APPENDIX E:

Biological Resources Survey Report

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Biological Resources Technical Report

date	August 15, 2025
to	Courtney Degener, Cadiz Inc.
cc	
from	Brenda McMillan, ESA; Tom Barnes, ESA
subject	Fenner Gap Mutual Water Company Northern Pipeline Conversion Biological Resources Technical Report

Environmental Science Associates (ESA) has conducted fieldwork and research in support of the Fenner Gap Mutual Water Company (FGMWC) Northern Pipeline Conversion (Project). This Biological Resources Technical Report (Report) is based on biological survey results conducted in 2024 and 2025. The report documents the existing biological conditions, including a list of species observed and an analysis of the potential for sensitive biological or aquatic resources to occur within the existing pipeline alignment and within and around eight potential sites where up to seven pump stations (PS) may be constructed. This report also provides a discussion of potential impacts on biological and aquatic resources resulting from the proposed Project. The information used to support this report includes the results of a field reconnaissance survey and research of available literature and databases.

Project Location/Study Area

The Project sites consist of eight potential PS site locations along an approximately 161-mile alignment of the existing El Paso Natural Gas (EPNG) pipeline, extending through the Mojave Desert from Cadiz, California in eastern San Bernardino County continuing west past Barstow to Kern County, California, as shown in **Figure 1**, *Regional Location*, and **Figures 2-1 to 2-8**, *Project Location*. The EPNG pipeline was constructed in 1985 to transport natural gas from the San Juan, Permian, and Anadarko basins to California, Arizona, Nevada, New Mexico, Oklahoma, Texas, and northern Mexico. A portion of the EPNG underground pipeline traverses the Cadiz Inc. property in San Bernardino and continues northwestward to Barstow and then westward to the Mojave.

The biological study area (BSA) includes the 161-mile pipeline alignment, eight potential PS sites and a 200-foot buffer surrounding each of the potential PS sites. The potential PS sites and associated survey areas account for approximately 19.66 acres of the BSA which was observed on foot.

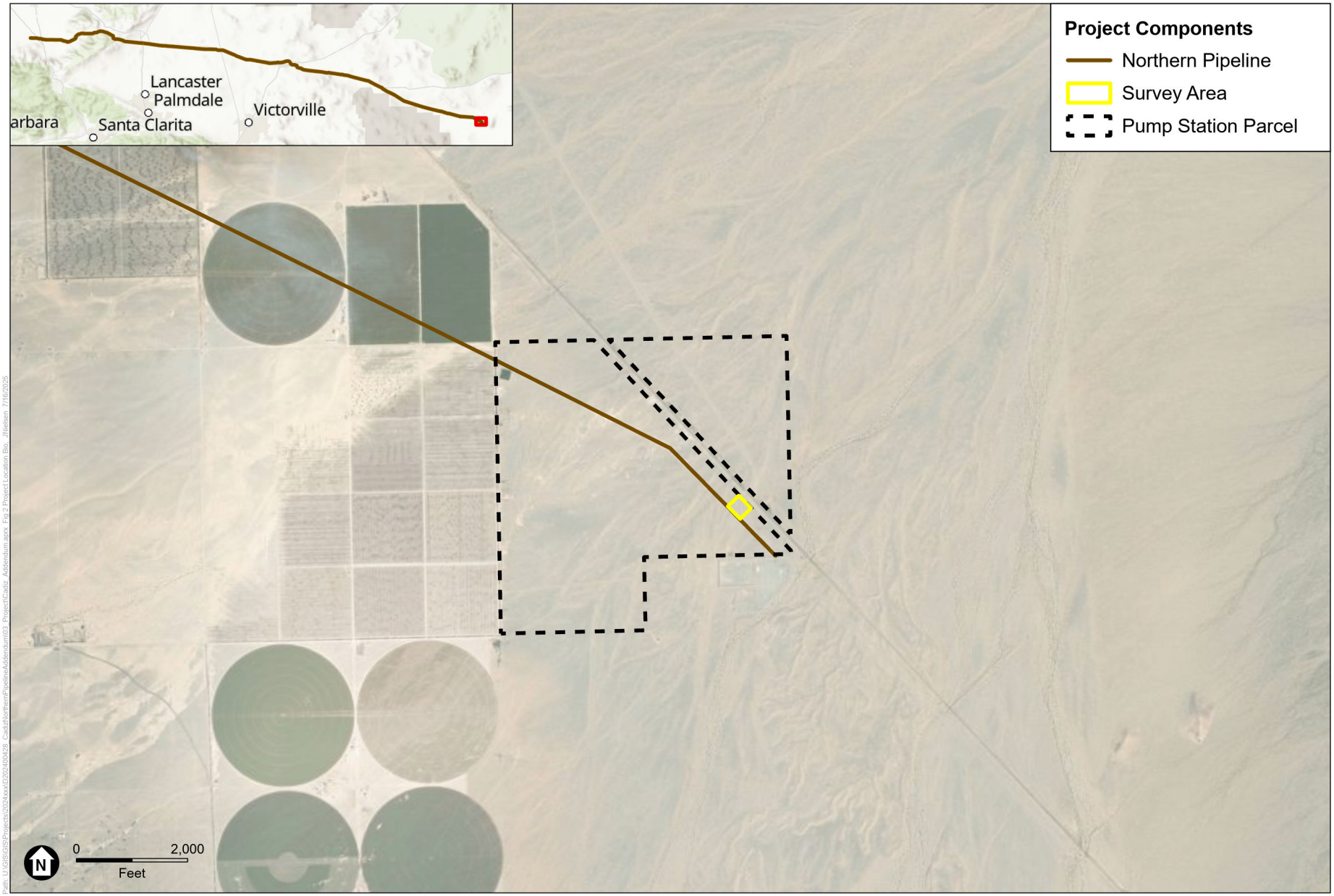


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 1
Biological Resources Letter Report
Regional Location

ESA

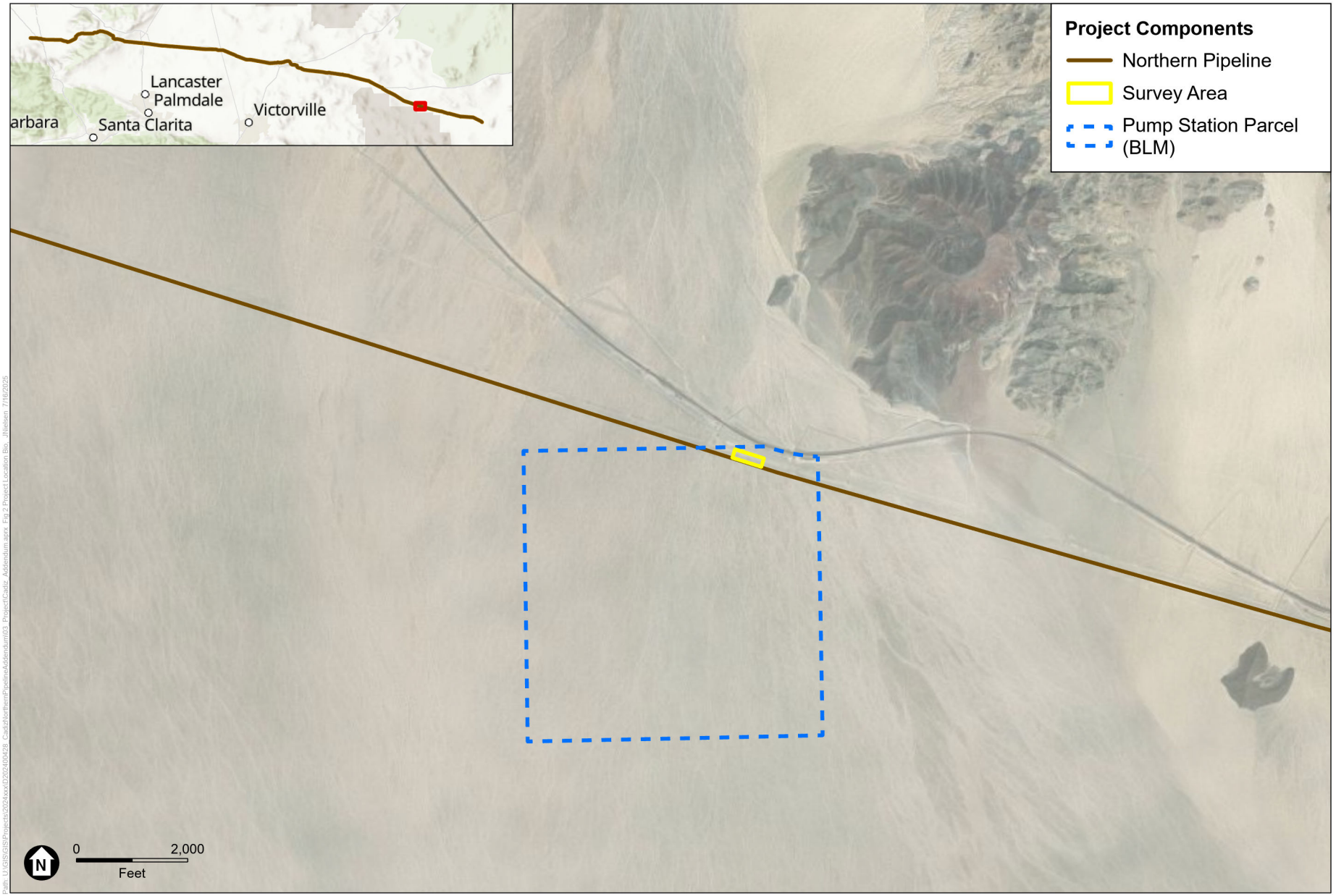


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 2-1
Project Location

ESA

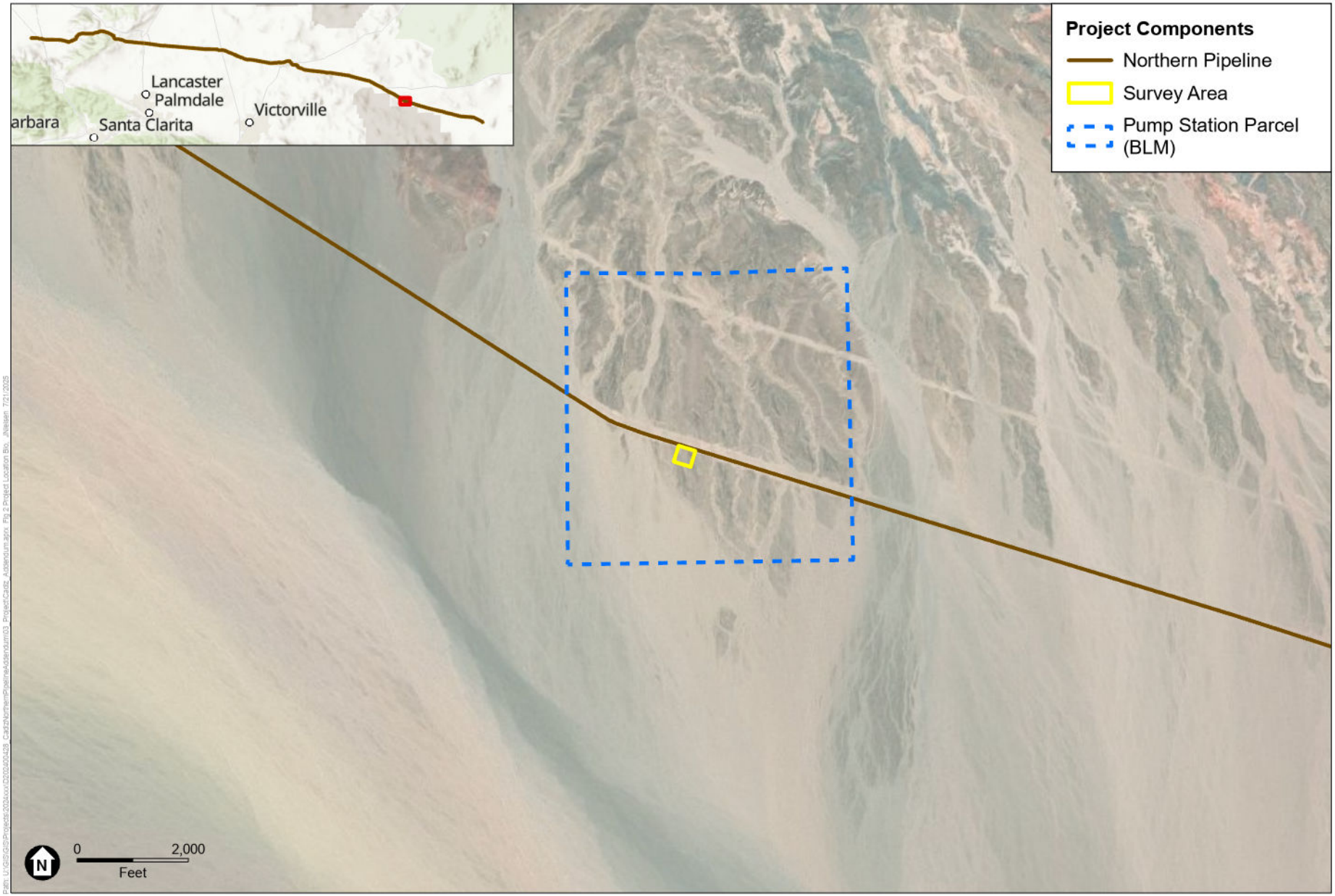


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 2-2
Project Location

ESA

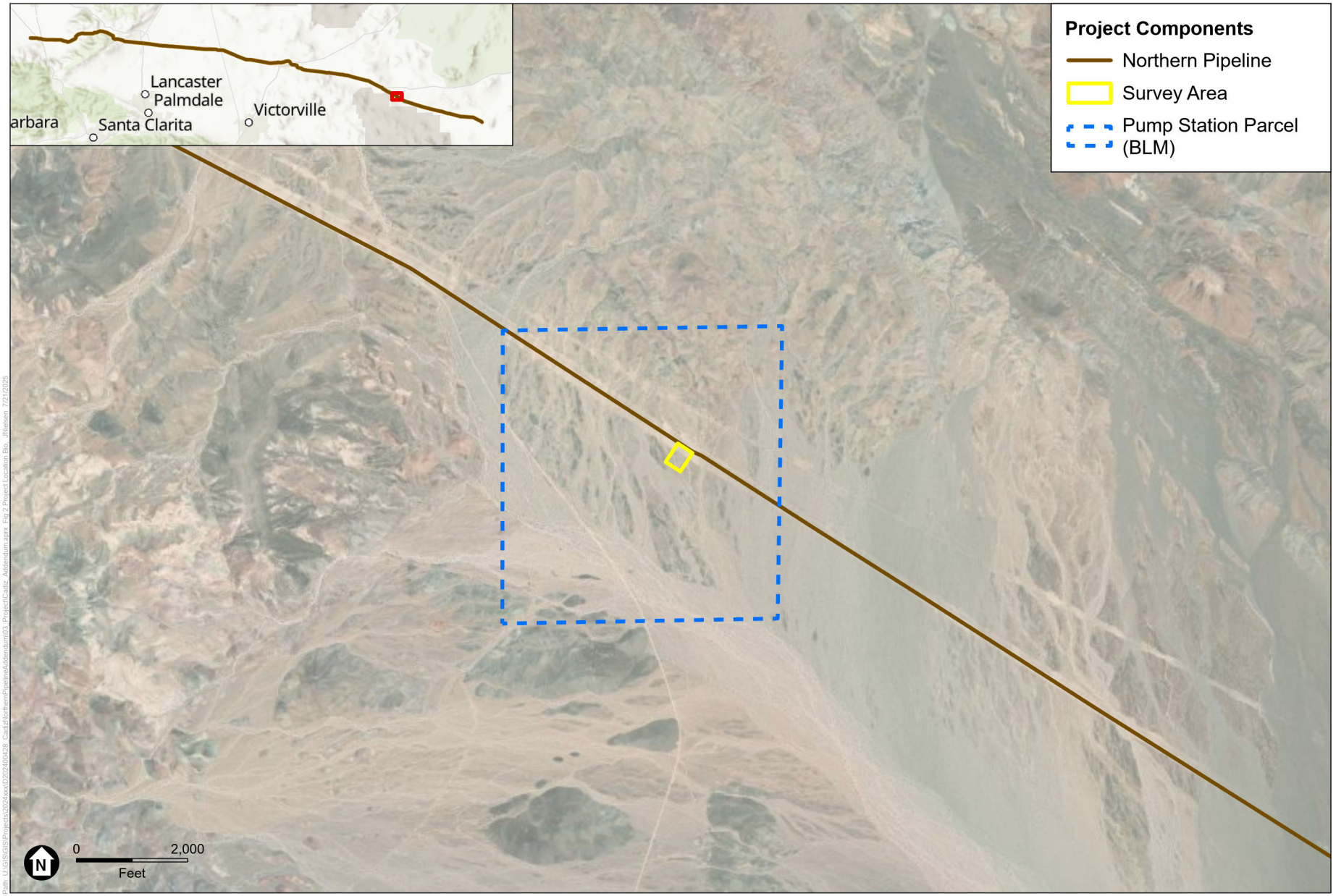


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 2-3
Project Location

ESA

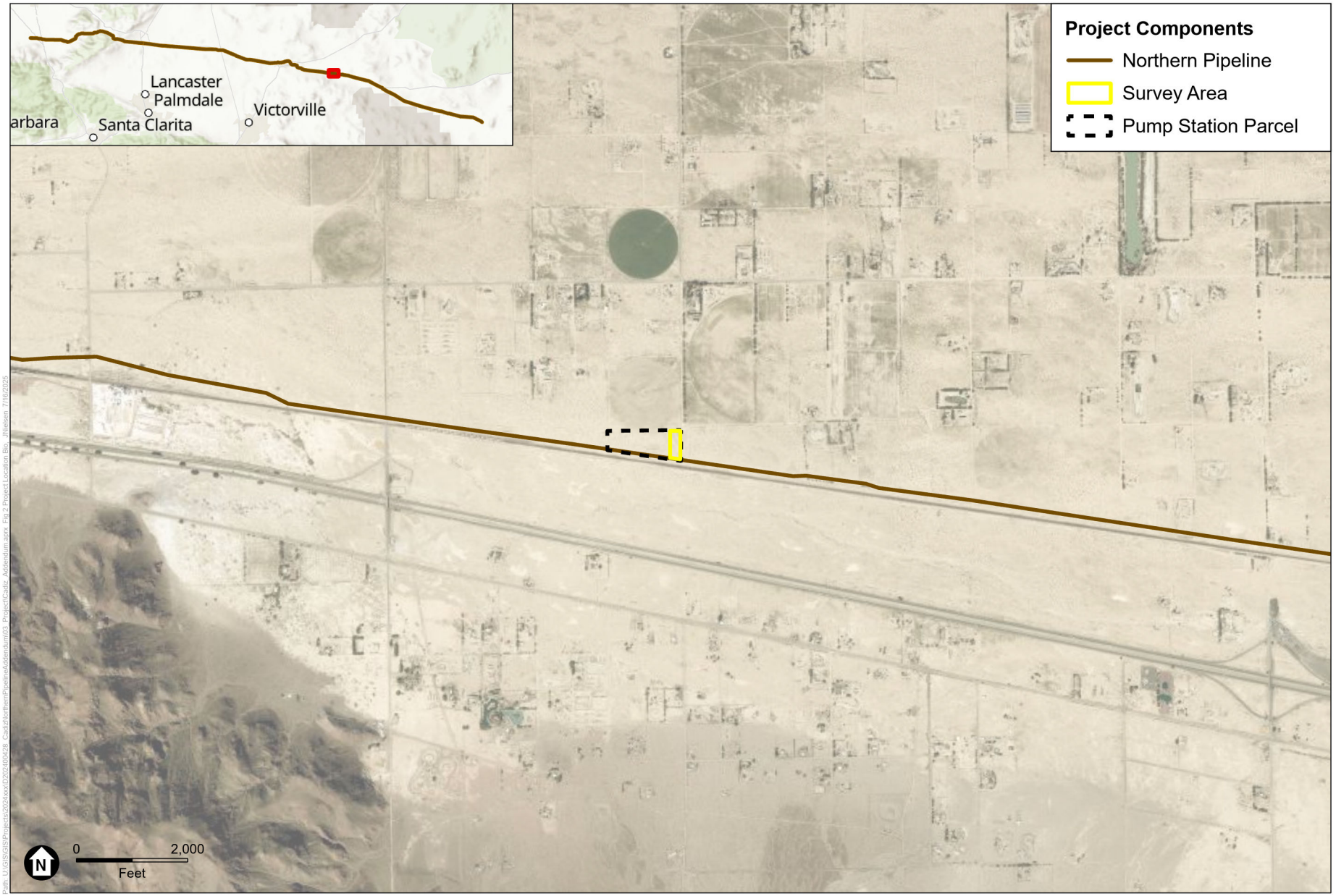


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 2-4
Project Location

ESA

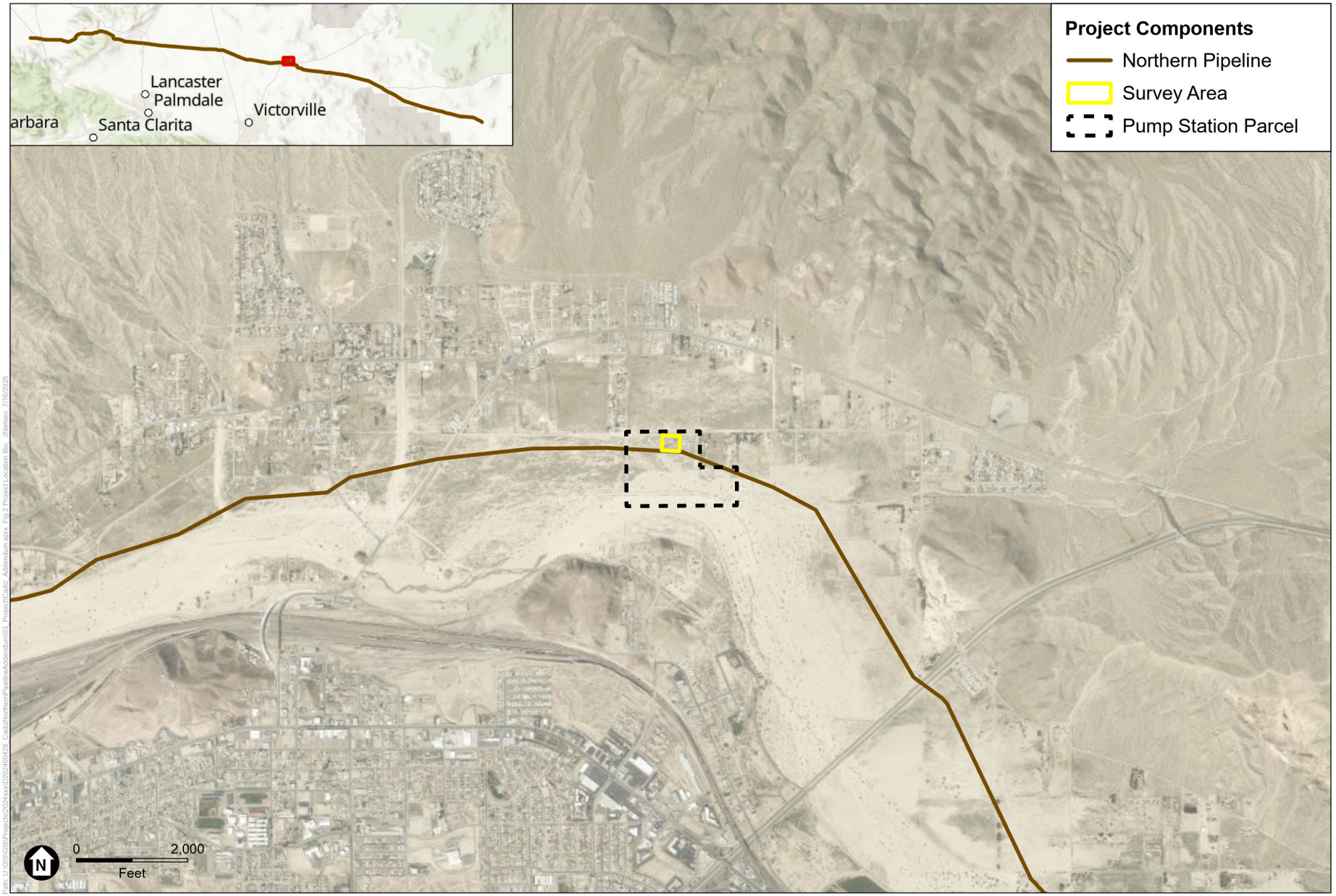


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 2-5
Project Location

ESA

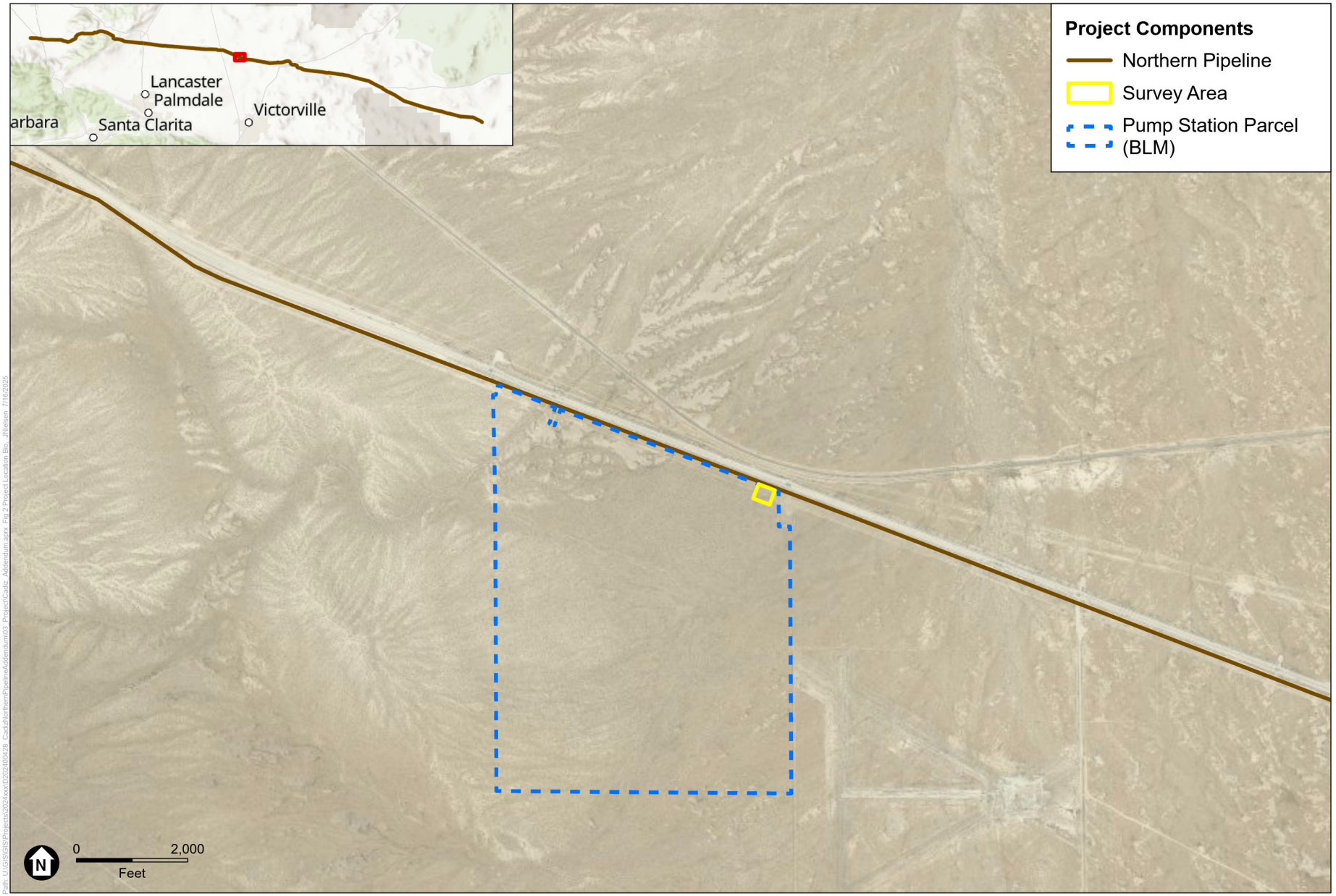


SOURCE: ESA, 2025

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Figure 2-6
Project Location

ESA

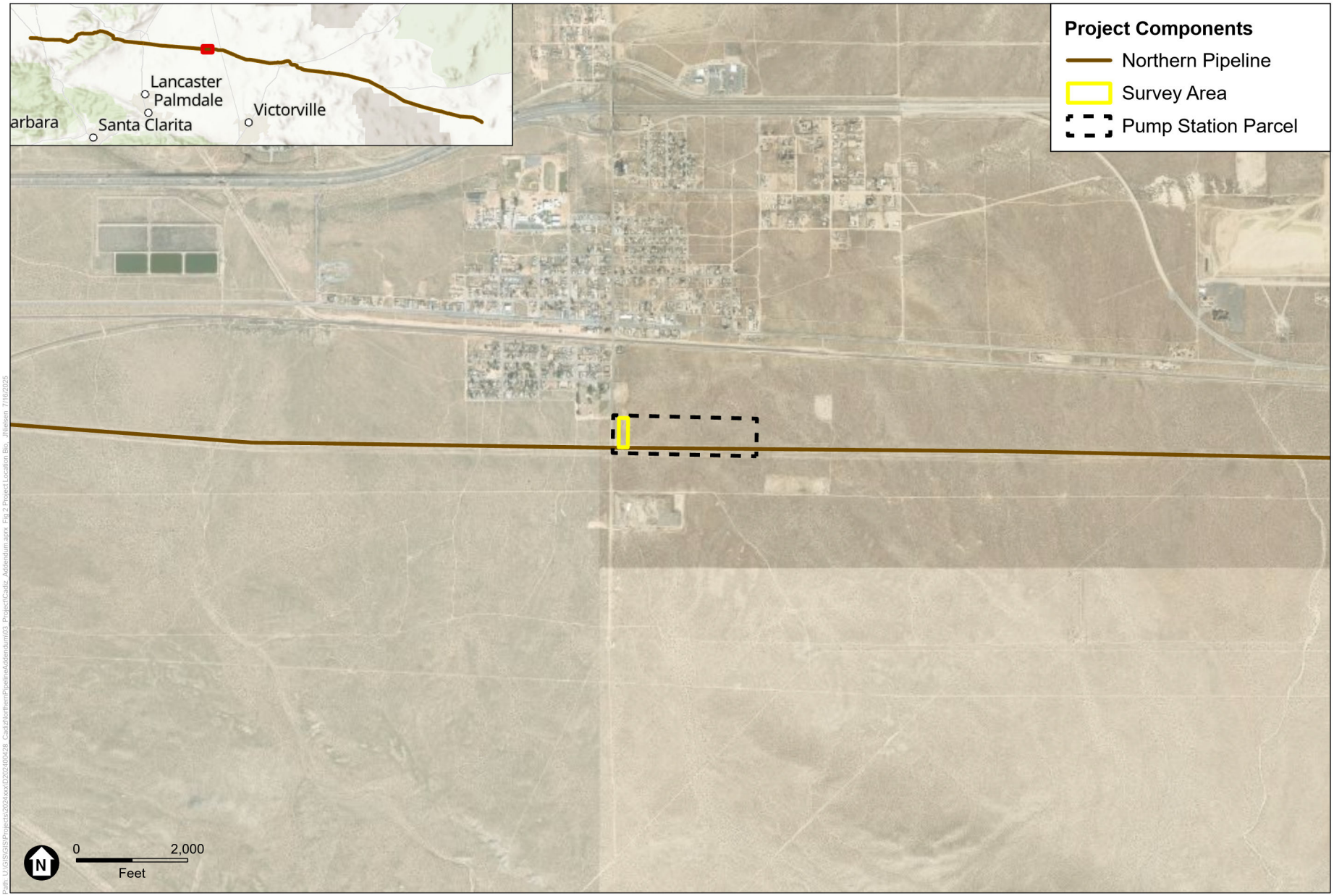


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 2-7
Project Location

ESA

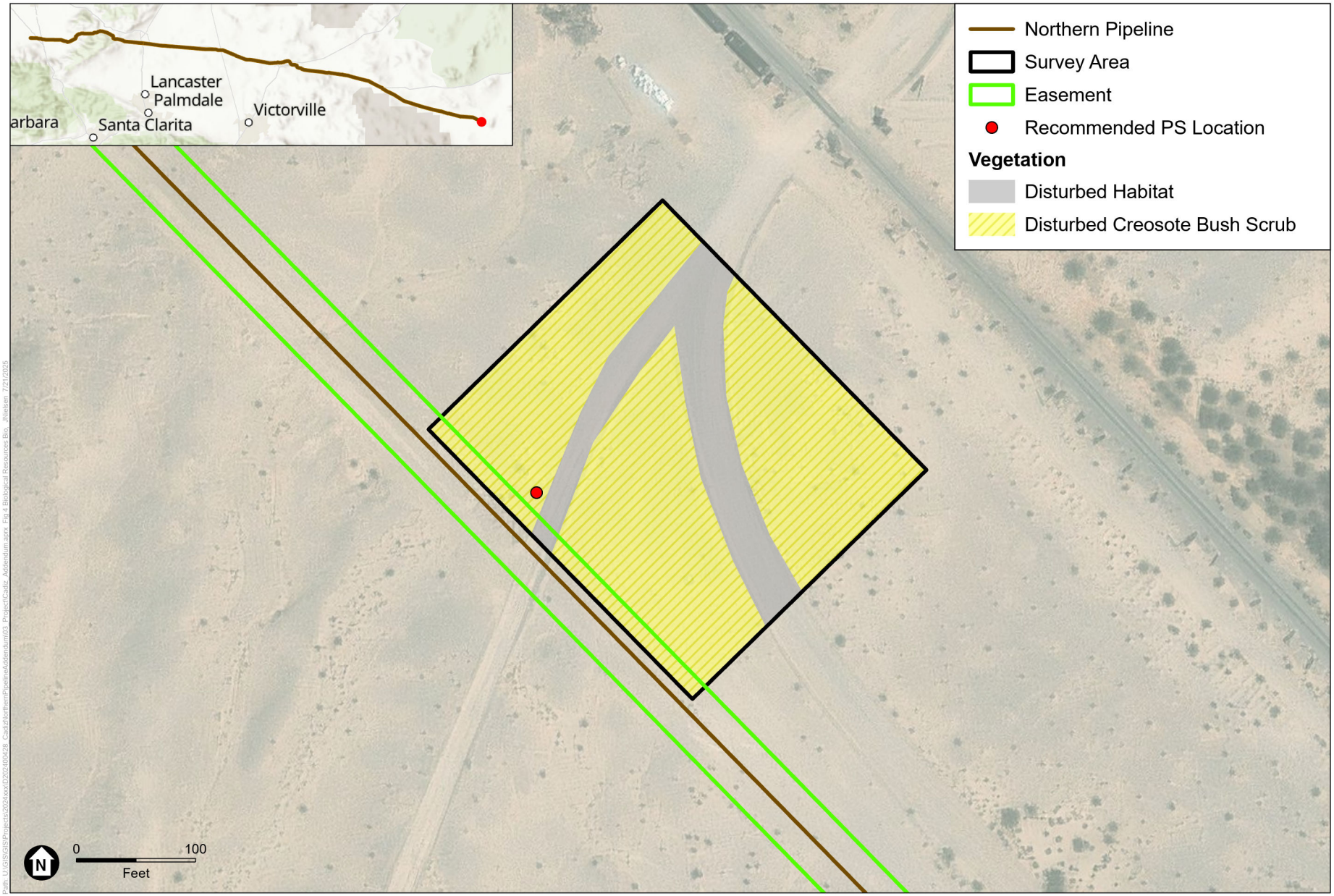


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 2-8
Project Location

ESA

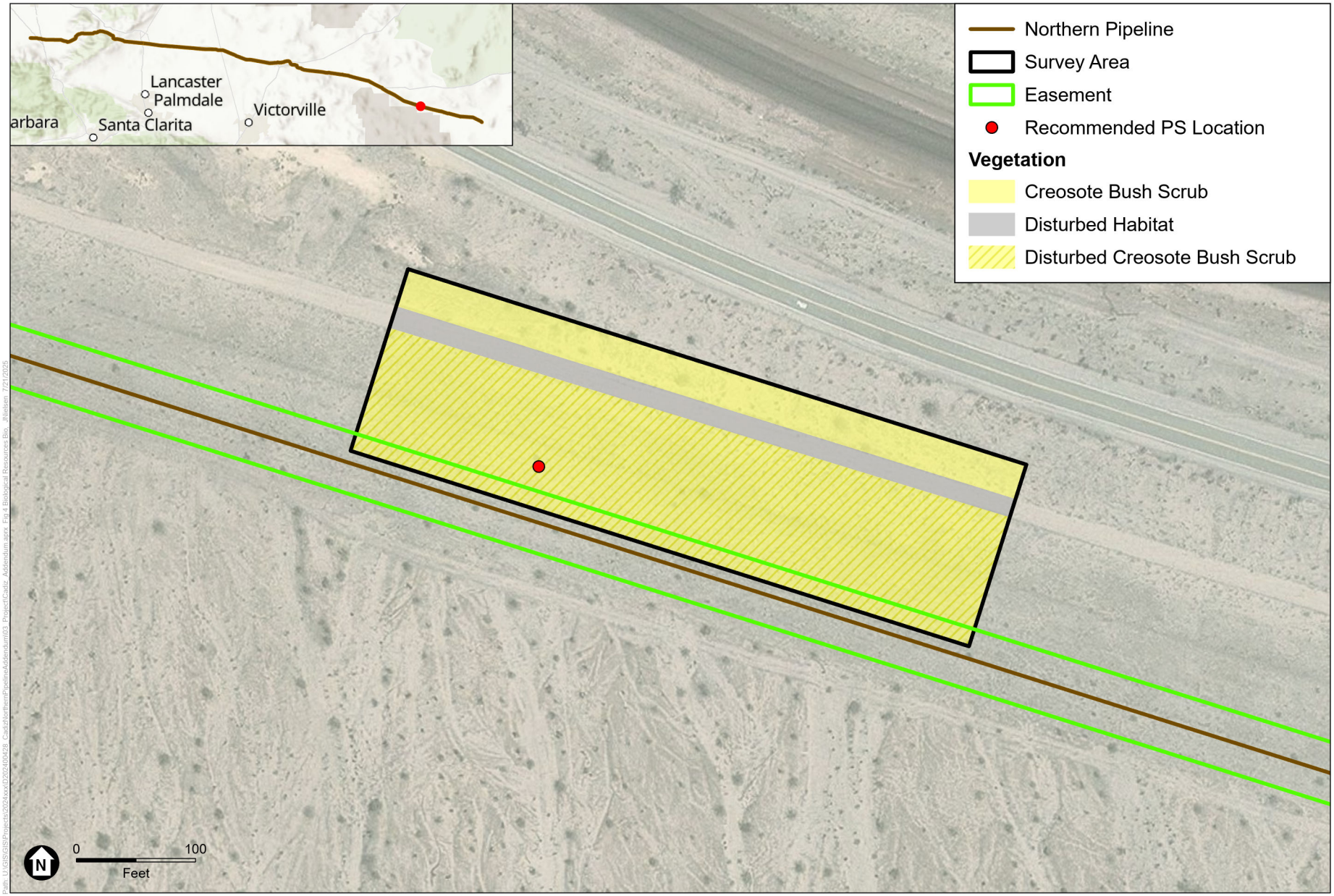


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 4-1
Biological Resources

ESA

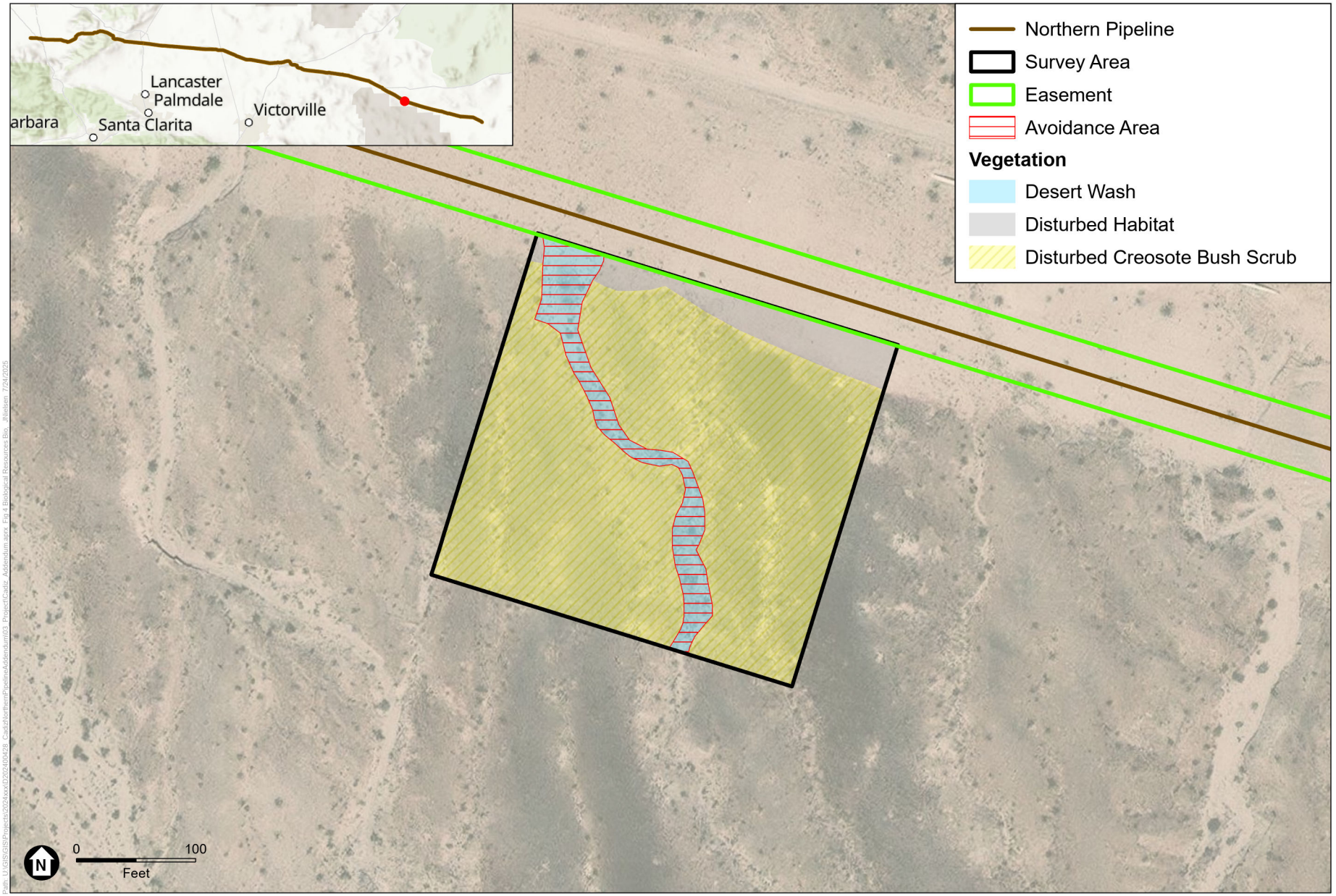


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 4-2
Biological Resources

ESA

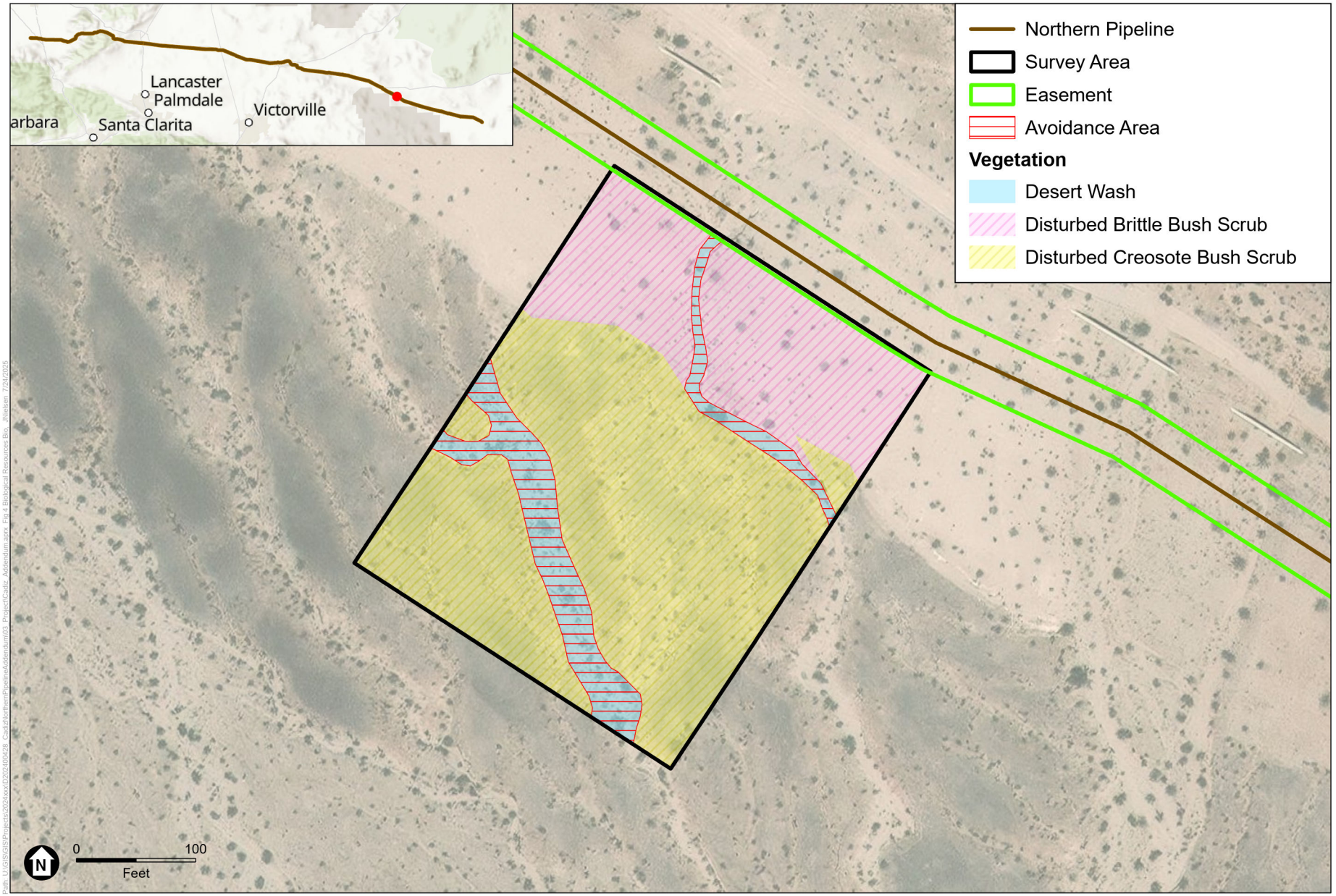


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 4-3
Biological Resources

ESA

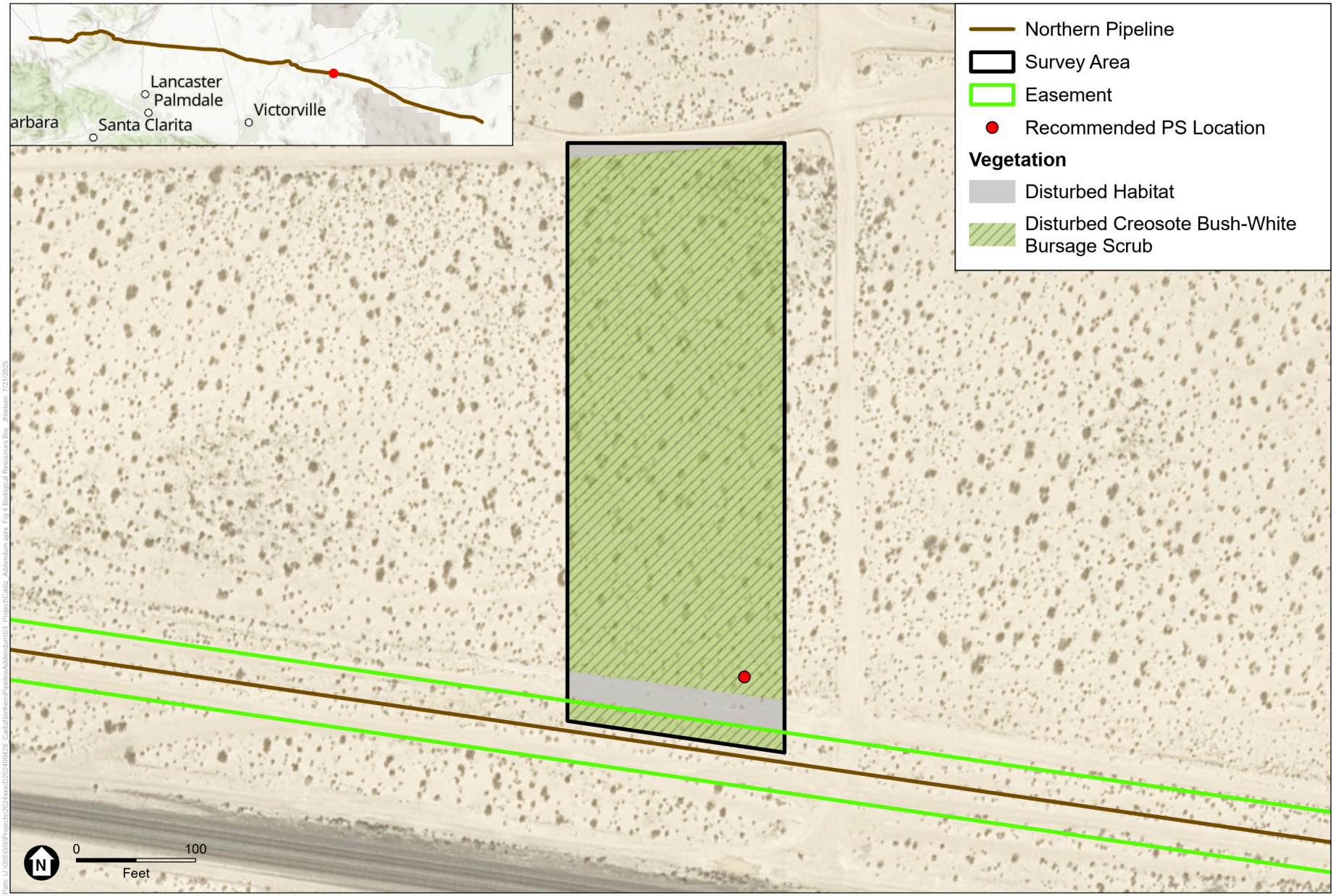


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 4-4
Biological Resources

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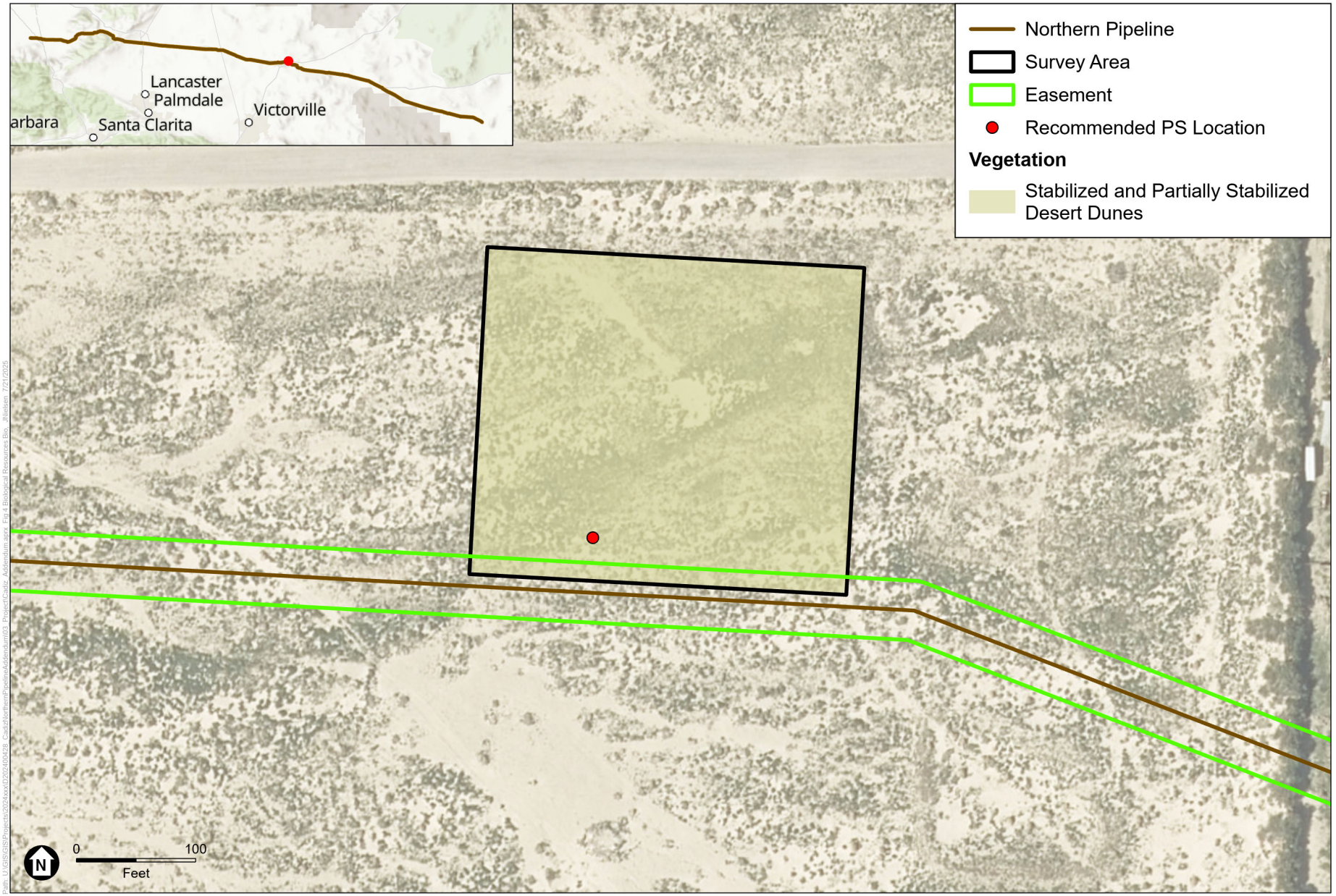


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 4-5
Biological Resources

ESA

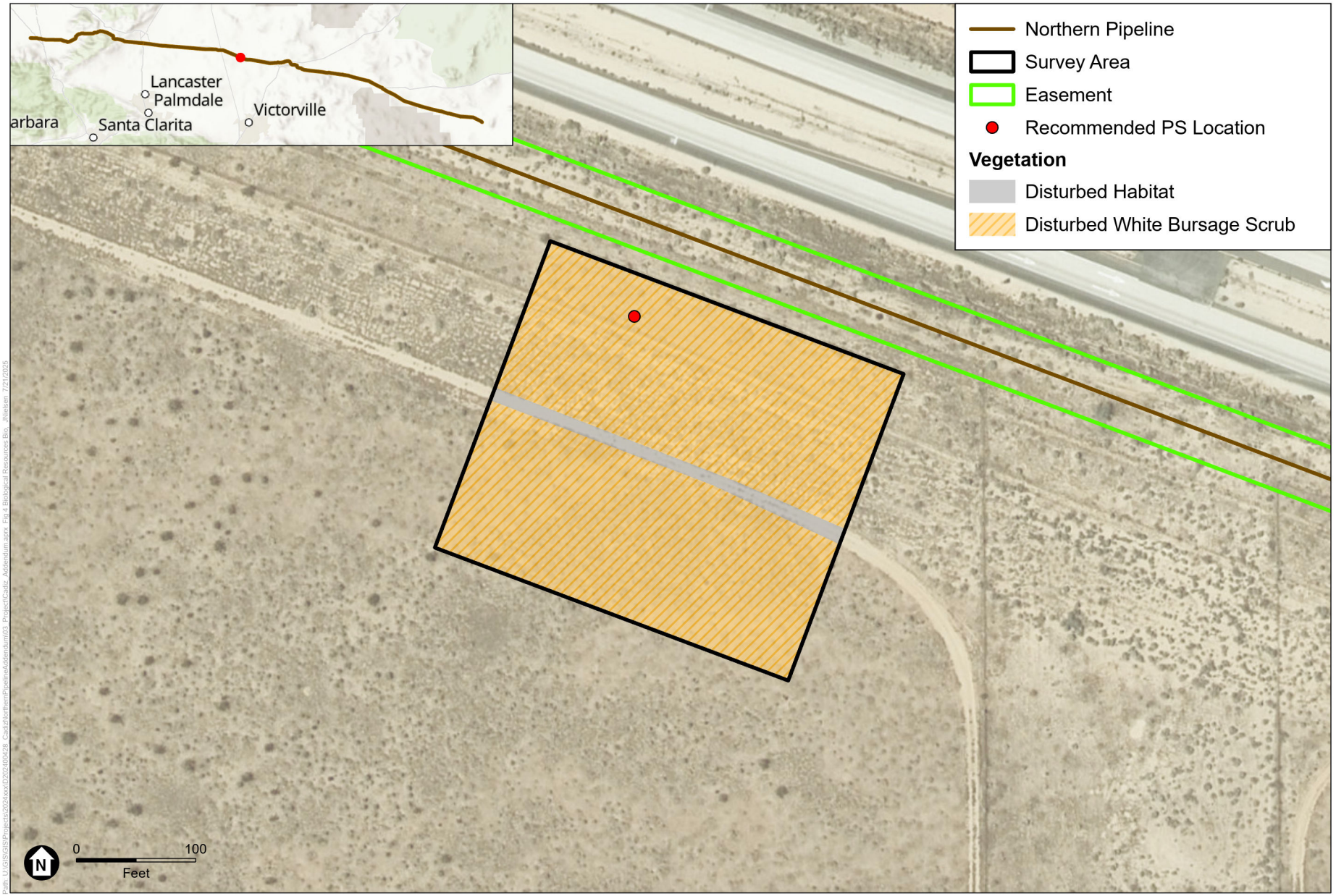


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 4-6
Biological Resources

ESA

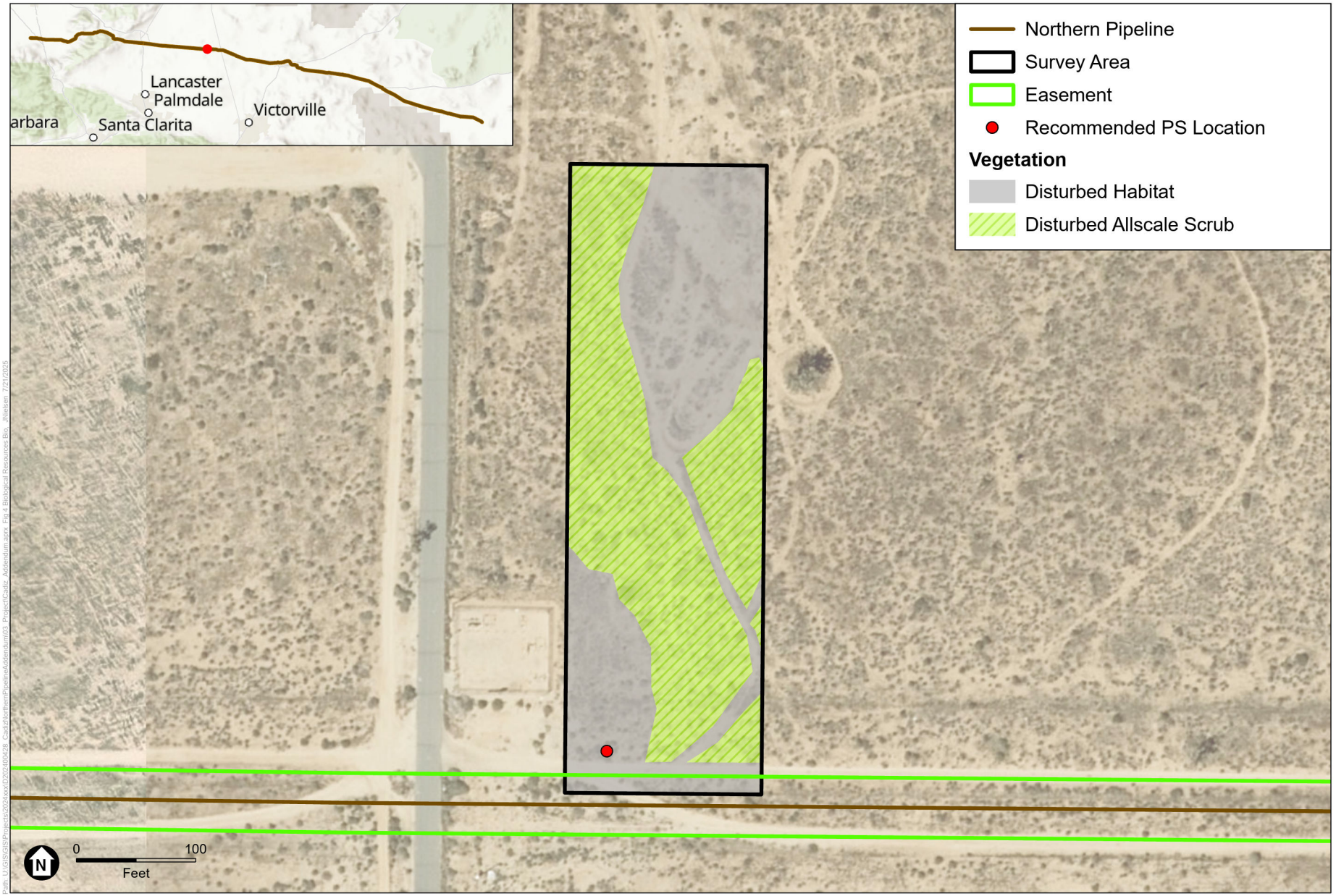


SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 4-7
Biological Resources

ESA



SOURCE: ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 4-8
Biological Resources

ESA

Project Description

The proposed Project includes the rehabilitation and refurbishment of the EPNG pipeline to convey water and would include the construction of appurtenances (such as blow-offs and air valves) and up to seven booster PS sites along the alignment. Two alternative locations for PS7 were surveyed for this report; therefore, the BSA includes eight potential PS sites. The water source for the proposed Project would be the groundwater basin underlying a portion of the Cadiz and Fenner Valleys, located in the eastern Mojave Desert region of San Bernardino County, California. The Project's purpose would be to capture groundwater that would otherwise be lost to evaporation and create a beneficial use as potable drinking water or for agricultural purposes.

Database Search and Literature Review

Databases from the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Data Base (CNDDB), United States Fish and Wildlife Service (USFWS), California Native Plant Society (CNPS) and California Invasive Plant Council (Cal-IPC) were queried for records of special-status plant and wildlife species and sensitive habitat occurrences within 5 miles of the pipeline alignment.

A literature review and desktop analysis were performed prior to initiating the 2025 biological surveys. Previous literature reviews and field surveys in 2024, when different potential PS sites locations were under consideration (which have since been removed from consideration). For the Report, ESA reviewed that literature review for any changes to species with potential to occur as well as existing conditions along the proposed project alignment. The desktop analysis for the 2025 biological surveys did not indicate additional species with potential to occur or a change in the existing conditions (e.g., no new development, flooding, fire) within the BSA; therefore, the 2024 list of 31 special-status species that have the potential to occur within the region was utilized for the 2025 biological surveys. See **Attachment A**, *Sensitive Species Evaluated for a Potential to Occur within the Project Area*, for a comprehensive list of all sensitive species considered based on the database search. **Table 1**, *Species with Moderate Potential or Assumed Presence within the Biological Study Area*, lists the species with moderate or assumed presence within the BSA.

TABLE 1
SPECIES WITH MODERATE POTENTIAL OR ASSUMED PRESENCE WITHIN THE BIOLOGICAL STUDY AREA

Scientific Name	Common Name	Status (Federal, State, Other)	Likelihood of Occurrence within the BSA
Birds			
Toxostoma bendirei	Bendire's thrasher	BLM S, CDFW SSC	**Moderate Potential** – Preference for scattered cholla, yucca, mesquite, agave, or Joshua tree. Scattered cholla habitat is present at the site. The most recent observation of this species with the BSA occurred in 1998.
Athene cunicularia	burrowing owl	State Candidate Endangered; BLM S, CDFW SSC	**Moderate Potential** – Inhabits dry grasslands and deserts, preference for sparsely vegetated areas, often requires areas with pre-existing burrows. The most recent observation of this species with the BSA occurred in 2012.
Gymnogyps californianus	California condor	Federally Endangered, State Endangered, CDFW FP	**Moderate Potential** – Prefers areas with large trees/snags, rocky outcrops and cliffs. Limited rocky outcrops occur at the project site and grassland foraging habitats are limited within the project area. However, the western portion of the project site is within foraging range of known condor nests and individual observations. The most recent observation of this species near the survey area occurred in 2015 approximately 2.5 miles from the site.
Aquila chrysaetos	golden eagle	BLM S, CDFW FP, CDFW WL	**Moderate Potential**– Prefer mountainous regions with grassland, shrubland, chapparal shrubland, forest and other vegetated areas. Observed foraging approximately 2 miles south of the project site. The most recent observation of this species near the survey area was in 2012 approximately 0.66 miles from the site.
Toxostoma lecontei	Le Conte's thrasher	BLM S, CDFW SSC	**Moderate Potential** – Inhabits low, sandy open desert areas with saltbush, cholla cactus, creosote bush scrub and other desert-type regions. Suitable habitat is present within the project site. The most recent observation of this species within the survey area was in 2013.
Lanius ludovicianus	loggerhead shrike	CDFW SSC	**Moderate Potential** – Preference for short vegetation and well-spaced shrubs/low trees with spines or thorns, frequently in desert scrublands. Also often present along fence lines and utility poles. The most recent observation of this species near the survey area was in 2006 approximately 0.5 miles from the site.
Asio otus	long-eared owl	CDFW SSC	**Moderate Potential** – Preference for dense trees for nesting and roosting and open areas for hunting, occupies a wide range of territories including meadows, forests and deserts. The most recent observation of this species near the survey area was in 2001 approximately 2.2 miles from the site.
Falco mexicanus	prairie falcon	CDFW WL	**Moderate Potential** – Inhabit wide-open sagebrush and desert habitats with nests on sheer rocky cliffs. Suitable foraging habitat is present at the project site. The most recent observation of this species within the survey area was in 2020.
Mammals			
Taxidea taxus	American badger	CDFW SSC	**Moderate Potential** – Inhabits alkali marsh, desert wash, Great Basin scrub, marsh and swamp, meadow and seep, Mojave Desert scrub, riparian scrub, riparian woodland, valley and foothill grassland. Most abundant in drier open stages of shrub, forest, and herbaceous habitats, with friable soils. The most recent observation of this species near the survey area was in 2013 approximately 0.3 miles from the site.
Ovis canadensis nelsoni	desert bighorn sheep	BLM S, CDFW FP	**Moderate Potential** – Typically inhabits rocky slopes and cliffs, washes and alluvial fans and generally eat a wide variety of desert plants, including cacti. The most recent observation of this species near the survey area was in 1989 approximately 1.5 miles from the site.

Scientific Name	Common Name	Status (Federal, State, Other)	Likelihood of Occurrence within the BSA
Xerospermophilus mohavensis	Mojave ground squirrel	State Threatened, BLM S	**High Potential** – Preference for sandy soils within all types of major scrub habitats within the Mojave Desert, predominantly creosote bush scrub and desert saltbush scrub. Suitable habitat is present throughout the BSA. The most recent observation of this species within the survey area was in 2018.
Corynorhinus townsendii	Townsend's big-eared bat	BLM S, CDFW SSC	**Moderate Potential** – Found in a wide variety of habitats including deserts, forests, prairies, riparian communities and agricultural areas. Suitable habitat is located adjacent to the project site in several areas. The most recent observation of this species near the survey area was in 2007 approximately 3.1 miles from the site.
Plants			
Opuntia basilaris var. *treleasei*	Bakersfield cactus	Federal Endangered, State Endangered CNPS 1B.1	**Moderate Potential** – Prefers Sierra-Tehachapi saltbush scrub but is also found in blue oak woodland and riparian woodland. In desert areas, occurs on arid land with sparse vegetation.
Eriophyllum mohavense	Barstow woolly sunflower	CNPS 1B.2, BLM S	**Moderate Potential** – Inhabits creosote bush scrub and shadscale scrub. Suitable habitat is present within the project site.
Pediomelum castoreum	Beaver Dam breadroot	CNPS 1B.2, BLM S	**Moderate Potential** – Inhabits creosote bush scrub and Joshua tree woodlands with gravely and sandy soils. Creosote scrub is present throughout the project site.
Abronia villosa var. *aurita*	Chaparral sand-verbena	CNPS 1B.1, BLM S	**Moderate Potential** – Inhabits creosote bush communities, lower dry desert areas and well-drained sandy soils. Suitable habitat is present within the project site.
Senna covesii	Cove's cassia	CNPS 2B.2	**Moderate Potential** – Prefers dry rocky slopes and sandy desert washes, both of which are present throughout the project site.
Mentzelia tridentata	creamy blazing star	CNPS 1B.3, BLM S	**Moderate Potential** – Prefers creosote bush scrub and rocky outcrops, both of which are present throughout the project site.
Mentzelia puberula	Darlington's blazing star	CNPS 2B.2	**Moderate Potential** – Prefers sandy crevices in cliffs or rocky slopes within creosote bush scrub. Suitable habitat is present within the project site.
Cymopterus deserticola	desert cymopterus	CNPS 1B.2, BLM S	**Moderate Potential** – Inhabits well-drained, fine to coarse sandy soils within creosote bush scrub and desert saltbush scrub, generally sharing habitats with the desert tortoise and Mojave ground squirrel. Suitable habitat is present within the project site.
Castela emoryi	Emory's crucifixion-thorn	CNPS 2B.2	**Moderate Potential** – Preference towards creosote bush scrub communities in dry gravelly washes and slopes. Suitable habitat is present within the project site.
Ditaxis claryana	glandular ditaxis	CNPS 2B.2	**Moderate Potential** – Prefers desert scrub, sandy and rocky slopes and calcareous soils. Sufficient habitat is not found at project site.
Eremalche parryi ssp. *kernensis*	Kern mallow	Federally Endangered CNPS 1B.2	**Moderate Potential** – Prefers saltbush scrub habitats and eroded hillsides with sparse vegetation. Suitable habitat is present within the project site.
Saltugilia latimeri	Latimer's woodland-gilia	CNPS 1B.2, BLM S	**Moderate Potential** – Occurs in dry, rocky and sandy desert canyon environments. Suitable habitat is not present within the project site.
Sclerocactus polyancistrus	Mojave fish-hook cactus	CNPS 4.2	**High** – Inhabits Mojave creosote bush scrub and Joshua Tree woodland communities typically on carbonate soils. This species was observed during the 2024 field reconnaissance survey (ESA 2024).
Diplacus mohavensis	Mojave monkeyflower	CNPS 1B.2, BLM S	**Moderate Potential** – Preference for gravelly, sandy habitats within desert washes. Some desert washes are present throughout the project site.

Scientific Name	Common Name	Status (Federal, State, Other)	Likelihood of Occurrence within the BSA
Phacelia parishii	Parish's phacelia	CNPS 1B.1, BLM S	**Moderate Potential** – Inhabits creosote bush scrub and inhabits the area along the National Trails Highway. Higher likelihood in dried desert washes/watersheds.
Androstephium breviflorum	small-flowered androstephium	CNPS 2B.2	**Moderate Potential** – Inhabits open desert scrub and creosote brush scrub with sandy to rocky soil. Suitable habitat is present within the project site.
Invertebrates			
Bombus crotchii	Crotch's bumble bee	State Candidate Endangered	**Low Potential –** inhabits open scrub, chaparral, grassland and creosote bush scrub habitats with floral diversity as nectar resources. Marginally suitable habitat is present within the project site.
Reptiles			
Arizona elegans occidentalis	California glossy snake	CDFW SSC	**Moderate Potential** – Inhabits arid scrub, rocky washes, and chaparral with microhabitats of open areas that allow for easy burrowing. The most recent observation of this species within the survey area was in 2017.
Gopherus agassizii	desert tortoise	Federally Threatened, State Threatened	**High Potential** – Inhabits arid habitats with desert scrub, sandy flats and rocky slopes. Preference for firm soil for burrowing and sparse, low-growing shrubs for shelter. Suitable habitat was detected within the BSA. This species is known to occur within 0.5 miles of the BSA but is not in a known designated critical habitat area (CDFW 2025). The most recent observation of this species within the survey area was in 2013.
Masticophis flagellum ruddocki	San Joaquin coachwhip	CDFW SSC	**High Potential** – Inhabits open, dry, treeless areas with little to no cover including valley grasslands. Suitable habitat was detected within the BSA. This species is known to occur within 5 miles of the BSA (CDFW 2024). The most recent observation of this species near the survey area was in 2014 approximately 1.2 miles from the site.

BLM Ranking:

S = Sensitive

CDFW Rankings:

SSC = Species of Special Concern
FP = Fully Protected
WL = Watch List

CNPS Rankings:

1A= Plants presumed extirpated in California and are either rare or extinct elsewhere
1B.1 = Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
1B.2 = Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
1B.3 = Plants rare, threatened, or endangered in California and elsewhere; not very threatened in California
2B.1= Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
2B.2 = Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California
3.3= Review list, plants about which more information is needed; not very threatened in California
4.2= Plants of limited distribution; moderately threatened in California

Site Assessment Methodology

Site assessment surveys were conducted from May 27 to May 28, 2025 by ESA biologists, Brenda McMillan and Anna Weber, who conducted visual inspections of eight potential PS sites alternatives on parcels along the EPNG pipeline alignment on private and public lands. The visual inspections included a combination of walking transects across eight potential PS location alternatives within the BSA and driving the pipeline alignment between PS site locations, when possible, to visually survey the access road and the immediate surrounding area. The eight potential PS sites and their associated buffer areas were surveyed for special-status species and suitable habitat, aquatic resources, and other possible biological constraints to the proposed Project. Aquatic resources and vegetation communities were mapped using a handheld Global Positioning System (GPS) device.

Biologists took representative photos during each site assessment to document existing biological resources occurring in the PS BSA. All plant and wildlife species observed during the site assessment were documented within electronic datasheets and can be found in **Attachment B**, *Datasheets*. Biological resources, vegetation communities including aquatic resources, and soils, are shown in **Figures 3-1** through **3-8** and **Figures 4-1** through **4-8**.

Focused, or protocol, surveys for special-status species, aquatic resources delineations, and detailed vegetation mapping were not performed during this site visit. Any sightings of plants, wildlife, or wildlife signs recorded were incidental and should not be interpreted to mean that those species are absent from other sites.

The Applicant has proposed a number of Project Design Features ("PDFs")/Best Management Practices ("BMPs") and avoidance and minimization measures ("AMMs") which would be implemented as part of the Proposed Action to avoid and minimize potential impacts to the environment. These PDFs/BMPs are intended to minimize potential adverse effects to the environment identified. Specifically, the following measures would be implemented during Project construction and operations:

BMP-1 Spill Prevention Plan: Spill prevention measures have been prepared which includes spill prevention kits present at all construction sites implement within the ROW. No fuels or other hazardous materials would be stored in the ROW. The spill prevention measures cover mobile equipment and vehicles that contain lubricating oils and diesel fuel within the equipment only. No drums, totes, or other aboveground or underground bulk storage containers of petroleum products would be stored within the ROW.

BMP-2 Dust Control Measures: All soil excavated or graded shall be sufficiently watered to prevent excessive dust. Watering shall occur as needed with complete coverage of disturbed soil areas. Watering shall take place a minimum of twice daily on unpaved/untreated roads in areas with active operations. Areas disturbed by clearing, earth moving, or excavation activities shall be minimized at all times. Stockpiles of soil or other fine loose material shall be stabilized by watering or other appropriate method such as non-toxic soil binders to prevent wind-blown fugitive dust. On-site vehicle speed on unimproved roads shall be limited to 15 miles per hour.

AMM-1 Pre-construction Wildlife Surveys: Immediately prior to construction activities, pre-construction

surveys that comply with U.S. Fish and Wildlife Service ("USFWS") protocol shall be conducted to document any and all locations of burrows and desert tortoise sightings within all proposed disturbance areas that provide potential habitat for the species. If any active burrows are located in facility construction areas, to completely avoid impact on the burrows, construction will be delayed only to be resumed after a qualified biologist has determined that the tortoise has left the area and the burrow is inactive.

AMM-2 Pre-construction Floristic Surveys: During the spring prior to construction activities, floristic surveys shall be conducted to document any and all locations of rare plants within all proposed Project Areas where there is a potential for rare plants such as small-flowered androstephium, Borrego milkvetch, and winged cryptantha to occur. If any rare plants are located in facility construction areas, seeds will be collected and replanting shall be conducted along the pipeline trench ROW near the plant sitings.

AMM-3 Exclusion Fencing and Monitoring: A chain-link or tortoise fence (one-inch by two-inch welded wire mesh attached to the chain-link fence, with approximately two feet above-ground and one foot buried below ground) shall be installed to exclude small wildlife species from entering the active pump station construction areas in areas of documented occurrences of special-status ground dwelling wildlife as determined during pre-construction surveys by a qualified biologist or as directed by USFWS. These temporary fences must completely surround all stationary construction sites (including staging areas) and will be monitored by an Authorized Biologist or Biological Monitor at all times during active construction.

AMM-4 Desert Tortoise Avoidance and Protection Plan: A Desert Tortoise Avoidance and Protection Plan shall be developed and adopted in consultation with the USFWS prior to construction. Elements of the plan shall include, but are not limited to the following:

- Designated Project personnel will implement the avoidance and protection plan. A Field Contact Representative will be designated to oversee compliance with all tortoise avoidance and protective measures during Project construction, operation and maintenance.
- A step-by-step protocol to be implemented whenever a desert tortoise is observed by construction or operational personnel. USFWS personnel contacts will be identified for Technical Assistance on take avoidance if needed during construction.
- Flagging and delineation requirements for located burrows and areas with tortoise activity.
- An education program for all construction employees. Program will be conducted onsite prior to the onset of construction and will be provided repeatedly as needed to ensure that all Project contractors (firms) as well as all individuals complete the training. Participation will be recorded and verified. Tortoise protection will be emphasized during all scheduled safety meetings.
- Enforcement of speed limits and checking under vehicles for tortoise prior to leaving Project areas.
- All construction sites and activities will be monitored by Authorized Biological Monitors. An Authorized Biologist (approved by USFWS) will plan and oversee all construction monitoring activities in the field. The authorized biologist will identify, train, and oversee biological monitors for day-to-day monitoring and reporting activities.
- To prevent increased use of the ROW area by common ravens and coyotes, implementation of measures such as trash management, removal of unnatural sources of standing water, and other means. A clean workplace will be maintained in all areas. No trash is to be thrown on the ground

or left in open containers, equipment, or truck beds. Refuse receptacles with lids will be provided for all construction personnel and are to be maintained and emptied on a regular basis and at least weekly. Trash collection will be conducted in all construction areas as needed to keep all areas clean on a daily basis. Portable toilets will be provided and used by all construction personnel.

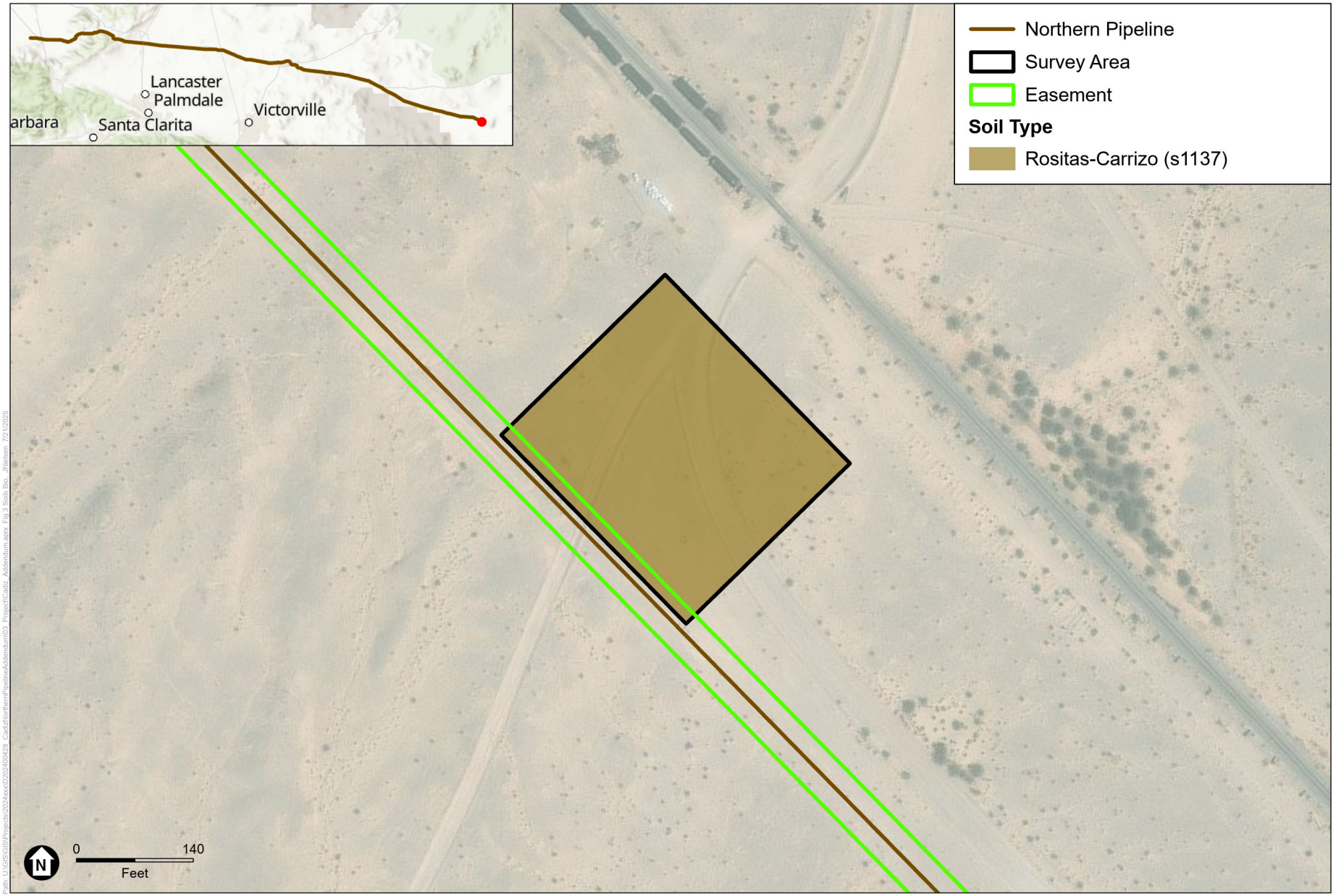
- At the end of construction all equipment removal will monitored by Authorized Biologists or Biological Monitors.

AMM-5 Temporary Construction Halt: If a desert tortoise is observed within 300 feet of construction activities or is determined by the Authorized Biologist to be in harm's way, then construction activities shall be halted in the vicinity as directed by the Authorized Biologist. Work shall only continue once the Authorized Biologist determines there is no risk to the desert tortoise.

AMM-6 Bird Nesting Surveys: If construction and vegetation removal is proposed for the bird nesting period of February 1 through August 31, then pre-construction surveys for nesting bird species shall begin 30 days prior to construction disturbance with subsequent weekly surveys, the last one being no more than three days prior to work initiation. The surveys shall include habitat within 300 feet (500 feet for raptors) of the construction limits. Active nest sites located during the pre-construction surveys shall be avoided and a non-disturbance buffer zone established dependent on the species and in consultation with USFWS. This buffer zone shall be delineated in the field with flagging, stakes, or construction fencing. Nest sites shall be avoided with approved non-disturbance buffer zones until the adults and young are no longer reliant on the nest site for survival as determined by a qualified biologist.

AMM-7 Construction Zone Limits: Prior to construction, construction zone limits shall be marked by a qualified biologist and shall be staked, flagged, fenced, or otherwise clearly delineated to ensure that the construction zone is limited to minimize impacts on special-status species. These limits shall be identified on the construction drawings. No earth-moving equipment shall be allowed outside demarcated construction zones unless pre-approval is obtained from a qualified biologist.

The following section outlines the results of each site assessment, and provides potential mitigation, avoidance and minimization measures that should be implemented during project activities.

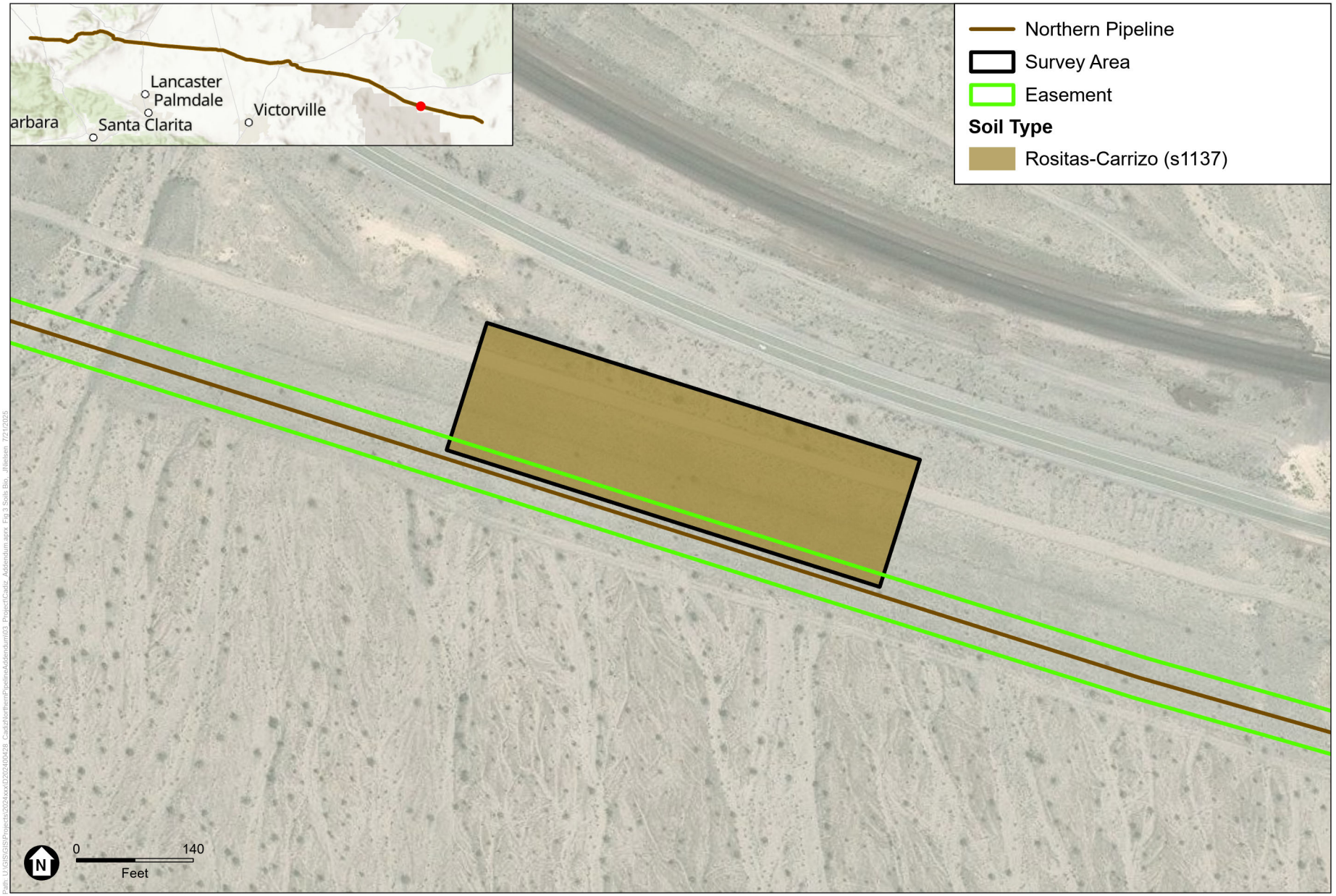


SOURCE: USDA Web Soil Survey, 2024; ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 3-1
Soils

ESA

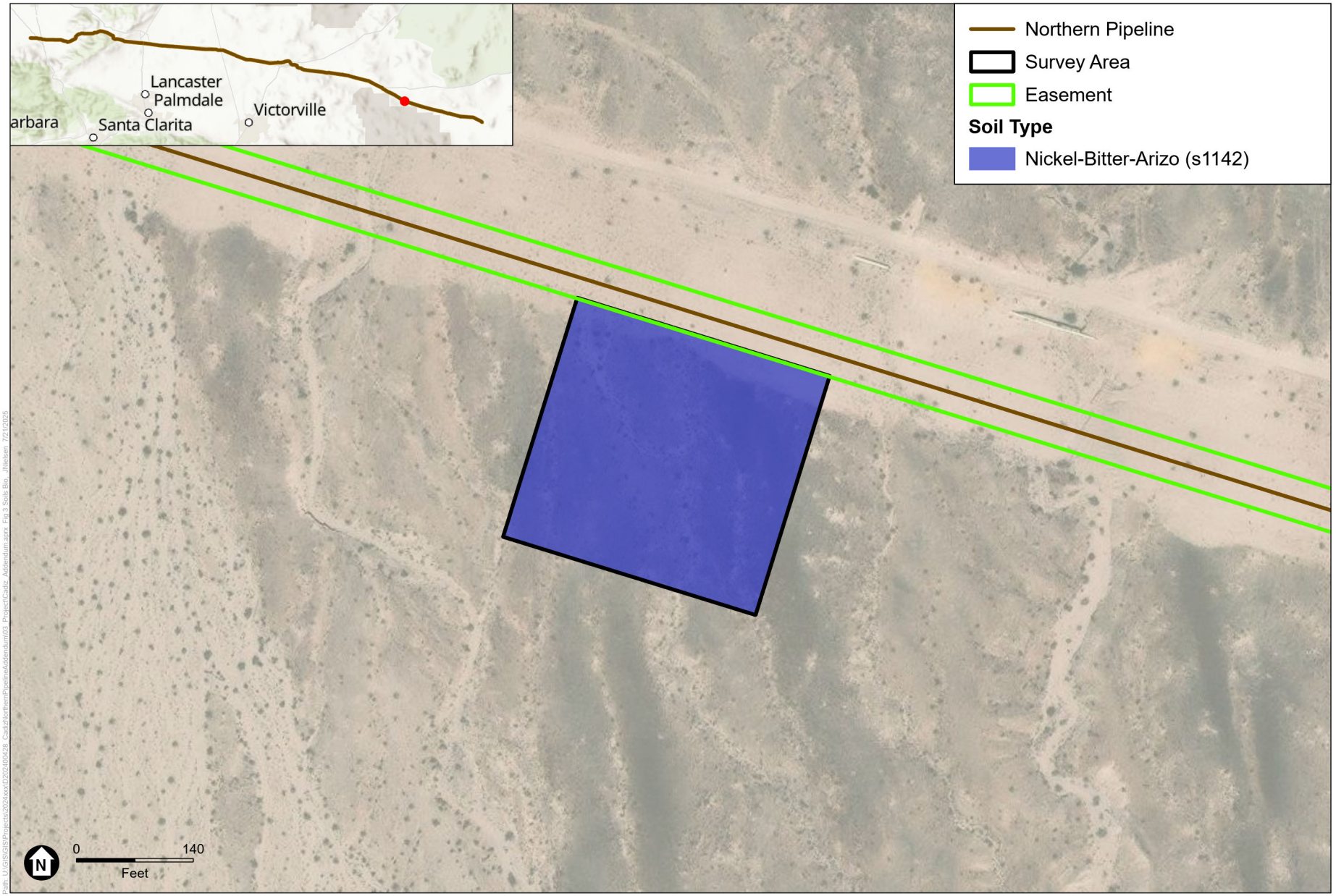


SOURCE: USDA Web Soil Survey, 2024; ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 3-2
Soils

ESA

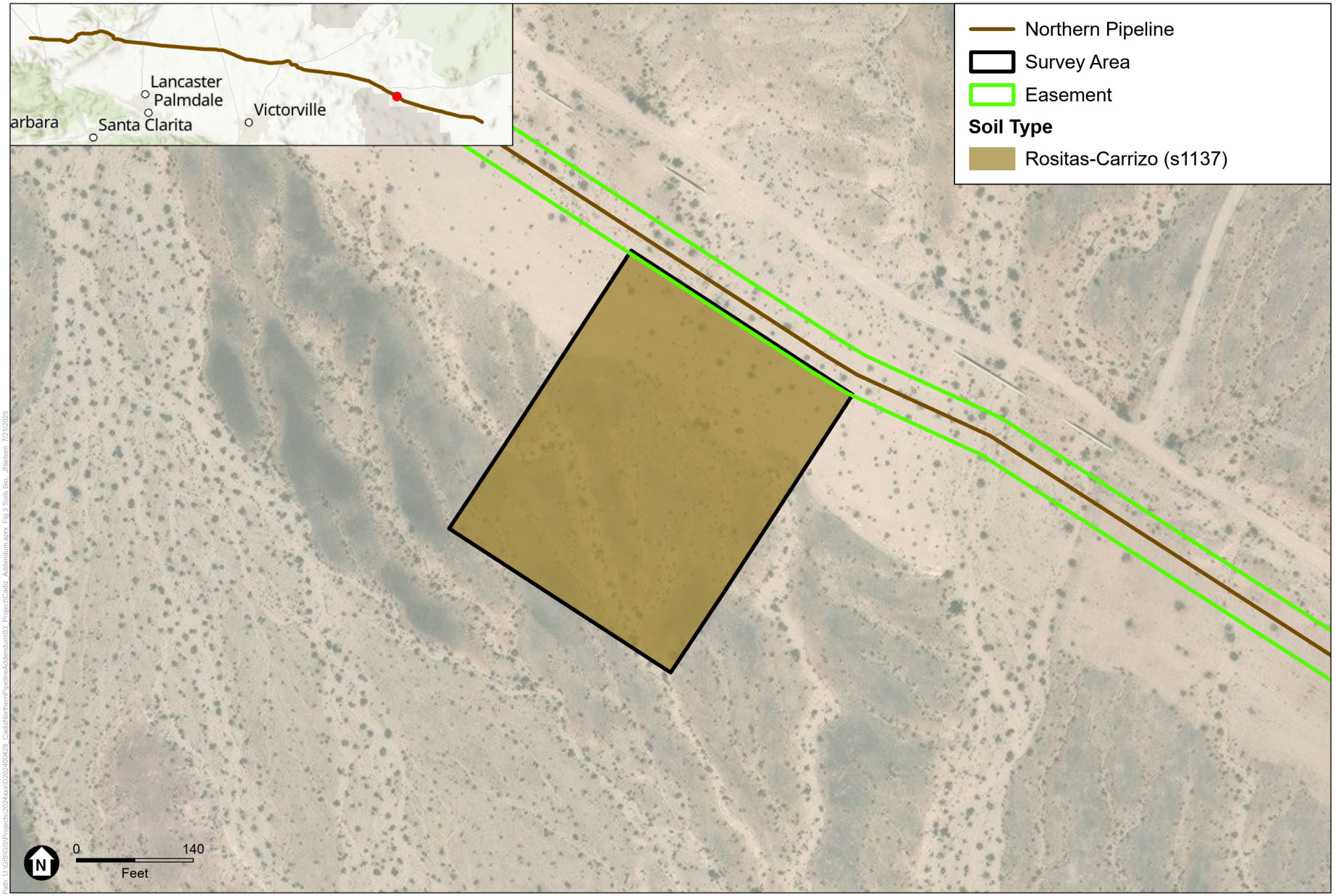


SOURCE: USDA Web Soil Survey, 2024; ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 3-3
Soils

ESA

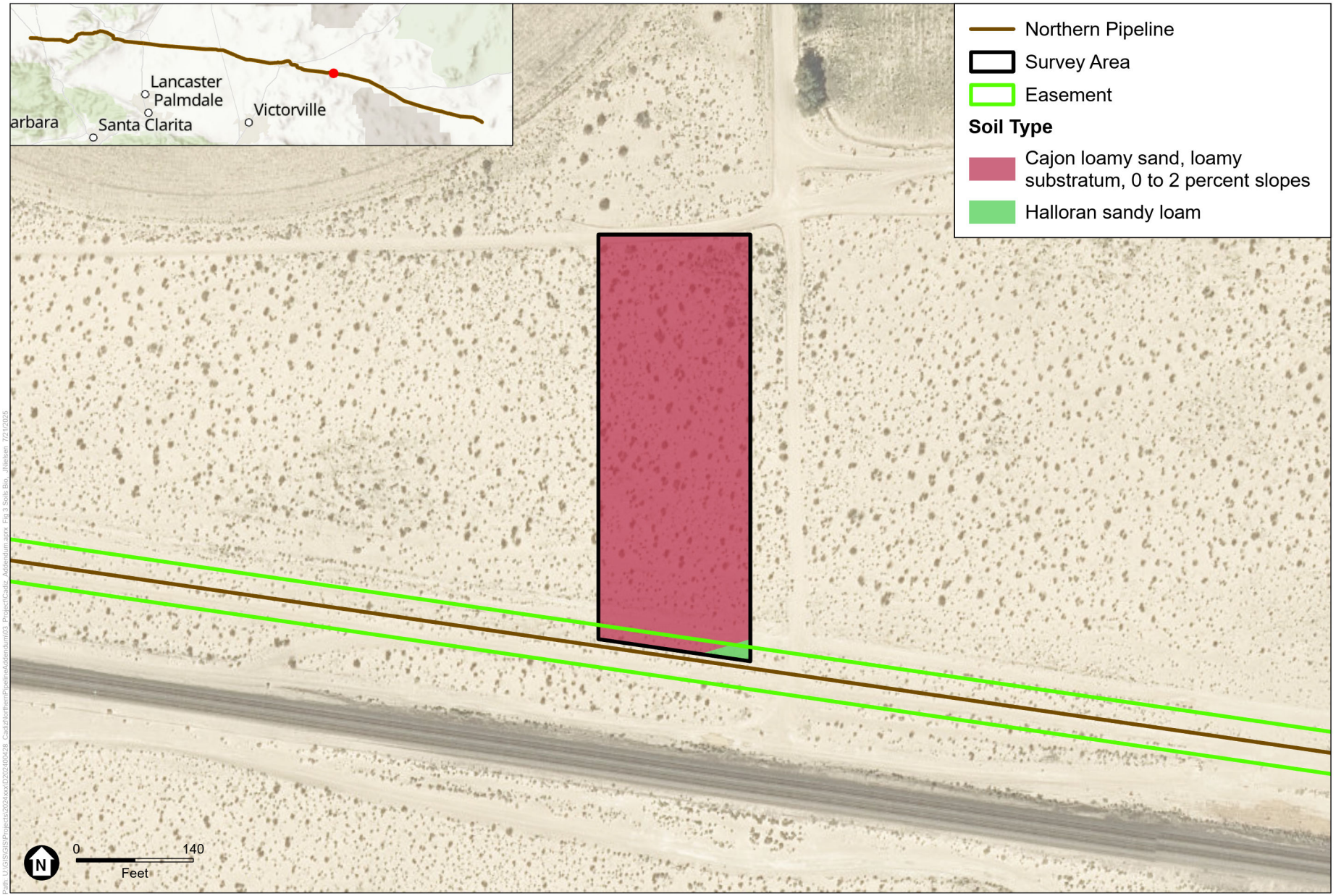


SOURCE: USDA Web Soil Survey, 2024; ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 3-4
Soils

ESA

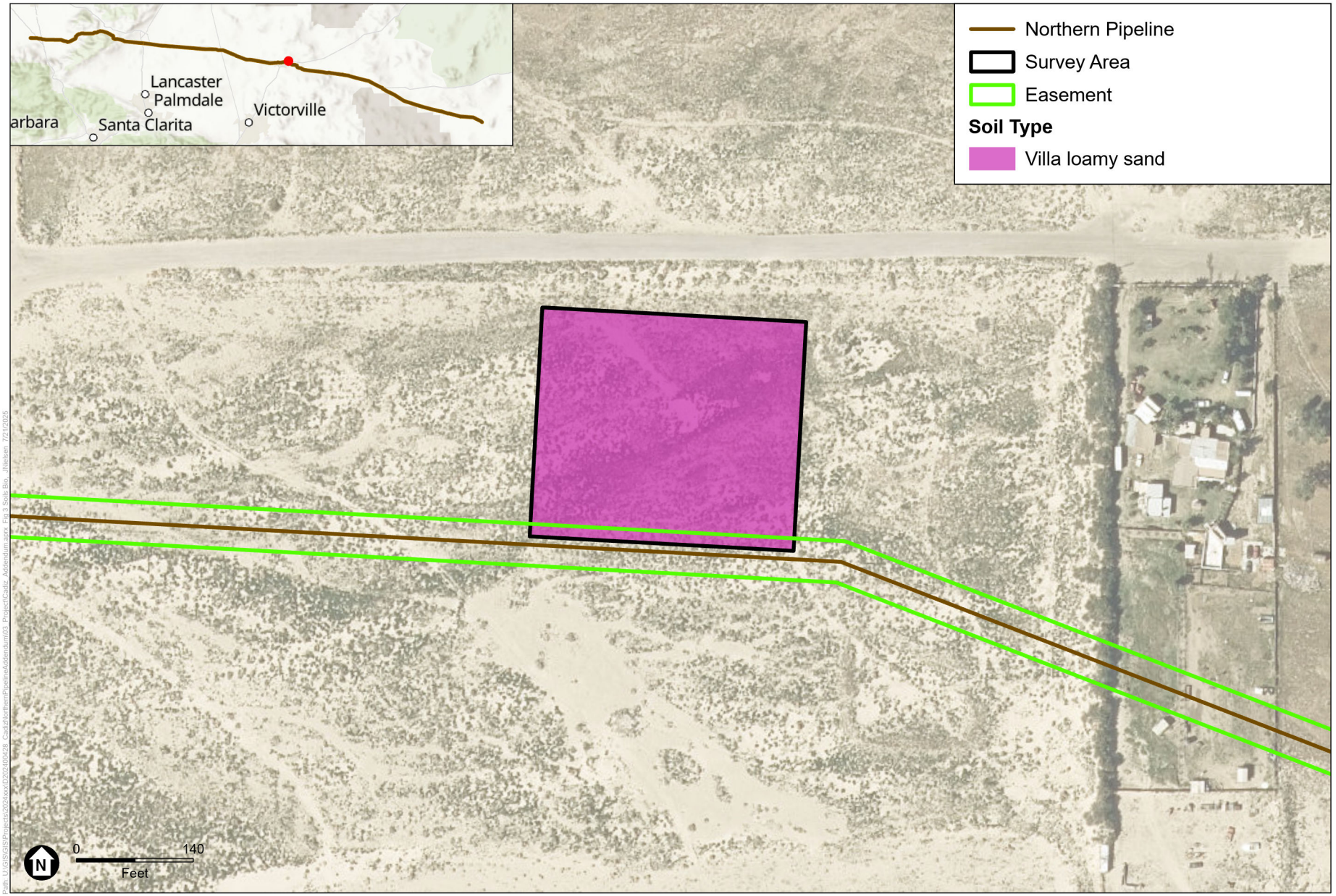


SOURCE: USDA Web Soil Survey, 2024; ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 3-5
Soils

ESA

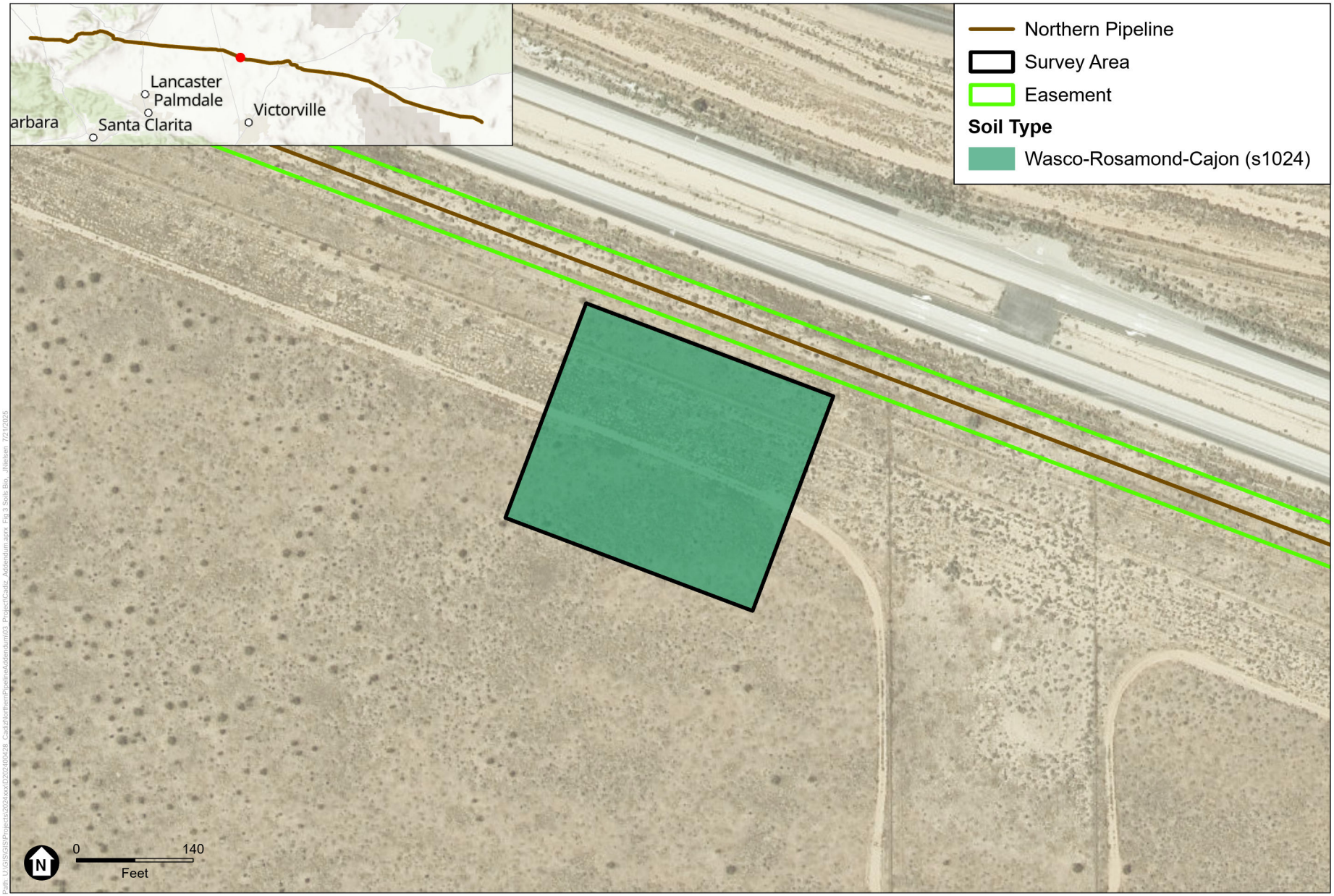


SOURCE: USDA Web Soil Survey, 2024; ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 3-6
Soils

ESA

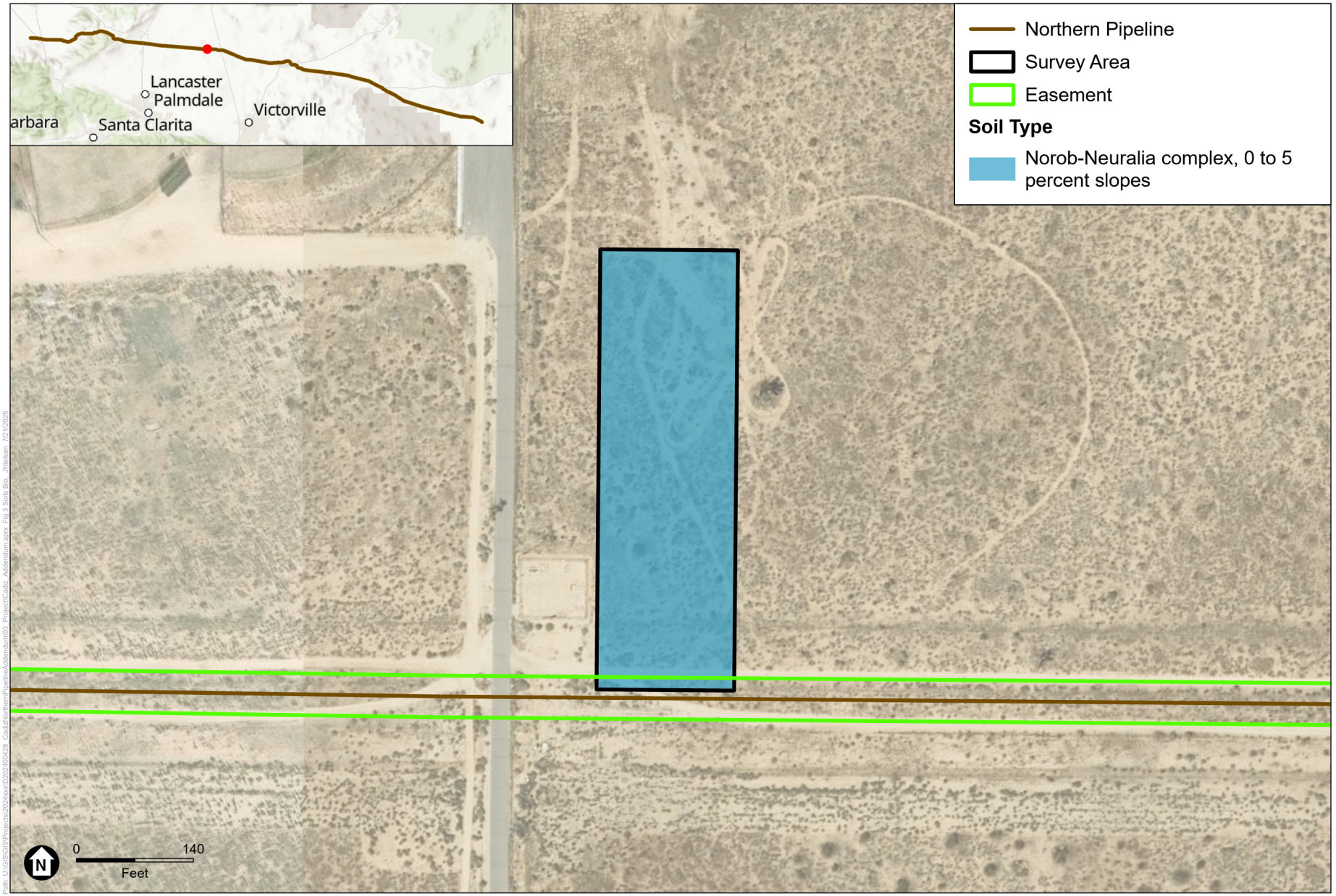


SOURCE: USDA Web Soil Survey, 2024; ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 3-7
Soils

ESA



SOURCE: USDA Web Soil Survey, 2024; ESA, 2025

Fenner Gap Mutual Water Company Northern Pipeline Conversion

Figure 3-8
Soils

ESA

Site Assessment and Impacts

The eight pump station site assessments are discussed below starting from the east at PS1 in Cadiz to west ending at PS7 in Boron.

Site 1: PS1 (34.490767, -115.4477987; Cadiz) 2.88 Acres

Aquatic Resources

No aquatic resources were detected within the BSA at PS1.

Plant Communities and Special-Status Plants

Disturbed Mojave creosote bush scrub (Holland 1986); Creosote bush scrub (*Larrea tridentata* Shrubland Alliance); MCV2 (CNPS 2025)

Disturbed Mojave creosote bush scrub is a variation of Mojave creosote bush scrub Disturbed and is present throughout the BSA. This vegetation community is characterized by a widely spaced sparse shrub layer consisting of creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*) with an understory comprised of scattered herbaceous species such as silky dalea (*Dalea mollissima*), narrow-leaved Johnstonella (*Johnstonella angustifolia*), narrow-leaved stillingia (*Stillingia linearifolia*), and Spanish needles (*Palafoxia arida*). Open sandy soils were bare and disturbed by roads, several pipeline installation areas, and maintenance roads.

Removal approximately 2.0 acres of this habitat is anticipated during project activities; however, disturbed Mojave creosote bush scrub is not considered a sensitive vegetation community; therefore, impacts would not require mitigation. However, implementation of minimization measure AMM-7 *Construction Zone Limits*, prior to the start of ground disturbing activities would minimize indirect impacts to vegetated areas.

No special-status plant species were observed within the BSA during the survey. Mojave fish-hook cactus (*Sclerocactus polyancistrus*) was observed within the vicinity in 2024 on sites that were previously under consideration as potential pump station locations (ESA 2024). This species was not found within the BSA during 2025 surveys despite the presence of the species within 1 mile. Based on the current project footprint, no potential impacts to special-status species would occur as a result of proposed project activities.

Special-Status Wildlife

No sensitive wildlife species were observed within the BSA, and it is not located within designated critical habitat for the desert tortoise. Given its proximity to development (i.e., high-traffic roads) and ongoing disturbance in the area, it is unlikely that sensitive wildlife species would occur on-site. However, desert tortoises have a low potential to occur at this site based on the presence of suitable habitat and historical occurrences. Implementation of minimization measures AMM -1, *Pre-construction Surveys*; AMM-3, *Exclusion Fencing and Monitoring*; AMM-4, *Desert Tortoise Avoidance and Protection Plan*; and AMM-7, *Construction Zone Limits* , should be implemented to avoid and minimize impacts to this species.

Nesting Birds

This site supports low quality suitable breeding habitat for nesting birds and no impacts are anticipated as a result of vegetation removal. However, if construction or vegetation removal is proposed during the bird nesting period, February 1 through August 31, minimization measure AMM-6, *Pre-construction Surveys for Nesting Birds*, should be implemented to avoid impacts to nesting birds.

See the PS1 datasheet in Attachment B for a full list of plant and animal species and representative photos.

Site 2: PS2 – Section 20 (34.602430, -115.958093; BLM) 2.00 Acres

Aquatic Resources

No active washes were detected in the BSA. Numerous washes run under overpasses on the National Trails Highway and are characterized by a gravelly substrate, sparse vegetation, and areas of sediment deposition and are located outside of the BSA.

Staying within the dirt access road footprint would avoid impacts to the desert washes.

Plant Communities and Special-Status Plants

Disturbed Mojave creosote bush scrub (Holland 1986); Creosote bush scrub (*Larrea tridentata* Shrubland Alliance); MCV2 (CNPS 2025)

Disturbed Mojave creosote bush scrub is a variation of Mojave creosote bush scrub and is found on the northside of the BSA and pipeline alignment. It is characterized by widely spaced shrubs consisting of creosote bush and white bursage (*Ambrosia dumosa*) and an understory comprised of scattered herbaceous species such as Mediterranean grass, narrow-leaved Johnstonella, Spanish needles and disturbed soils. Disturbed Mojave creosote bush scrub is the dominant vegetation community throughout the BSA.

Removal of 2.0 acres of this plant community is anticipated as a result of project activities; however, disturbed Mojave creosote bush scrub is not considered a sensitive vegetation community; therefore, impacts would not require mitigation. However, implementation of minimization measure AMM-7 *Construction Zone Limits*, prior to the start of ground disturbing activities would minimize indirect impacts to vegetated areas.

No special-status plants were observed within the BSA. However, springtime surveys need to be performed to confirm the presence or absence of annual special-status plants in work areas. Minimization measure AMM-2 *Pre-construction Floristic Surveys* should be implemented prior to ground disturbing activities. If special-status plants are present, the implementation of minimization measure and AMM-7, *Construction Zone Limits*, would require avoidance of special-status plants and delineation of construction areas, which will aid in avoidance of special-status plants prior to vegetation removal or ground disturbance.

Special-Status Wildlife

No sensitive wildlife species were observed at this site. Given its proximity to high-traffic roads and ongoing disturbance in the area, it is unlikely that sensitive wildlife species would occur on-site. Although the project site is not located within critical habitat for desert tortoise, the species does have a potential to occur at this site based

on the presence of suitable habitat. Minimization measures AMM-1, *Pre-construction Surveys*; AMM-3, *Exclusion Fencing and Monitoring*; AMM-4, *Desert Tortoise Avoidance and Protection Plan*; and AMM-7, *Construction Zone Limits*, should be implemented to avoid and minimize impacts to this species.

Nesting Birds

This site supports low quality suitable breeding habitat for nesting birds and no impacts are anticipated as a result of vegetation removal. However, if construction or vegetation removal is proposed during the bird nesting period, February 1 through August 31, implementation of minimization measure AMM-6, *Pre-construction Surveys for Nesting Birds*, should be implemented to avoid impacts to nesting birds.

See the PS2 datasheet in Attachment B for a full list of plant and animal species and representative site photos.

Site 3: PS3 (34.638275, -116.085484; BLM) 2.0 Acres

Aquatic Resources

Desert wash scrub (Holland 1986); Cheesebush-sweetbush scrub (*Ambrosia salsola-Bebbia juncea* Shrubland Alliance); MCV2 (CNPS 2025)

One desert wash encompassing 0.106 acres was observed within the BSA. The wash originates on the north side of the pipeline alignment and flows across the dirt access road. The wash is characterized by gravelly soils and sparse vegetation; no typical desert wash vegetation was observed. However, evidence of an ordinary high-water mark (OHWM) was observed as bed and bank and sediment sorting and there was evidence of recent flows. Vegetation was sparse in the wash bed and included disturbed Mojave creosote bush scrub.

No direct impacts to desert wash are anticipated as a result of the proposed Project. However, staying within the dirt access road footprint and in the pipeline installation scar away from the desert wash would avoid impacts to the desert wash. BMP-1 *Spill Prevention Plan* shall be implemented to minimize indirect or temporary impacts to desert wash habitat; and implementation of minimization measure AMM-7, *Construction Zone Limits*, should be implemented.

Plant Communities and Special-Status Plants

1.82 acres of Mojave creosote bush scrub (Holland 1986); Creosote bush-white bursage (*Larrea tridentata- Ambrosia dumosa* Shrubland Alliance); MCV2 (CNPS 2025): Mojave creosote bush scrub is present throughout the upland areas. This vegetation community is characterized by a shrub layer consisting of creosote bush, brittlebush (*Encelia farinosa*), white bur-sage, silky dalea, honeysweet (*Tidestromia suffrutesens* var. *oblongifolia*), and cheesebush. This site also contained some scattered herb species, such as smallseed sandmat, Peirson's clavate fruited primrose (*Chylisma claviformis* ssp. *peirsonii*), Mediterranean grass, desert plantain (*Plantago ovata* var. *insularis*)), and devil's spineflower (*Chorizanthe rigida*). Implementation of minimization measure AMM-7 *Construction Zone Limits*, prior to the start of ground disturbing activities would minimize indirect impacts to vegetated areas.

0.17 acres of Disturbed Habitat (Holland 1986); no MCV2 description

Disturbed habitat was observed along the Northern Pipeline ROW.. This land cover type is characterized by bare or sparsely vegetated ground that has been altered by human activities, and the natural vegetation community is no longer recognizable. This land cover type includes the access road and northern pipeline alignment with sparsely scattered Mediterranean grass with honeysweet growing along the edge of the road.

No special-status plant species were observed within the BSA.

Special-Status Wildlife

No sensitive wildlife species were observed at this site. Although the project site is not located within critical habitat for desert tortoise, the species has been seen within 1,000 feet of the BSA during previous surveys (CNDDB 2025) and has a high potential to occur at this site based on the presence of suitable habitat. Minimization measures AMM-1, *Pre-construction Surveys*; AMM-3, *Exclusion Fencing and Monitoring*; AMM-4, *Desert Tortoise Avoidance and Protection Plan*; and AMM-7, *Construction Zone Limits*, should be implemented to avoid and minimize impacts to this species.

Nesting Birds

This site supports suitable breeding habitat for nesting birds. If construction or vegetation removal is proposed during the bird nesting period, from February 1 through August 31, minimization measure AMM-6, *Pre-construction Surveys for Nesting Birds*, should be implemented to avoid impacts on nesting birds.

See the PS3 datasheet in Attachment B for a full list of plant and animal species and representative site photos.

Site 4: PS4 (34.670138, -116.145628; BLM) 2.0 Acres

Aquatic Resources

0.31 acres of Desert wash (Holland 1986); Cheesebush-sweetbush scrub (*Ambrosia salsola-Bebbia juncea* Shrubland Alliance); MCV2 (CNPS 2025):

Two desert washes were observed within the BSA encompassing a total of 0.31 acres. The washes are isolated and characterized by gravelly soils and sparse vegetation, including creosote bush, cheeseweed, and sweetbush and an exposed pipeline is visible as it crosses over the washes.

Based on the current project footprint, potential impacts to desert washes may occur as a result of proposed project activities. However, staying within the pipeline installation scar footprint would avoid direct impacts and minimize indirect impacts to the desert washes. To help minimize indirect or unavoidable temporary impacts to desert wash habitat, BMP-1 *Spill Prevention Plan*; and AMM-7, *Construction Zone Limits* , should be implemented.

Plant Communities and Special-Status Plants

1.75 acres of Disturbed Mojave creosote bush scrub (Holland 1986); Creosote bush scrub (*Larrea tridentata* Shrubland Alliance); MCV2 (CNPS 2025)

Disturbed Mojave creosote bush scrub is a variation of Mojave creosote bush scrub and is found on the northside of the BSA and pipeline alignment. This vegetation community is characterized by a sparse shrub layer consisting of creosote bush, brittlebush, white bur-sage, honeysweet, rayless encelia (*Encelia frutescens*), and cheesebush. This site also contained some scattered herb species such as smallseed sandmat, narrow-leaved Johnstonella, and Mediterranean grass. Disturbed creosote bush scrub covers 1.75 acres within the BSA.

0.84 acres of Mojave creosote bush scrub (Holland 1986); Brittlebush Scrub (*Larrea tridentata-Encelia farinosa* Shrubland Alliance); MCV2 (CNPS 2025)

Disturbed -brittlebush scrub is found on the south side of the access road in the BSA encompassing 0.84 acres. This vegetation community is disturbed and is characterized by a sparse shrub layer consisting of creosote bush, brittlebush, rayless encelia, and cheesebush with scattered white bursage. This site also contained some scattered herb species, such as smallseed sandmat, and Mediterranean grass.

Removal of up to 0.622 acres of disturbed brittlebush scrub and 0.103 acres of disturbed creosote bush scrub are anticipated during project activities; however, these are not considered a sensitive vegetation communities; therefore, impacts would not require mitigation. However, implementation of AMM-7 *Construction Zone Limits*, prior to the start of ground disturbing activities would minimize indirect impacts to vegetated areas.

No special-status plant species were observed within the BSA. Springtime surveys need to be performed to confirm the presence or absence of annual special-status plants in work areas. However, springtime surveys need to be performed to confirm the presence or absence of annual special-status plants in work areas. Minimization measure AMM-2 *Pre-construction Floristic Surveys* should be implemented prior to ground disturbing activities. If special-status plants are present, the implementation of minimization measure and AMM-7, *Construction Zone Limits*, would require avoidance of special-status plants and delineation of construction areas, which will aid in avoidance of special-status plants prior to vegetation removal or ground disturbance.

Special-Status Wildlife

No sensitive wildlife species were observed at this site. Although the project site is not located within critical habitat for desert tortoise, the species is known to occur within the BSA (CNDDB 2025) and has the potential to occur at this site based on the presence of suitable habitat throughout the greater area. Minimization measures AMM-1, *Pre-construction Surveys*; AMM-3, *Exclusion Fencing and Monitoring*; AMM-4, *Desert Tortoise Avoidance and Protection Plan*; and AMM-7 *Construction Zone Limits*, should be implemented to avoid and minimize impacts to this species.

Nesting Birds

This site supports suitable breeding habitat for nesting birds. If construction or vegetation removal is proposed during the bird nesting period, from February 1 through August 31, minimization measure AMM-6, *Pre-construction Surveys for Nesting Birds*, should be implemented to avoid impacts to nesting birds.

See the PS4 datasheet in Attachment B for a full list of plant and animal species and representative site photos.

Site 5: PS5 (34.828430, -116.645599; Private) 2.08 Acres

Aquatic Resources

No aquatic resources were observed within the PS5 site.

Plant Communities and Special-Status Plants

Mojave creosote bush scrub (Holland 1986); Creosote bush-white bursage scrub (*Larrea tridentata-Ambrosia dumosa* Shrubland Alliance); MCV2 (CNPS 2025)

Disturbed Mojave creosote bush-white bursage scrub is the dominant vegetation community in the BSA covering 1.95 acres. This vegetation community is highly disturbed (i.e., previously cleared) and located next to the railroad tracks, with the dirt roads on the north and south ends of the BSA. It is characterized by soft sandy soils and a sparse shrub layer consisting of creosote bush, slenderleaf saltbush (*Atriplex canescens* var. *linearis*), and white-bursage. The understory is dominated by Mediterranean grass with scattered narrow-leaved Johnstonella, desert red root (*Eremocarya micrantha*), and Russian thistle (*Salsola tragus*).

Removal of 1.95 acres of this plant community is anticipated as a result of project activities; however, disturbed Mojave creosote bush-white bursage scrub is not considered a sensitive vegetation community; therefore, impacts would not require mitigation. However, implementation of AMM-7 *Construction Zone Limits*, prior to the start of ground disturbing activities would minimize indirect impacts to vegetated areas.

Disturbed Habitat (Holland 1986); no MCV2 description

Disturbed habitat was found in the BSA covering 0.129 acres. This land cover type is characterized by bare or sparsely vegetated ground that has been altered by human activities, so the natural vegetation community is no longer recognizable. This land cover type includes two dirt access roads on the north and south ends of the BSA. Approximately 0.129 acres of disturbed habitat would be impacted by the proposed Project.

No special-status plants were observed within the site. Based on the current project footprint, no potential impacts to special-status species may occur as a result of proposed project activities.

Special-Status Wildlife

No sensitive wildlife species were observed at this site. Due to the proximity to development (i.e., railroad tracks and maintenance road) and associated ongoing disturbance in the area, it is unlikely sensitive species would occur on-site.

Nesting Birds

This site supports suitable breeding habitat for nesting birds. If construction or vegetation removal is proposed during the bird nesting period, from February 1 through August 31, minimization measure AMM-6, *Pre-construction Surveys for Nesting Birds*, should be implemented to avoid impacts on nesting birds.

See the PS5 datasheet in Attachment B for a full list of plant and animal species and representative photos.

Site 6: PS6 (34.912395, -117.003578; Private) 2.0 Acres

Aquatic Resources

No aquatic resources were observed within the PS6 site.

Plant Communities and Special-Status Plants

2 acres of Stabilized and Partially Stabilized Desert Dunes (Holland 1986); Desert Dunes (*Dicoria canescens-Abronia villosa*) Sparsely Vegetated Alliance; MCV2 (CNPS 2025)

Desert dunes are characterized by areas of moving sand worked into dunes and hummocks in stabilized dunes. The shrub layer is sparse with creosote, white bursage and saltbush in areas with less disturbance. The understory is comprised of desert lantern (*Oenothera deltoides*), desert red root, stork's bill (*Erodium cicutarium*) and Mediterranean grass.

Disturbed desert dunes is a subset of desert dunes and is characterized by a dominance of non-native shrubs and forbs including Russian thistle (*Salsola tragus*), Mediterranean grass, prickly ox tongue (*Helminthotheca echioides*), and Saharan mustard. Soils are disturbed with small mammal burrows detected throughout the BSA. Approximately 2.0 acres of disturbed desert dune habitat occurs within the BSA.

Removal 2.0 acres of this plant community is anticipated as a result of project activities; however, desert dunes and disturbed desert dunes are not considered sensitive vegetation communities; therefore, impacts would not require mitigation. However, implementation of AMM-7 *Construction Zone Limits*, prior to the start of ground disturbing activities would minimize indirect impacts to vegetated areas.

No special-status plants were observed within the site. However, suitable habitat is present within the Project study. Springtime surveys need to be performed to confirm the presence or absence of special-status plants in work areas. However, springtime surveys need to be performed to confirm the presence or absence of annual special-status plants in work areas. Minimization measure AMM-2 *Pre-construction Floristic Surveys* should be implemented prior to ground disturbing activities. If special-status plants are present, the implementation of minimization measure and AMM-7, *Construction Zone Limits*, would require avoidance of special-status plants and delineation of construction areas, which will aid in avoidance of special-status plants prior to vegetation removal or ground disturbance.

Special-Status Wildlife

In 2019, the California Fish and Game Commission advanced the California Crotch's Bumble Bee (*Bombus crotchii*; CBB) to "candidacy" status for listing under CESA. After a legal challenge was resolved, the candidacy was reinstated in 2022. As a result, the CBB is currently a candidate for State listing as Endangered. The CNDDB reports the closest observation of CBB at approximately 21 miles south of Pump Station 6. The potential for CBB to forage or nest on the proposed project area is considered low based on the disturbed existing vegetation communities and the lack of diverse plant communities that would be used by CBB for pollen and nectar resources. The project area habitat is primarily Mojave creosote bush scrub, disturbed Mojave creosote bush scrub and desert dunes, which have a low floral diversity therefore, CBB has a low potential to occur within the

Project Area. CBB preferred habitat consists of grasslands, sage scrub, chaparral, and creosote bush scrub habitats. The conversion of the Northern Pipeline would therefore not remove CBB suitable foraging or nesting habitat. Minimization Measures AMM-1, *Pre-construction Surveys*; AMM-2, *Pre-construction Floristic Surveys;* and AMM-7 *Construction Zone Limits*, should be implemented to avoid and minimize impacts to this species.

No sensitive wildlife species were observed at this site. Due to the proximity to development (railroad tracks and residential) and associated ongoing disturbance in the area, it is unlikely sensitive species would occur on-site.

Nesting Birds

This site supports suitable breeding habitat for nesting birds. If construction or vegetation removal is proposed during the bird nesting period, from February 1 through August 31, minimization measure AMM-6, *Pre-construction Surveys for Nesting Birds*, should be implemented to avoid impacts on nesting birds.

See the PS6 datasheet in Attachment B for a full list of plant and animal species and representative site photos.

Site 7: PS7 (34.937752, -117.385057; BLM) 2.00 Acres

Aquatic Resources

No aquatic resources were observed within the PS7–Alternative site.

Plant Communities and Special-Status Plants

Disturbed Mojave creosote bush scrub (Holland 1986); White bursage scrub (*Ambrosia dumosa* Shrubland Alliance); MCV2 (CNPS 2025)

Disturbed White bursage scrub is the sole vegetation community within the BSA encompassing 2.0 acres. This vegetation community is highly disturbed and characterized by a sparse shrub layer consisting of white bursage with scattered creosote bush, and brittle bush. This site also contained some scattered herbaceous species such as Mediterranean grass, London rocket (*Sisymbrium irio*), and stork's bill.

Removal of 2.0 acres this plant community is anticipated as a result of project activities; however, disturbed white bursage scrub is not considered a sensitive vegetation community; therefore, impacts would not require mitigation. However, implementation of minimization measure AMM-7 *Construction Zone Limits*, prior to the start of ground disturbing activities would minimize indirect impacts to vegetated areas.

No special-status plants were observed within the site. Based on the current project footprint, no potential impacts to special-status species may occur as a result of proposed project activities.

Special-Status Wildlife

No sensitive wildlife species were observed at this site. Due to the proximity to SR58 and ongoing disturbance in the area, it is unlikely sensitive species would occur on-site.

Nesting Birds

This site supports suitable breeding habitat for nesting birds. If construction or vegetation removal is proposed during the bird nesting period, from February 1 through August 31, minimization measure AMM-6, *Pre-construction Surveys for Nesting Birds*, should be implemented to avoid impacts on nesting birds. See Photos 38–39 for general site pictures.

See the PS7–BLM datasheet in Attachment B for a full list of plant and animal species and representative site photos.

Site 8: PS7–Preferred (34.993684, -117.649037; Private) 2.08 Acres

Aquatic Resources

No aquatic resources were observed within the site.

Plant Communities and Special-Status Plants

1.03 acres of Desert saltbush scrub (Holland 1986); Allscale scrub (*Atriplex polycarpa* Shrubland Alliance); MCV2 (CNPS 2025)

Disturbed Allscale scrub is the dominant vegetation community within the BSA encompassing 1.03 acres. This vegetation community is characterized by a shrub layer consisting of allscale (*Atriplex polycarpa*), creosote bush, allscale (*Atriplex polycarpa*), and Indian rice grass (*Stipa hymenoides*). This site also contained some scattered herb species, such as common fiddleneck (*Amsinckia intermedia*), stork's bill, Sahara mustard, Mediterranean grass and cheat grass (*Bromus tectorum*).

Removal 1.03 acres of this plant community is anticipated as a result of project activities; however, disturbed allscale scrub is not considered a sensitive vegetation community; therefore, impacts would not require mitigation. However, implementation of AMM-7 *Construction Zone Limits*, prior to the start of ground disturbing activities would minimize indirect impacts to vegetated areas.

0.97 acres of Disturbed Habitat (Holland 1986); no MCV2 description

Disturbed habitat was found in the BSA encompassing 0.97 acres. This land cover type is characterized by bare or sparsely vegetated ground that has been altered by human activities, and the natural vegetation community is no longer recognizable. This land cover type is found in the BSA associated with dirt roads and trails and is dominated by Sahara mustard, jimson weed (*Datura wrightii*), and Mediterranean grass. Approximately 0.97 acres of disturbed habitat would be impacted by the proposed Project.

No special-status plants species was observed within the BSA. Joshua tree (*Yucca brevifolia*) were observed in the area adjacent to the potential PS site location, outside of the BSA. As special-status plants are present in the vicinity, if temporary or indirect impacts occur to the Joshua tree, implementation of minimization measures AMM-2 *Pre-construction Floristic Surveys* and AMM-7 *Construction Zone Limits*, should be implemented for any unavoidable impacts.

Special-Status Wildlife

No sensitive wildlife species were observed at this site. Due to the proximity to development (pipeline and utility infrastructure, roadways, residential areas, railroad and illegal trash dumping) and associated ongoing disturbance in the area, it is unlikely sensitive species would occur on-site.

Nesting Birds

This site supports suitable breeding habitat for nesting birds. If construction or vegetation removal is proposed during the bird nesting period, from February 1 through August 31, minimization measure AMM-6 *Pre-construction Surveys for Nesting Birds*, should be implemented to avoid impacts on nesting birds. See Photos 40-41 for general site pictures.

See the PS7–Preferred datasheet in Attachment B for a full list of plant and animal species and representative site photos.

Conclusions

Several of the potential PS sites have the potential to support special-status species and two sites support aquatic resources within the BSA. As summarized in **Table 2**, PS3, and PS4, are more constrained compared to the other sites based on the presence of desert wash habitat. The proposed potential PS sites are located in areas that do not support sensitive resources and avoid direct impacts to desert wash habitat. Springtime surveys may need to be conducted to confirm the presence or absence of special-status plants in the new proposed potential PS sites.

If waters of the state have the potential to be impacted by project activities, a mitigation plan should be prepared for review by the Regional Water Quality Control Board and California Department of Fish and Wildlife in accordance with the Final EIR (2012). No special-status birds, mammals, or reptile species were observed within the surveyed areas or potential work areas. However, there is suitable habitat within and adjacent to the existing pipeline that may support special-status species or their migration through the area. Minimization Measures AMM-1, *Pre-construction Wildlife Surveys*; AMM-2, *Pre-construction Floristic Surveys*; AMM-3, *Exclusion Fencing and Monitoring*; AMM-4, *Desert Tortoise Avoidance and Protection Plan*; AMM-6, *Pre-construction Surveys for Nesting Birds*, and AMM-7, *Construction Zone Limits* should be implemented to avoid and minimize impacts to special-status species.

Vegetation in the BSA and new proposed potential PS sites is not substantially different; therefore, based on existing conditions during the 2025 survey, the new proposed PS sites are not located on sensitive vegetation communities.

Mojave creosote bush scrub was the dominant vegetation community documented during the survey. This vegetation community is not considered sensitive; therefore, impacts would not require compensatory mitigation. However, implementation of minimization measure AMM-7, *Construction Zone Limits*, would minimize impacts to vegetated areas containing Joshua tree, a sensitive plant species.

Potential PS sites located on lands owned by the BLM include PS2, PS3, PS4, and PS7 covering 8 acres; each PS encompasses 2.0 acres. The proposed Project would impact 6 to 8 acres of disturbed desert scrub communities including disturbed creosote bush scrub, disturbed creosote bush-white bursage scrub, disturbed brittle bush scrub and disturbed white bursage scrub. PS1, PS5, PS6, and PS7 (preferred) sites are on lands privately owned. The proposed Project will impact 2.0 acres of disturbed creosote bush scrub on PS1; 1,82 acres of Mojave creosote scrub on PS3; 0.31 desert wash, 1.75 acres Mojave creosote scrub, and 0.84 acres brittlebrush scrub on PS4; 1.65 acres of disturbed white bursage scrub on PS5; 2.0 acres of desert dunes on PS6, and 1.02 acres of disturbed allscale scrub on PS7.

Potential PS site locations are recommended to be located away from desert wash habitat to avoid and minimize indirect impacts to desert wash habitat and no direct impacts are expected to occur as a result of the proposed Project.

TABLE 2
SUMMARY OF BIOLOGICAL SITE CONSTRAINTS

Site	Aquatic Resources Present?	Sensitive Natural Communities Present?	Special-Status Plants Observed?	Suitable Habitat for Special-Status Wildlife Present?	Suitable Habitat for Nesting Birds Present?
Site 1	No	No	No	No	No
Site 2	No	No	No	Yes	No
Site 3	Yes	No	No	Yes	Yes
Site 4	Yes	No	No	Yes	Yes
Site 5	No	No	No	No	Yes
Site 6	No	No	No	Yes	Yes
Site 7–Alternative	No	No	No	No	Yes
Site 7–Preferred	No	No	Yes	No	Yes

To mitigate potential impacts to aquatic resources, or local wildlife, the PDFs, BMPs, and AMMs listed in Section 2.2.3 of the EA should be implemented.

Attachments

Attachment A: Sensitive Species Evaluated for a Potential to Occur
Attachment B: Datasheets

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Attachment A

Sensitive Species Evaluated for a Potential to Occur within the Project Area

ATTACHMENT A: SENSITIVE SPECIES EVALUATED FOR A POTENTIAL TO OCCUR WITHIN THE PROJECT AREA

Scientific Name	Common Name	Status (Federal, State, Other)	Likelihood of Occurrence at Project Site
Amphibians			
Anaxyrus californicus	Arroyo toad	Federally Endangered, CDFW SSC	**Not Expected** – Inhabits areas with shallow aquatic and riparian habitats. No suitable aquatic habitats are present at the project site.
Rana boylii pop. 5	foothill yellow-legged frog - south Sierra DPS	Federally Endangered, State Endangered, BLM S	**Not Expected** – Inhabits areas with shallow aquatic habitat and rocky streams. No suitable aquatic habitats are present at the project site.
Batrachoseps stebbinsi	Tehachapi slender salamander	State Threatened, BLM S	**Not Expected** – Inhabits moist canyon areas, ravines and mixed woodlands in the southern portion of the San Joaquin Valley. The project site is outside of the known distribution range for the species, and no suitable habitat exists within the project site.
Spea hammondii	western spadefoot	Federally Proposed Threated, BLM S, CDFW SSC	**Not Expected** – Predominantly inhabits grassland and mixed woodlands areas with vernal pools. No suitable habitats are present at the project site.
Ensatina eschscholtzii croceater	yellow-blotched salamander	BLM S, CDFW WL	**Not Expected** – Inhabits cool, moist environments in evergreen and deciduous forests. No suitable aquatic habitats are present at the project site.
Birds			
Toxostoma bendirei	Bendire's thrasher	BLM S, CDFW SSC,	**Moderate Potential** – Preference for scattered cholla, yucca, mesquite, agave, or Joshua tree. Scattered cholla habitat is present at the site. The most recent observation of this species with the study area occurred in 1998.
Athene cunicularia	burrowing owl	State Candidate Endangered; BLM S, CDFW SSC	**Moderate Potential** – Inhabits dry grasslands and deserts, preference for sparsely vegetated areas, often requires areas with pre-existing burrows. The most recent observation of this species with the study area occurred in 2012.
Gymnogyps californianus	California condor	Federally Endangered, State Endangered, CDFW FP	**Moderate Potential** – Prefers areas with large trees/snags, rocky outcrops and cliffs. Limited rocky outcrops occur at the project site and grassland foraging habitats are limited within the project area. However, the western portion of the project site is within foraging range of known condor nests and individual observations. The most recent observation of this species near the survey area occurred in 2015 approximately 2.5 miles from the site.
Eremophila alpestris actia	California horned lark	CDFW WL	**Not Expected** – Prefers locations without trees and shrubs. Nests, and forages in open areas. Marginally suitable habitat is present at project site.
Aquila chrysaetos	golden eagle	BLM S, CDFW FP, CDFW WL	**Moderate Potential**– Prefer mountainous regions with grassland, shrubland, chapparal shrubland, forest and other vegetated areas. Observed foraging approximately 2 miles south of the project site. The most recent observation of this species near the survey area was in 2012 approximately 0.66 miles from the site.

Scientific Name	Common Name	Status (Federal, State, Other)	Likelihood of Occurrence at Project Site
Toxostoma lecontei	Le Conte's thrasher	BLM S, CDFW SSC,	**Moderate Potential** – Inhabits low, sandy open desert areas with saltbush, cholla cactus, creosote bush scrub and other desert-type regions. Suitable habitat is present within the project site. The most recent observation of this species within the survey area was in 2013.
Lanius ludovicianus	loggerhead shrike	CDFW SSC	**Moderate Potential** – Preference for short vegetation and well-spaced shrubs/low trees with spines or thorns, frequently in desert scrublands. Also often present along fence lines and utility poles. The most recent observation of this species near the survey area was in 2006 approximately 0.5 miles from the site.
Asio otus	long-eared owl	CDFW SSC	**Moderate Potential** – Preference for dense trees for nesting and roosting and open areas for hunting, occupies a wide range of territories including meadows, forests and deserts. The most recent observation of this species near the survey area was in 2001 approximately 2.2 miles from the site.
Falco columbarius	merlin	CDFW WL	**Low Potential** – Inhabits open areas with scrub or shrublands, and grasslands. The species is distributed over a wide range, primarily focused in the San Joaquin Valley and west of the San Gabriel Mountains. The project site has the potential to support species habitat, but it is not considered an area of high suitability.
Falco mexicanus	prairie falcon	CDFW WL	**Moderate Potential** – Inhabit wide-open sagebrush and desert habitats with nests on sheer rocky cliffs. Suitable foraging habitat is present at project site. The most recent observation of this species within the survey area was in 2020.
Progne subis	purple martin	CDFW SSC	**Not Expected** – Prefers mountainous forests and saguaro desert areas; semi-open country near water. No suitable habitats are present at the project site.
Agelaius tricolor	Tricolored blackbird	State Threatened, BLM S, CDFW SSC	**Not Expected** – Occupies wetlands and agricultural fields. No suitable habitats are present at the project site.
Icteria virens	yellow-breasted chat	CDFW SSC	**Not Expected** – Prefers areas with dense shrubbery, agricultural areas, forest openings, swamps and near ponds. The project area does not contain suitable habitat for the species.
Fish			
Siphateles bicolor mohavensis	Mohave tui chub	Federally Endangered, State Endangered, CDFW FP	**Not Expected** – Endemic to the Mojave River. No aquatic habitats within the project site.
Invertebrates			
Bombus crotchii	Crotch's bumble bee	State Candidate Endangered	**Not Expected** – Inhabits grasslands but has a preference towards drier environments and food sources that, if present, are likely sparse throughout the project area.
Mammals			
Taxidea taxus	American badger	CDFW SSC	**Moderate Potential** – Inhabits alkali marsh, desert wash, Great Basin scrub, marsh and swamp, meadow and seep, Mojavean desert scrub, riparian scrub, riparian woodland, valley and foothill grassland. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. The most recent observation of this species near the survey area was in 2013 approximately 0.3 miles from the site.
Sorex ornatus relictus	Buena Vista Lake ornate shrew	Federally Endangered, CDFW SSC	**Not Expected** – Preference for dense groundcover within the Tulare Basin region. No such habitat present at project site.

Scientific Name	Common Name	Status (Federal, State, Other)	Likelihood of Occurrence at Project Site
Ovis canadensis nelsoni	desert bighorn sheep	BLM S, CDFW FP	**Moderate Potential** – Typically inhabits rocky slopes and cliffs, washes and alluvial fans and generally eats a wide variety of desert plants, including cacti. The most recent observation of this species near the survey area was in 1989 approximately 1.5 miles from the site.
Xerospermophilus mohavensis	Mohave ground squirrel	State Threatened, BLM S	**High Potential** – Preference for sandy soils within all types of major scrub habitats within the Mojave Desert, predominantly creosote bush scrub and desert saltbush scrub. Suitable habitat is present throughout the study area. The most recent observation of this species within the survey area was in 2018.
Erethizon dorsatum	North American porcupine	—	**Not Expected** – Typically inhabits montane conifer and wet meadows over a wide range. The project area does not support historic or suitable habitat.
Ammospermophilus nelsoni	San Joaquin antelope squirrel	State Threatened, BLM S	**Not Expected** – Inhabits Carrizo Plain area of San Joaquin Valley which is outside of the project area.
Vulpes macrotis mutica	San Joaquin kit fox	Federally Endangered, State Threatened	**Low Potential** – Prefer to inhabit grasslands and shrublands, many areas with extensive modification (i.e. oil exploration and extraction, irrigated pastures, orchards, etc.) and loose-texture soils for dens. Soil conditions at project site are marginally suitable for den construction.
Perognathus inornatus	San Joaquin pocket mouse	BLM S	**Not Expected** – Inhabits Joshua tree woodlands in desert regions. Closest occurrence, within the southeast region of the Tehachapi Mountains, is not within the project area.
Perognathus alticola inexpectatus	Tehachapi pocket mouse	CDFW SSC	**Not Expected** – Inhabits Tehachapi Mountains and lower slopes of the Sierra Nevada Mountains, they also occur in the San Joaquin Valley and Salinas Valley. The project site is outside of the expected and historical range for the species.
Corynorhinus townsendii	Townsend's big-eared bat	BLM S, CDFW SSC	**Moderate Potential** – Found in a wide variety of habitats including deserts, forests, prairies, riparian communities and agricultural areas. Suitable habitat is located adjacent to the project site in several areas. The most recent observation of this species near the survey area was in 2007 approximately 3.1 miles from the site.
Onychomys torridus tularensis	Tulare grasshopper mouse	BLM S, CDFW SSC	**Not Expected** – Inhabits Carrizo Plain area of San Joaquin Valley which is outside of the project area.
Plants			
Calochortus striatus	alkali mariposa-lily	CNPS 1B.2, BLM S	**Low Potential** - Primarily inhabits alkaline soils, usually in wetland-riparian areas, in Shadscale scrub and chaparral habitats; sufficient habitat is not present at the project site.
Navarretia peninsularis	Baja Navarretia	CNPS 1B.2	**Low Potential** – Primarily inhabits vernal pools, alkali playas and alkali sinks; sufficient habitat is not present at the project site.
Opuntia basilaris var. *treleasei*	Bakersfield cactus	Federal Endangered, State Endangered, CNPS 1B.1	**Moderate Potential** – Prefers Sierra-Tehachapi saltbush scrub but is also found in blue oak woodland and riparian woodland. In desert areas, prefers arid land with sparse vegetation.
Atriplex tularensis	Bakersfield smallscale	State Endangered, CNPS 1A	**Not Expected** – Inhabits alkali soils of flooded salt pans, agricultural activities have made conditions too dry for this species and it is believed to be extinct.
Eriophyllum mohavense	Barstow woolly sunflower	CNPS 1B.2, BLM S	**Moderate Potential** – Inhabits creosote bush scrub and shadscale scrub. Suitable habitat is present within the project site.
Pediomelum castoreum	Beaver Dam breadroot	CNPS 1B.2, BLM S	**Moderate Potential** – Inhabits creosote bush scrub and Joshua tree woodlands with gravely and sandy soils. Creosote scrub is present throughout the project site.

Scientific Name	Common Name	Status (Federal, State, Other)	Likelihood of Occurrence at Project Site
Diplacus pictus	calico monkeyflower	CNPS 1B.2, BLM S	**Not Expected** – Occurs only above the southeastern San Joaquin Valley within Kern and Tulare counties and prefers open California oak woodland habitat. No suitable habitat is present within the project site.
Caulanthus californicus	California jewelflower	Federally Endangered, State Endangered, CNPS 1B.1	**Not Expected** – Historically occurs in saltbush scrub and non-native grassland, but populations near the project site are unlikely/mostly eradicated.
Abronia villosa var. *aurita*	Chaparral sand-verbena	CNPS 1B.1, BLM S	**Moderate Potential** – Inhabits creosote bush communities, lower dry desert areas and well-drained sandy soils. Suitable habitat is present within the project site.
Layia leucopappa	Comanche Point layia	CNPS 1B.1, BLM S	**Low Potential** – Preference for sparsely-vegetated microhabitats in annual grasslands. Sufficient habitat is not found at project site.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	CNPS 1B.1, BLM S	**Not Expected** – Inhabits coastal salt marshes, swamps, and vernal pools. No suitable habitat is present within the project site.
Senna covesii	Cove's cassia	CNPS 2B.2	**Moderate Potential** – Prefers dry rocky slopes and sandy desert washes, both of which are present throughout the project site.
Mentzelia tridentata	creamy blazing star	CNPS 1B.3, BLM S	**Moderate Potential** – Prefers creosote bush scrub and rocky outcrops, both of which are present throughout the project site.
Mentzelia puberula	Darlington's blazing star	CNPS 2B.2	**Moderate Potential** – Prefers sandy crevices in cliffs or rocky slopes within creosote bush scrub. Suitable habitat is present within the project site.
Cymopterus deserticola	desert cymopterus	CNPS 1B.2, BLM S	**Moderate Potential** – Inhabits well-drained, fine to coarse sandy soils within creosote bush scrub and desert saltbush scrub, generally sharing habitats with the desert tortoise and Mohave ground squirrel. Suitable habitat is present within the project site.
Castela emoryi	Emory's crucifixion-thorn	CNPS 2B.2	**Moderate Potential** – Preference towards creosote bush scrub communities in dry gravelly washes and slopes. Suitable habitat is present within the project site.
Ditaxis claryana	glandular ditaxis	CNPS 2B.2	**Moderate Potential** – Prefers desert scrub, sandy and rocky slopes and calcareous soils. Sufficient habitat is not found at project site.
Viola pinetorum ssp. *grisea*	grey-leaved violet	CNPS 1B.2, BLM S	**Not Expected** – Inhabits mountain peaks and alpine zones. Suitable habitat is not present at project site.
Chloropyron molle ssp. *hispidum*	hispid salty bird's-beak	CNPS 1B.1, BLM S	**Not Expected** – Inhabits wetlands, meadows, playas in alkali sink communities, valley grasslands and riparian areas. Suitable habitat is not present at project site.
Eremalche parryi ssp. *kernensis*	Kern mallow	Federally Endangered CNPS 1B.2	**Moderate Potential** – Prefers saltbush scrub habitats and eroded hillsides with sparse vegetation. Suitable habitat is present within the project site.
Saltugilia latimeri	Latimer's woodland-gilia	CNPS 1B.2, BLM S	**Moderate Potential** – Occurs in dry, rocky and sandy desert canyon environments. Suitable habitat is not present within the project site.
Caulanthus lemmonii	Lemmon's jewelflower	CNPS 1B.2, BLM S	**Not Expected** – Inhabits juniper woodlands and valley grasslands. Suitable habitat is not present at project site.
Atriplex coronata var. *vallicola*	Lost Hills crownscale	CNPS 1B.2, BLM S	**Not Expected** – Inhabits wetlands and vernal pools near freshwater communities, and valley grasslands. Suitable habitat is not present at project site.

Scientific Name	Common Name	Status (Federal, State, Other)	Likelihood of Occurrence at Project Site
Leptosiphon serrulatus	Madera leptosiphon	CNPS 1B.2, BLM S	**Not Expected** – Inhabits yellow pine forests and foothill woodlands. Suitable habitat is not present at project site.
Sclerocactus polyancistrus	Mojave fish-hook cactus	CNPS 4.2	**Present** – Inhabits Mojave creosote bush scrub and Joshua Tree woodland communities typically on carbonate soils. This species was observed at Site 1 (PS1 MP 215) Site 3 (PS2C MP194), Site 4 (PS2A MP190), Site 7 (PS4B MP142) during the field reconnaissance survey.
Menodora spinescens var. *mohavensis*	Mojave menodora	CNPS 1B.2, BLM S	**Low Potential** – Inhabits rocky slopes and canyons within Mojavean desert scrub. Some rocky hillsides are present throughout the project site.
Diplacus mohavensis	Mojave monkeyflower	CNPS 1B.2, BLM S	**Moderate Potential** – Preference for gravelly, sandy habitats within desert washes. Some desert washes are present throughout the project site.
Allium howellii var. *clokeyi*	Mt. Pinos onion	CNPS 1B.3	**Not Expected** – Inhabits sagebrush scrub communities. No suitable sagebrush communities are present within the project site.
Euphorbia jaegeri	Orocopia Mountains spurge	CNPS 1B.1, BLM S	**Not Expected** – Inhabits desert scrub communities in Riverside County and San Bernadino County. Typically found along rocky hillsides. Suitable habitat is not present at project site.
Layia heterotricha	pale-yellow layia	CNPS 1B.1, BLM S	**Low Potential** – Prefers clay or sandy soils. Project site location does not have appropriate habitat.
Calochortus palmeri var. *palmeri*	Palmer's mariposa-lily	CNPS 1B.2, BLM S	**Not Expected** – Inhabits wetland communities such as meadows, also found in yellow pine forests, chaparral and riparian areas. No suitable habitats are present within the project site.
Phacelia parishii	Parish's phacelia	CNPS 1B.1, BLM S	**Moderate Potential** – Inhabits creosote bush scrub and inhabits the area along the National Trails Highway. Higher likelihood in dried desert washes/watersheds.
Navarretia setiloba	Piute Mountains navarretia	CNPS 1B.1, BLM S	**Not Expected** – Inhabits foothill woodlands, valley grasslands and pinyon-juniper woodlands. No suitable habitats are present within the project site.
Cymopterus multinervatus	purple-nerve cymopterus	CNPS 2B.2	**Not Expected** – Inhabits pinyon-juniper woodlands and Joshua Tree woodlands. No suitable habitats are present within the project site, however previous occurrences were documented most recently in 2016, the species is presumed extant.
Delphinium recurvatum	recurved larkspur	CNPS 1B.2, BLM S	**Not Expected** – Inhabits shadescale scrub, foothill woodlands and valley grasslands. No suitable habitats are present within the project site.
Loeflingia squarrosa	Sagebrush loeflinga	CNPS 2B.2, BLM S	**Not Expected** – Prefers creosote bush scrub and sagebrush scrub, but unlikely to be in project site due to absence of suitable habitat.
Pseudobahia peirsonii	San Joaquin adobe sunburst	Federally Threatened, State Endangered, CNPS 1B.1	**Not Expected** – Typically found in foothill woodlands and valley grasslands. Not expected to be in project site due to absence of suitable habitat.
Androstephium breviflorum	small-flowered androstephium	CNPS 2B.2	**Moderate Potential** – Inhabits open desert scrub and creosote brush scrub with sandy to rocks soil. Suitable habitat is present within the project site.
Monardella linoides ssp. *anemonoides*	southern Sierra monardella	CNPS 1B.3	**Not Expected** – Typically found in desert habitats, chaparral and woodlands. Not expected to be in project site due to absence of suitable habitat.

Scientific Name	Common Name	Status (Federal, State, Other)	Likelihood of Occurrence at Project Site
Mentzelia tricuspis	spiny-hair blazing star	CNPS 2B.1	**Not Expected** – Typically found along desert slopes, flats and washes, and on sandy slopes. Not expected to be in project site due to lack of suitable habitat and isolation from known populations further west.
Eryngium spinosepalum	spiny-sepaled button-celery	CNPS 1B.2, BLM S	**Not Expected** – Typically found in wetlands and vernal-pool communities. Not expected to be in project site due to absence of suitable habitat.
Fritillaria striata	striped adobe-lily	State Threatened, CNPS 1B.1, BLM S	**Not Expected** – Occurs in the southern Sierra Nevada foothills in Kern and Tulare Counties, and east of the Tejon hills in the Tehachapi Mountains in adobe clay soils. Not expected to be in project site due to absence of suitable habitat.
Monardella linoides ssp. *oblonga*	Tehachapi monardella	CNPS 1B.3, BLM S	**Low Potential** – Prefers gravelly, dry slopes when found in desert regions. Otherwise inhabits chaparral, conifer woodlands and forests. No suitable habitat is present within the project site.
Reptiles			
Anniella grinnelli	Bakersfield legless lizard	CDFW SSC	**Low Potential** – Inhabits beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and other woodland areas.
Gambelia sila	blunt-nosed leopard lizard	Federally Endangered, State Endangered, CDFW FP	**Not Expected** – Preference for arid, open areas with patchy/sparse vegetation. Species population range does not generally extend as southeast as the project site.
Arizona elegans occidentalis	California glossy snake	CDFW SSC	**Moderate Potential** – Inhabits arid scrub, rocky washes, and chaparral with microhabitats of open areas that allow for easy burrowing.
Anniella spp.	California legless lizard	CDFW SSC	**Not Expected** – Inhabits beach dunes and stream terraces, prefers areas with saturated soils. No suitable habitat is present within the project site.
Phrynosoma blainvillii	coast horned lizard	BLM S, CDFW SSC	**Not Expected** – Inhabits grasslands but preference towards grasslands near chaparral and with scattered shrub vegetation. Some suitable habitat is present but marginal at best.
Gopherus agassizii	desert tortoise	Federally Threatened, State Threatened	**High Potential** – Inhabits arid habitats with desert scrub, sandy flats and rocky slopes. Preference for firm soil for burrowing and sparse, low-growing shrubs for shelter. Suitable habitat was detected within the study area. This species is known to occur within 5 miles of the study area but is not in a known designated critical habitat area (CDFW 2024). The most recent observation of this species within the survey area was in 2013.
Uma scoparia	Mojave fringe-toed lizard	BLM S, CDFW SSC	**Low Potential** – Inhabits sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.
Anniella pulchra	Northern California legless lizard	CDFW SSC	**Low Potential** – Inhabits coniferous riparian forests with moist sandy areas and damp woodland. No such suitable habitat at project site.
Masticophis flagellum ruddocki	San Joaquin coachwhip	CDFW SSC	**High Potential** – Inhabits open, dry, treeless areas with little to no cover including valley grasslands. Suitable habitat is present throughout study area. This species is known to occur within 5 miles of the study area (CDFW 2024). The most recent observation of this species near the survey area was in 2014 approximately 1.2 miles from the site.
Charina umbratica	southern rubber boa	State Threatened	**Not Expected** – Inhabits coniferous riparian forests with moist sandy areas and damp woodland. No such suitable habitat at project site.

Scientific Name	Common Name	Status (Federal, State, Other)	Likelihood of Occurrence at Project Site
Actinemys marmorata	western pond turtle	Federally Proposed Threated, BLM S, CDFW SSC	**Not Expected** – Requires aquatic habitat. No such suitable habitat at project site.

BLM Ranking

S = Sensitive

CDFW Rankings:

SSC = Species of Special Concern
FP = Fully Protected
WL = Watch List

CNPS Rankings:

1A = Plants presumed extirpated in California and are either rare or extinct elsewhere
1B.1 = Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
1B.2 = Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
1B.3 = Plants rare, threatened, or endangered in California and elsewhere; not very threatened in California
2B.1 = Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
2B.2 = Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California
3.3 = Review list, plants about which more information is needed; not very threatened in California
4.2 = Plants of limited distribution; moderately threatened in California

Intentionally Blank

Attachment B
Datasheets

1_Biology Surveys (SoCal Bio ONLY)

Biology Surveys (SoCal Bio ONLY)

Cadiz PS1

5/28/2025, 3:43:45 PM UTC



BSA facing west.



CREATED

5/27/2025, 6:49:46 PM UTC
by Anna Weber

UPDATED

5/28/2025, 3:43:45 PM UTC
by Anna Weber

LOCATION

34.489672, -115.476594

Parent Form

Project Name:	Cadiz PS1
Specific Survey Type	General Survey/Habitat Assessment
Observer/Surveyor:	Anna Weber, Brenda McMillan
Assistant Observer/Surveyor:	
Date:	May 27, 2025

START Weather Details:

Start - Time:	11:49
Start - Temperature:	92
Start - Wind Direction From (select one):	S
Start - Low Wind Speed:	6
Start - High Wind Speed:	12
Start - Average Wind Speed:	6
Start - Cloud Cover (%):	10
Start - Precipitation (select one):	None
Start - Visibility (select one):	Good
Start - Notes	

END Weather Details:

Time Out:	13:00
End - Temperature:	
End - Wind Direction From (select one):	
End - Low Wind Speed:	
End - High Wind Speed:	
End - Average Wind Speed:	
End - Cloud Cover (%):	
End - Precipitation (select one):	None
End - Visibility (select one):	
End - Notes (if applicable):	
Total Hours:	

Project Location (description):	Pump Station 1

Notes	Gravelly, open soils In active area (disturbed with O&M activities) Natural gas line runs through area. Proposed pump station may intersect with existing dirt access road. Vegetation: Disturbed creosote bush scrub (cover: 5%), sparse annual understory
Observation Type:	Plant, Reptile

Photos



BSA facing west.





BSA facing west.





BSA facing north.

Plants

Plant Observation: (17 Items)

Plant Observation: - 1. 1 record

Plant (Common or Scientific Name):	Larrea tridentata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 2. 1 record

Plant (Common or Scientific Name):	Ambrosia dumosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 3. 1 record

Plant (Common or Scientific Name):	Geraea canescens
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 4. 1 record

Plant (Common or Scientific Name):	Chorizanthe rigida

Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 5. 1 record

Plant (Common or Scientific Name):	Camissonia strigulosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 6. 1 record

Plant (Common or Scientific Name):	Schismus barbatus
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 7. 1 record

Plant (Common or Scientific Name):	Plantago ovata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A

Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 8. 1 record

Plant (Common or Scientific Name):	Palafoxia arida
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 9. 1 record

Plant (Common or Scientific Name):	Eremothera boothii subsp. desertorum
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 10. 1 record

Plant (Common or Scientific Name):	Hesperocallis undulata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 11. 1 record

Plant (Common or Scientific Name):	Loeseliastrum matthewsii
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 12. 1 record

Plant (Common or Scientific Name):	Camissoniopsis bistorta
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 13.

Plant (Common or Scientific Name):	
Other Plant Species	Desert puffball
Is the Plant Sensitive ?	
Sensitive?	
State	
Federal	
CA Rare Plant Rank	
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 14. 1 record

Plant (Common or Scientific Name):	Stillingia linearifolia
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 15. 1 record

Plant (Common or Scientific Name):	Johnstonella angustifolia [Cryptantha angustifolia]
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 16. 1 record

Plant (Common or Scientific Name):	Dalea mollissima
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 17. 1 record

Plant (Common or Scientific Name):	Aliciella latifolia subsp. latifolia
Sensitive?	no
State	N/A
Federal	N/A

CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Reptile

Reptile Observation: (1 Item)

Reptile Observation: - 1. 1 record

Reptile (Common or Scientific Name):	Zebra-tailed Lizard; Callisaurus draconoides
Is the Reptile Sensitive ?	no
Sub-Species Info:	N/A
Additional Notes:	
Photo(s) of Reptile:	

1_Biology Surveys (SoCal Bio ONLY)

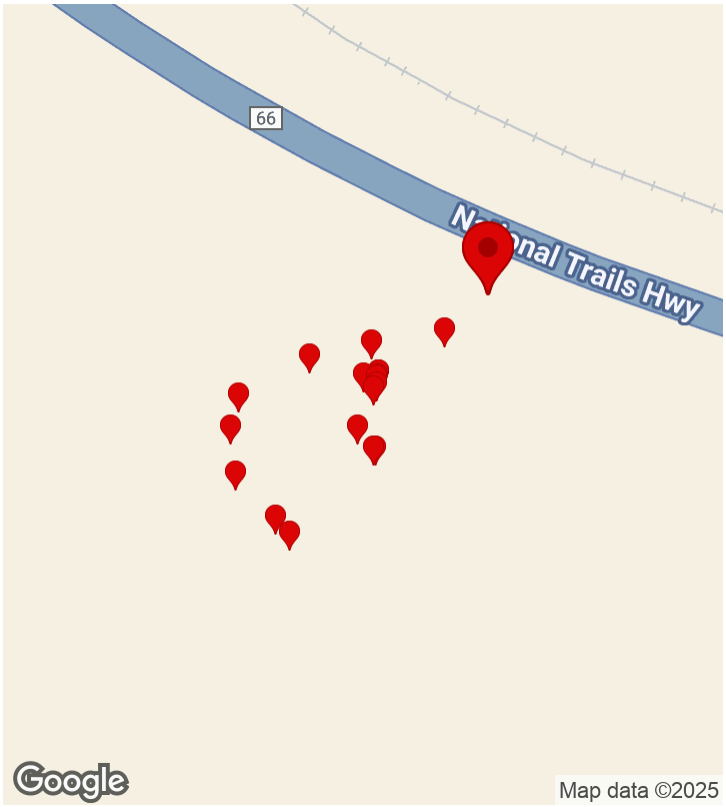
Biology Surveys (SoCal Bio ONLY)

Cadiz PS2

5/28/2025, 3:47:28 PM UTC



BSA facing west.



CREATED

5/27/2025, 9:22:16 PM UTC
by Anna Weber

UPDATED

5/28/2025, 3:47:28 PM UTC
by Anna Weber

LOCATION

34.602879, -115.957438

Parent Form

Project Name:	Cadiz PS2
Specific Survey Type	General Survey/Habitat Assessment
Observer/Surveyor:	Anna Weber, Brenda McMillan
Assistant Observer/Surveyor:	
Date:	May 27, 2025

START Weather Details:

Start - Time:	14:22
Start - Temperature:	93
Start - Wind Direction From (select one):	
Start - Low Wind Speed:	6
Start - High Wind Speed:	12
Start - Average Wind Speed:	6
Start - Cloud Cover (%):	5
Start - Precipitation (select one):	None
Start - Visibility (select one):	Good
Start - Notes	

END Weather Details:

Time Out:	15:34
End - Temperature:	
End - Wind Direction From (select one):	
End - Low Wind Speed:	
End - High Wind Speed:	
End - Average Wind Speed:	
End - Cloud Cover (%):	
End - Precipitation (select one):	None
End - Visibility (select one):	
End - Notes (if applicable):	
Total Hours:	

Project Location (description):	Pump Station 2

Notes	Dry desert wash within proposed pump station. No jurisdictional vegetation present (e.g. smokers, ironwood, cottonwood, desert willow). Wash no longer conveys water flows regularly through the area due to railroad, pipeline and road infrastructure disturbance. Open creosote bush scrub with natural disturbance (cover: 13%). Sparse annual understory. Cobble and gravel found throughout the survey area. 3 parallel dirt access roads between railroad and BSA.
Observation Type:	Plant, Reptile

Photos



BSA facing west.





Proposed pump station location. Facing southwest.





Desert wash. Facing north.





Main wash adjacent to (west of) the project area. Facing north.

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Plants

Plant Observation: (17 Items)

Plant Observation: - 1. 1 record

Plant (Common or Scientific Name):	Dalea mollissima
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 2. 1 record

Plant (Common or Scientific Name):	Larrea tridentata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 3. 1 record

Plant (Common or Scientific Name):	Plantago ovata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 4. 1 record

Plant (Common or Scientific Name):	Ambrosia dumosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 5. 1 record

Plant (Common or Scientific Name):	Euphorbia polycarpa

Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 6. 1 record

Plant (Common or Scientific Name):	Opuntia basilaris var. basilaris
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 7. 1 record

Plant (Common or Scientific Name):	Plantago erecta
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 8. 1 record

Plant (Common or Scientific Name):	Chorizanthe brevicornu
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A

Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 9. 1 record

Plant (Common or Scientific Name):	Schismus barbatus
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 10. 1 record

Plant (Common or Scientific Name):	Cylindropuntia acanthocarpa var. acanthocarpa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 11. 1 record

Plant (Common or Scientific Name):	Chorizanthe rigida
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 12. 1 record

Plant (Common or Scientific Name):	Dasyochloa pulchella
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:



Plant Observation: - 13. 1 record

Plant (Common or Scientific Name):	Ambrosia salsola
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	

Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 14. 1 record

Plant (Common or Scientific Name):	Malacothrix glabrata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 15. 1 record

Plant (Common or Scientific Name):	Eschscholzia glyptosperma
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 16. 1 record

Plant (Common or Scientific Name):	Johnstonella angustifolia [Cryptantha angustifolia]
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 17. 1 record

Plant (Common or Scientific Name):	Aliciella latifolia subsp. latifolia
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Reptile

Reptile Observation: (1 Item)

Reptile Observation: - 1. 1 record

Reptile (Common or Scientific Name):	Zebra-tailed Lizard; Callisaurus draconoides
Is the Reptile Sensitive ?	no
Sub-Species Info:	N/A
Additional Notes:	
Photo(s) of Reptile:	

1_Biology Surveys (SoCal Bio ONLY)

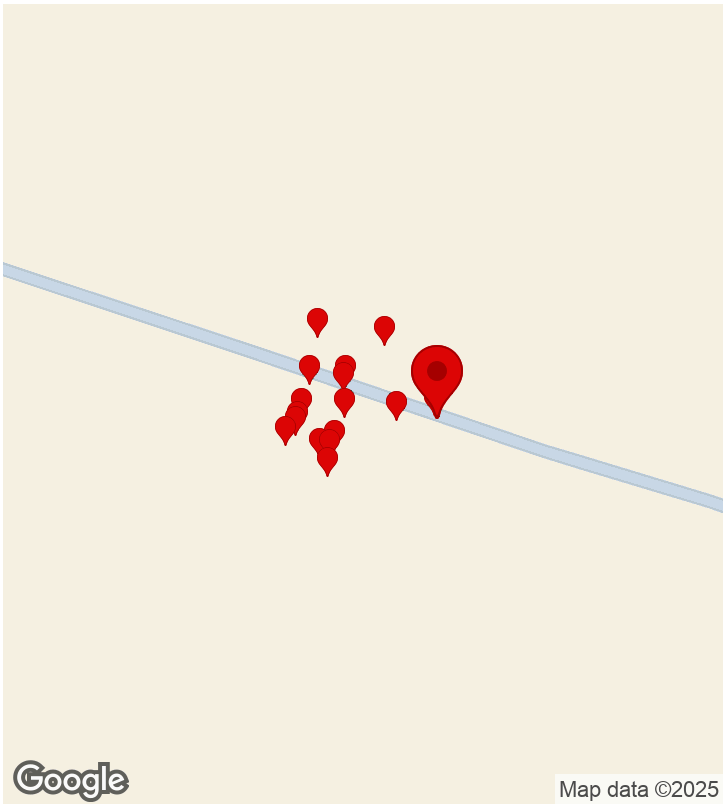
Biology Surveys (SoCal Bio ONLY)

Cadiz PS3

5/28/2025, 3:50:05 PM UTC



BSA facing west.



CREATED

5/27/2025, 11:04:08 PM UTC
by Anna Weber

UPDATED

5/28/2025, 3:50:05 PM UTC
by Anna Weber

LOCATION

34.638520, -116.085053

Parent Form

Project Name:	Cadiz PS3
Specific Survey Type	General Survey/Habitat Assessment
Observer/Surveyor:	Brenda McMillan
Assistant Observer/Surveyor:	Anna Weber
Date:	May 27, 2025

START Weather Details:

Start - Time:	16:04
Start - Temperature:	94
Start - Wind Direction From (select one):	SE
Start - Low Wind Speed:	12
Start - High Wind Speed:	15
Start - Average Wind Speed:	12
Start - Cloud Cover (%):	5
Start - Precipitation (select one):	None
Start - Visibility (select one):	Good
Start - Notes	

END Weather Details:

Time Out:	16:35
End - Temperature:	94
End - Wind Direction From (select one):	SE
End - Low Wind Speed:	12
End - High Wind Speed:	15
End - Average Wind Speed:	12
End - Cloud Cover (%):	2
End - Precipitation (select one):	None
End - Visibility (select one):	Good
End - Notes (if applicable):	
Total Hours:	

Project Location (description):	Pump Station 3

Notes	Proposed pump location is within active desert wash. Recommended to move pump location west, as marked on field maps. Stay on southern side of access roads between railroad, within the disturbed areas. Brittlebush scrub (cover: 5%) with scattered Larrea tridentata and Ambrosia dumosa. Rocky soils within pipeline scars. Evidence of hydrology throughout BSA. Roadsides are disturbed. No desert tortoise observed within BSA.
Observation Type:	Plant, Reptile

Photos



BSA facing west.





Proposed pump location within desert wash. Facing southeast.





BSA facing northwest.



BSA north of road. Facing northeast.

Plants

Plant Observation: (20 Items)

Plant Observation: - 1. 1 record

Plant (Common or Scientific Name):	Euphorbia polycarpa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 2. 1 record

Plant (Common or Scientific Name):	Ambrosia dumosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 3. 1 record

Plant (Common or Scientific Name):	Encelia farinosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 4. 1 record

Plant (Common or Scientific Name):	Larrea tridentata

Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 5. 1 record

Plant (Common or Scientific Name):	Dalea mollissima
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 6. 1 record

Plant (Common or Scientific Name):	Malacothrix glabrata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 7. 1 record

Plant (Common or Scientific Name):	Chorizanthe angustifolia
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A

Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 8. 1 record

Plant (Common or Scientific Name):	Dasyochloa pulchella
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 9. 1 record

Plant (Common or Scientific Name):	Ambrosia salsola
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 10. 1 record

Plant (Common or Scientific Name):	Chorizanthe rigida
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 11. 1 record

Plant (Common or Scientific Name):	Eriogonum reniforme
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:



Plant Observation: - 12. 1 record

Plant (Common or Scientific Name):	Schismus barbatus
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 13. 1 record

Plant (Common or Scientific Name):	Loeseliastrum schottii
Sensitive?	no

State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 14. 1 record

Plant (Common or Scientific Name):	Plantago ovata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 15. 1 record

Plant (Common or Scientific Name):	Geraea canescens
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 16. 1 record

Plant (Common or Scientific Name):	Chylismia claviformis
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	

Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 17. 1 record

Plant (Common or Scientific Name):	Aliciella latifolia subsp. latifolia
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 18. 1 record

Plant (Common or Scientific Name):	Amsinckia intermedia
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 19. 1 record

Plant (Common or Scientific Name):	Tidestromia suffruticosa var. oblongifolia
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 20. 1 record

Plant (Common or Scientific Name):	Phacelia crenulata var. crenulata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Reptile

Reptile Observation: (1 Item)

Reptile Observation: - 1. 1 record

Reptile (Common or Scientific Name):	Tiger Whiptail; Aspidoscelis tigris
Is the Reptile Sensitive ?	no
Sub-Species Info:	N/A
Additional Notes:	
Photo(s) of Reptile:	

1_Biology Surveys (SoCal Bio ONLY)

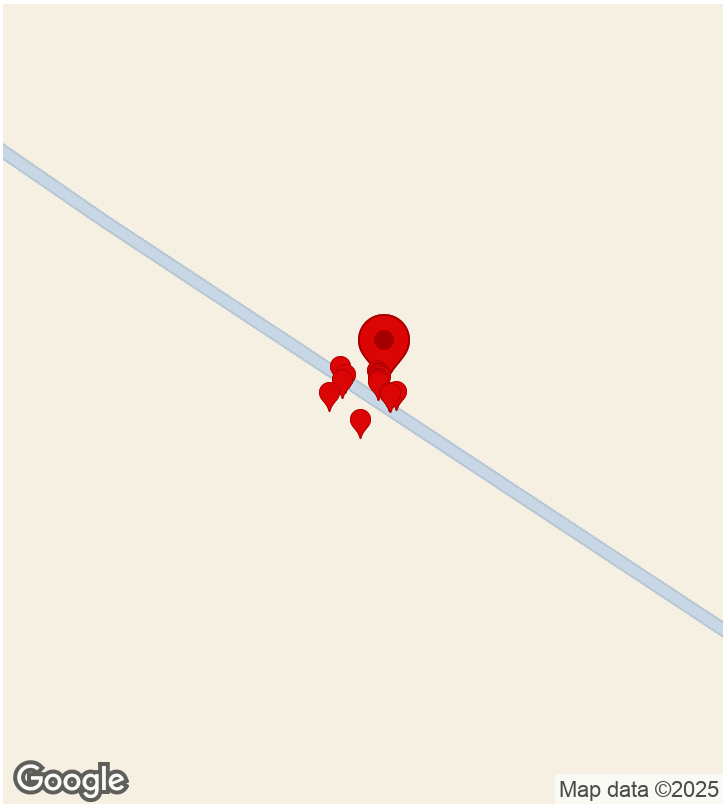
Biology Surveys (SoCal Bio ONLY)

Cadiz PS4

5/28/2025, 1:00:46 AM UTC



BSA facing west.



CREATED

5/28/2025, 12:06:21 AM UTC
by Anna Weber

UPDATED

5/28/2025, 1:00:46 AM UTC
by Anna Weber

LOCATION

34.670389, -116.145336

Parent Form

Project Name:	Cadiz PS4
Specific Survey Type	General Survey/Habitat Assessment
Observer/Surveyor:	Brenda McMillan
Assistant Observer/Surveyor:	Anna Weber
Date:	May 27, 2025

START Weather Details:

Start - Time:	17:06
Start - Temperature:	94
Start - Wind Direction From (select one):	SW
Start - Low Wind Speed:	12
Start - High Wind Speed:	15
Start - Average Wind Speed:	12
Start - Cloud Cover (%):	0
Start - Precipitation (select one):	None
Start - Visibility (select one):	Good
Start - Notes	

END Weather Details:

Time Out:	17:06
End - Temperature:	
End - Wind Direction From (select one):	
End - Low Wind Speed:	
End - High Wind Speed:	
End - Average Wind Speed:	
End - Cloud Cover (%):	
End - Precipitation (select one):	None
End - Visibility (select one):	
End - Notes (if applicable):	
Total Hours:	

Project Location (description):	Pump Station 4

Notes	Proposed pump station 4 is located within an active desert wash. Recommended pump location moved south, as shown on Field Maps. Rocky soil in active desert wash. Evidence of recent hydrology. Creosote bush scrub (Cover: 7%). Sparse cover in understory. Erosion observed within BSA.
Observation Type:	Plant

Photos



BSA facing west.



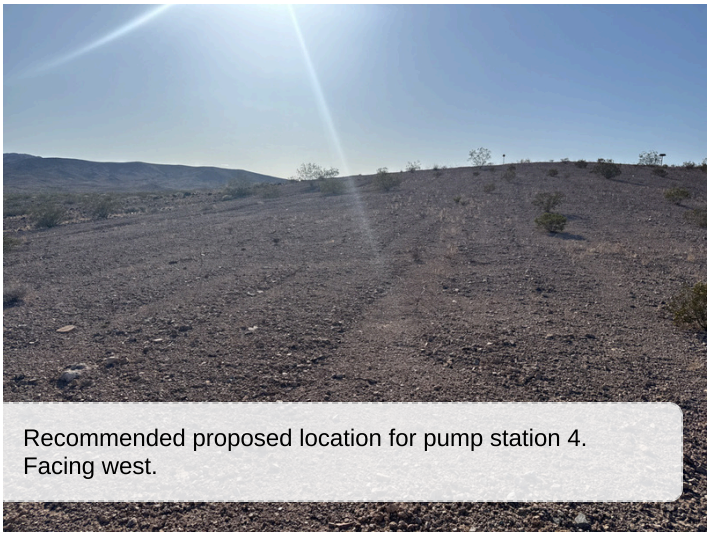


Proposed pump station 4 located within active desert wash. Facing south.









Recommended proposed location for pump station 4. Facing west.



BSA. Facing north.

Plants

Plant Observation: (21 Items)

Plant Observation: - 1. 1 record

Plant (Common or Scientific Name):	Euphorbia polycarpa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 2. 1 record

Plant (Common or Scientific Name):	Ambrosia dumosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 3. 1 record

Plant (Common or Scientific Name):	Encelia farinosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 4. 1 record

Plant (Common or Scientific Name):	Eriogonum inflatum
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 5. 1 record

Plant (Common or Scientific Name):	Eriogonum nidularium

Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 6.

Plant (Common or Scientific Name):	
Other Plant Species	Phacelia crenulata
Is the Plant Sensitive ?	
Sensitive?	
State	
Federal	
CA Rare Plant Rank	
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 7. 1 record

Plant (Common or Scientific Name):	Plantago patagonica
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 8. 1 record

Plant (Common or Scientific Name):	Parry's Dalea
Sensitive?	no
State	N/A

Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 9. 1 record

Plant (Common or Scientific Name):	Larrea tridentata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 10.

Plant (Common or Scientific Name):	
Other Plant Species	Unknown 1
Is the Plant Sensitive ?	
Sensitive?	
State	
Federal	
CA Rare Plant Rank	
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 11. 1 record

Plant (Common or Scientific Name):	Malacothrix glabrata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A

Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 12. 1 record

Plant (Common or Scientific Name):	Schismus barbatus
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 13. 1 record

Plant (Common or Scientific Name):	Psathyrotes ramosissima
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 14.

Plant (Common or Scientific Name):	
Other Plant Species	Mentzelia sp.
Is the Plant Sensitive ?	
Sensitive?	
State	
Federal	
CA Rare Plant Rank	
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:





Plant Observation: - 15. 1 record

Plant (Common or Scientific Name):	Dasyochloa pulchella
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 16. 1 record

Plant (Common or Scientific Name):	Encelia frutescens
Sensitive?	no
State	N/A
Federal	N/A

CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:



Plant Observation: - 17.

Plant (Common or Scientific Name):	
Other Plant Species	Amsinckia sp.
Is the Plant Sensitive ?	
Sensitive?	
State	
Federal	
CA Rare Plant Rank	
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:



Plant Observation: - 18. 1 record

Plant (Common or Scientific Name):	Chylismia claviformis
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 19. 1 record

Plant (Common or Scientific Name):	Chorizanthe rigida
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 20. 1 record

Plant (Common or Scientific Name):	Ambrosia salsola
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 21. 1 record

Plant (Common or Scientific Name):	Cylindropuntia ramosissima
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

1_Biology Surveys (SoCal Bio ONLY)

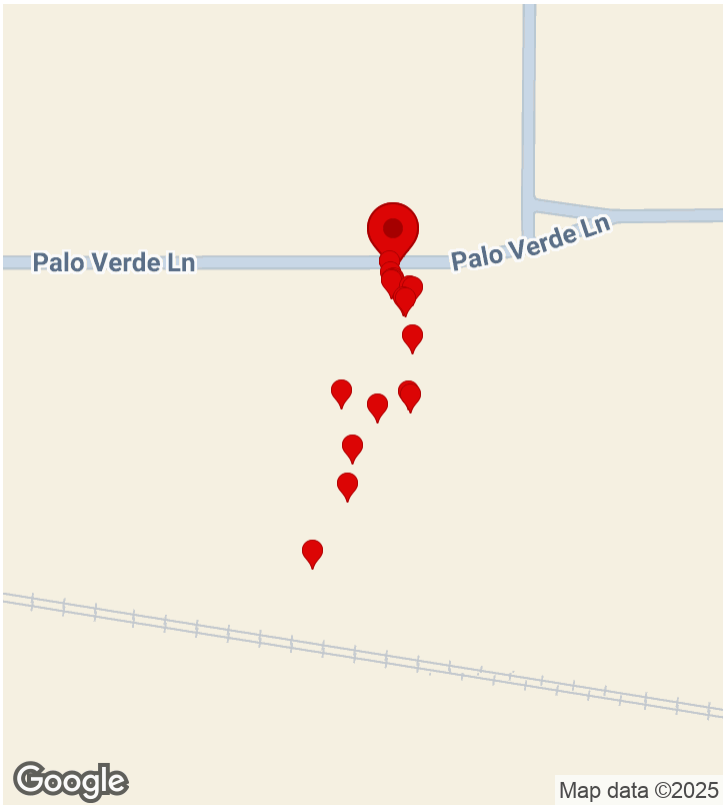
Biology Surveys (SoCal Bio ONLY)

Cadiz PS5

5/28/2025, 8:33:23 PM UTC



BSA facing west.



CREATED

5/28/2025, 5:44:33 PM UTC
by Anna Weber

UPDATED

5/28/2025, 8:33:23 PM UTC
by Anna Weber

LOCATION

34.829070, -116.645865

Parent Form

Project Name:	Cadiz PS5
Specific Survey Type	General Survey/Habitat Assessment
Observer/Surveyor:	Brenda McMillan
Assistant Observer/Surveyor:	Anna Weber
Date:	May 28, 2025

START Weather Details:

Start - Time:	10:44
Start - Temperature:	84
Start - Wind Direction From (select one):	E
Start - Low Wind Speed:	7
Start - High Wind Speed:	13
Start - Average Wind Speed:	7
Start - Cloud Cover (%):	15
Start - Precipitation (select one):	None
Start - Visibility (select one):	Good
Start - Notes	

END Weather Details:

Time Out:	11:44
End - Temperature:	86
End - Wind Direction From (select one):	NE
End - Low Wind Speed:	7
End - High Wind Speed:	13
End - Average Wind Speed:	7
End - Cloud Cover (%):	20
End - Precipitation (select one):	None
End - Visibility (select one):	Good
End - Notes (if applicable):	
Total Hours:	

Project Location (description):	Pump station 5

Notes	Loose sand dunes with hummocks. No evidence of hydrology in BSA. Creosote bush-white bursage scrub (cover: 15%), with high cover of Atriplex canescens. Sparse vegetation in understory.
Observation Type:	Plant, Mammal

Photos



BSA facing west.





BSA facing southeast.





BSA. Facing northwest.

BSA. Facing north.

Mammal

Mammal Observation: (1 Item)

Mammal Observation: - 1. 1 record, no

Mammal (Common or Scientific Name):	Black-tailed Jackrabbit; Lepus californicus
Is the Mammal Sensitive ?	no
Sub-Species Info:	N/A
Additional Notes:	
Photo(s) of Mammal:	

Plants

Plant Observation: (18 Items)

Plant Observation: - 1. 1 record

Plant (Common or Scientific Name):	Schismus barbatus
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 2. 1 record

Plant (Common or Scientific Name):	Larrea tridentata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	

Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 3. 1 record

Plant (Common or Scientific Name):	Ambrosia dumosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 4. 1 record

Plant (Common or Scientific Name):	Salsola tragus
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 5.

Plant (Common or Scientific Name):	
Other Plant Species	Camissonia sp.
Is the Plant Sensitive ?	
Sensitive?	
State	
Federal	
CA Rare Plant Rank	
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 6. 1 record

Plant (Common or Scientific Name):	Eremothera boothii
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 7. 1 record

Plant (Common or Scientific Name):	Hilaria rigida
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 8. 1 record

Plant (Common or Scientific Name):	Geraea canescens
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 9. 1 record

Plant (Common or Scientific Name):	Malacothrix glabrata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 10. 1 record

Plant (Common or Scientific Name):	Atriplex canescens var. linearis
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 11. 1 record

Plant (Common or Scientific Name):	Johnstonella angustifolia [Cryptantha angustifolia]
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 12. 1 record

Plant (Common or Scientific Name):	Loeseliastrum schottii
Sensitive?	no
State	N/A
Federal	N/A

CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 13. 1 record

Plant (Common or Scientific Name):	Adenophyllum cooperi
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 14. 1 record

Plant (Common or Scientific Name):	Cylindropuntia echinocarpa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 15. 1 record

Plant (Common or Scientific Name):	Ephedra viridis
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 16. 1 record

Plant (Common or Scientific Name):	Eremocarya micrantha
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 17. 1 record

Plant (Common or Scientific Name):	Logfia arizonica
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 18. 1 record

Plant (Common or Scientific Name):	Halogeton glomeratus
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

1_Biology Surveys (SoCal Bio ONLY)

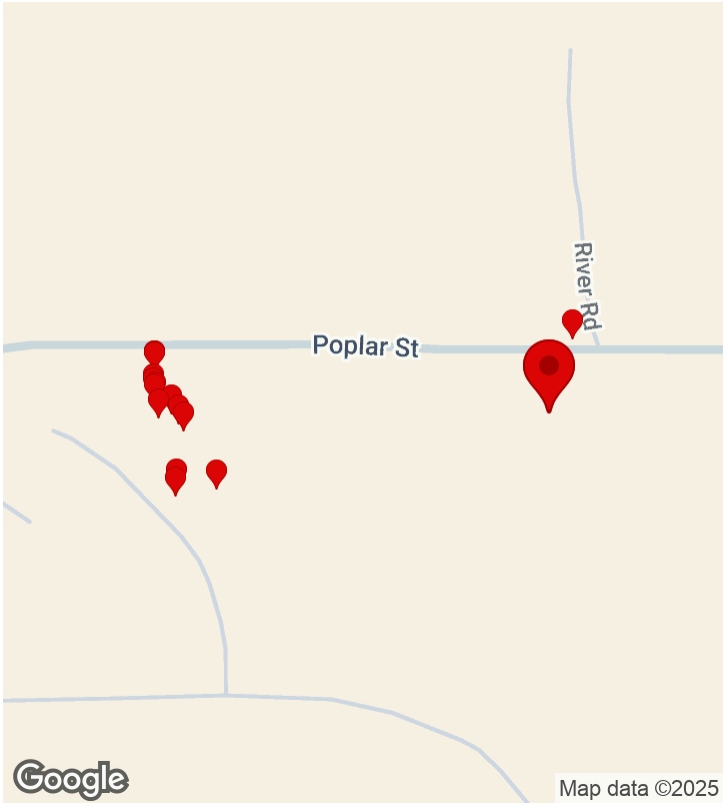
Biology Surveys (SoCal Bio ONLY)

Cadiz PS6

5/28/2025, 8:42:15 PM UTC



BSA. Facing south.



CREATED

5/28/2025, 7:27:38 PM UTC
by Anna Weber

UPDATED

5/28/2025, 8:42:15 PM UTC
by Anna Weber

LOCATION

34.912619, -116.999764

Parent Form

Project Name:	Cadiz PS6
Specific Survey Type	General Survey/Habitat Assessment
Observer/Surveyor:	Brenda McMillan
Assistant Observer/Surveyor:	Anna Weber
Date:	May 28, 2025

START Weather Details:

Start - Time:	12:27
Start - Temperature:	86
Start - Wind Direction From (select one):	E
Start - Low Wind Speed:	1
Start - High Wind Speed:	9
Start - Average Wind Speed:	5
Start - Cloud Cover (%):	10
Start - Precipitation (select one):	None
Start - Visibility (select one):	Good
Start - Notes	

END Weather Details:

Time Out:	13:41
End - Temperature:	89
End - Wind Direction From (select one):	N
End - Low Wind Speed:	2
End - High Wind Speed:	9
End - Average Wind Speed:	5
End - Cloud Cover (%):	10
End - Precipitation (select one):	None
End - Visibility (select one):	Good
End - Notes (if applicable):	
Total Hours:	

Project Location (description):	Pump Station 6

Notes	Disturbed habitat-Salsola traegus. Dominated by non-native vegetation (Salsola traegus, Schismus barbatus). 20% vegetative cover. Evidence of high reptile and small mammal use in area. Loose sand dunes with hummocks. Located within floodplain. Avoid river to the south.
Observation Type:	Plant, Reptile

Photos



BSA. Facing south.





BSA facing north.

BSA. Facing west.

Plants

Plant Observation: (14 Items)

Plant Observation: - 1. 1 record

Plant (Common or Scientific Name):	Salsola tragus
Sensitive?	no
State	N/A

Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 2. 1 record

Plant (Common or Scientific Name):	Atriplex canescens var. linearis
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 3. 1 record

Plant (Common or Scientific Name):	Schismus barbatus
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 4. 1 record

Plant (Common or Scientific Name):	Helminthotheca echioides
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 5. 1 record

Plant (Common or Scientific Name):	Brassica tournefortii
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 6. 1 record

Plant (Common or Scientific Name):	Oenothera deltoides
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 7.

Plant (Common or Scientific Name):	
Other Plant Species	Salsola kali
Is the Plant Sensitive ?	
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 8. 1 record

Plant (Common or Scientific Name):	Amsinckia intermedia
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 9. 1 record

Plant (Common or Scientific Name):	Cryptantha micrantha
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 10. 1 record

Plant (Common or Scientific Name):	Ambrosia dumosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 11. 1 record

Plant (Common or Scientific Name):	Erodium cicutarium

Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 12. 1 record

Plant (Common or Scientific Name):	Tiquilia plicata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 13. 1 record

Plant (Common or Scientific Name):	Eremalche exilis
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 14. 1 record

Plant (Common or Scientific Name):	Cryptantha pterocarya
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A

Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Reptile

Reptile Observation: (1 Item)

Reptile Observation: - 1. 1 record

Reptile (Common or Scientific Name):	Zebra-tailed Lizard; Callisaurus draconoides
Is the Reptile Sensitive ?	no
Sub-Species Info:	N/A
Additional Notes:	
Photo(s) of Reptile:	

1_Biology Surveys (SoCal Bio ONLY)

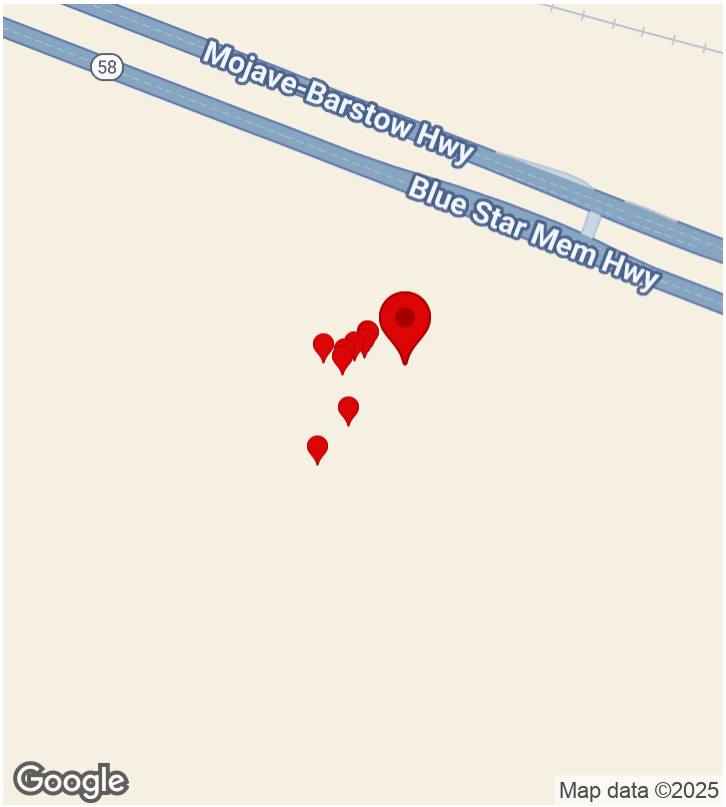
Biology Surveys (SoCal Bio ONLY)

Cadiz PS7-BLM

5/28/2025, 9:47:43 PM UTC



BSA. Facing south.



CREATED

5/28/2025, 9:25:53 PM UTC
by Anna Weber

UPDATED

5/28/2025, 9:47:43 PM UTC
by Anna Weber

LOCATION

34.937621, -117.384622

Parent Form

Project Name:	Cadiz PS7-BLM
Specific Survey Type	General Survey/Habitat Assessment
Observer/Surveyor:	Brenda McMillan
Assistant Observer/Surveyor:	Anna Weber
Date:	May 28, 2025

START Weather Details:

Start - Time:	14:25
Start - Temperature:	90
Start - Wind Direction From (select one):	NE
Start - Low Wind Speed:	2
Start - High Wind Speed:	8
Start - Average Wind Speed:	4
Start - Cloud Cover (%):	90
Start - Precipitation (select one):	None
Start - Visibility (select one):	Good
Start - Notes	

END Weather Details:

Time Out:	14:25
End - Temperature:	
End - Wind Direction From (select one):	
End - Low Wind Speed:	
End - High Wind Speed:	
End - Average Wind Speed:	
End - Cloud Cover (%):	
End - Precipitation (select one):	None
End - Visibility (select one):	
End - Notes (if applicable):	
Total Hours:	

Project Location (description):	Pump Station 7- BLM

Notes	Ambrosia dumosa scrub. 10% cover on shub story. Carpets of Schismus barbatus in understory. Slightly gravelly soils. Disturbed.
Observation Type:	Plant

Photos



BSA. Facing south.





BSA facing southwest.

BSA facing southeast.

Plants

Plant Observation: (9 Items)

Plant Observation: - 1. 1 record

Plant (Common or Scientific Name):	Erodium cicutarium
Sensitive?	no
State	N/A
Federal	N/A

CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 2. 1 record

Plant (Common or Scientific Name):	Schismus barbatus
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 3. 1 record

Plant (Common or Scientific Name):	Croton setiger
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 4. 1 record

Plant (Common or Scientific Name):	Ambrosia dumosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 5. 1 record

Plant (Common or Scientific Name):	Sisymbrium irio
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 6. 1 record

Plant (Common or Scientific Name):	Larrea tridentata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 7. 1 record

Plant (Common or Scientific Name):	Malacothrix glabrata
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:

Plant Observation: - 8. 1 record

Plant (Common or Scientific Name):	Grayia spinosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 9. 1 record

Plant (Common or Scientific Name):	Fagonia laevis
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

1_Biology Surveys (SoCal Bio ONLY)

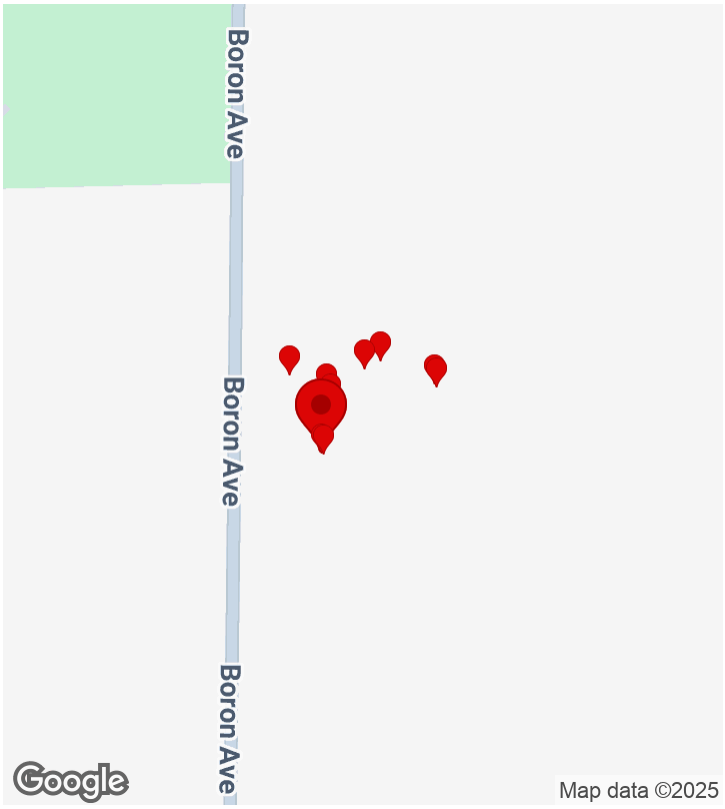
Biology Surveys (SoCal Bio ONLY)

Cadiz PS7- Preferred

6/3/2025, 5:36:41 PM UTC



BSA. Facing southeast.



CREATED

5/28/2025, 10:21:10 PM UTC
by Anna Weber

UPDATED

6/3/2025, 5:36:41 PM UTC
by SC Fulcrum13

LOCATION

34.993682, -117.649374

Parent Form

Project Name:	Cadiz PS7- Preferred
Specific Survey Type	General Survey/Habitat Assessment
Observer/Surveyor:	Brenda McMillan
Assistant Observer/Surveyor:	Anna Weber
Date:	May 28, 2025

START Weather Details:

Start - Time:	15:21
Start - Temperature:	89
Start - Wind Direction From (select one):	SW
Start - Low Wind Speed:	6
Start - High Wind Speed:	11
Start - Average Wind Speed:	6
Start - Cloud Cover (%):	75
Start - Precipitation (select one):	None
Start - Visibility (select one):	Good
Start - Notes	

END Weather Details:

Time Out:	16:21
End - Temperature:	90
End - Wind Direction From (select one):	NW
End - Low Wind Speed:	6
End - High Wind Speed:	13
End - Average Wind Speed:	6
End - Cloud Cover (%):	60
End - Precipitation (select one):	None
End - Visibility (select one):	Good
End - Notes (if applicable):	
Total Hours:	

Project Location (description):	Pump Station 7- Preferred

Notes	Allscale scrub (20% cover). Weedy understory with few scattered natives. One juvenile WJT within survey area. Gravely soils. Pump station recommended to stay near existing infrastructure.
Observation Type:	Plant

Photos



BSA. Facing southeast.





BSA. Facing north.





BSA facing west.

BSA. Facing north.

Plants

Plant Observation: (21 Items)

Plant Observation: - 1. 1 record

Plant (Common or Scientific Name):	Atriplex polycarpa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 2. 1 record

Plant (Common or Scientific Name):	Schismus barbatus
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 3. 1 record

Plant (Common or Scientific Name):	Erodium cicutarium
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 4. 1 record

Plant (Common or Scientific Name):	Ambrosia salsola
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 5. 1 record

Plant (Common or Scientific Name):	Stipa hymenoides
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 6. 1 record

Plant (Common or Scientific Name):	Brassica tournefortii
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 7. 1 record

Plant (Common or Scientific Name):	Datura wrightii

Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 8. 1 record

Plant (Common or Scientific Name):	Bromus tectorum
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 9. 1 record

Plant (Common or Scientific Name):	Amsinckia intermedia
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 10. 1 record

Plant (Common or Scientific Name):	Sisymbrium irio
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A

Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 11. 1 record

Plant (Common or Scientific Name):	Salsola tragus
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 12. 1 record

Plant (Common or Scientific Name):	Ambrosia acanthicarpa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 13. 1 record

Plant (Common or Scientific Name):	Atriplex canescens
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 14. 1 record

Plant (Common or Scientific Name):	Cryptantha micrantha
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 15. 1 record

Plant (Common or Scientific Name):	Eriogonum reniforme
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 16. 1 record

Plant (Common or Scientific Name):	Oenothera caespitosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 17. 1 record

Plant (Common or Scientific Name):	Stillingia linearifolia

Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 18. 1 record

Plant (Common or Scientific Name):	Prunus andersonii
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 19. 1 record

Plant (Common or Scientific Name):	Camissonia strigulosa
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	
Photo(s) of Plant:	

Plant Observation: - 20. 1 record

Plant (Common or Scientific Name):	Yucca brevifolia
Sensitive?	yes
State	N/A
Federal	N/A
CA Rare Plant Rank	1B.1

Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant:



Plant Observation: - 21. 1 record

Plant (Common or Scientific Name):	Eriastrum eremicum subsp. eremicum
Sensitive?	no
State	N/A
Federal	N/A
CA Rare Plant Rank	N/A
Number of individuals observed:	
Additional Notes:	

Photo(s) of Plant: