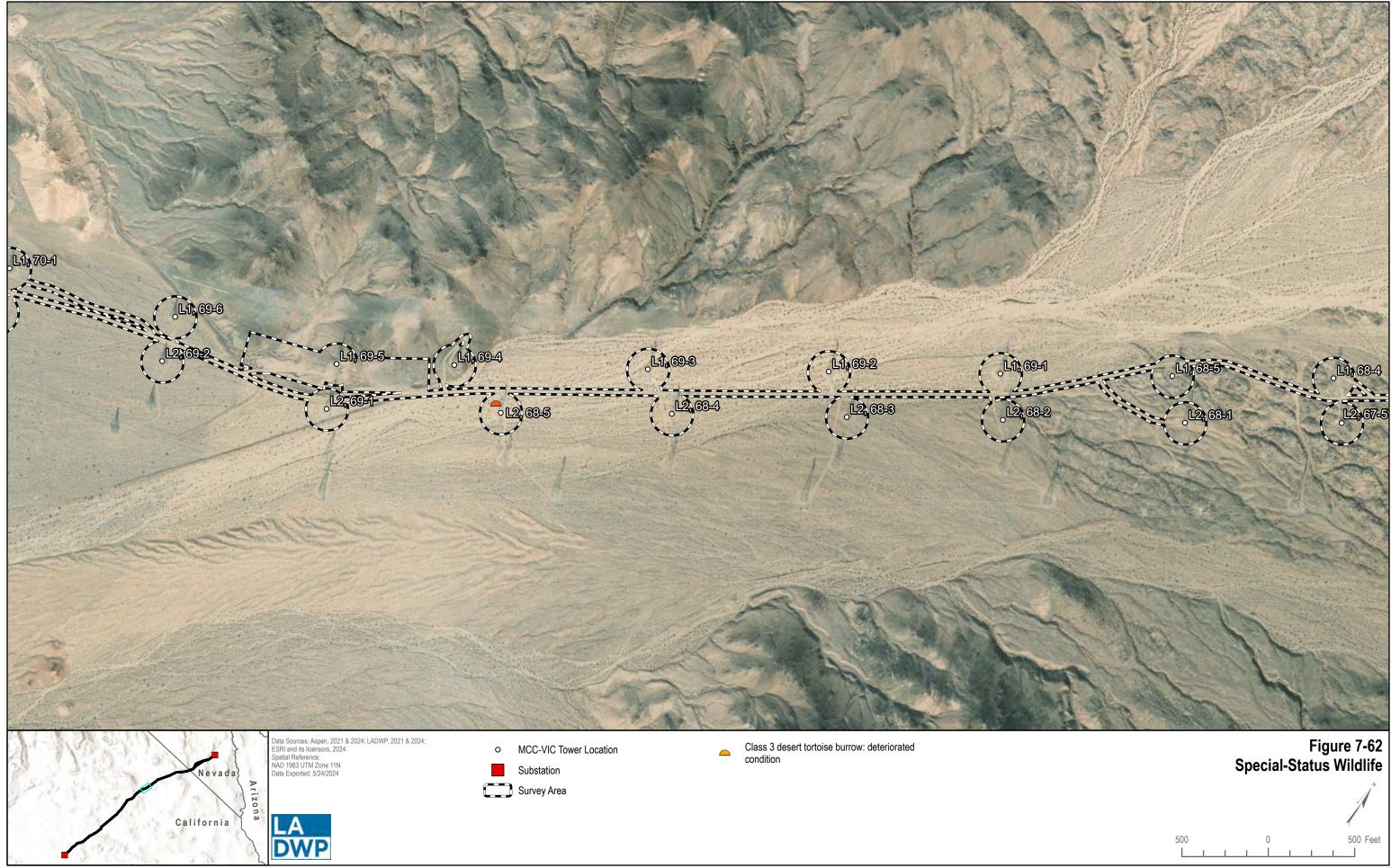


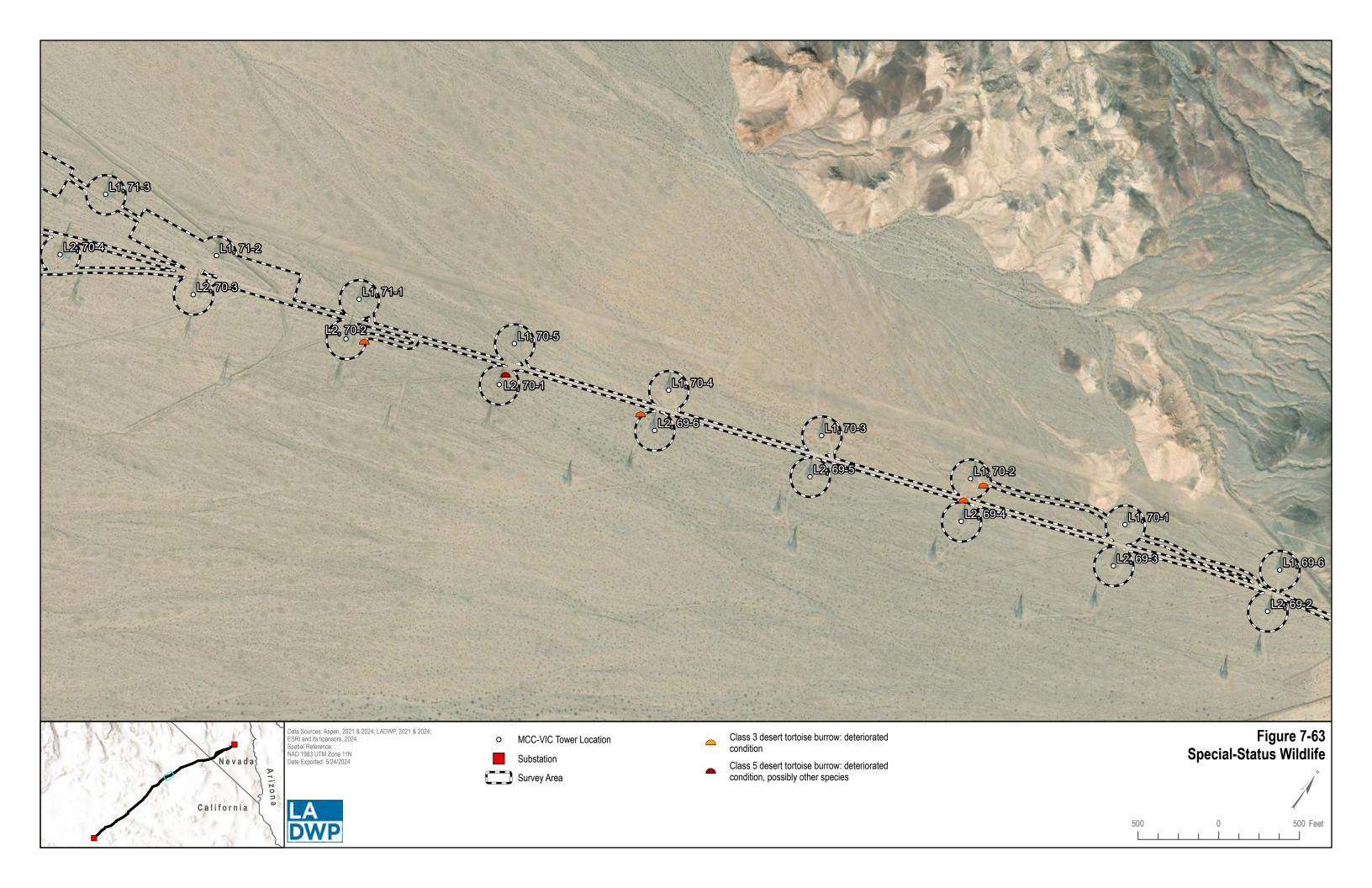


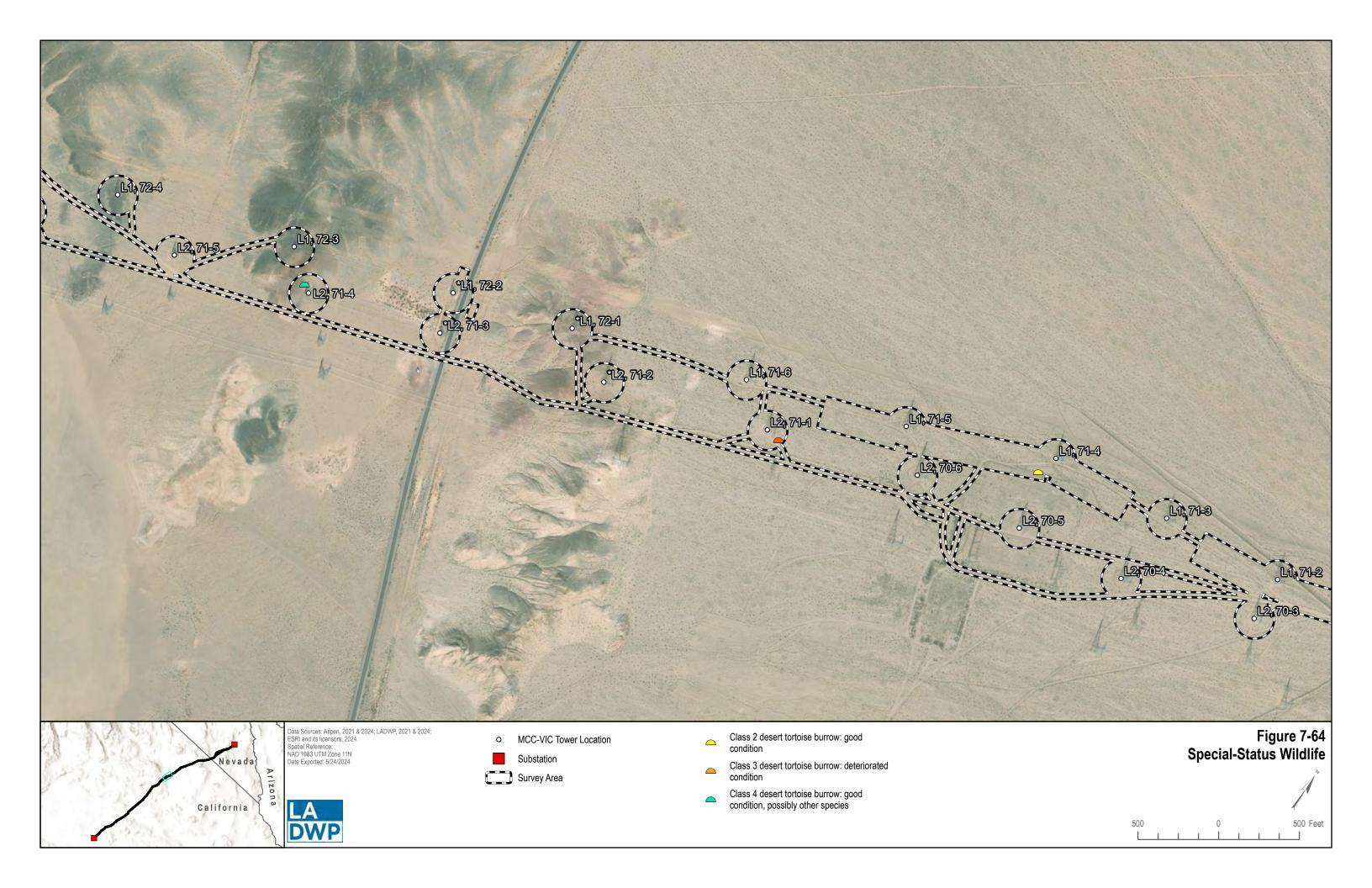


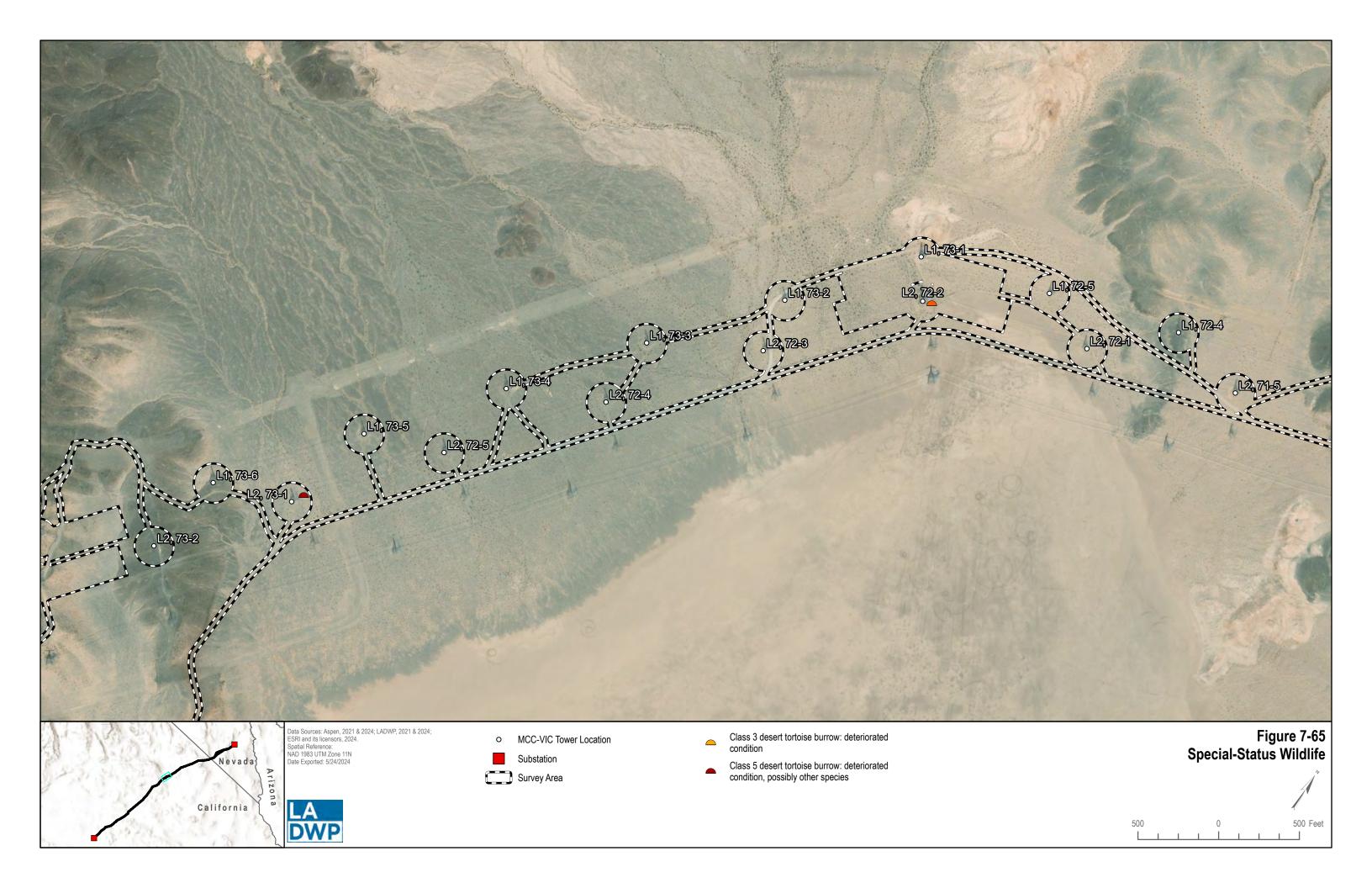


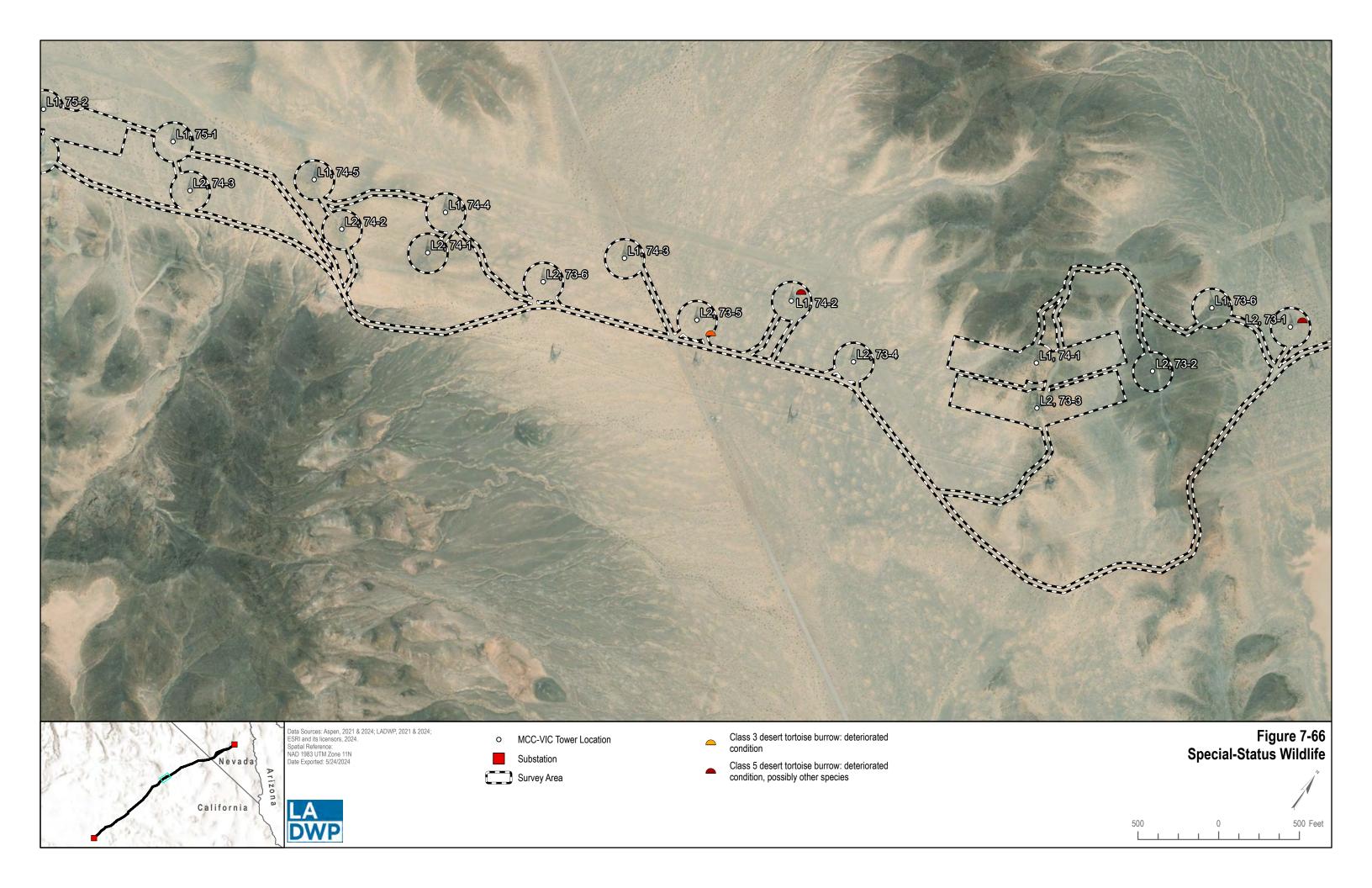


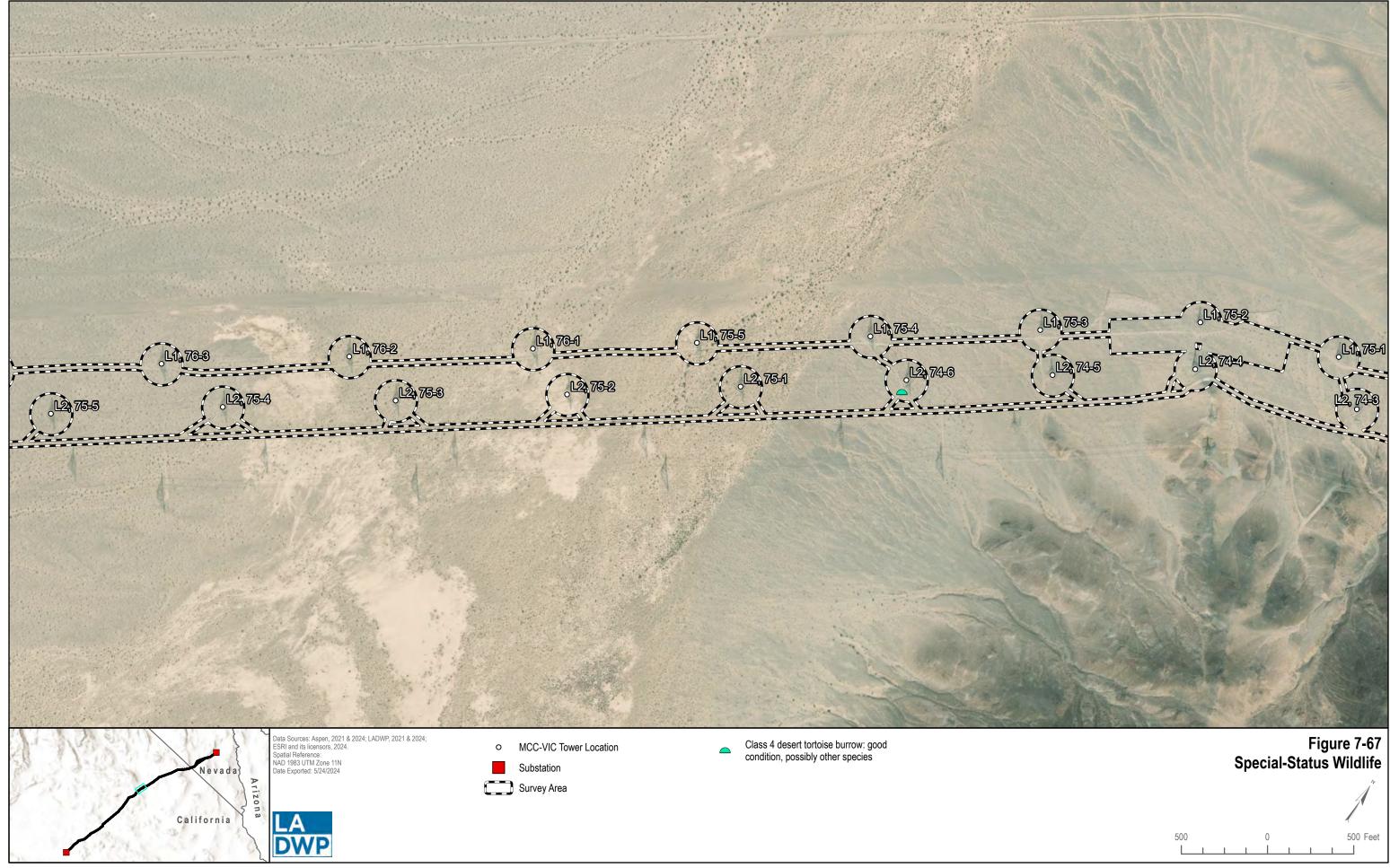


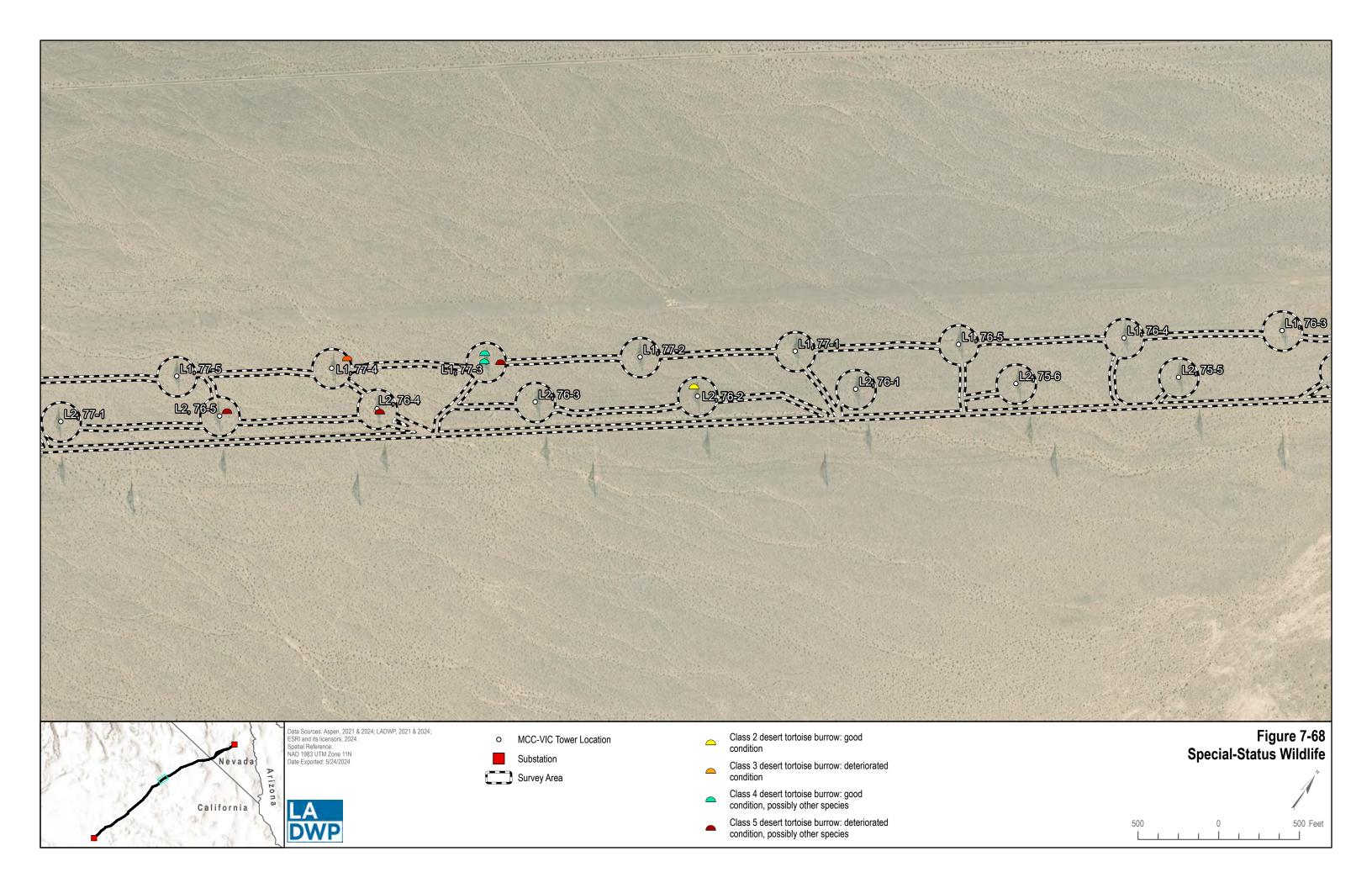


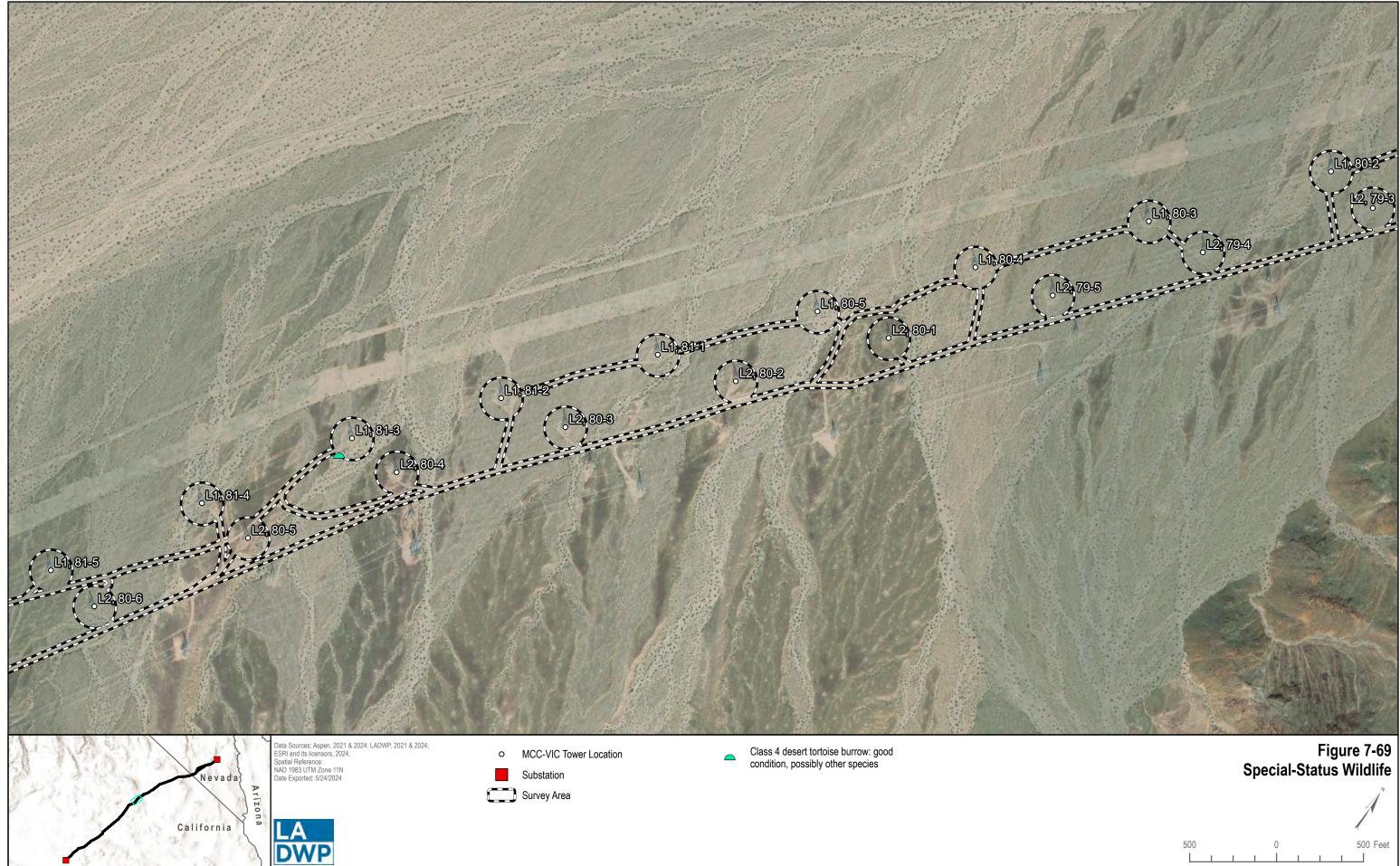


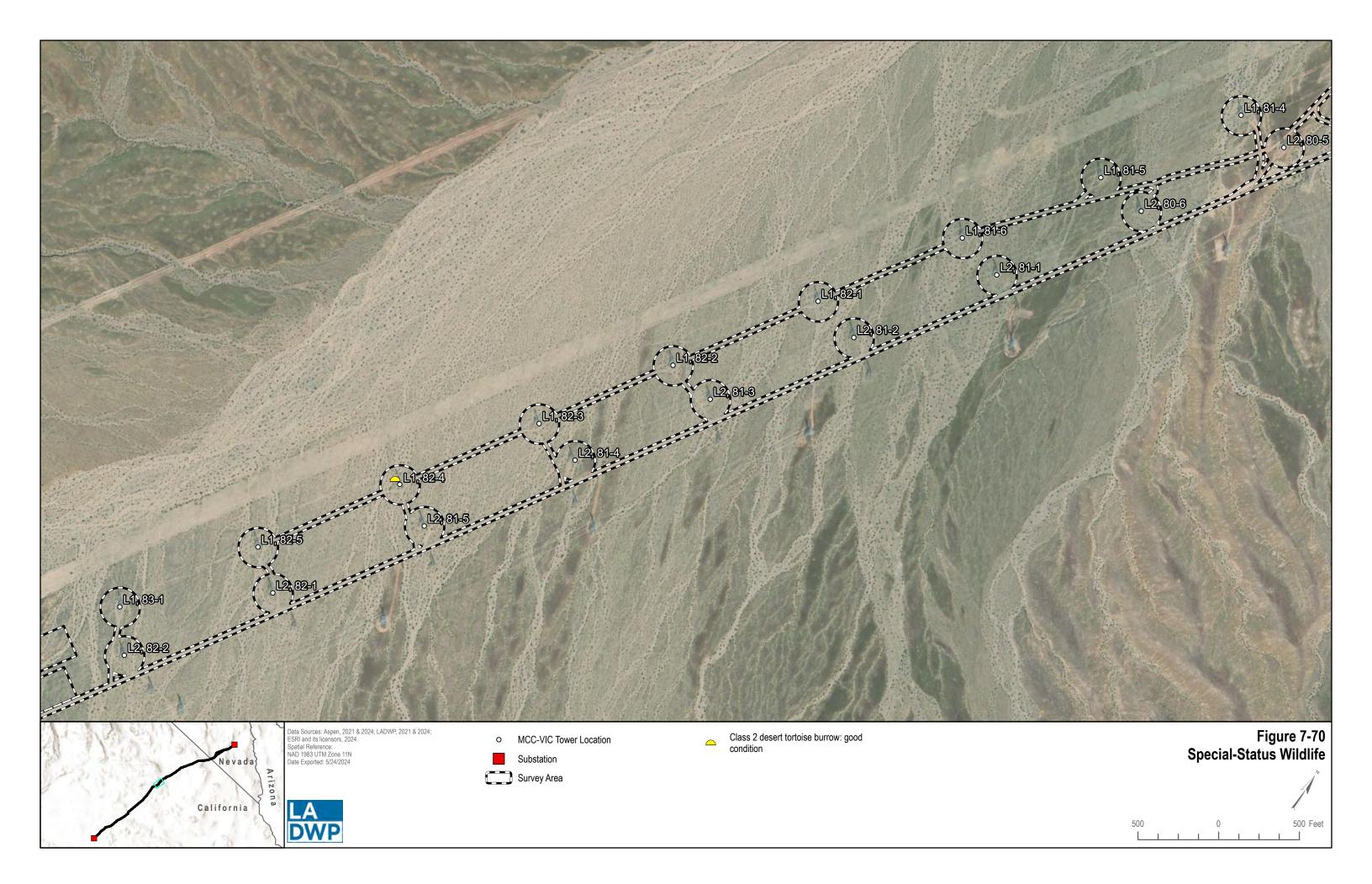


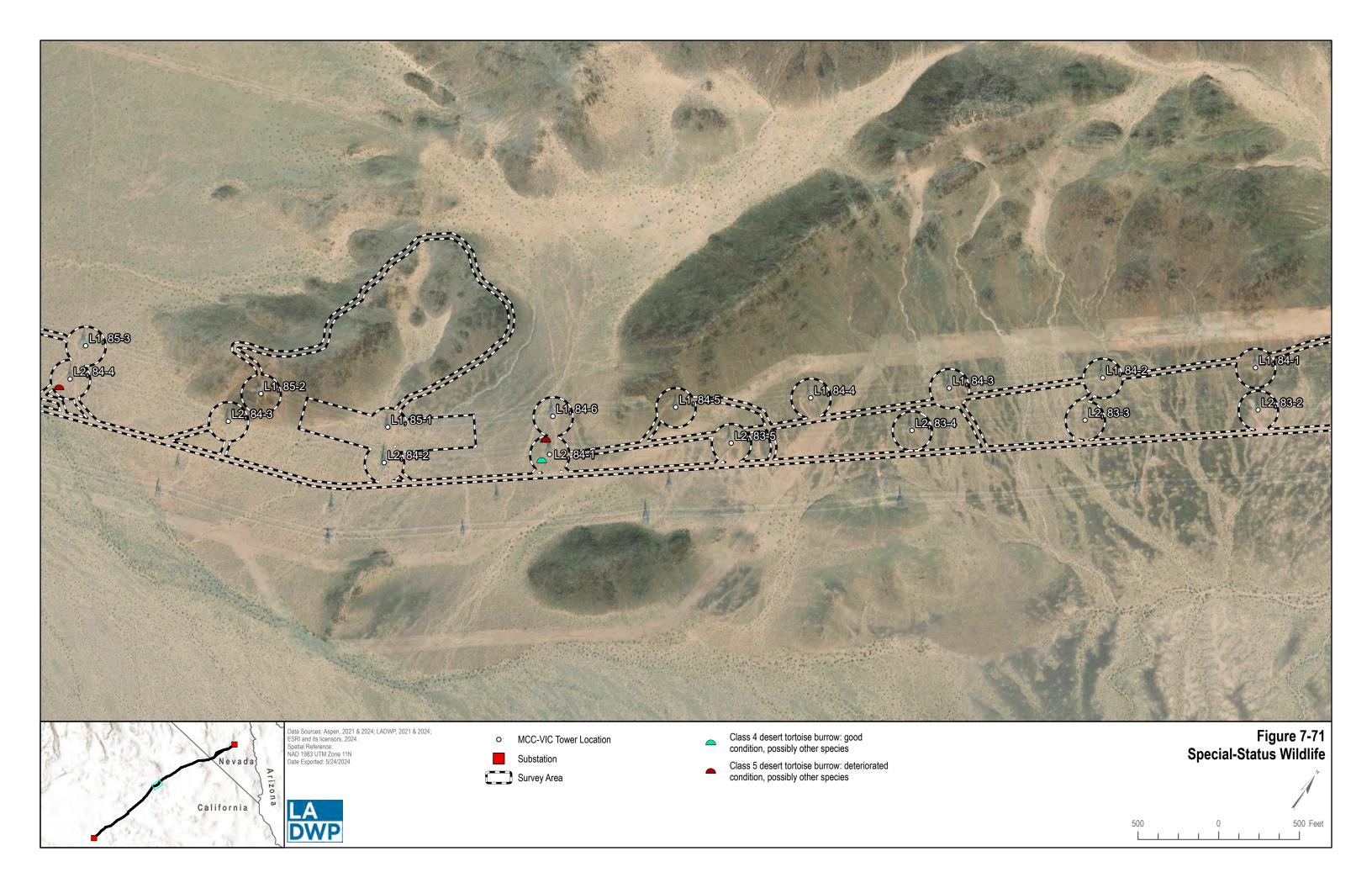


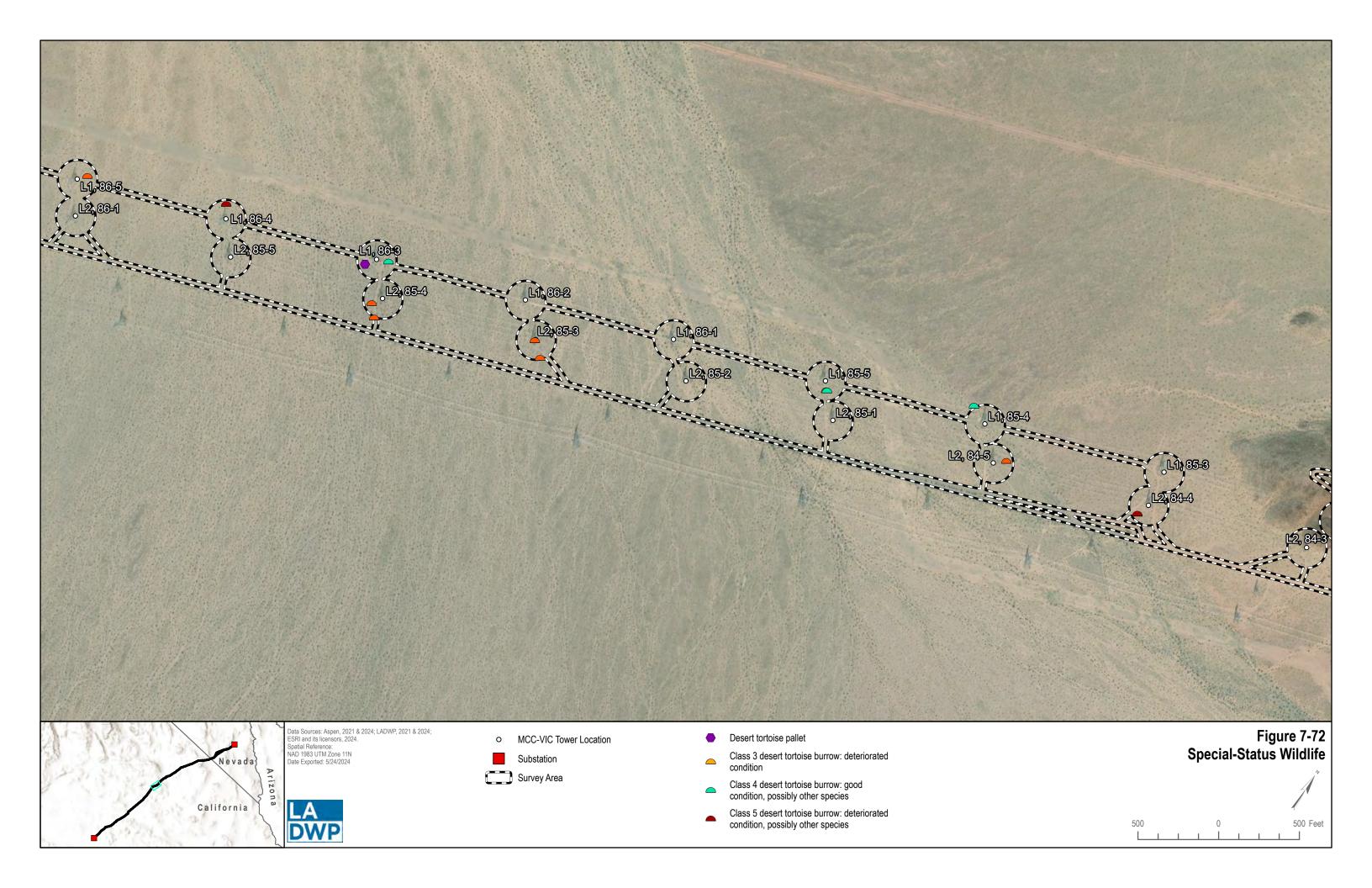


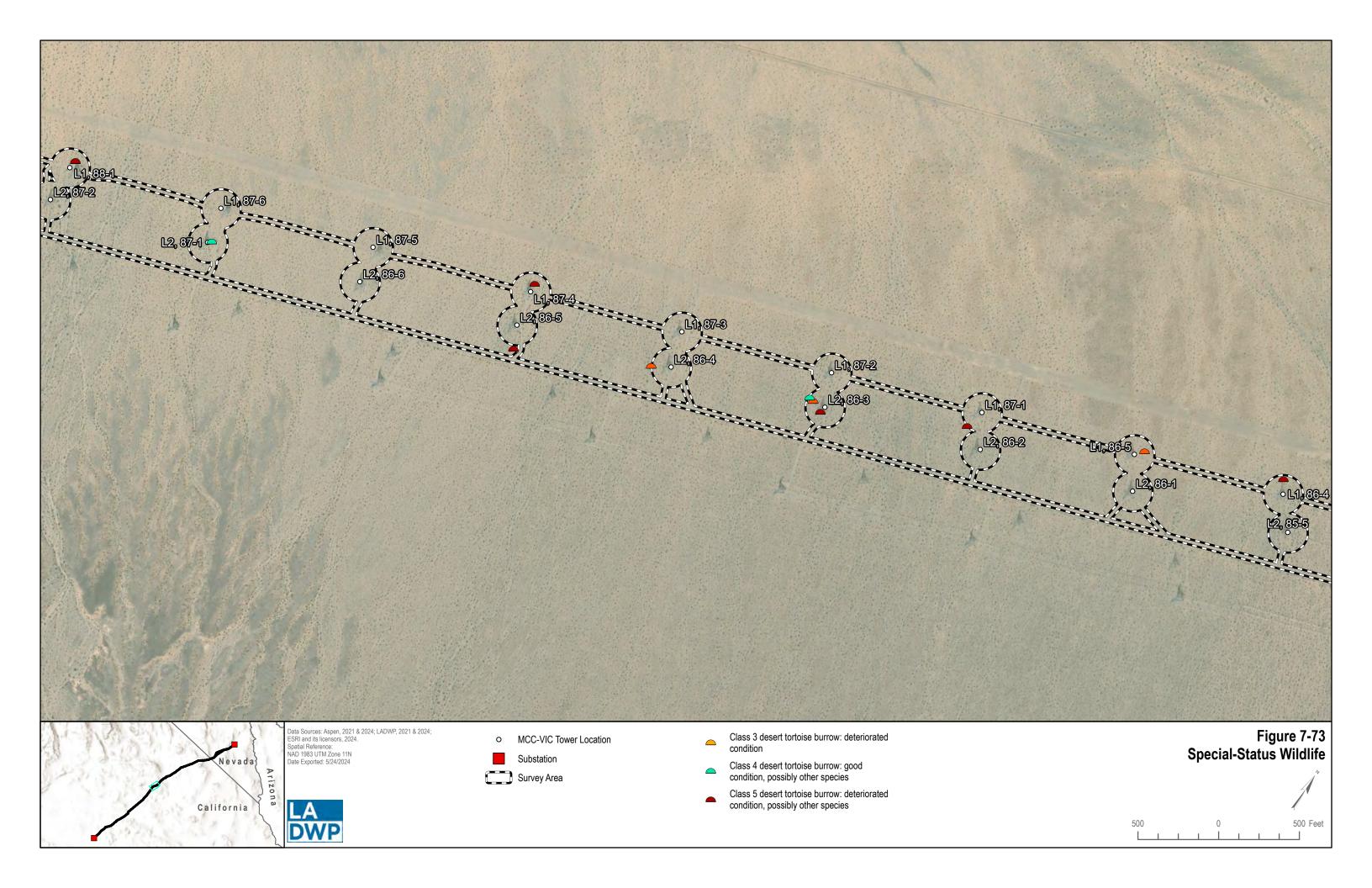


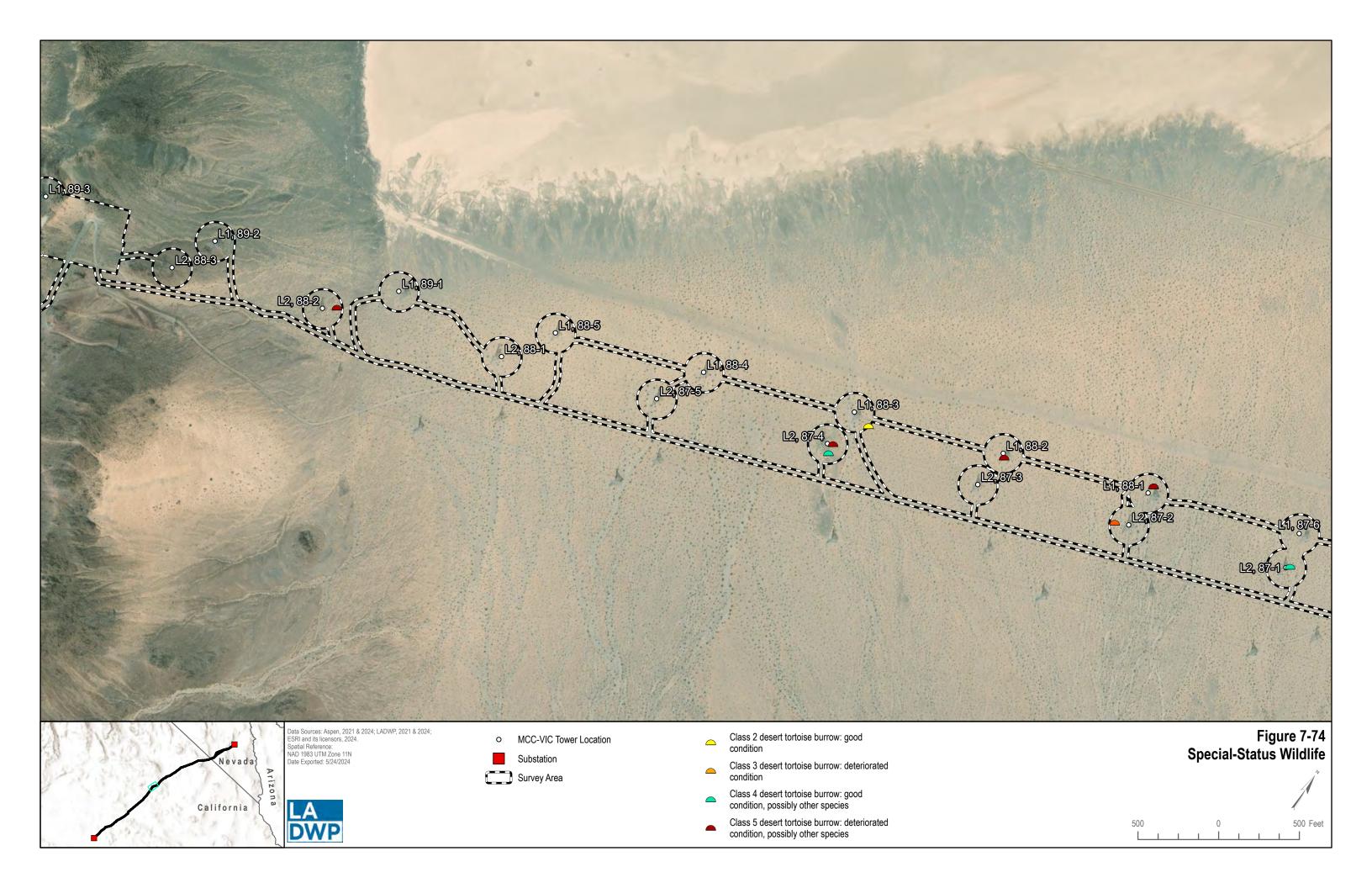


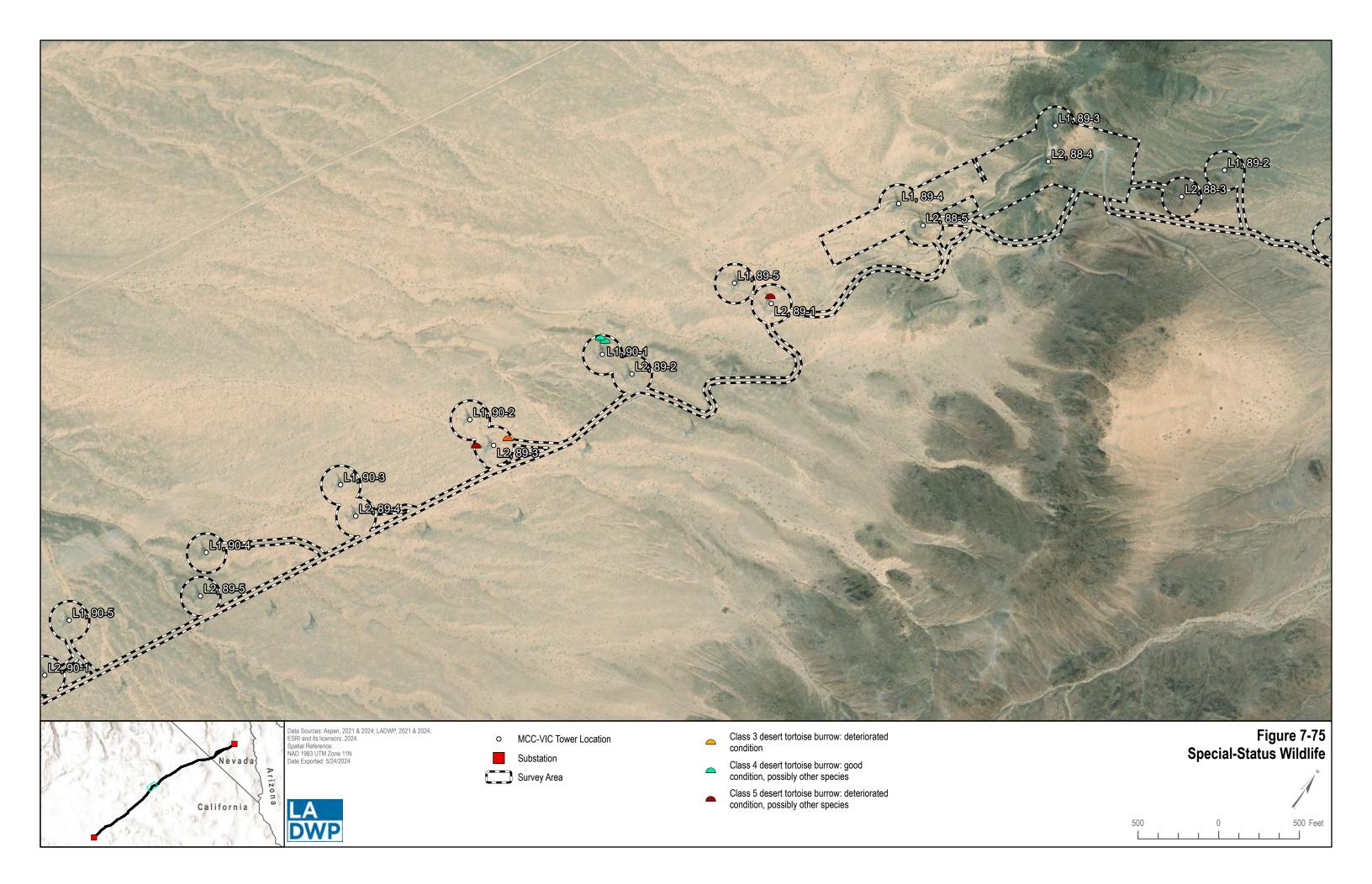


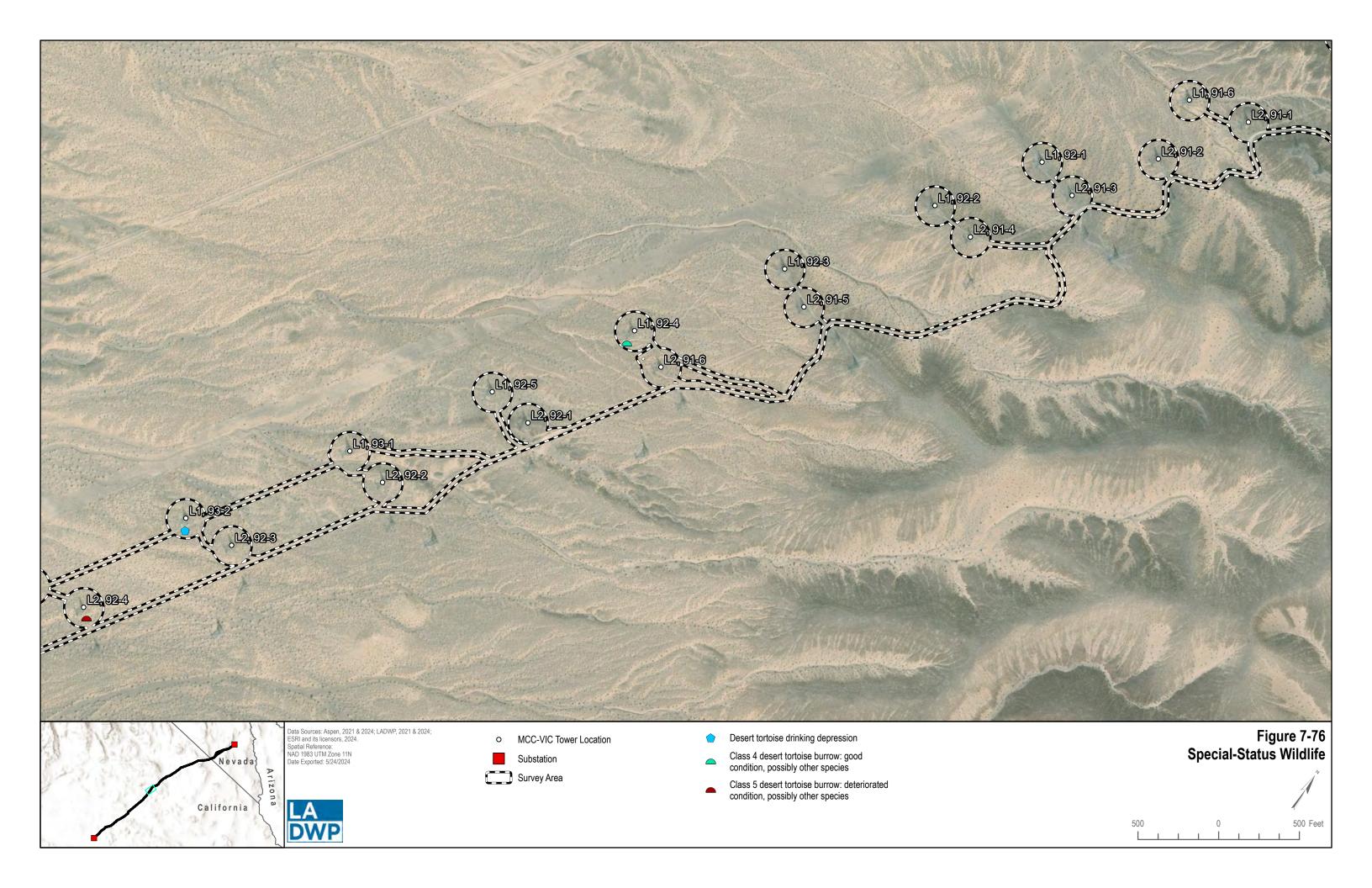


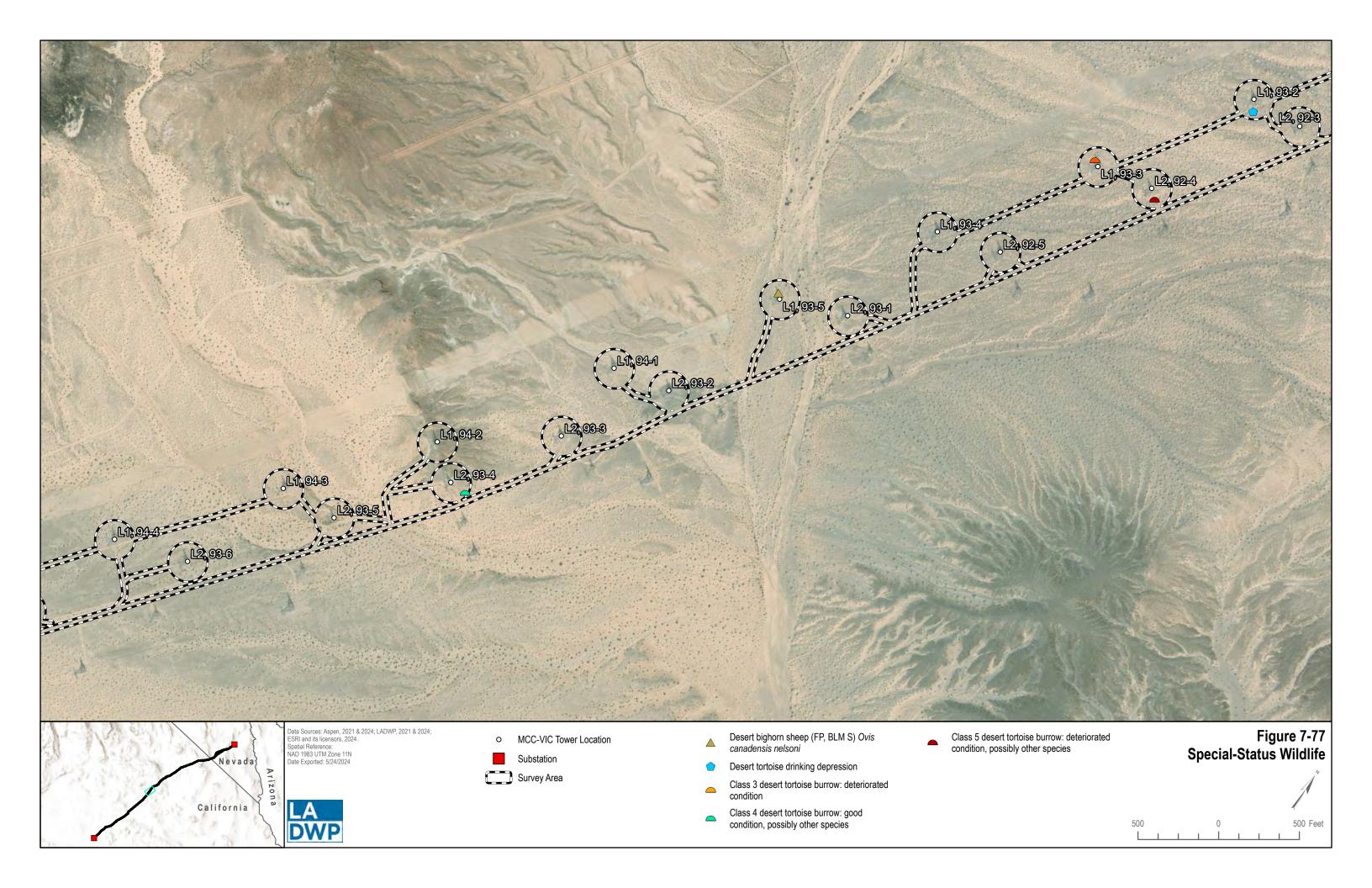


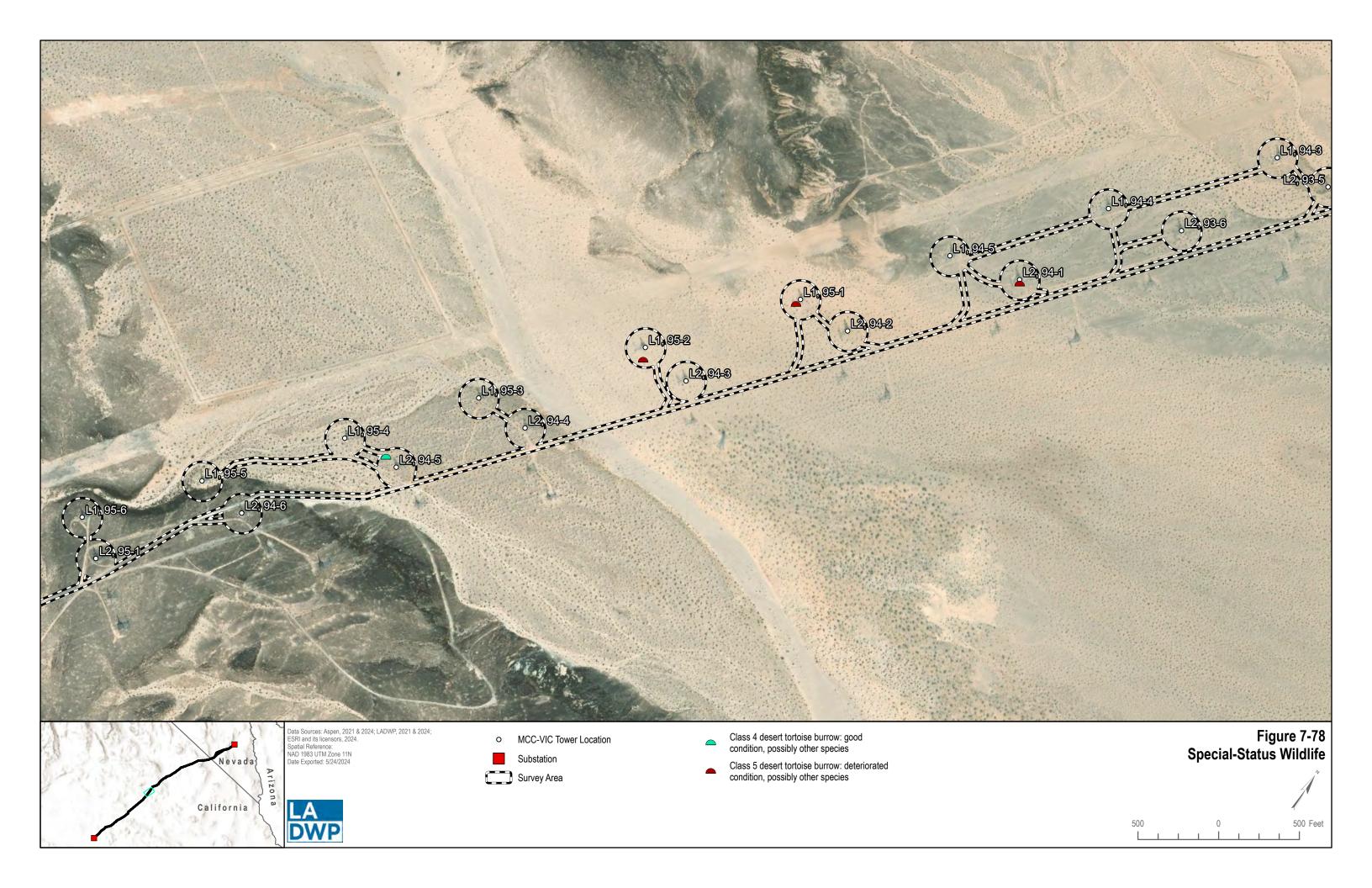




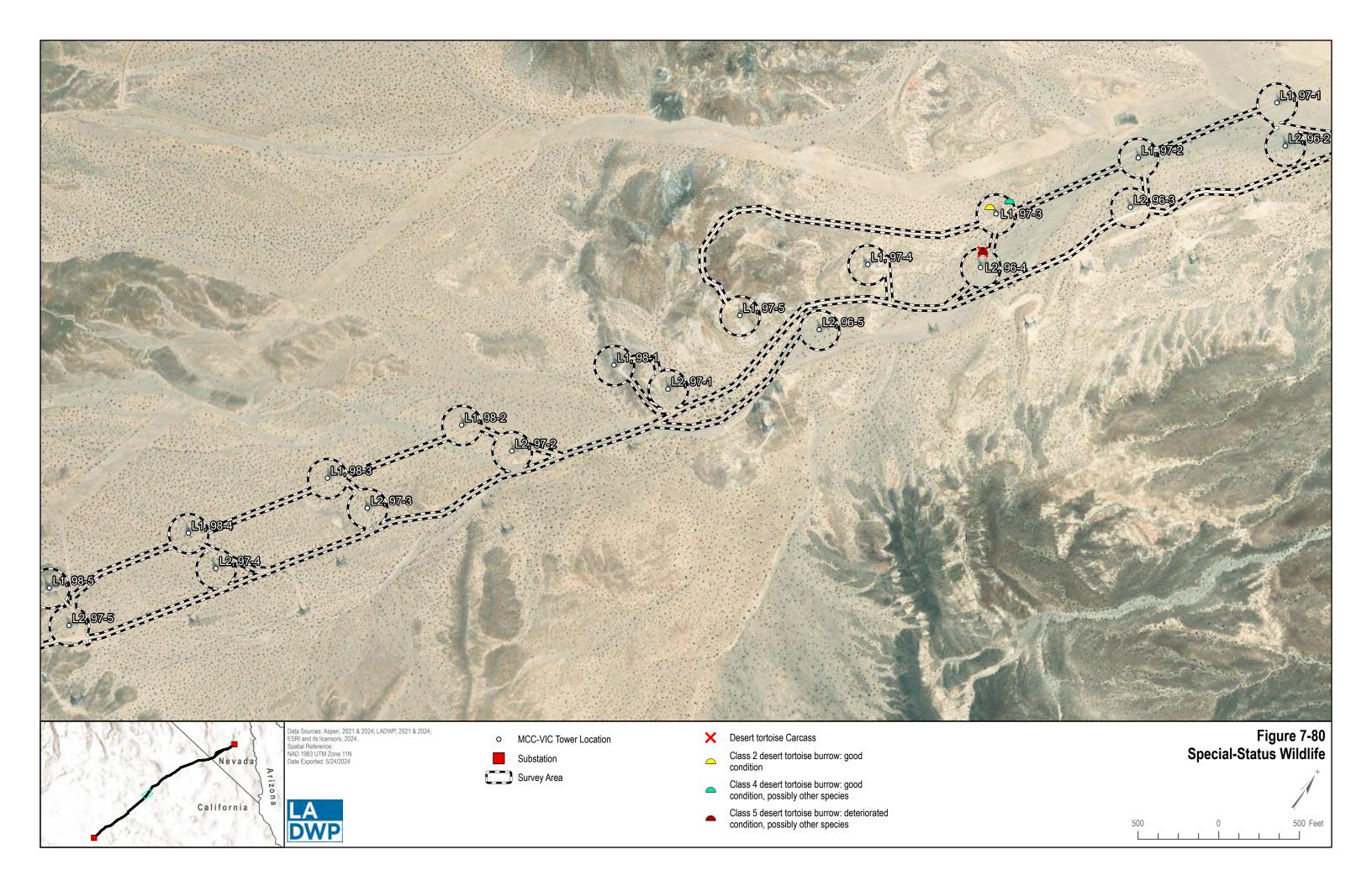


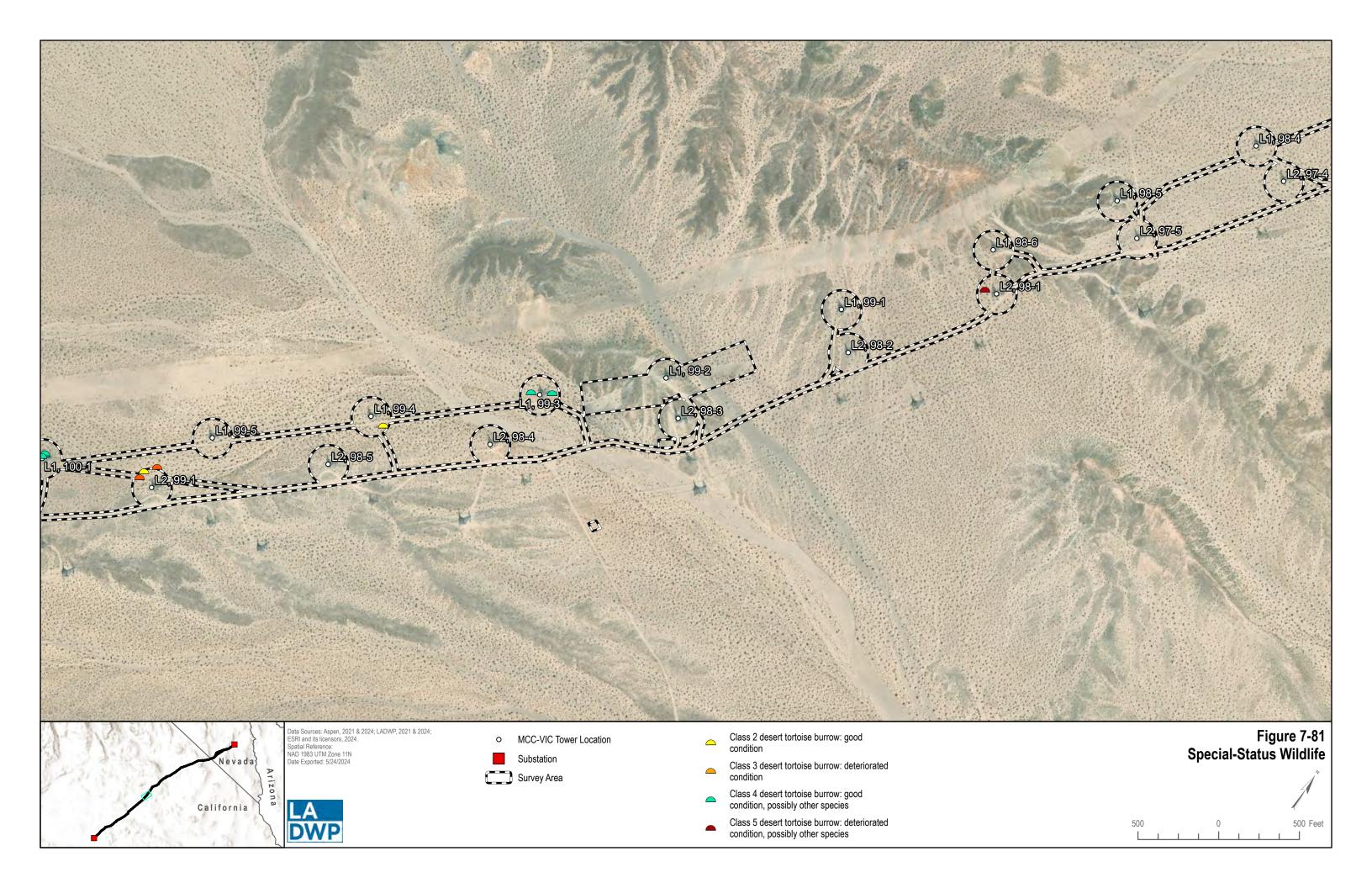


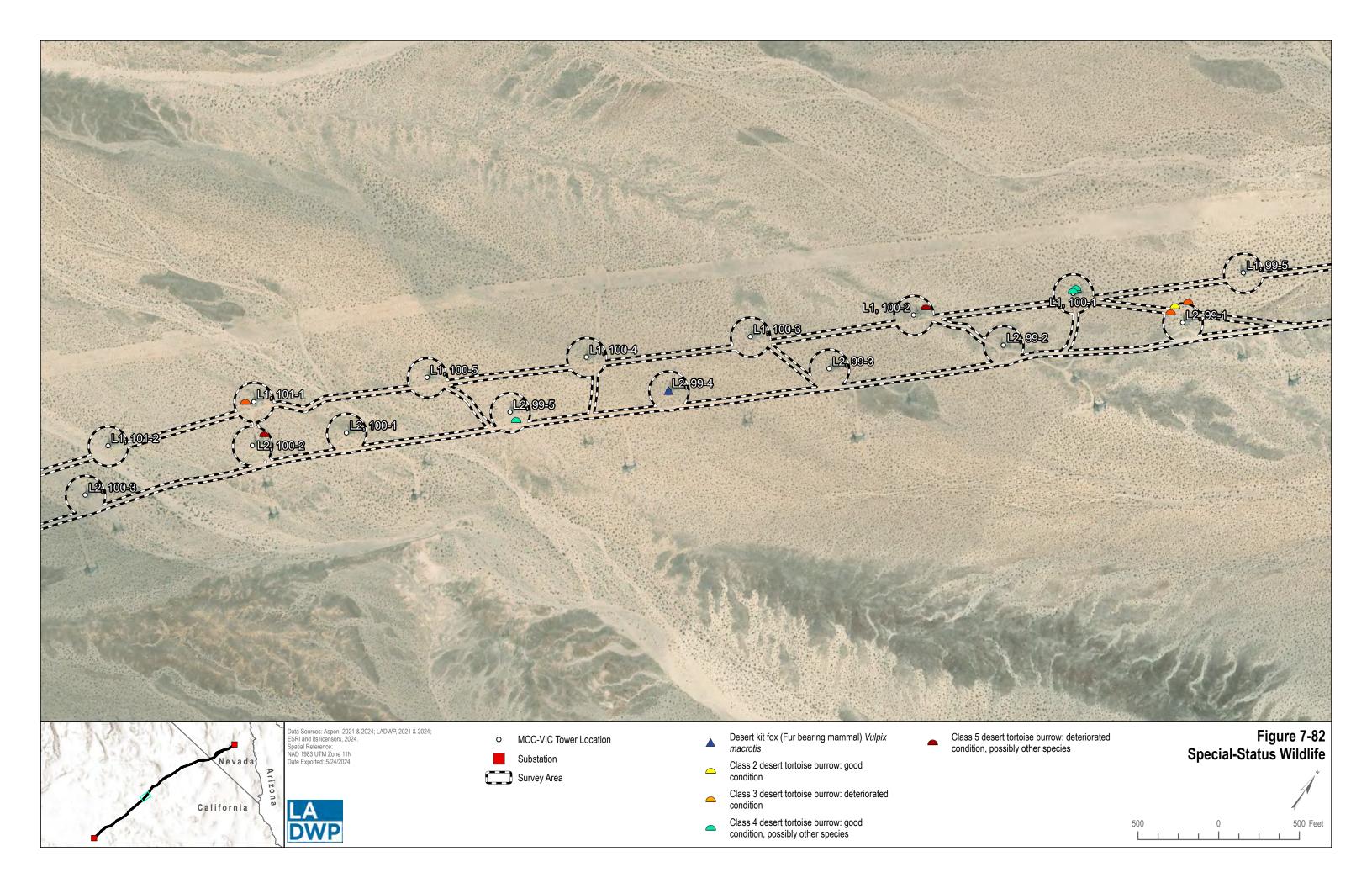


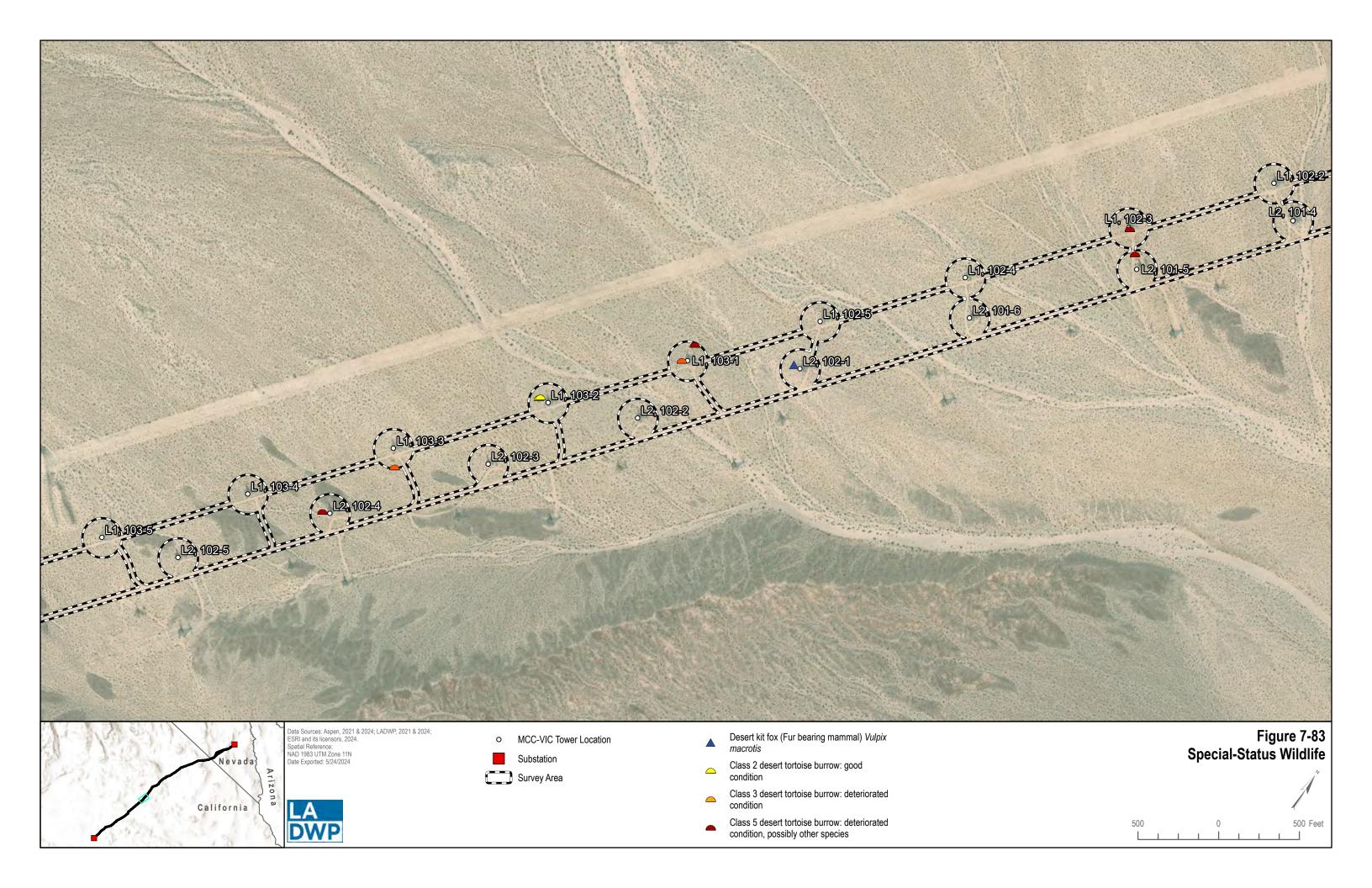


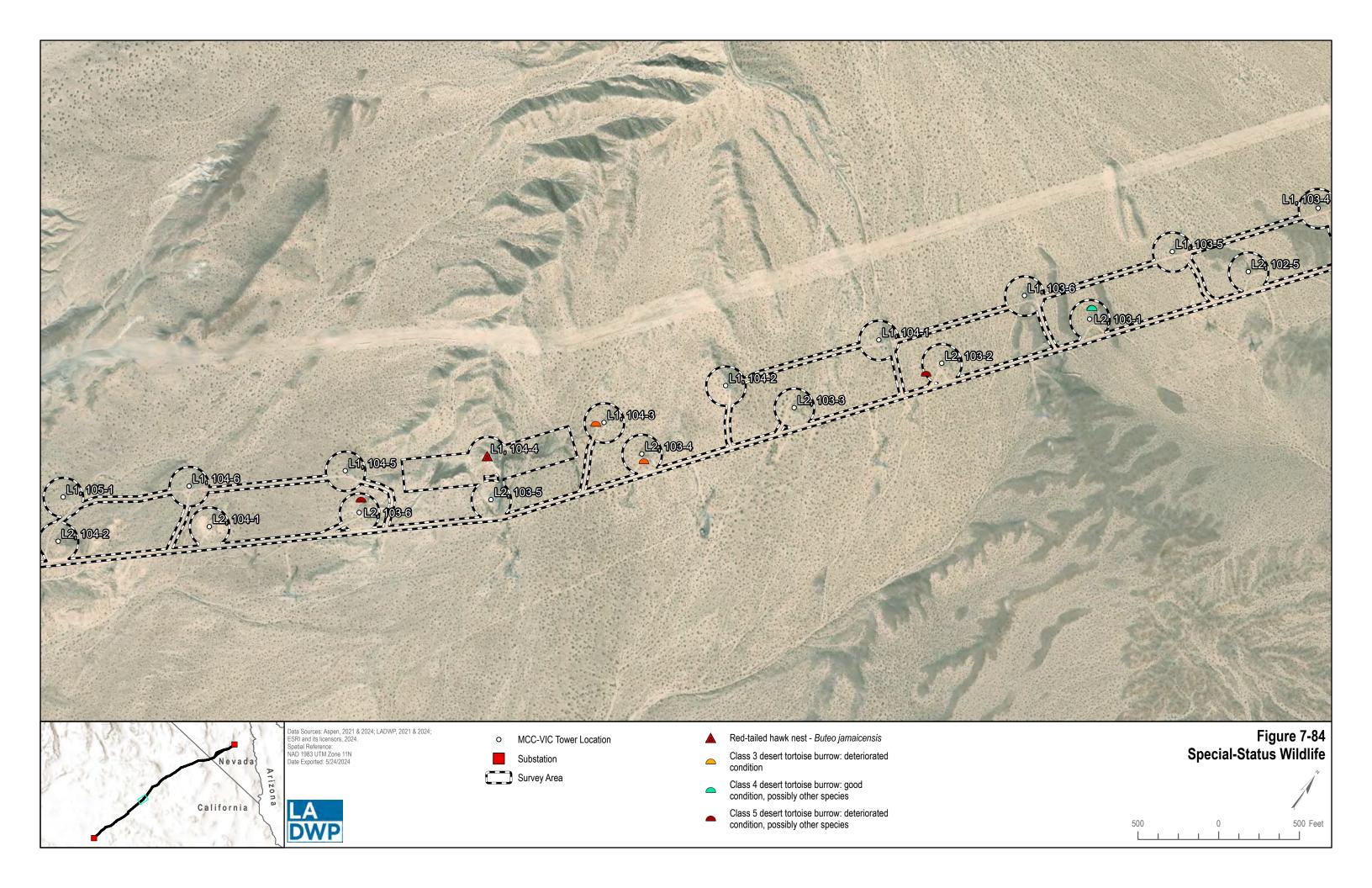


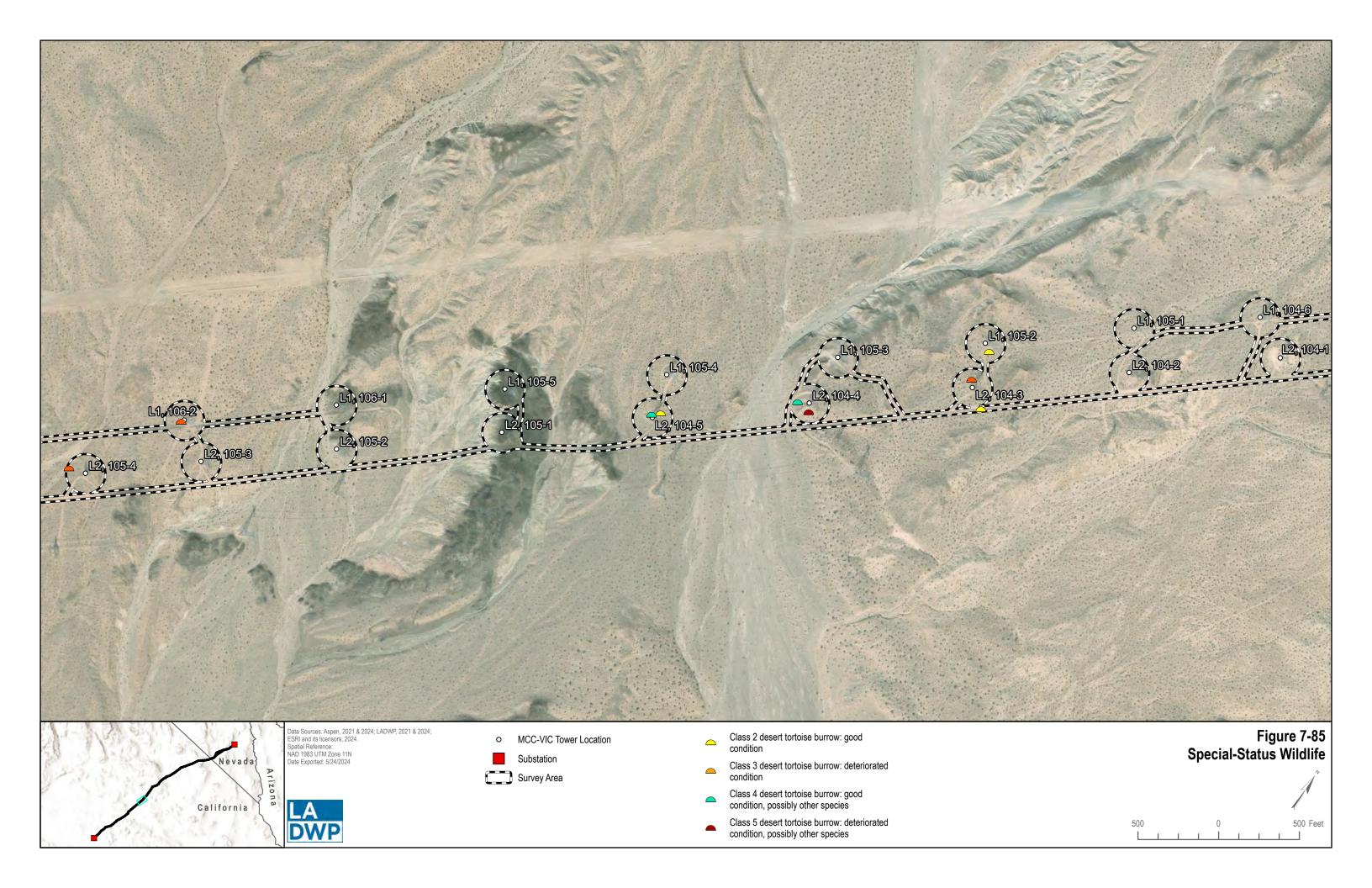


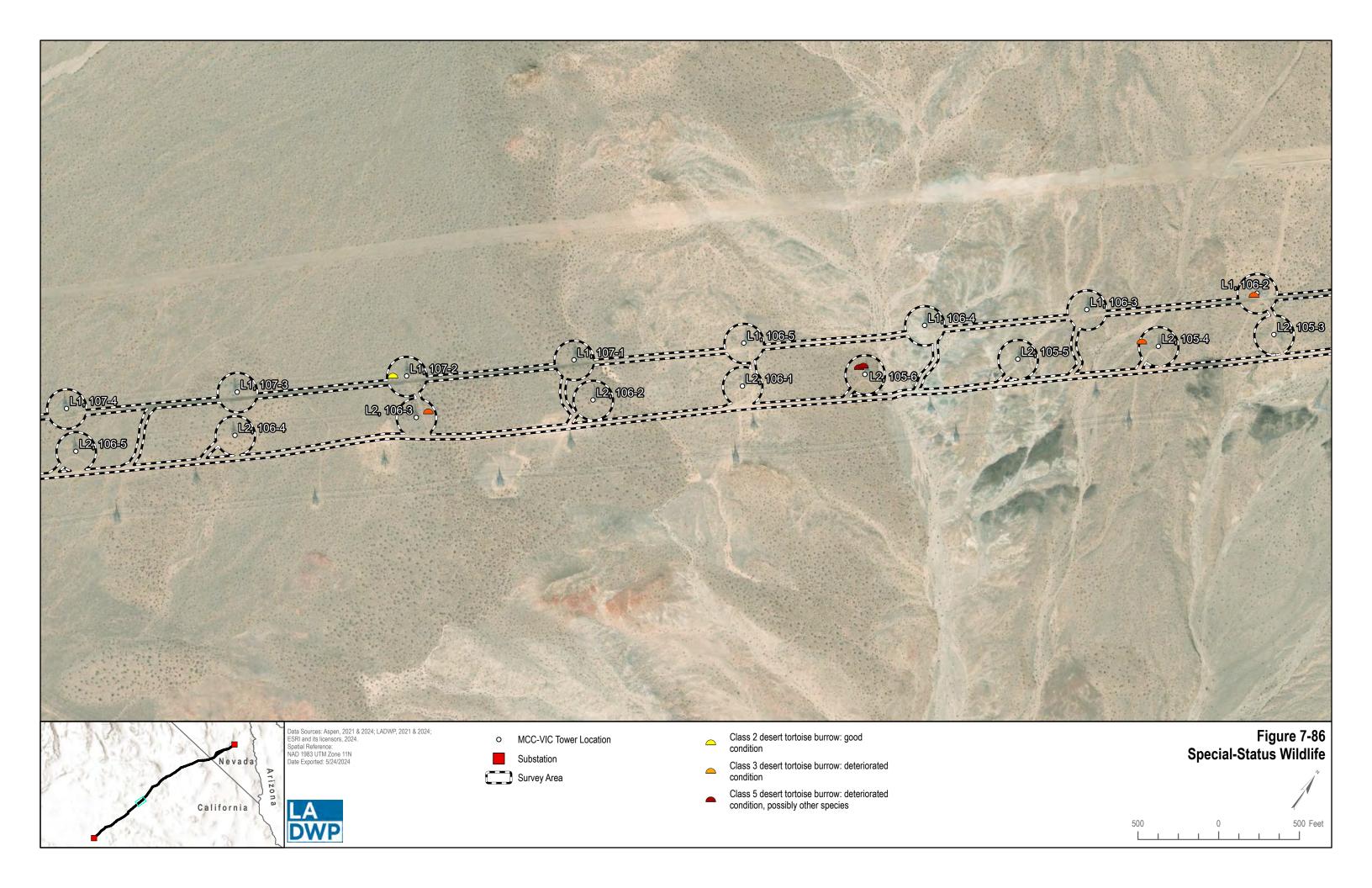


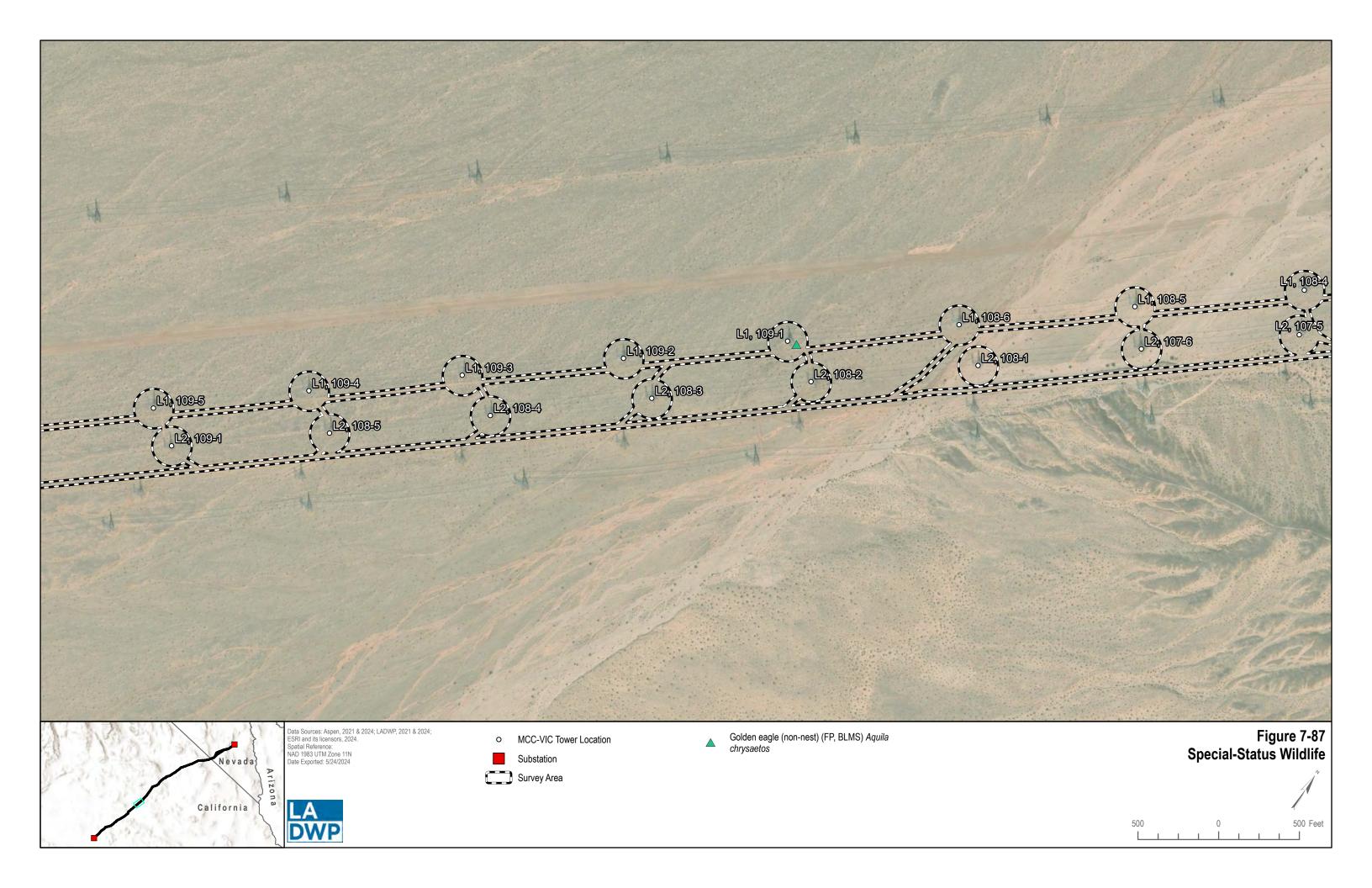


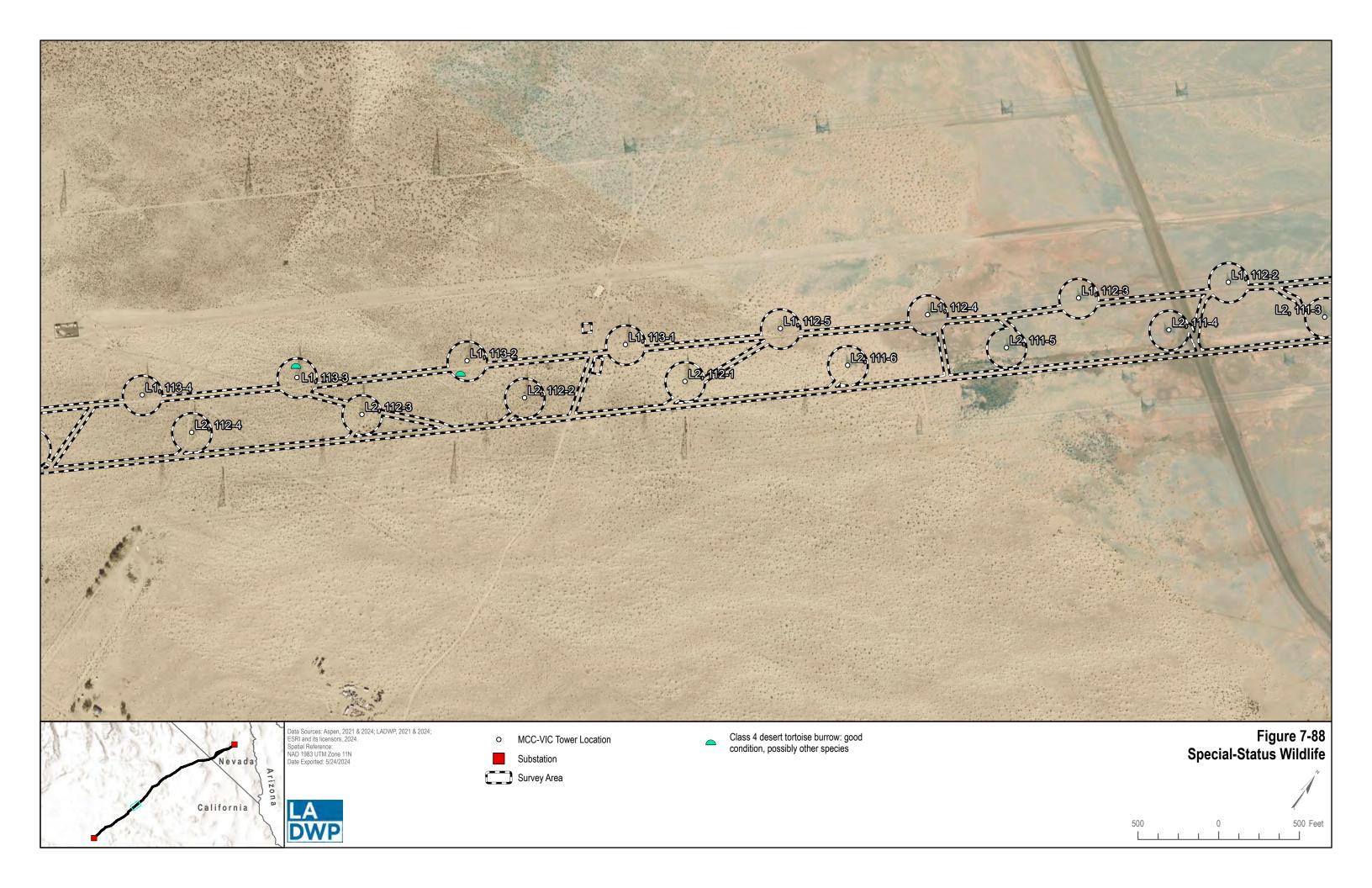


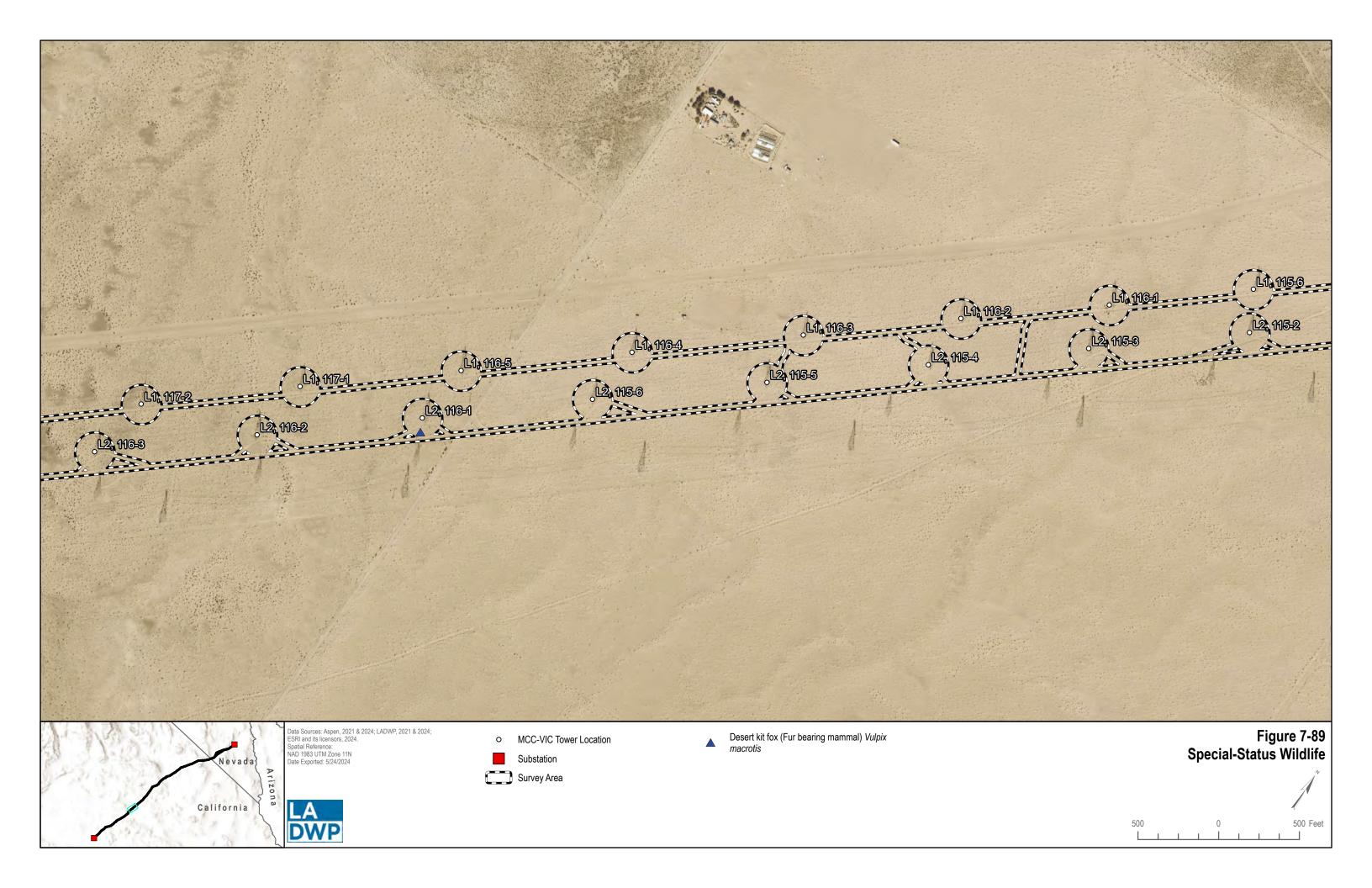


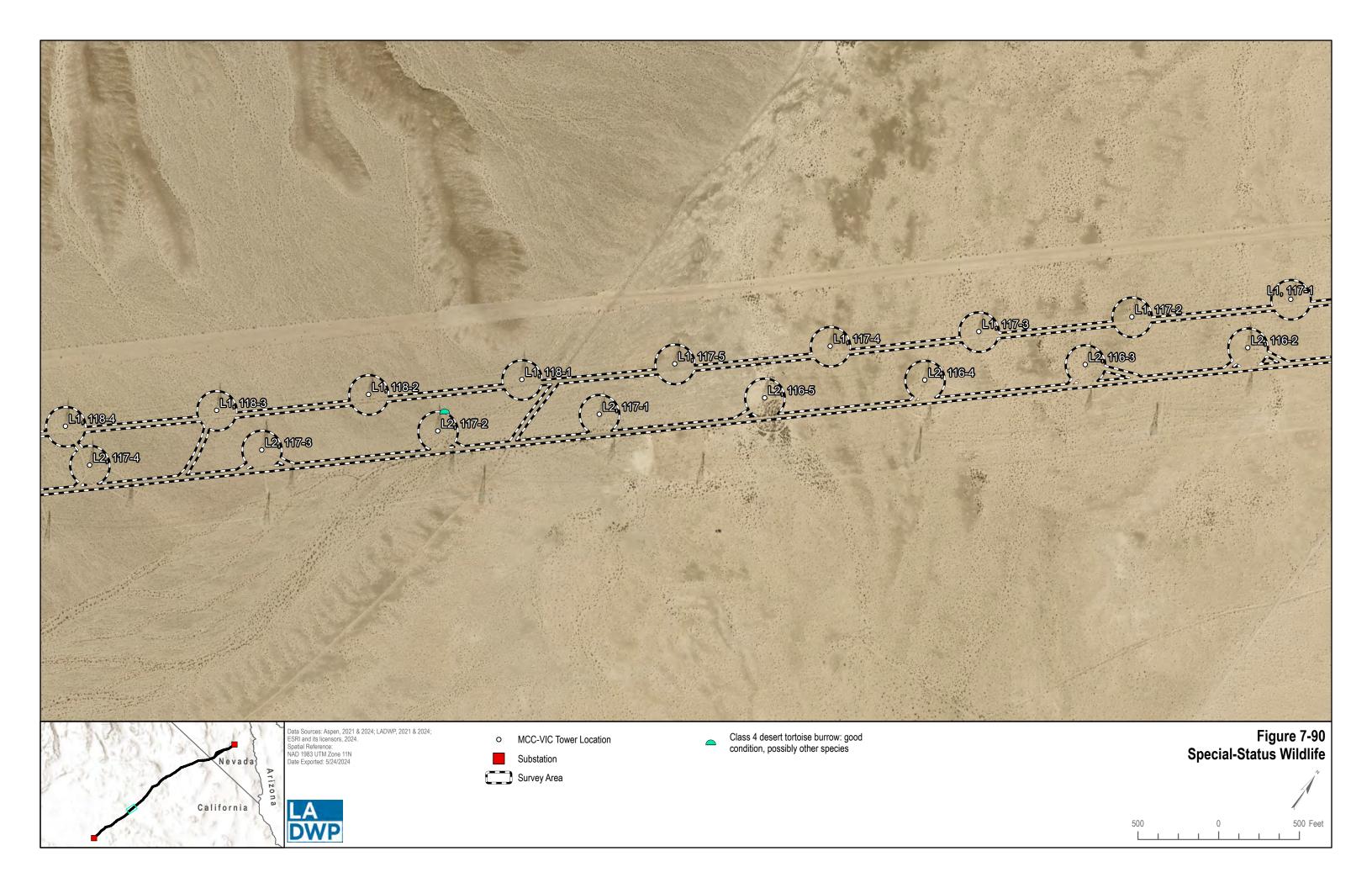


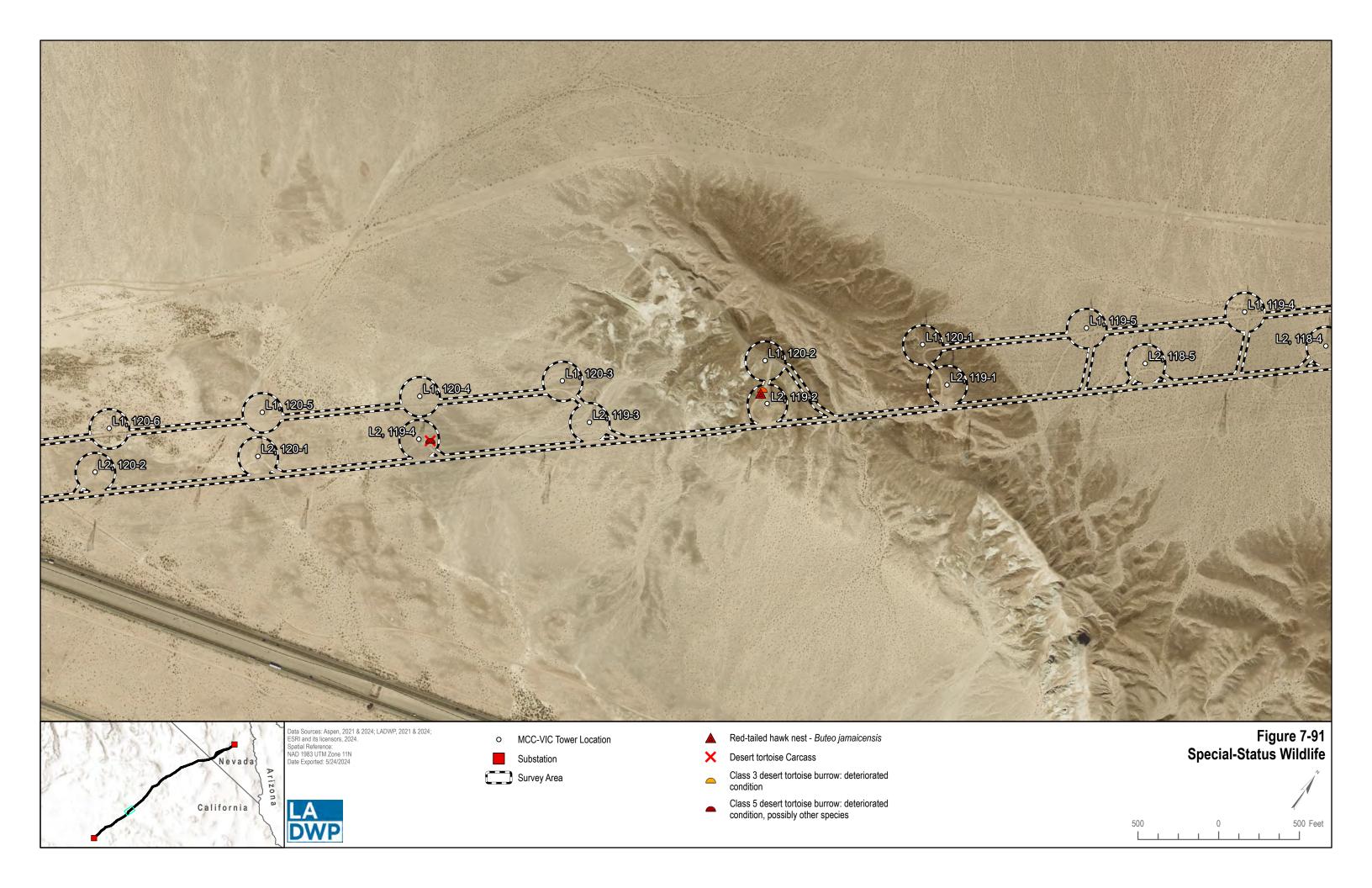


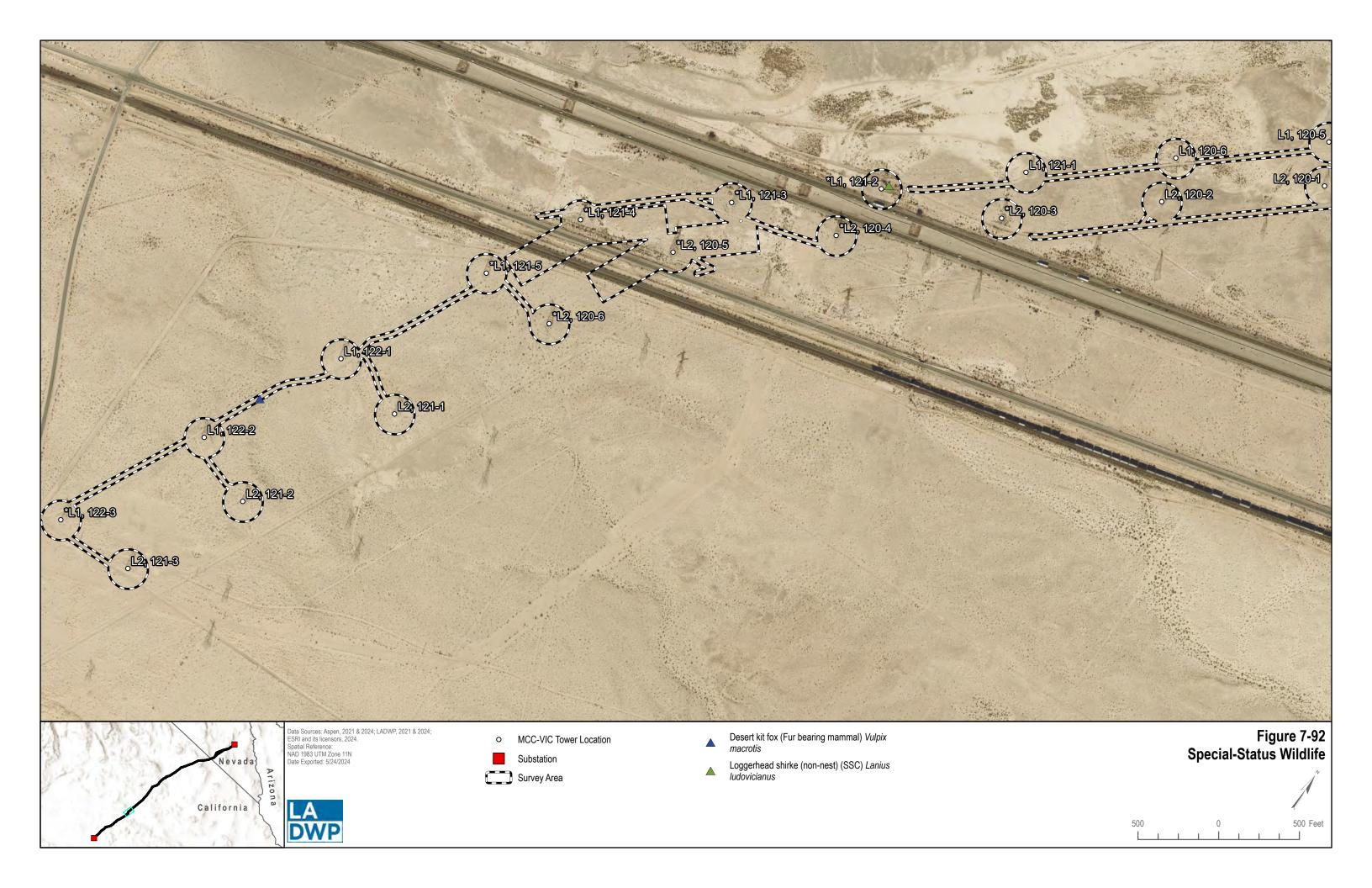


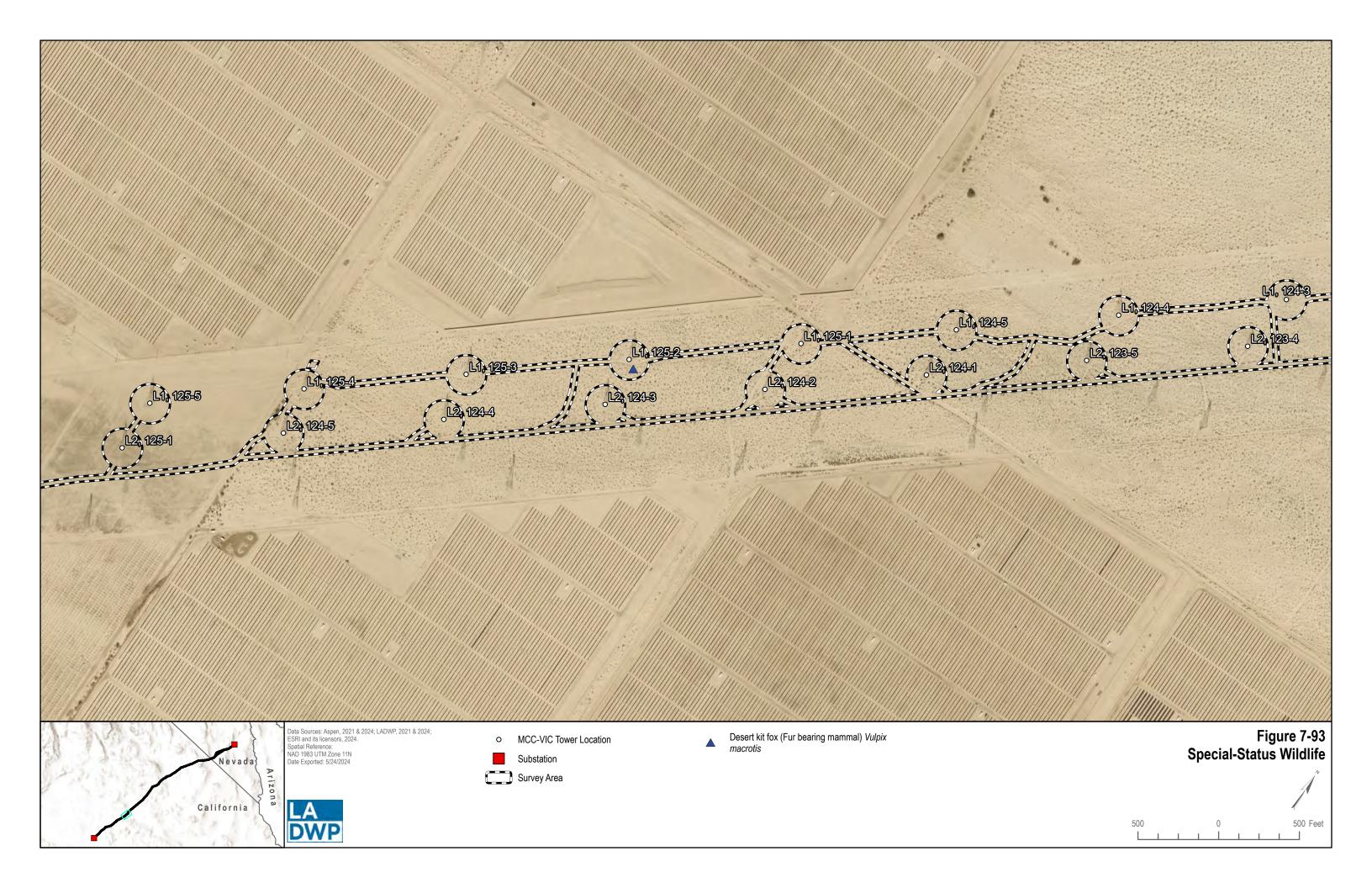


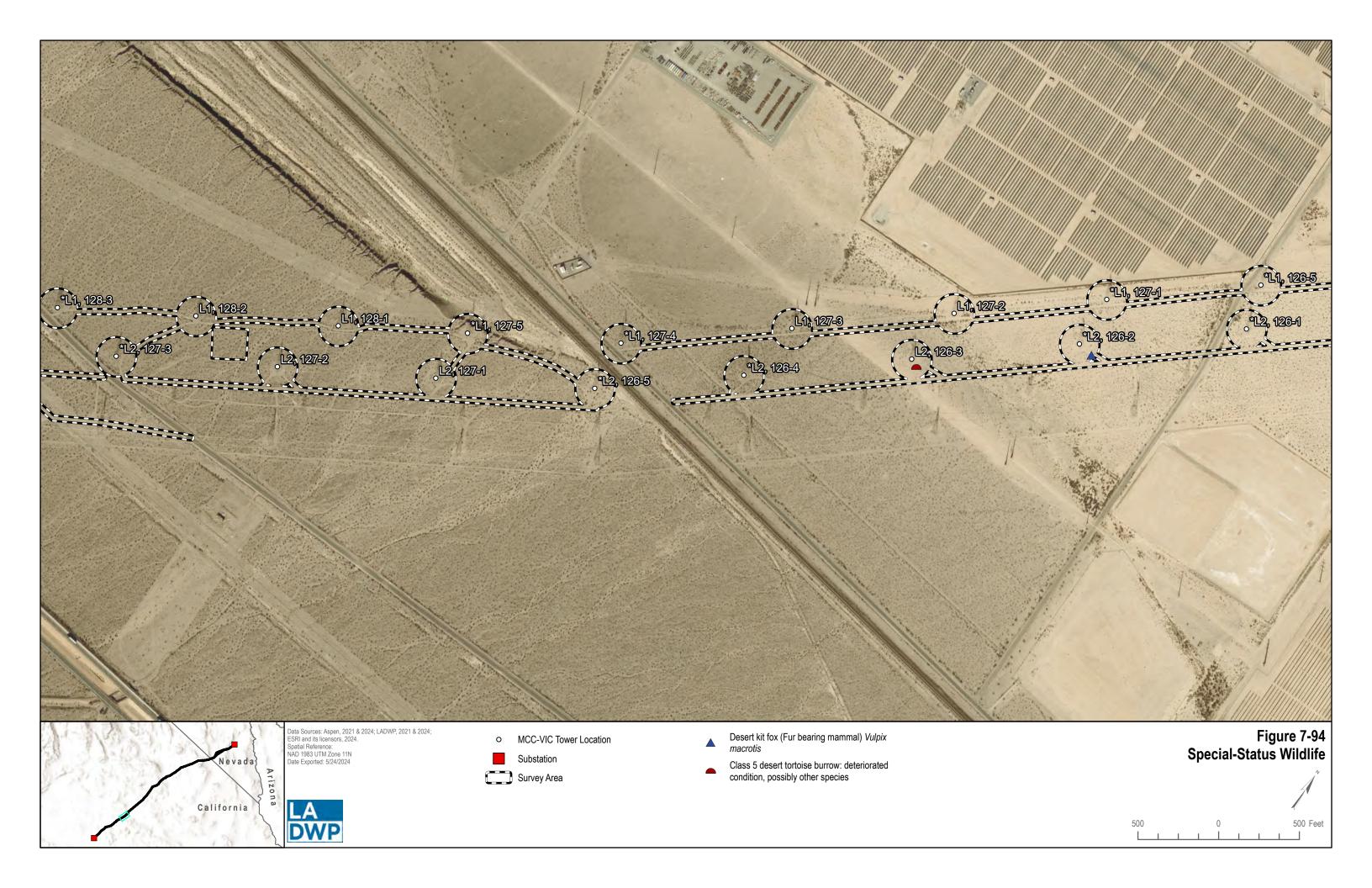


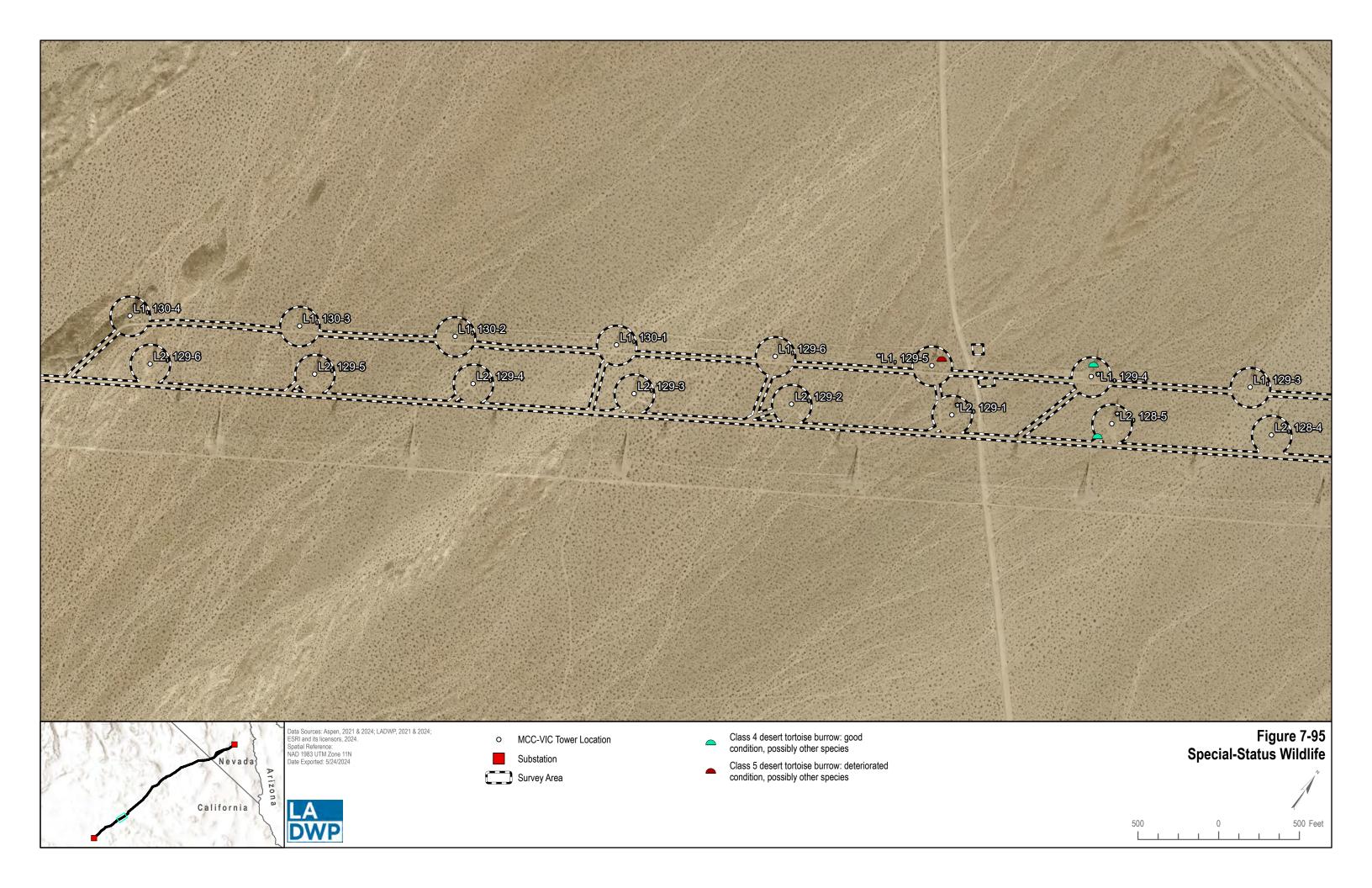


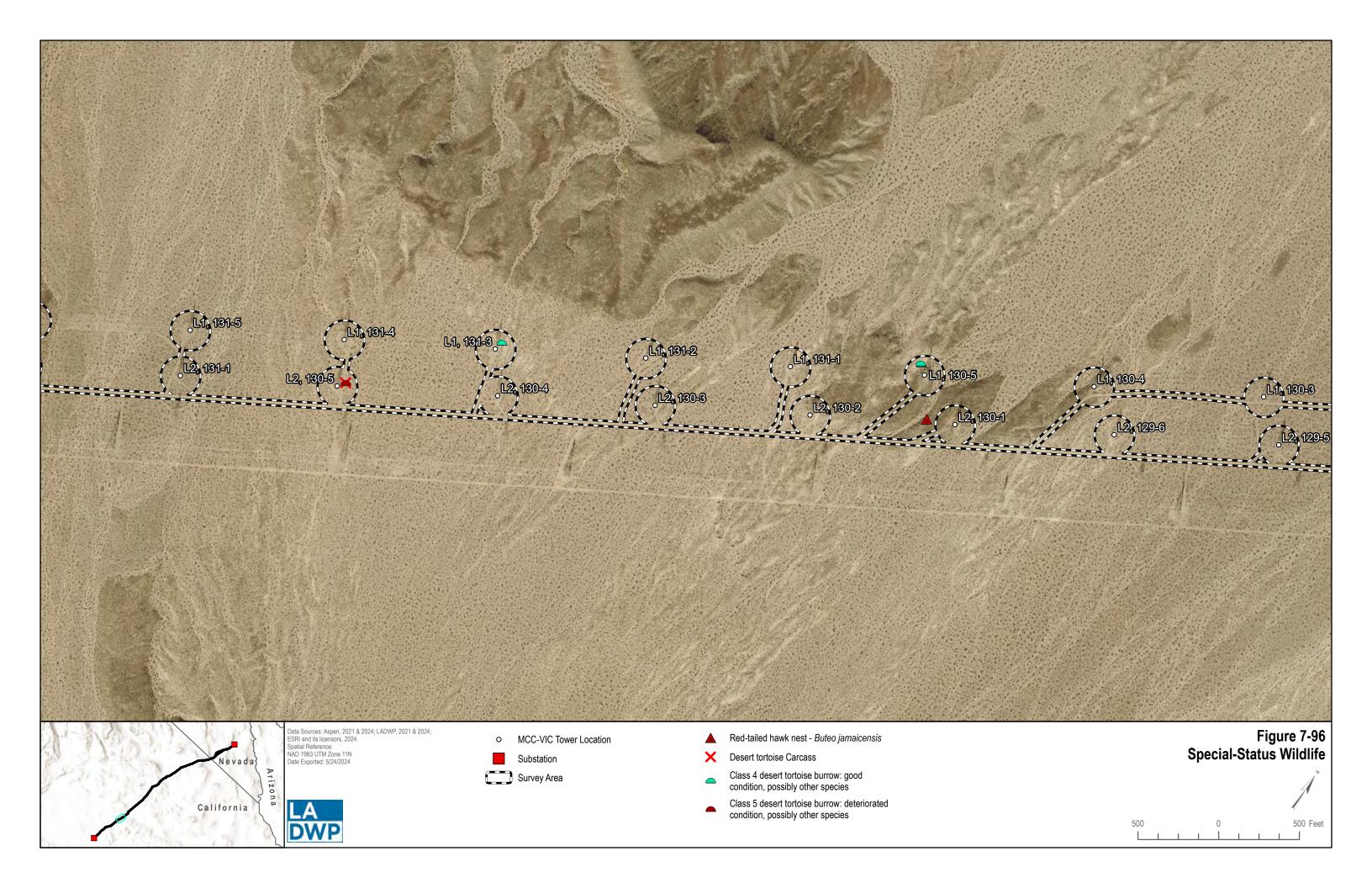


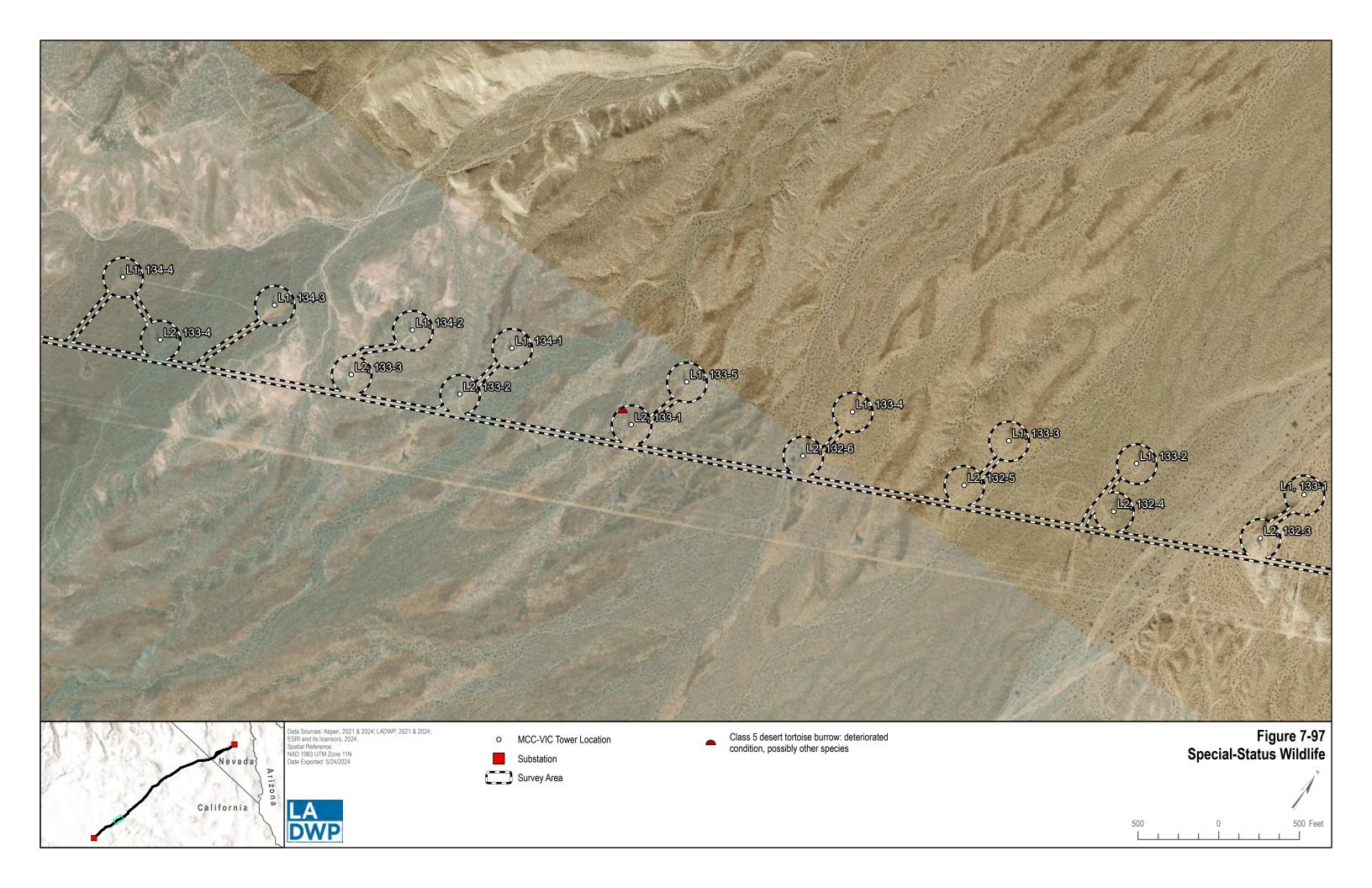


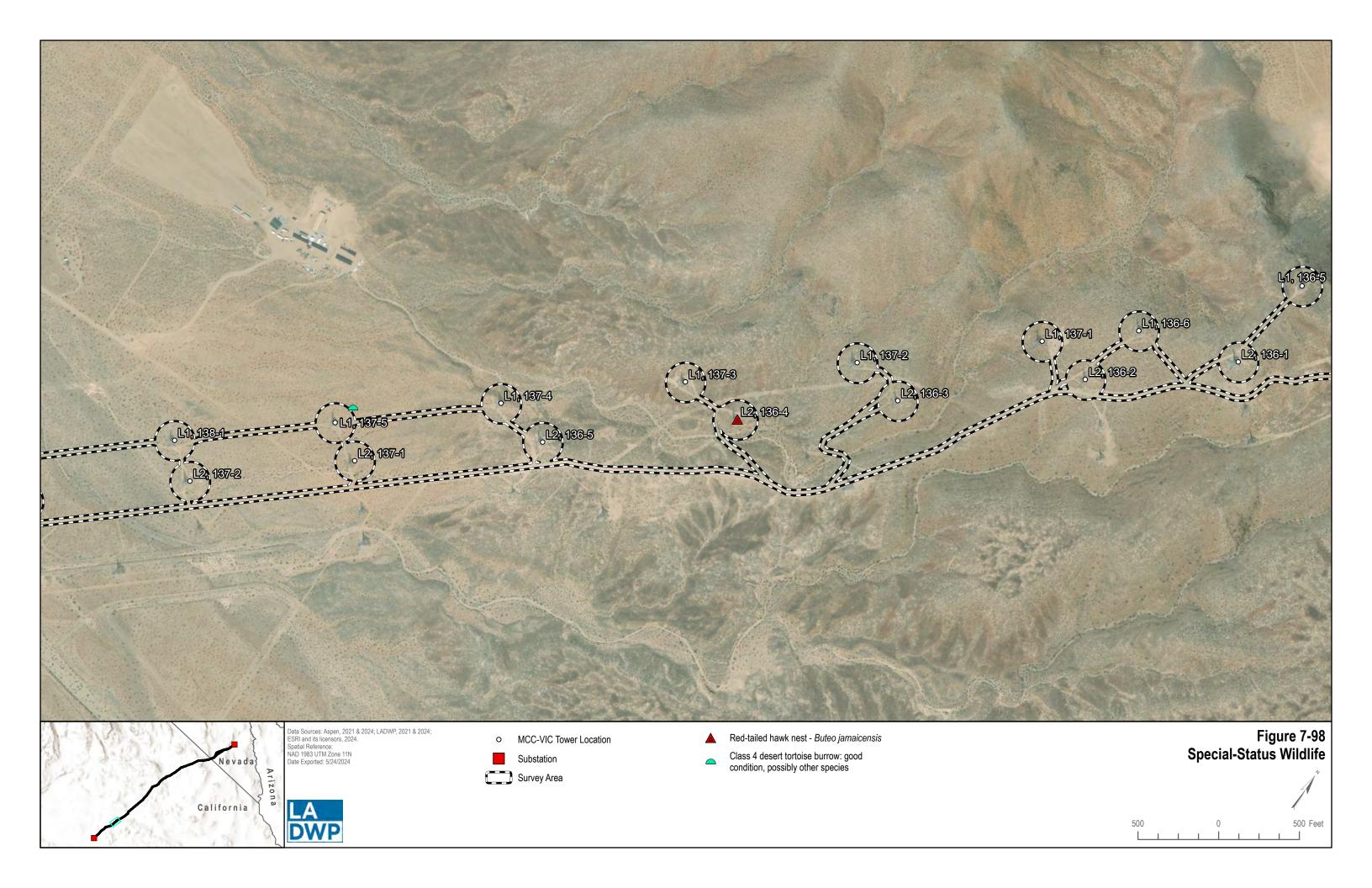


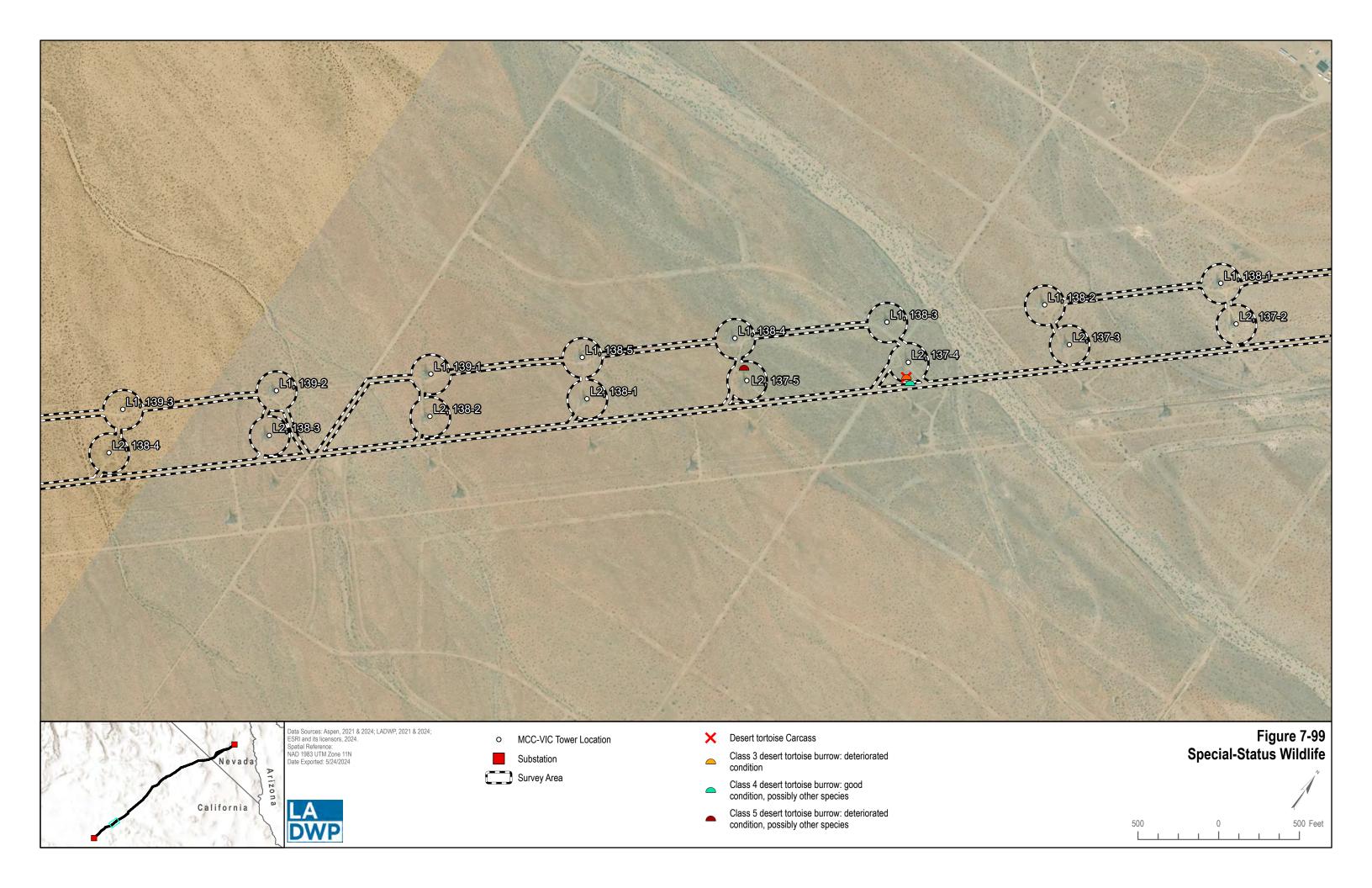


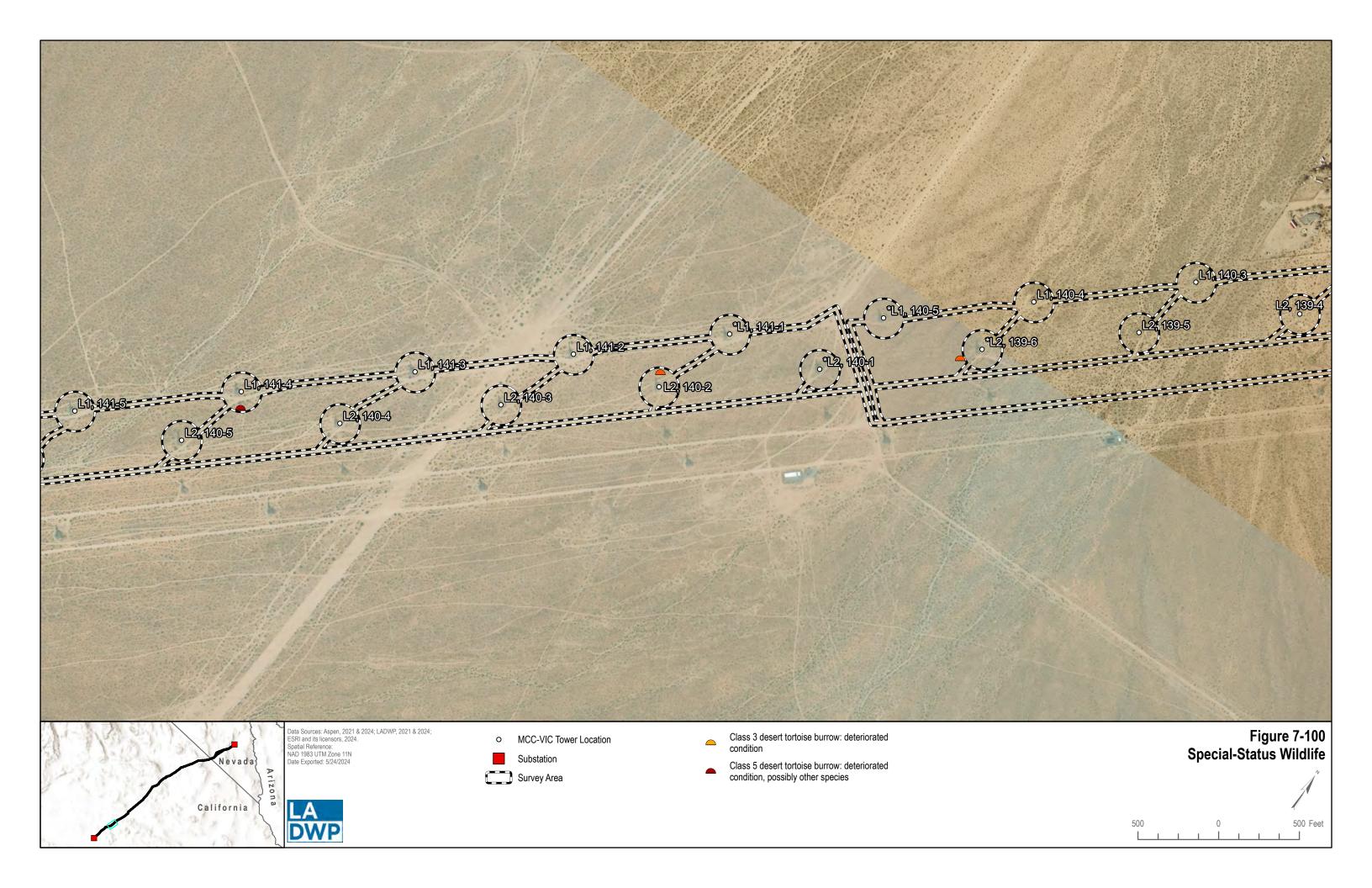


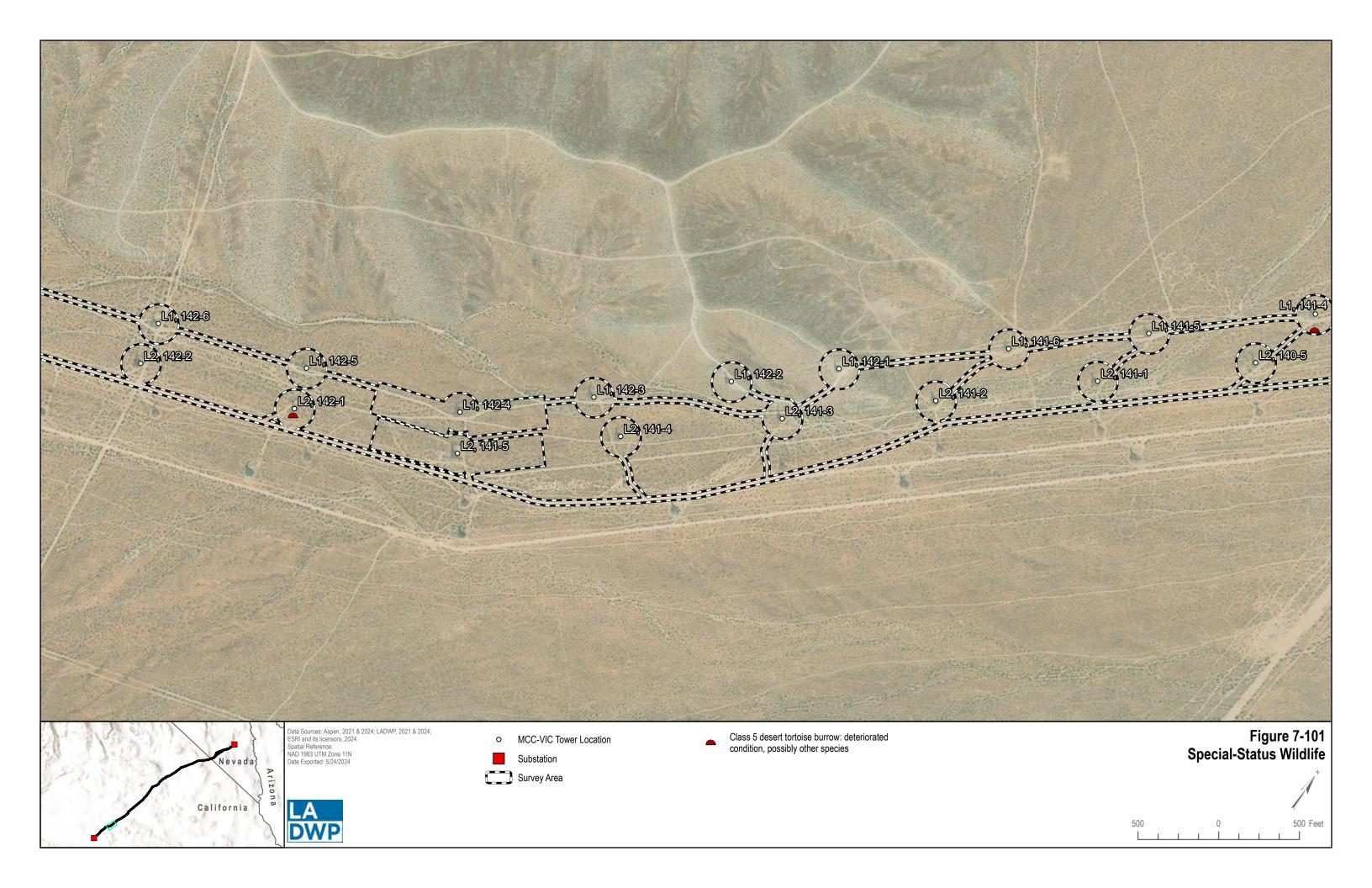


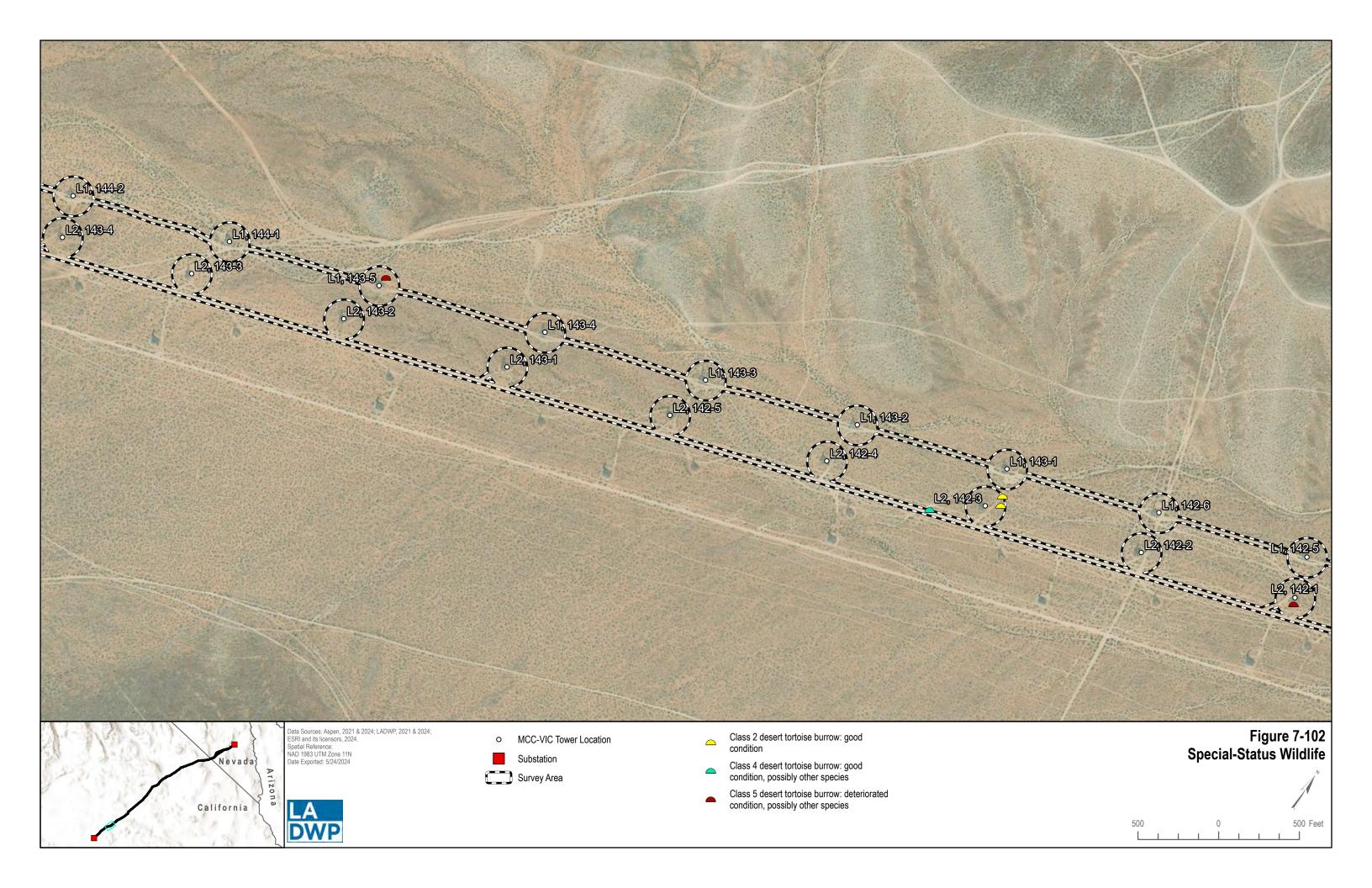


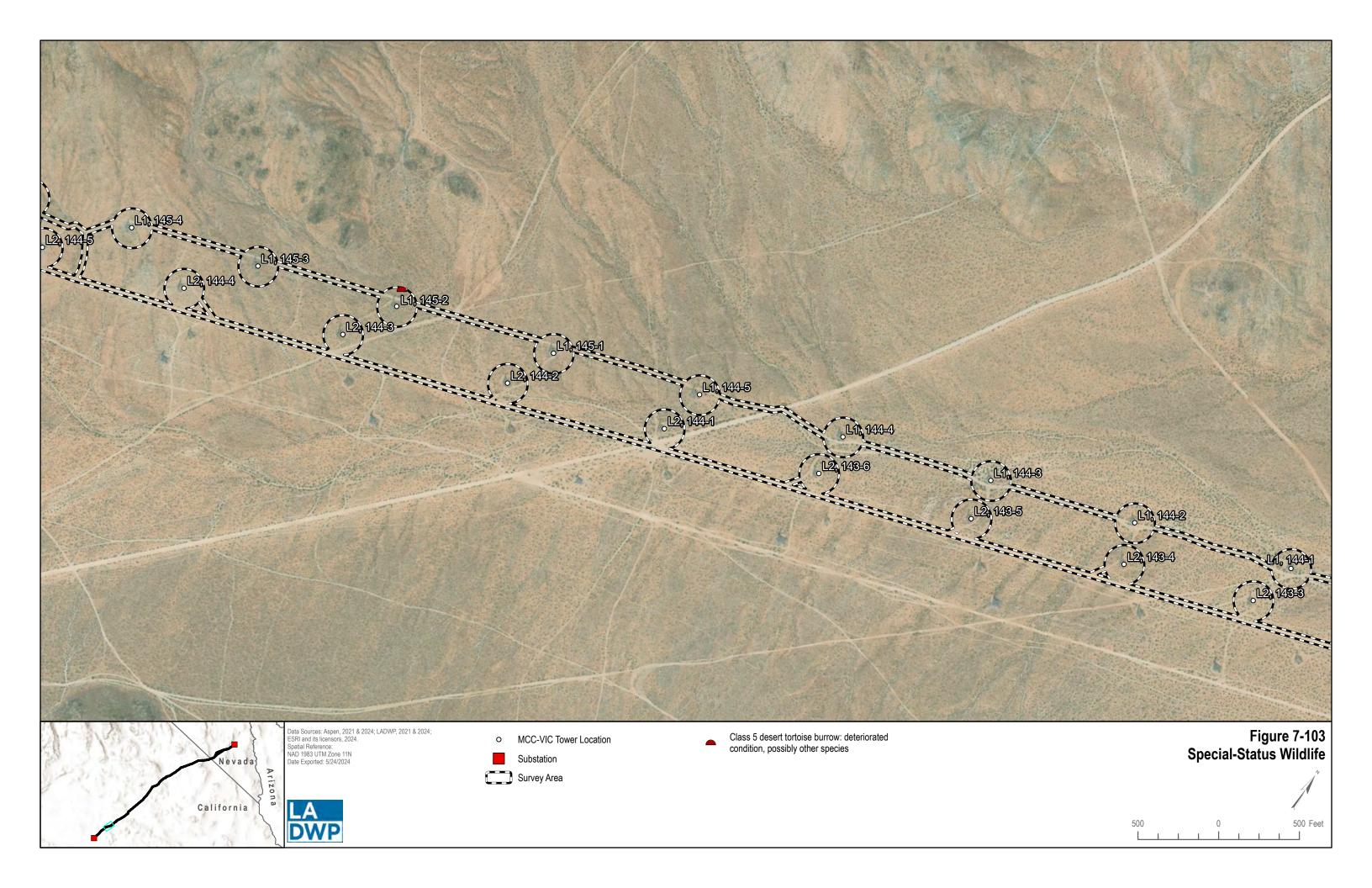


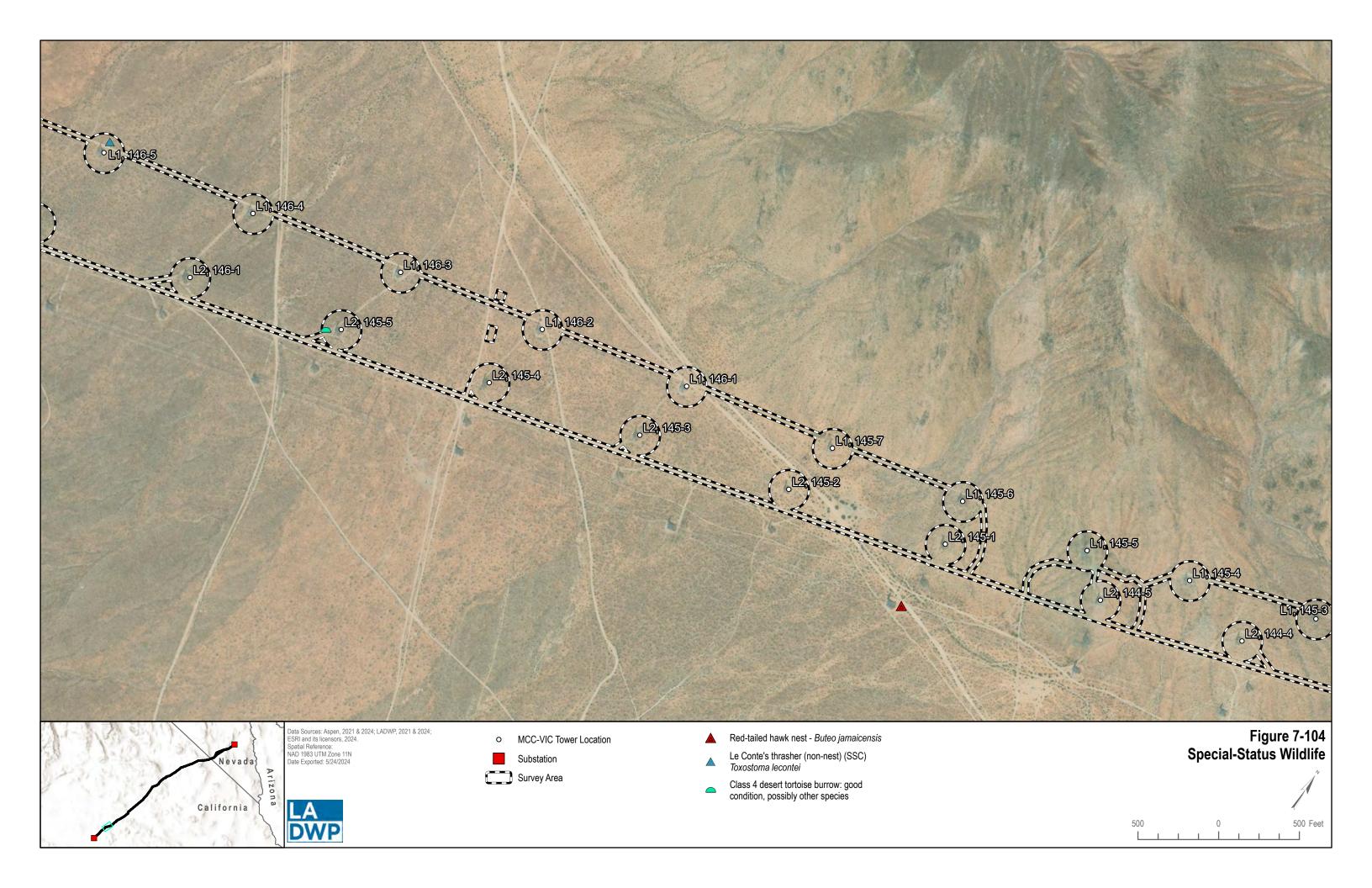


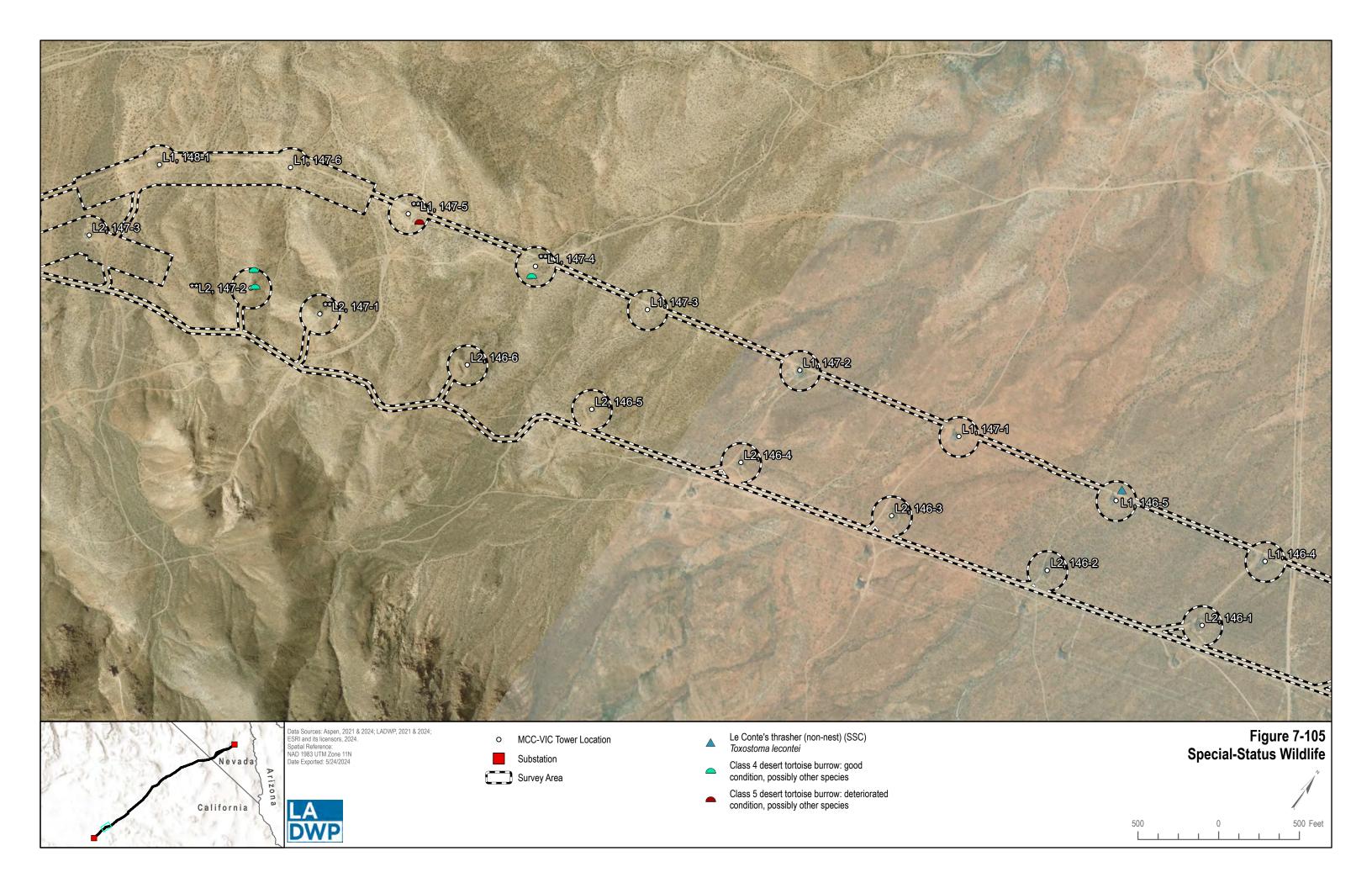


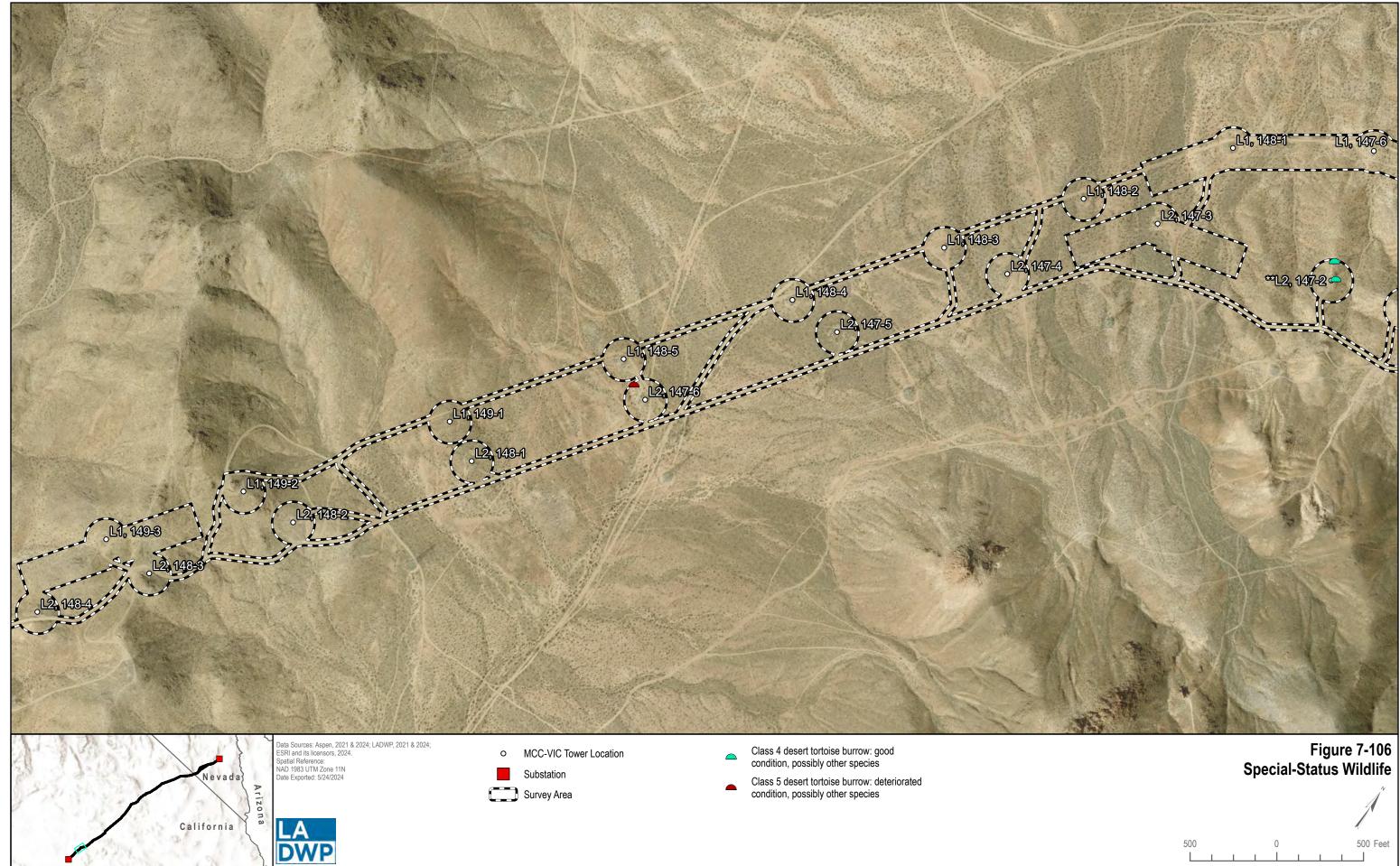


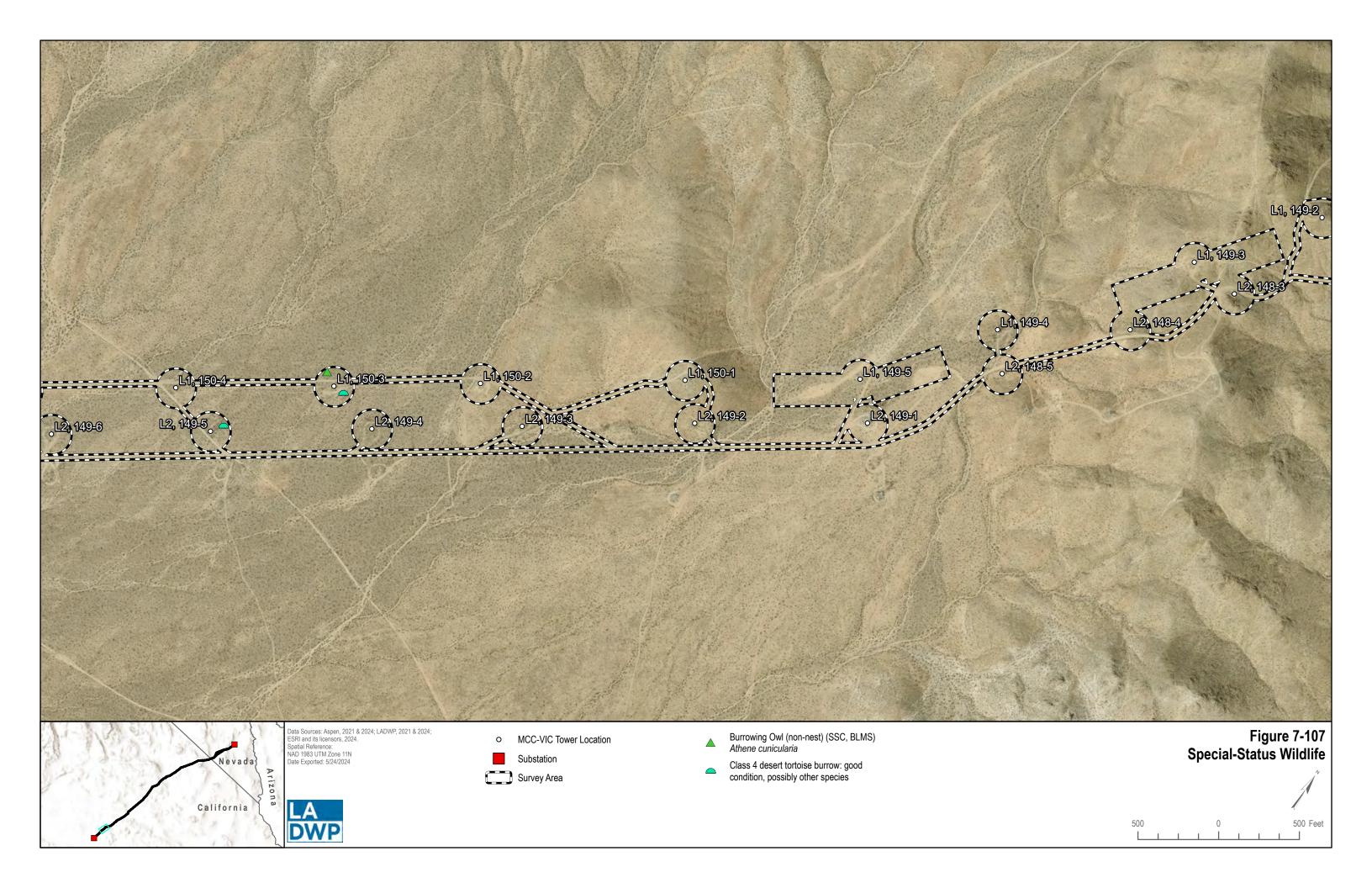


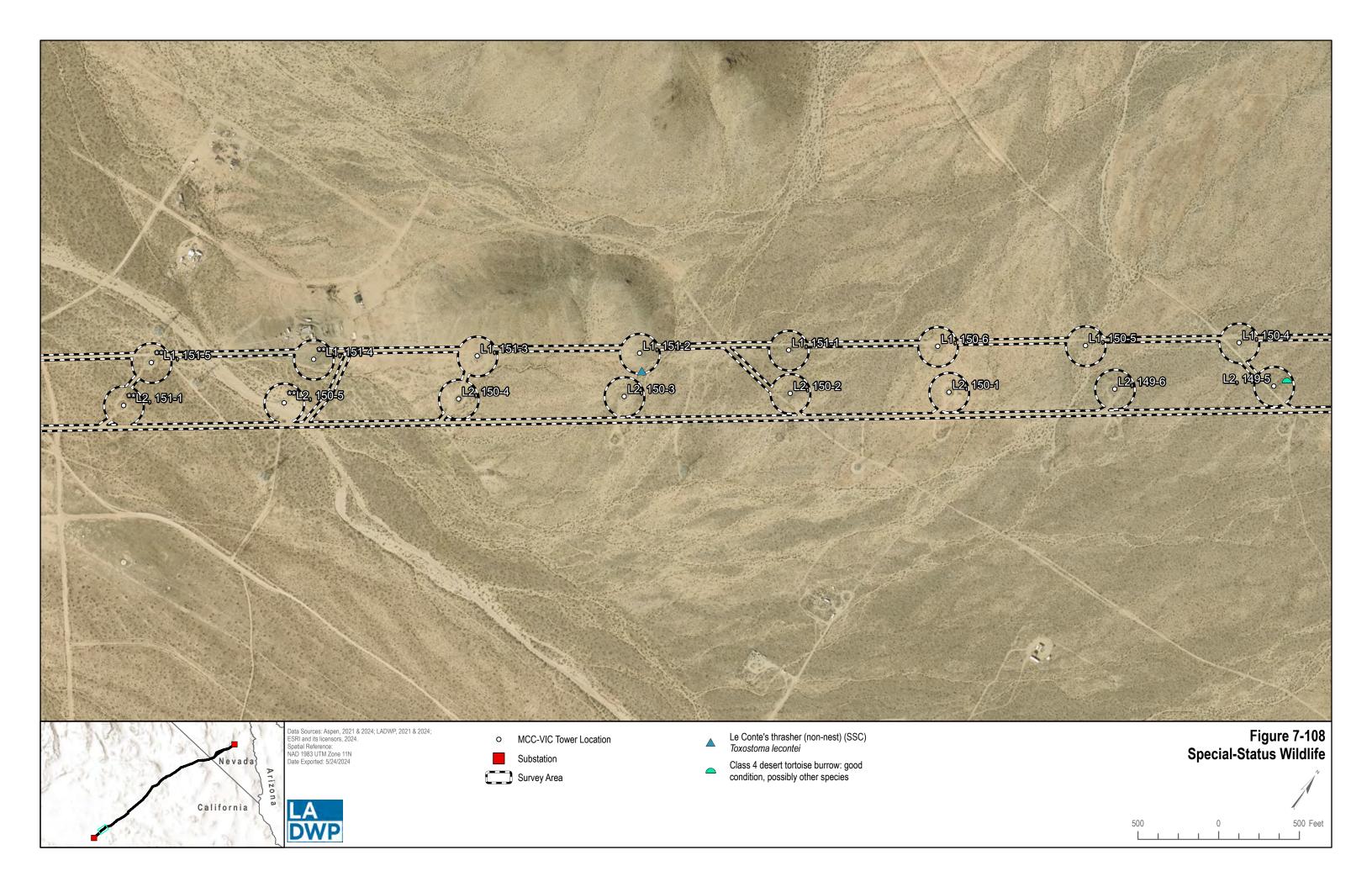


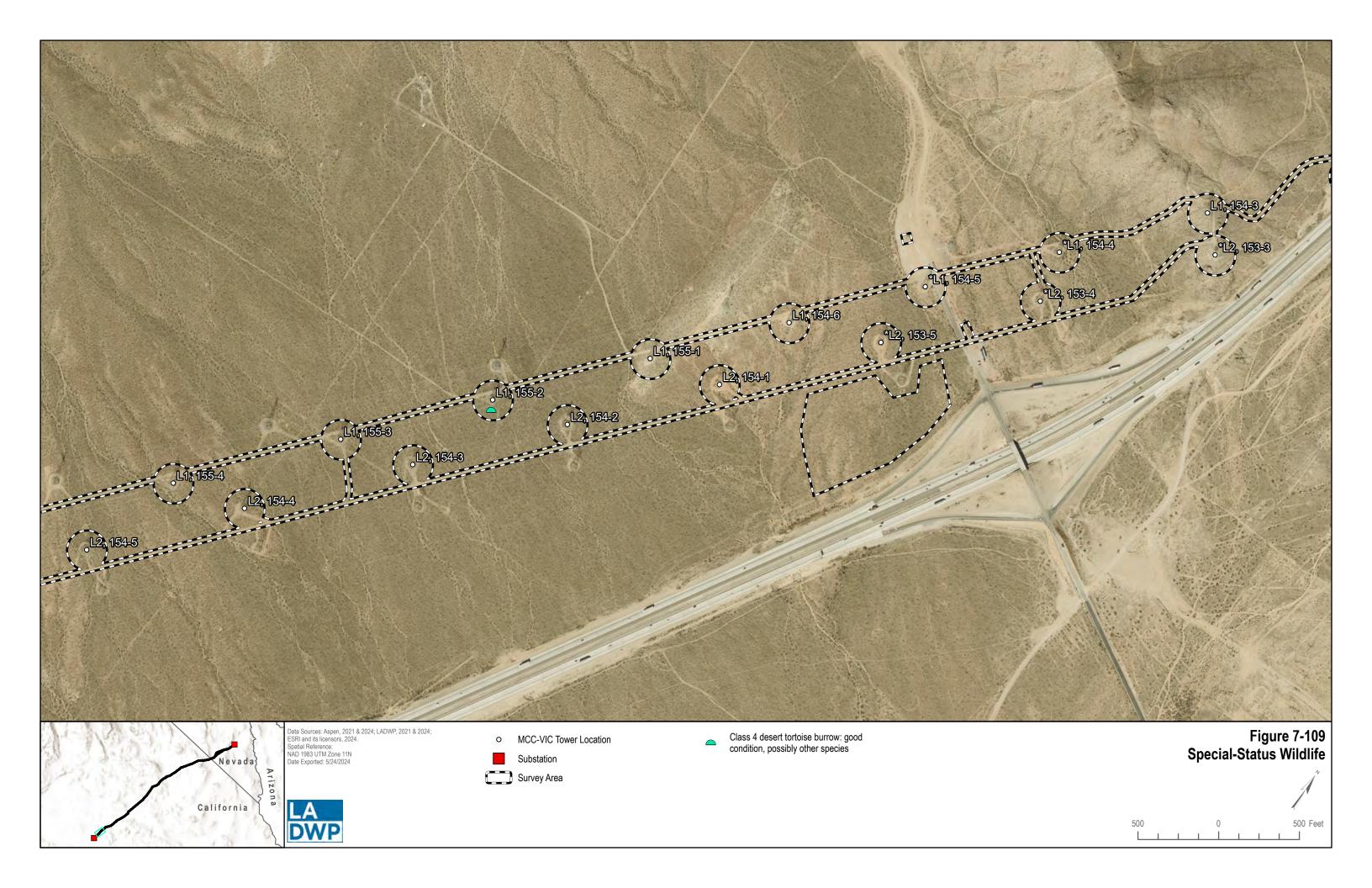


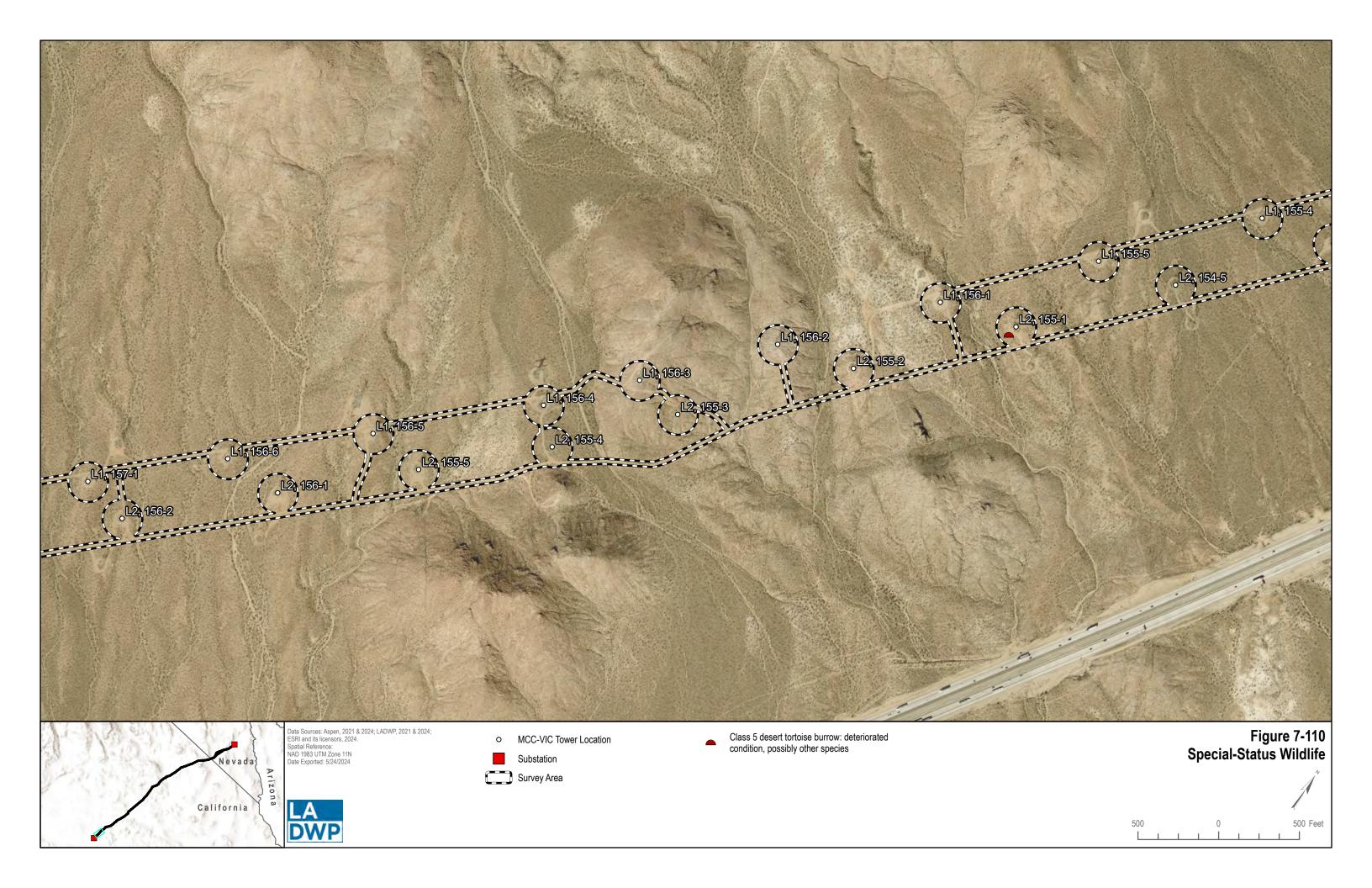


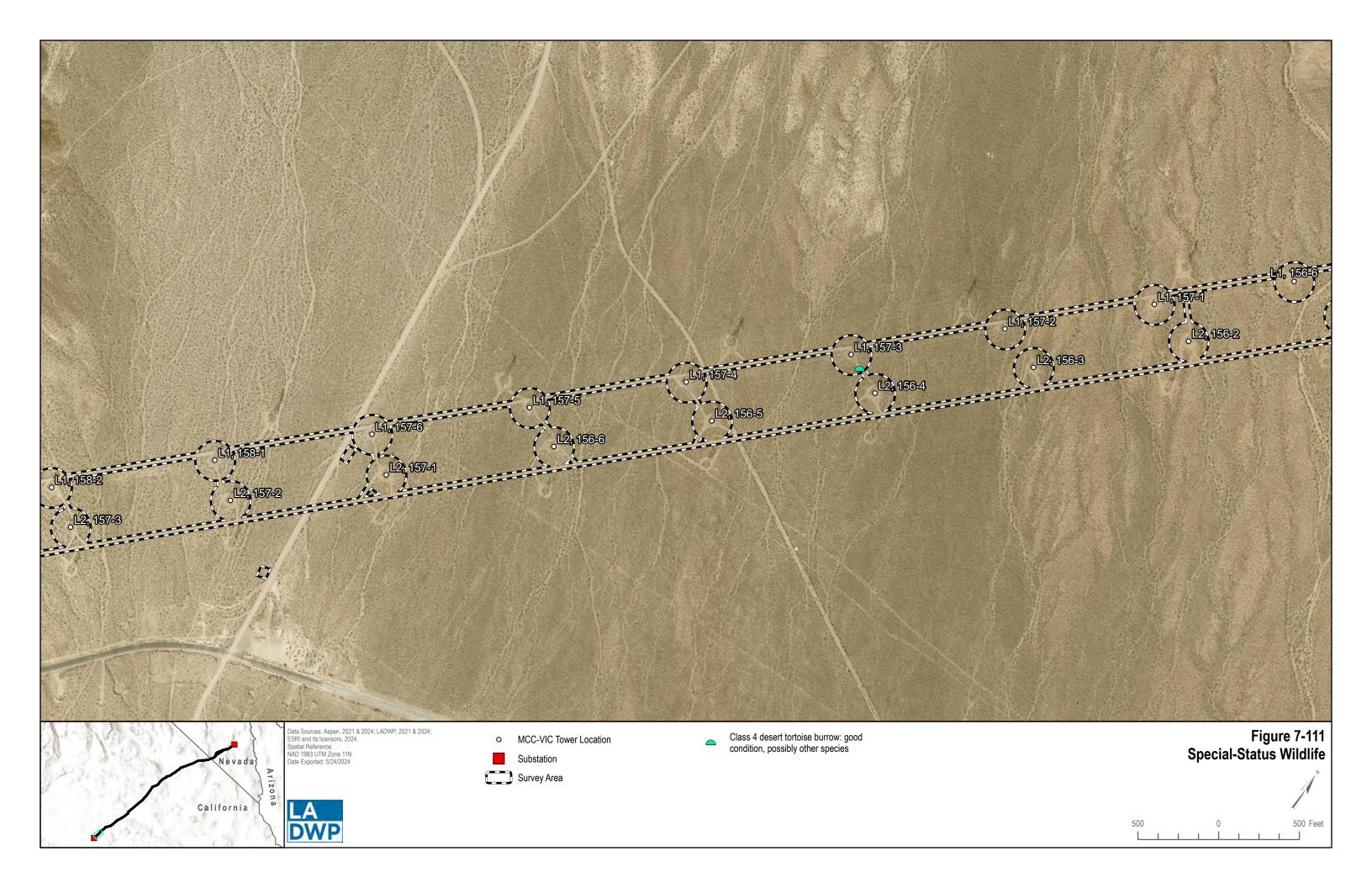


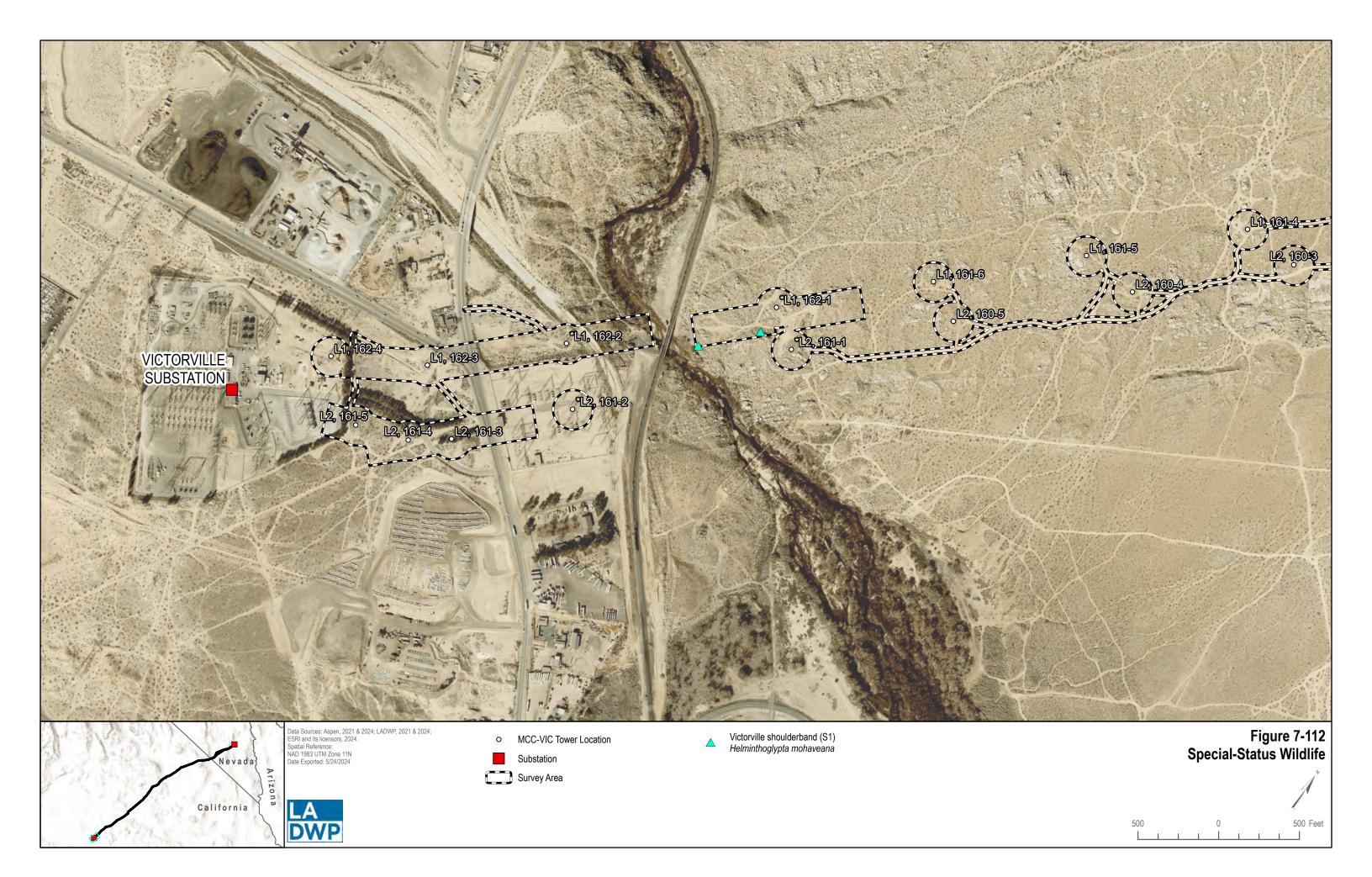


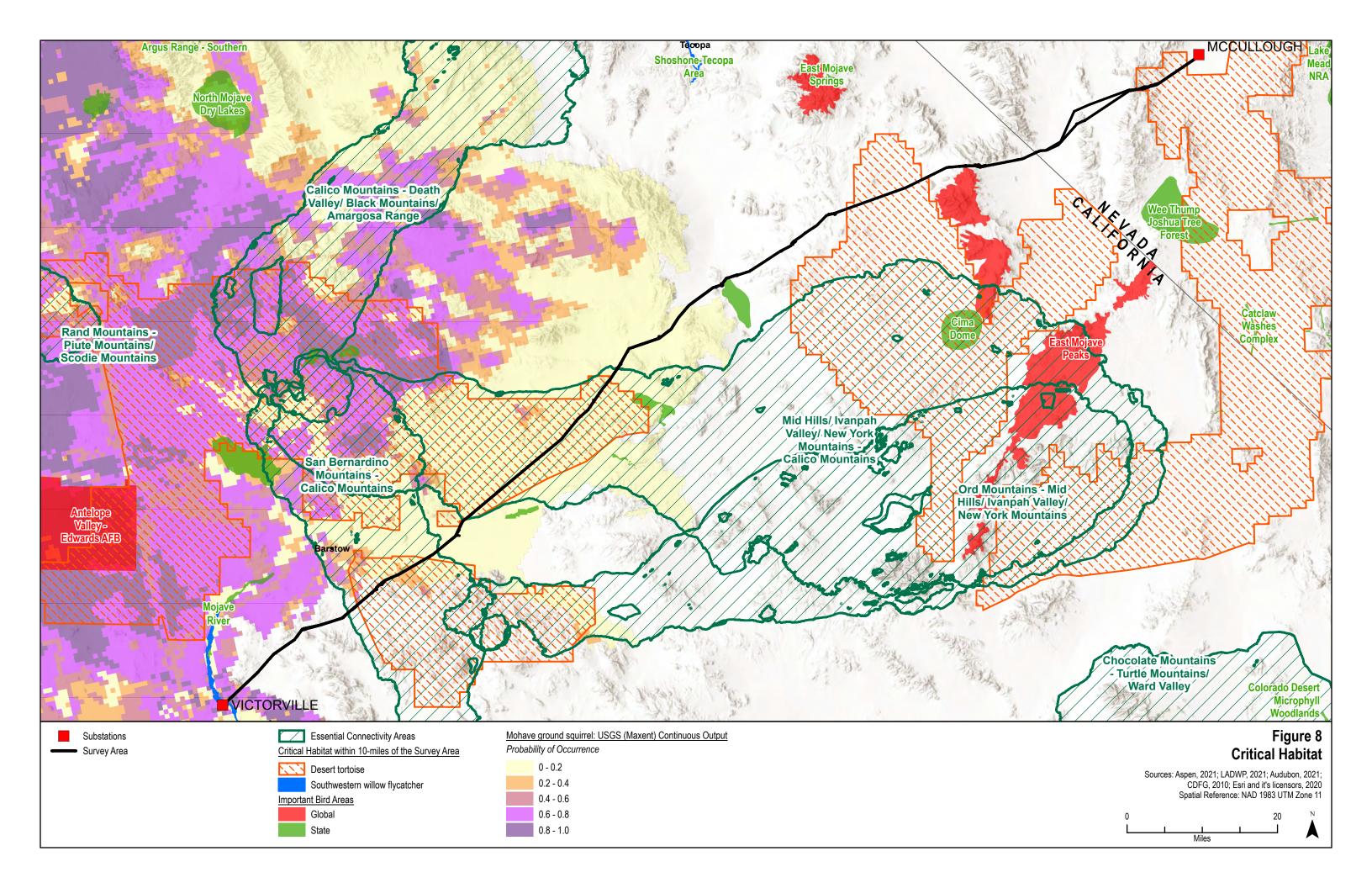












Attachment B - Representative Site Photos



Photo 1. View at Line 1 Tower 4-3 facing southwest within creosote white bursage scrub.



Photo 2. View at Line 1 Tower 25-5 within dry lakebed bordered by allscale scrub, facing west.



Photo 3. View at Line 2 Tower 33-5 within catclaw acacia - desert lavender - chuparosa scrub in a wash, facing north.



Photo 4. Ephemeral desert wash at Line 1 Tower 30-2 in Cheesebush - sweetbush scrub facing east.



Photo 5. View at Line 1 Tower 37-6 facing west within Joshua tree woodland.



Photo 6. View at Line 2 Tower 49-3 in creosote bush scrub facing north.



Photo 7. View at Line 1 Tower 123-2 adjacent to tamarisk thickets facing north.



Photo 8. View at Line 1 Tower 125-5 within a fallow agricultural land facing northeast.



Photo 9. View at Line 1 Tower 147-5 within Mojave yucca woodland facing east.



Photo 10. View at Line 1 Tower 162-2 outside the Victorville Switching Station within allscale scrub.



Photo 11. Blue diamond cholla located at Line 1 Tower 10-1.



Photo 12. Tidestrom's milkvetch along access road to Line 1 Tower 34-4.



Photo 13. Rusby desert mallow located at Line 1 Tower 27-1.



Photo 14. Viviparous foxtail cactus located at Line 2 Tower 26-1.



Photo 15. Parish's club-cholla at Line 1 Tower 34-4.



Photo 16. Western Joshua tree along access road at Line 2 Tower 155-3 facing south.



Photo 17. Live adult male desert tortoise in Class 1 burrow at Line 1 Tower 62-5 facing north



Photo 18. Class 2 desert tortoise burrow located at Line 2 Tower 1-3.



Photo 19. Desert kit fox natal den complex along Line 1 Tower 122-2 facing north.



Photo 20. Burrowing owl burrow located at Line 1 Tower 150-3.

Attachment C - Plant Species Observed

Scientific Name	Common Name
DICOTYLEDONS	
AIZOACEAE	FIG-MARIGOLD FAMILY
Sesuvium verrucosum	Western sea purslane
AMARANTHACEAE	AMARANTH FAMILY
Amaranthus sp.*	Tumbleweed*
Tidestromia suffruticosa var. oblongifolia	Honeysweet
ANACARDIACEAE	SUMAC FAMILY
Rhus aromatica	Fragrant sumac
APOCYNACEAE	DOGBANE FAMILY
Amsonia tomentosa	Gray amsonia
Asclepias erosa	Desert milkweed
Asclepias subulata	Rush milkweed
Funastrum hirtellum	Hairy milkweed
ASTERACEAE	ASTER FAMILY
Acamptopappus shockleyi	Shockley's goldenhead
Acamptopappus sphaerocephalus	Goldenhead
Adenophyllum sp.	Dogweed
Adenophyllum cooperi	Cooper's dogweed
Ambrosia acanthicarpa	Annual burrweed
Ambrosia x platyspina	Ambrosia x platyspina
Ambrosia dumosa	White bursage
Ambrosia eriocentra	Woolly bursage
Ambrosia salsola	Cheesebush
Baccharis brachyphylla	Short leaved baccharis
Bahiopsis parishii	Parish viguiera
Baileya multiradiata	Desert marigold
Baileya pleniradiata	Woolly desert marigold
Bebbia juncea var. aspera	Rough sweetbush
Brickellia atractyloides	Spear leaved brickellia
Brickellia atractyloides var. arguta	California spear leaved brickellia

cientific Name	Common Name	
Brickellia californica	California brickellia	
Brickellia desertorum	Desert brickellia	
Brickellia incana	Woolly brickellia	
Brickellia oblongifolia var. linifolia	Pinon brickellia	
Calycoseris wrightii	White tackstem	
Chaenactis carphoclinia var. carphoclinia	Pebble pincushion	
Chaenactis fremontii	Fremont pincushion	
Chaenactis stevioides	Esteve pincushion	
Cirsium sp.	Thistle	
Dicoria canescens	Desert dicoria	
Encelia actoni	Acton encelia	
Encelia farinosa	Brittlebush	
Encelia frutescens	Rayless encelia	
Encelia virginensis	Virgin river encelia	
Enceliopsis nudicaulis	Naked stemmed daisy	
Enceliopsis nudicaulis var. nudicaulis	Naked-stemmed daisy	
Ericameria cooperi var. cooperi	Cooper goldenbush	
Ericameria laricifolia	Turpentine brush	
Ericameria linearifolia	Interior goldenbush	
Ericameria nauseosa	Rubber rabbitbrush	
Ericameria paniculata	Mojave rabbitbrush	
Eriophyllum wallacei	Wallace eriophyllum	
Geraea canescens	Hairy desert sunflower	
Gutierrezia microcephala	Sticky snakeweed	
Gutierrezia sarothrae	Matchweed	
Helianthus annuus	Hairy leaved sunflower	
Lasthenia gracilis	Needle goldfield	
Leucosyris arida	Silver lake daisy	
Malacothrix coulteri	Snake's head	

Scientific Name	Common Name
Monoptilon bellioides	Mojave Desert star
Nicolletia occidentalis	Western nicolletia
Oncosiphon pilulifer*	Stinknet*
Packera multilobata	Lobeleaf groundsel
Palafoxia arida var. arida	Desert needle
Peucephyllum schottii	Desert pine
Pleurocoronis pluriseta	Arrow leaf
Porophyllum gracile	Slender poreleaf
Prenanthella exigua	Bright white
Psathyrotes ramosissima	Turtleback
Psilostrophe cooperi	Paper flower
Rafinesquia neomexicana	Desert chicory
Stephanomeria exigua	Small wirelettuce
Stephanomeria pauciflora	Brownplume wirelettuce
Stylocline micropoides	Desert nest straw
Tetradymia stenolepis	Narrow scaled felt thorn
Thymophylla pentachaeta var. belenidium	Five needled thymophylla
Xanthisma sp.	Bristleweed
Xylorhiza tortifolia var. tortifolia	Desert aster
BIGNONIACEAE	BIGNONIAS FAMILY
Chilopsis linearis ssp. arcuata	Desert willow
BORAGINACEAE	BORAGE FAMILY
Amsinckia tessellata var. tessellata	Devil's lettuce
Cryptantha angustifolia	Narrow leaved forget me not
Cryptantha circumscissa	Western forget me not
Cryptantha costata**	Ashen forget me not **
Cryptantha hoffmannii	Hoffmann's virgin river cryptantha
Cryptantha maritima	Guadalupe cryptantha
Cryptantha micrantha	Purple root cryptantha
Cryptantha nevadensis	Nevada forget me not

cientific Name	Common Name	
Cryptantha pterocarya	Winged nut forget me not	
Eucrypta sp.	Eucrypta	
Pectocarya heterocarpa	Chuckwalla pectocarya	
Pectocarya linearis ssp. ferocula	Slender comb seed	
Pectocarya penicillata	Winged pectocarya	
Pectocarya platycarpa	Broad nutted comb bur	
Pectocarya recurvata	Arch nutted comb bur	
Phacelia calthifolia	Caltha leafed phacelia	
Phacelia crenulata	Notch leaved phacelia	
Phacelia distans	Common phacelia	
Phacelia fremontii	Fremont's phacelia	
Phacelia neglecta	Alkali phacelia	
Phacelia pachyphylla	Thick leafed phacelia	
Phacelia rotundifolia	Round leafed phacelia	
Phacelia tanacetifolia	Tansy leaved phacelia	
Pholistoma membranaceum	White fiesta flower	
Plagiobothrys arizonicus	Arizona popcorn flower	
Tiquilia canescens	Woody crinklemat	
Tiquilia plicata	Plicate coldenia	
RASSICACEAE	MUSTARD FAMILY	
Boechera sp.	Rockcress	
Boechera perennans	Perennial rockcress	
Brassica tournefortii*	Saharan mustard*	
Caulanthus cooperi	Cooper caulanthus	
Caulanthus lasiophyllus	California mustard	
Descurainia pinnata	Yellow tansy mustard	
Descurainia sophia*	Herb Sophia*	
Draba cuneifolia	Wedge leaved draba	
Hirschfeldia incana*	Short podded mustard*	
Lepidium flavum	Yellow pepper grass	

Scientific Name	Common Name
Lepidium fremontii	Desert pepper grass
Lepidium lasiocarpum ssp. lasiocarpum	Shaggyfruit pepperweed
Sisymbrium altissimum*	Tumble mustard*
Sisymbrium irio*	London rocket*
Sisymbium orientale*	Indian hedge mustard*
Stanleya pinnata var. pinnata	Prince's plume
Streptanthella longirostris	Long beaked twist flower
Strigosella africana*	African mustard*
CACTACEAE	CACTUS FAMILY
Coryphantha chlorantha**	Desert pincushion**
Coryphantha vivipara var. rosea**	Viviparous foxtail cactus**
Cylindropuntia acanthocarpa var. acanthocarpa	Buckhorn cholla
Cylindropuntia echinocarpa	Silver cholla
Cylindropuntia multigeniculata**	Blue diamond cholla**
Cylindropuntia ramosissima	Branched pencil cholla
Echinocactus polycephalus var. polycephalus	Cottontop
Echinocereus engelmannii	Calico cactus
Echinocereus mojavensis	Mojave kingcup cactus
Ferocactus cylindraceus	California barrel cactus
Grusonia parishii**	Parish's club-cholla **
Mammillaria tetrancistra	Common fish hook cactus
<i>Opuntia</i> sp.	Prickly cactus
Opuntia basilaris var. basilaris	Beavertail cactus
Opuntia chlorotica	Pancake prickly pear
Opuntia phaeacantha	Brown spined prickly pear
Opuntia polyacantha var. erinacea	Grizzlybear pricklypear
Sclerocactus johnsonii**	Johnson's bee-hive cactus**
Sclerocactus polyancistrus**	Mojave fish hook cactus**
CAMPANULACEAE	BELLFLOWER FAMILY
Nemacladus sp.	Nemacladus

Scientific Name	Common Name	
CARYOPHYLLACEAE	PINK FAMILY	
Eremogone macradenia	Mojave sandwort	
Eremogone macradenia var. macradenia	Desert sandwort	
CELASTRACEAE	STAFF-TREE FAMILY	
Mortonia utahensis**	Utah mortonia**	
CHENOPODIACEAE	GOOSEFOOT FAMILY	
Atriplex canescens	Fourwing saltbush	
Atriplex canescens var. laciniata	Caleb saltbush	
Atriplex confertifolia	Shadscale	
Atriplex elegans var. fasciculata	Wheelscale saltbush	
Atriplex hymenelytra	Desert holly	
Atriplex parryi	Parry's saltbush	
Atriplex polycarpa	Allscale	
Grayia spinosa	Hop sage	
Halogeton glomeratus*	Salt lover*	
Krascheninnikovia lanata	Winter fat	
Salsola paulsenii*	Paulsen's Russian thistle*	
Salsola tragus*	Russian thistle*	
Suaeda nigra	Bush seepweed	
CLEOMACEAE	BEEPLANT FAMILY	
Cleomella arborea	Bladderpod	
Cleomella obtusifolia	Mojave cleomella	
CONVOLVULACEAE	MORNING GLORY FAMILY	
Convolvulus arvensis*	Field bindweed*	
Cuscuta sp.	Dodder	
Cuscuta campestris	Field dodder	
Cuscuta denticulata	Desert dodder	
CUCURBITACEAE	GOURD FAMILY	
Cucurbita palmata	Coyote melon	
EUPHORBIACEAE	SPURGE FAMILY	

Scientific Name	Common Name	
Croton californicus	Desert croton	
Croton setiger	Turkey-mullein	
Ditaxis lanceolata	Narrowleaf silverbush	
Euphorbia albomarginata	Rattlesnake sandmat	
Euphorbia micromera	Sonoran sandmat	
Euphorbia polycarpa	Smallseed sandmat	
Stillingia linearifolia	Narrow leaved stillingia	
Stillingia paucidentata	Tooth leaf	
Stillingia spinulosa	Broad leaved stillingia	
FABACEAE	LEGUME FAMILY	
Acmispon strigosus	Strigose lotus	
Astragalus didymocarpus	Common dwarf milkvetch	
Astragalus lentiginosus	Freckled milk vetch	
Astragalus lentiginosus var. fremontii	Fremont's milk vetch	
Astragalus tidestromii**	Tidestrom's milkvetch**	
Dalea mollis	Silky dalea	
Lupinus concinnus	Bajada lupine	
Marina parryi	Parry dalea	
Neltuma odorata	Honey mesquite	
Parkinsonia sp.	paloverde	
Psorothamnus arborescens	Mojave indigo bush	
Psorothamnus polydenius	Dotted dalea	
Senegalia greggii	Catclaw	
Senna armata	Desert senna	
Senna covesii**	Coves' senna**	
GERANIACEAE	GERANIUM FAMILY	
Erodium cicutarium*	Red stemmed filaree*	
Erodium texanum	Desert heron's bill	
KRAMERIACEAE	KRAMERIA FAMILY	
Krameria erecta	Little leaved ratany	

Table C-1. Plants Observed within the McCullough-Victorville Project Study Area.

Scientific Name	Common Name	Common Name				
LAMIACEAE	MINT FAMILY					
Salvia columbariae	Chia sage					
Salvia dorrii	Dorr's sage					
Scutellaria mexicana	Mexican bladder sage					
LOASACEAE	LOASA FAMILY					
Eucnide urens	Desert bush nettle					
Mentzelia involucrata	Sand blazing star					
Mentzelia oreophila	Mountain loving blazing star					
Mentzelia polita**	Elegant blazing star**					
Mentzelia puberula**	Argus blazing star**					
Mentzelia tridentata**	Creamy blazingstar**					
Mentzelia tricuspis**	Three pointed blazing star**					
Petalonyx thurberi ssp. thurberi	Thurber's sandpaper plant					
MALVACEAE	MALLOW FAMILY					
Eremalche exilis	White mallow					
Eremalche rotundifolia	Desert five spot					
Malva parviflora*	Cheeseweed*					
Sphaeralcea ambigua	Desert mallow					
Sphaeralcea ambigua var. ambigua	Apricot mallow					
Sphaeralcea ambigua var. rugosa	Desert globemallow					
Sphaeralcea angustifolia	Narrow leaved desert mallow					
Sphaeralcea rusbyi var. eremicola**	Rusby's desert mallow**					
NAMACEAE	NAMA FAMILY					
Nama demissa var. demissa	Purplemat					
NYCTAGINACEAE	FOUR O'CLOCK FAMILY					
Abronia villosa	Hairy sand verbena					
Allionia incarnata	Windmills					
Boerhavia sp.	Boerhavia					
Mirabilis laevis	Desert wishbone bush					
Mirabilis multiflora	Giant four o'clock					

Table C-1. Plants Observed within the McCullough-Victorville Project Study Area.

Scientific Name	Common Name				
OLEACEAE	OLIVE FAMILY				
Menodora scabra var. glabrescens	Broom tvinberry				
Menodora spinescens var. spinescens	Spiny desert olive				
ONAGRACEAE	WILLOWHERB FAMILY				
Chylismia brevipes	Yellow cups				
Chylismia brevipes ssp. brevipes	Golden suncup				
Chylismia claviformis	Clavate fruited primrose				
Eremothera boothii ssp. condensata	Clustered booth's desert primrose				
Eremothera boothii ssp. desertorum	Booth's desert primrose				
Eremothera refracta	Narrow leaved primrose				
Oenothera cespitosa ssp. crinita**	Cespitose evening-primrose**				
Oenothera deltoides ssp. deltoides	Desert lantern				
Oenothera primiveris	Yellow desert evening primrose				
Oenothera suffrutescens	Wild honeysuckle				
Tetrapteron palmeri	Palmer's suncup				
OROBANCHACEAE	BROOMRAPE FAMILY				
Aphyllon cooperi	Burroweed strangler				
Castilleja chromosa	Desert paintbrush				
PAPAVERACEAE	POPPY FAMILY				
Argemone munita	Prickly poppy				
Eschscholzia glyptosperma	Desert gold poppy				
Eschscholzia minutiflora	Coville's poppy				
PHRYMACEAE	MONKEYFLOWER FAMILY				
Diplacus bigelovii	Bigelow's monkeyflower				
PLANTAGINACEAE	PLANTAIN FAMILY				
Antirrhinum mohavea	Golden desert snapdragon				
Penstemon bicolor ssp. roseus**	Two color beardtongue**				
Plantago ovata var. fastigiata	Desert plantain				
POLEMONIACEAE	PHLOX FAMILY				
Aliciella latifolia ssp. latifolia	Broadleaf gilia				

Scientific Name	Common Name	
Eriastrum diffusum	Miniature wool star	
Eriastrum eremicum ssp. eremicum	Desert wool star	
Eriastrum harwoodii**	Harwood's eriastrum**	
<i>Gilia</i> cana	Showy gilia	
Gilia latiflora	Broad-flowered gilia	
Langloisia setosissima	Lilac sunbonnet	
Leptosiphon sp.	Leptosiphon	
Linanthus bigelovii	Bigelow's linanthus	
Linanthus demissus	Desert linanthus	
Loeseliastrum matthewsii	Desert calico	
Loeseliastrum schottii	Schott's calico	
POLYGONACEAE	BUCKWHEAT FAMILY	
Chorizanthe brevicornu	Brittle spineflower	
Chorizanthe brevicornu var. brevicornu	Brittle spineflower	
Chorizanthe rigida	Rigid spiny herb	
Eriogonum deflexum	Flat topped buckwheat	
Eriogonum fasciculatum var. polifolium	California buckwheat	
Eriogonum heermannii var. floccosum**	Clark Mountain buckwheat**	
Eriogonum inflatum	Desert trumpet	
Eriogonum maculatum	Angle stemmed buckwheat	
Eriogonum nidularium	Whisk broom	
Eriogonum palmerianum	Palmer's buckwheat	
Eriogonum trichopes	Little desert buckwheat	
Oxytheca perfoliata	Roundleaf puncturebract	
Polygonum sp.	knotweed	
Rumex hymenosepalus	Wild rhubarb	
RANUNCULACEAE	BUTTERCUP FAMILY	
Delphinium sp.	Larkspur	
RESEDACEAE	MIGNONETTE FAMILY	
Oligomeris linifolia	Leaved cambess	

Scientific Name	Common Name				
ROSACEAE	ROSE FAMILY				
Coleogyne ramosissima	Black brush				
Fallugia paradoxa	Apache plume				
Prunus fasciculata	Desert almond				
Purshia stansburyana	Stansbury's antelope brush				
Purshia tridentata	Antelope bush				
RUBIACEAE	MADDAR FAMILY				
Galium stellatum	Starry bedstraw				
RUTACEAE	RUE FAMILY				
Thamnosma montana	Turpentine broom				
SOLANACEAE	POTATOE FAMILY				
Lycium sp.	Box thorn				
Lycium andersonii	Anderson thornbush				
Lycium cooperi	Cooper's box thorn				
Lycium pallidum var. oligospermum	Rabbit thorn				
Nicotiana obtusifolia	Desert tobacco				
Physalis crassifolia	Thick leaved ground cherry				
Solanum elaeagnifolium*	Horse nettle*				
TAMARICACEA	TAMARISK FAMILY				
Tamarix sp.*	tamarisk, salt cedar*				
VISCACEAE	MISTLETOE FAMILY				
Phoradendron californicum	California mesquite mistletoe				
ZYGOPHYLLACEAE	CALTROP FAMILY				
Larrea tridentata	Creosote bush				
MONOCOTYLEDONS					
ASPARAGACEAE	ASPARAGUS FAMILY				
Agave utahensis var. nevadensis**	Nevada agave**				
Hesperocallis undulata	Desert lily				
Yucca baccata var. baccata	Banana yucca				
Yucca brevifolia var. brevifolia**	Western Joshua tree**				

 Table C-1. Plants Observed within the McCullough-Victorville Project Study Area.

Scientific Name	Common Name	Common Name		
Yucca brevifolia var. jaegeriana	Eastern Joshua tree			
Yucca schidigera	Mohave yucca			
POACEAE	GRASS FAMILY			
Aristida adscensionis	Three awn			
Aristida purpurea	Purple three awn			
Aristida purpurea var. nealleyi	Reverchon three awn			
Avena barbata*	Slender oatgrass*			
Bouteloua curtipendula	Side oats grama			
Bouteloua eriopoda**	Black grama**			
Bouteloua trifida**	Three-awned grama**			
Bromus rubens*	Red brome*			
Bromus tectorum*	Cheatgrass*			
Cynodon dactylon*	Bermuda grass*			
Dasyochloa pulchella	Low woollygrass			
Hilaria rigida	Big galleta			
Hordeum murinum*	Foxtail barley*			
Muhlenbergia porteri	Porter's muhly			
Panicum urvilleanum	Desert panicgrass			
Schismus sp.*	Mediterranean grass*			
Schismus arabicus*	Arabian grass*			
Sporobolus flexuosus	Mesa dropseed			
Stipa hymenoides	Indian rice grass			
Stipa speciosa	Desert needle grass			
Tridens muticus var. muticus	Slim tridens			
Triticum aestivum*	Common wheat*			
THEMIDACEAE	BRODIEAE FAMILY			
Dipterostemon capitatus	Blue dicks			
FERNS & ALLIES				
PTERIDACEAE	FERN FAMILY			
Myriopteris parryi	Parry's lip fern			

Scientific Name	Common Name	
GYMNOSPERMS		
CUPRESSACEAE	CYPRESS FAMILY	
Juniperus osteosperma	Utah juniper	
EPHEDRACEAE	EPHEDRA FAMILY	
Ephedra californica	Desert tea	
Ephedra funerea	Death Valley ephedra	
Ephedra nevadensis	Nevada ephedra	
Ephedra trifurca	Long leafed ephedra	
Ephedra viridis	Green ephedra	
PINACEAE	PINE FAMILY	
Pinus monophylla	Single-leaf pinyon	

Note: * Indicates non-native species, **indicates a special-status species.

Attachment D - Wildlife Species Observed

Common Name	Scientific Name	CA Segment	NV Segment	Status
Invertebrates				
Argentine ant	Linepithema humile	х		
Armored stink beetle	Eleodes armata	Х		
Asian lady beetle	Harmonia axyridis	Х		
Black harvester ant	Veromessor pergandei	Х		
Desert hairy scorpion	Hadrurus arizonensis	Х		
Longhorn beetle	Plionoma rubens	Х		
Mormon metalmark	Apodemia mormo	Х		
Thisbe's tarantula-hawk wasp	Pepsis thisbe	Х		
Victorville shoulderband	Helminthoglypta mohaveana	Х		
Western tent caterpillar	Malacosoma californica	х		
Wind scorpion	Eremorhax sp.	Х		
Yucca weevil	Scyphophorus yuccae	Х		
Reptiles				
Common chuckwalla	Sauromalus ater	Х	Х	BLM S (NV)
Desert iguana	Dipsosaurus dorsalis	Х		BLM S (NV)
Desert tortoise	Gopherus agassizii	Х	Х	Fed THR, BLM S (CA, NV), CA THR, TR
Great Basin collared lizard	Crotaphytus bicinctores	Х		BLM S (NV)
Great Basin fence lizard	Sceloporus occidentalis longipes	Х		
Great Basin whiptail	Aspidoscelis tigris tigris	Х	Х	
Long nosed leopard lizard	Gambelia wislizenii	Х	Х	BLM S (NV)
Red racer	Coluber flagellum piceus		Х	
Southern desert horned lizard	Phrynosoma platyrhinos calidiarum	Х		BLM S (NV)
Southwestern speckled rattlesnake	Crotalus mitchellii Pyrrhus		Х	
Western side-blotched lizard	Uta stansburiana elegans	х	х	
Western zebra-tailed lizard	Callisaurus draconoides rhodostictus	Х		
Yellow-backed spiny lizard	Sceloporus uniformis	Х		

Birds

Common Name	Scientific Name	CA Segment	NV Segment	Status
Anna's hummingbird	Calypte anna	Х		
Ash-throated flycatcher	Myiarchus cinerascens	х	X	
Barn owl	Tyto alba	х		
Black-throated sparrow	Amphispiza bilineata	х	Х	
Brewer's blackbird	Euphagus cyanocephalus	х		
Burrowing owl	Athene cunicularia	х		BCC, BLM S (CA, NV), CSC
Cactus wren	Campylorhynchus brunneicapillus	х	х	
California towhee	Melozone crissalis	х		
Cassin's kingbird	Tyrannus vociferans		Х	
Common raven	Corvus corax	х	Х	
Cooper's hawk	Accipiter cooperii		Х	WL
Costa's hummingibrd	Calypte costae	Х		BCC
Eurasian Collared-Dove	Streptopelia decaocto	Х		
Golden eagle	Aquila chrysaetos	Х		BGEPA, BCC, BLM S (CA, NV), FP, WL
Great horned owl	Bubo virginianus	х		
House finch	Haemorhous mexicanus	х		
House sparrow	Passer domesticus	х		
Ladder-backed woodpecker	Dryobates scalaris	х		
Le Conte's thrasher	Toxostoma lecontei	х		BCC, BLM S (CA, NV), CSC
Loggerhead shrike	Lanius ludovicianus	х		BCC, BLM S (NV), CSC, SB
MacGillivray's Warbler	Oporornis tolmiei	Х		
Mourning dove	Zenaida macroura	х		
Northern flicker	Colaptes auratus	х	Х	
Phainopepla	Phainopepla nitens	Х		BLM S (NV)
Red-tailed hawk	Buteo jamaicensis	Х	Х	
Rock wren	Salpinctes obsoletus	Х		
Spotted towhee	Pipilo maculatus		х	
Swainson's hawk	Buteo swainsoni		х	
Turkey vulture	Cathartes aura	х	х	
Western tanager	Piranga ludoviciana	Х		

Common Name	Scientific Name	CA Segment	NV Segment	Status
White-crowned sparrow	Zonotrichia leucophrys		Х	
Wilson's warbler	Cardellina pusilla	Х		
Yellow-headed blackbird	Xanthocephalus xanthocephalus	Х		CSC
Yellow-rumped warbler	Dendroica coronata		Х	
Mammals				
American badger	Taxidea taxus		Х	CSC
Black-tailed jackrabbit	Lepus californicus	Х	Х	
Coyote	Canis latrans	Х	Х	
Desert bighorn sheep	Ovis canadensis nelsoni		Х	BLM S (CA, NV), FP, GM
Desert kit fox	Vulpes macrotis arsipus	Х	Х	FM
Desert woodrat	Neotoma lepida	Х	Х	
Donkey	Equus asinus	Х	Х	
Kangaroo rat	Dipodomys sp.	Х	Х	
Mule deer	Odocoileus hemionus	Х		
Pocket mouse	Chaetodipus sp.	Х		
Round-tailed ground squirrel	Xerospermophilus tereticaudus	х		
Striped skunk	Mephitis mephitis		х	
Unknown myotis bat	<i>Myotis</i> sp.	Х		
White-tailed antelope squirrel	Ammospermophilus leucurus	Х	Х	

Federal designations (Fed): (federal ESA, USFWS).

THR: Federally listed, threatened.

BGEPA: Bald and golden eagle protection act.

Birds of conservation concern. BCC:

Bureau of Land Management (BLM)

Sensitive: Species recognized by the BLM as sensitive.

Nevada Division of Natural Heritage: TR: Threatened Reptile (NAC 503.080.2)

PR: Protected Reptile (NAC 503.080.1) SM: Sensitive Mammal (NAC 503.030.3)

- SB: Sensitive Birds (NAC 503.050.3)

GM: Game Mammal (NAC 503.020) FM: Fur-bearing Mammal (NAC 503.025)

 State designations (CA): (CESA, CDFW)

 THR:
 State listed, threatened.

 CSC:
 California Species of Special Concern. Considered vulnerable to extinction

due to declining numbers, limited geographic ranges, or ongoing threats. WL: Species that were either previously listed as SC and have not been state listed under CESA; or were previously state or federally listed and now are on neither list; or are on the list of "Fully Protected" species.

FP: Fully protected. May not be taken or possessed without permit from CDFG.

Attachment E - Jurisdictional Delineation

Please see Appendix C3 of this Draft EIR for the Jurisdictional Delineation (prepared by Psomas, March 2023)