Oasis Road and Highway 138 Gas Station

Unincorporated Piñon Hills, San Bernardino County, California

APN #: 3067-051-29

BIOLOGICAL RESOURCES ASSESSMENT REPORT

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May 2024

Oasis Road and Highway 138 Gas Station

Unincorporated Piñon Hills, San Bernardino County, California

BIOLOGICAL RESOURCES ASSESSMENT REPORT

The undersigned certifies that this Report is a complete and accurate account of the findings and conclusions of a biological resources assessment for the above-referenced project.

Kimberly Boydstun
Senior Biologist/Project Manager

May 2024

Executive Summary

On behalf of Maverick, Casc Engineering and Consulting, Inc. has prepared this Biological Resources Assessment Report in support of development of a gas station with ten (10) fuel dispensing islands and four (4) fuel dispensing islands for commercial vehicles, and a 5,637 sq. ft. convenience store. This Report describes the biological resources, record searches and literature review, survey methodology, and results of the biological resources survey and review conducted for the Project Site.

The Project Site is 8.78-acres of vacant land (Assessor's Parcel Number 3067-051-29, located at Buckthorne Road in unincorporated Piñon Hills, San Bernardino County, California. The Survey Area comprises the Project Site plus a 500-foot buffer.

Three (3) special-status plant species white pygmy-poppy *(Canbya candida*) and short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) were identified as having the potential to occur within the Survey Area. Western Joshua tree (*Yucca brevifolia*) was **present** on the Project Site.

White pygmy-poppy is known to occur within the region. There are no recent occurrence records for this species within three (3) miles of the Survey Area. While there is suitable habitat present on the Project Site to support this species, there was no observation of this species over the 11 days of thorough surveying during the blooming period, and the last recorded occurrence was 38 years ago. This species is **not expected to occur** on the Project Site.

Short-joint beavertail is known to occur within the region. There are recent occurrence records for this species within two (2) miles of the Survey Area. Suitable habitat for this species occurs within the Project Site (soil and vegetation types, elevation of the Project Site in relation to the preferred elevation of the species). Beavertail cactus (*Opuntia basilaris*), the less rare relative of short-joint beavertail, was observed during the surveys. As identifiers for the species are subtle and difficult to distinguish between short-joint beavertail and beavertail cactus, the occurrence of the rare variant. Based on the results of the field surveys, a review of specific habitat preferences, occurrence records, known distributions, and elevational ranges, this species is considered **absent** from the Project Site.

Western Joshua tree is a State Candidate Threatened species, was observed during the field surveys, and is **present** on the Project Site, and is well documented in the region. Removal of the trees will be necessary for Project development. **Mitigation Measures BIO-1** and **BIO-2** will reduce any potential impacts to western Joshua tree to **less than significant**.

Special-status vegetation communities were **absent** from the Survey Area.

Six (6) special-status wildlife species were identified as having the potential to occur within the Survey Area: juniper metallic wood-boring beetle (*Juniperella mirabilis*), desert tortoise (*Gopherus*

agassizii), Le Conte's thrasher (*Toxostoma lecontei),* Western burrowing owl *(Athene cunicularia)*, Mohave ground squirrel (*Xerospermophilus mohavensis*), and pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*).

Juniper metallic wood-boring beetle is known to occur within the region. There are no recent occurrences within the Survey Area but given the location of the Project Site in relation to the historical range of the species and the habitat available on site, this species is **not expected to occur** on the Survey Area.

Desert tortoise is a State and federally listed threatened species. There are no records of this species within three (3) miles of the Project Site but is considered locally significant within the County of San Bernardino. Desert tortoise nor its sign were observed during the site assessment and based on a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that this species is **not expected to occur** within the Survey Area.

Le Conte's thrasher is considered locally significant within the County of San Bernardino and a CDFW Species of Special Concern. According to the CDFW literature search there have been recorded occurences within a three (3) mile radius of the Survey Area. Le Conte's thrasher was not observed during the site assessment but based on a review of specific habitat preferences, occurrence records, known distributions, lack of suitable habitat and elevation ranges, it was determined that this species has a **moderate likelihood of occurrence** within the Survey Area. **Mitigation Measure BIO-3** will mitigate impacts to less than significant for this species. Further, **Mitigation Measure BIO-3** will mitigate any impacts to nesting birds common to the Project region.

Western burrowing owl is considered locally significant within the County of San Bernardino**.** During extensive surveys, no burrows of appropriate size or shape were recorded nor was any sign detected to suggest this species is currently or has been inhabiting the Project Site. Based on the results of the field survey, and a review of specific habitat preferences, there is a **low likelihood of occurrence** within the Survey Area.

Mohave ground squirrel is a State listed threatened species. There are no records of this species within three (3) miles of the Project Site but is considered locally significant within the County of San Bernardino. The species was not observed during the site assessment. Based on the results of the field survey, and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that this species is **not expected to occur** within the Survey Area.

Pallid San Diego pocket mouse is known to occur within the region. This species is associated with pinyon juniper woodlands that also contain western Joshua trees. An occurrence was identified during the literature search 2.5 miles north of the Project. This occurrence was from

1951 with no other occurrences documented within 3 miles of the Project Site. Based on the results of the field surveys, a review of specific habitat preferences, occurrence records, known distributions, and elevational ranges, it was determined that this species has **no likelihood of occurrence** within the Survey Area.

There are **no jurisdictional features** on the Project Site.

The Project Site **does not function as a designated wildlife corridor** within the County of San Bernardino, there is **no U.S. Fish and Wildlife Service-designated critical habitat** within the Survey Area.

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Figures

Tables

Appendices

LIST OF ACRONYMS AND ABBREVIATIONS

amsl	Above Mean Sea Level
Casc	Casc Engineering and Consulting, Inc.
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CDNPA	California Desert Native Plants Act
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
°F	Fahrenheit
FESA	Federal Endangered Species Act
ft	Feet
IPaC	Information for Planning and Consultation online system
MCV	Manual of California Vegetation
MBTA	Migratory Bird Treaty Act
mph	Miles Per Hour
NWI	National Wetlands Inventory
Project	Oasis Road and Highway 138 Gas Station
Survey Area	Project Site plus 500ft Buffer
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WJT	Western Joshua Tree
WJTCA	Western Joshua Tree Conservation Act

Section 1 Introduction

Maverick ("Applicant") has submitted to the County of San Bernardino an application for a Development Plan and Minor Conditional Use Permit for the construction of a proposed gas station ("Project"). On behalf of the Applicant, Casc Engineering and Consulting (Casc) has prepared this Biological Resources Assessment Report. This Report describes the biological resources, record searches and literature review, survey methodology, and results of the biological resources survey and review conducted for the Project.

1.1 PROJECT LOCATION

The Project Site is located at the southwest corner of Oasis Road and Highway 138 on an approximately 8.78-acre parcel (Assessor's PN: 3067-051-29) that is currently vacant and undeveloped. Specifically, the Project Site is located at Buckthorne Road in unincorporated Piñon Hills, San Bernardino County, California (Figure 1, Regional Vicinity). The Project lies within the U.S. Geological Society (USGS) 7.5-minute *Mescal Creek* Quadrangle (Figure 2, USGS Quadrangle Map).

1.2 PROJECT BACKGROUND AND DESCRIPTION

Under the Countywide Plan, the Project Site is designated within the Commercial Land Use Category, lies within the Phelan/Pinion Hills Community Plan, and has a zoning designation of Phelan/Pinion Hills/General Commercial. Surrounding uses include commercial and residential uses to the north, Pinion Hills Park and San Bernardino County Fire Station 13 to the west, a post office and residential uses to the south, and residential uses to the east. The Project Site is bounded by Highway 138 to the north, Buckthorne Road to the south and Oasis Road to the east.

The Applicant proposes to construct a new gas station with ten (10) fuel dispensing islands and four (4) fuel dispensing islands for commercial vehicles, and a 5,637 sq. ft. convenience store. Access to the Project would be provided via a proposed fifty-foot (50') wide driveway off Oasis Road, and a forty-foot (40') wide driveway and fifty-foot (50') wide driveway off Buckthorne Road. Additional site improvements include forty-two (42) parking stalls, two (2) accessible parking stalls, and approximately 22,206 sq. ft. for landscaping. Grading plans for the Project are provided in Appendix A, Grading Plans.

1.3 PURPOSE OF DOCUMENT

This Report documents all biological resources identified within the Survey Area during a general biological resource survey conducted by Casc biologists. The Survey Area included the Project Site plus a 500-foot buffer (where accessible) (Figure 3, Project Boundary and Photo Point Location Map). The Survey Area was surveyed to determine the likelihood of State-listed and/or

federally listed rare, threatened, or endangered species, and other special-status[1] plants, animals, and natural communities. This Report includes an analysis of the potential for the Survey Area to support special-status plant and wildlife species and special-status vegetation communities that have been previously recorded, or are known to occur within the vicinity, and that are subject to provisions of the Federal Endangered Species Act (FESA) of 1973, Migratory Bird Treaty Act (MBTA), California Endangered Species Act (CESA), California Environmental Quality Act (CEQA), California Fish and Game Code (CFGC), California Native Plant Protection Act, and other local policies and ordinances protecting biological resources.

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[1] As used in this Report, "special-status" refers to plant and wildlife species that are federally-/State-listed, proposed, or candidates; plant species that have been designated a California Rare Plant Rank species by the California Native Plant Society; wildlife species that are designated by the California Department of Fish and Wildlife as Fully Protected, Species of Special Concern, or Watch List species; and State/locally rare vegetation communities.

N

0 1 2 Miles

1" = 2 Miles

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Aerial: ESRI World Imagery, 2/1/2023; ESRI USA Topo Maps
County: ESRI USA Counties, accessed 4/29/2024
Map Date: 4/29/2024

Figure 1

Regional Vicinity

APN: 3067-051-29

SWC of Oasis Rd and Highway 138
San Bernardino County

N

0 2 4 Miles

1" = 4 Miles

7.5 Minute Quadrangle Index

Figure 2

USGS Quadrangle Index

APN: 3067-051-29

CASC Engineering and Consulting
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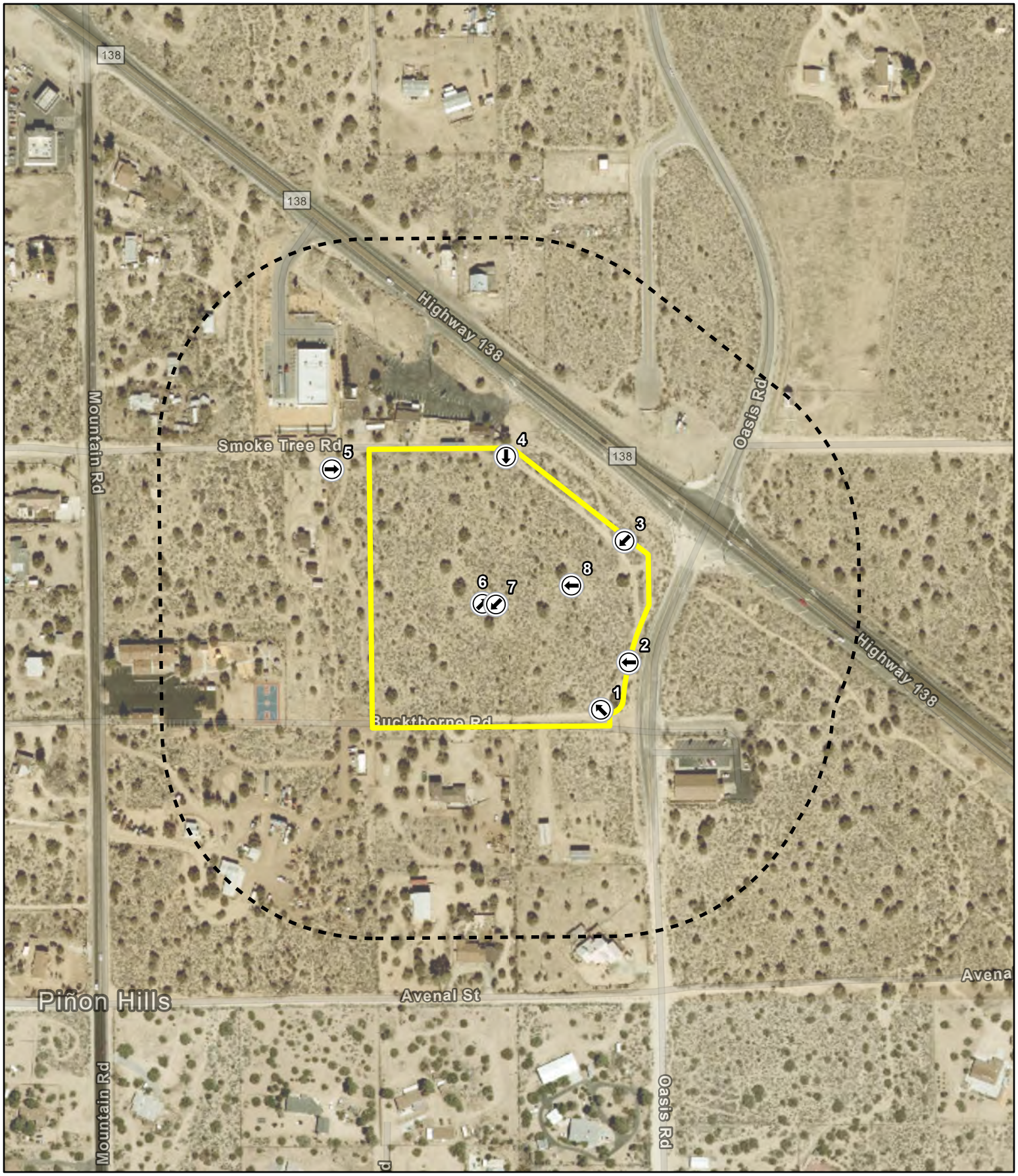
Aerial: ESRI World Topographic Map and World Hillshade
USGS 1:24,000 Topographic Maps 7.5- by 7.5-minute quadrangles, accessed 4/29/2024
Map Date: 4/29/2024

SWC of Oasis Rd and Highway 138
San Bernardino County



N

0 150 300 Feet

1" = 300 Feet

CASC Engineering and Consulting
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Project Boundary
500-ft Buffer
Photo Points

Figure 3
Project Boundary and Photo Point Location Map

APN: 3067-051-29

Aerial: ESRI World Imagery, 2/1/2023
Parcel: Los Angeles County Parcels, accessed 4/29/2024
Map Date: 4/29/2024

SWC of Oasis Rd and Highway 138
San Bernardino County

Section 2 Methodology

2.1 LITERATURE REVIEW AND DATABASE SEARCHES

Prior to conducting the field surveys, Casc conducted a thorough literature review and records search of the Survey Area encompassing CDFW Biogeographic Information and Observation System (CDFW 2024a), CDFW California Natural Diversity Database (CNDDB) RareFind 5 (CDFW 2024b), BIOS 6, and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2024). In addition, the Survey Area was used to generate a Species and Resources List from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation online system (IPaC; USFWS 2024a). This helped to identify special-status plant and wildlife species, vegetation communities, and other biological resources that have been previously documented within, near, and/or that have the potential to occur within the Survey Area. The *Special Animals List* (CDFW 2024c), *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2024d), and CNPS California Rare Plant Ranking System (CRPR) were reviewed for the current status of rare and endangered plant and wildlife species. Other resources reviewed include the USFWS Critical Habitat for Threatened & Endangered Species Mapper (USFWS [ArcGIS Online] 2024); recent and historical aerial photography (Google Earth Pro 2024); the U.S. Department of Agriculture, Natural Resources Conservation Service (USDA) Web Soil Survey (USDA 2024a); USFWS National Wetland Inventory (NWI) Mapper (USFWS 2024b), and National Hydrography Dataset Map (USGS-NHD 2024).

2.2 GENERAL BIOLOGICAL RESOURCES SURVEY

Following the literature review, Casc's biologists Kimberly Boydstun, Dennis Peterson, and Katelyn Faulkner, conducted a general biological resources assessment of the entire Survey Area over the course of eleven (11) days during March and April 2024 (Table 1, Survey Dates and Site Conditions). The Survey Area is defined as the Project Site plus a 500-foot buffer where accessible (Figure 3). A total of eleven (11) site visits were conducted to document existing site conditions, obtain an inventory of plant and wildlife species, map vegetation communities and current land use, determine the potential for special-status plant and wildlife resources to occur within the Survey Area, and to identify any potentially jurisdictional aquatic features. Representative photographs of the Project Site are provided in Appendix B, Project Site Photos.

Table 1. Survey Dates and Site Conditions

Date	Time	Temperature Fahrenheit (°F),	Winds Miles Per Hour (mph)
March 7, 2024	1000 - 1600	55 to 70 °F	2-3 mph, clear skies
March 13, 2024	1000 - 1700	55 to 65 °F	8-10 mph, clear skies
March 14, 2024	1000 - 1700	54 to 65 °F	5-13 mph, clear skies
March 27, 2024	1000 - 1700	57 to 71 °F	2-6 mph, clear skies
March 28, 2024	1000 - 1700	55 to 68 °F	2-7 mph, clear skies
March 29, 2024	1000 - 1700	58 to 72 °F	2-6 mph, partly cloudy
April 2, 2024	1000 - 1700	61 to 72 °F	2-5 mph, clear skies
April 3, 2024	1000 - 1700	61 to 72 °F	2-5 mph, partly cloudy
April 4, 2024	1000 - 1700	62 to 73 °F	2-7 mph, clear skies
April 8, 2024	1000 - 1700	63 to 74 °F	3-10 mph, clear skies
April 11, 2024	1000 - 1700	62 to 74 °F	3-10 mph, clear skies

2.2.1 Vegetation/Land Use Mapping and Plant Species Inventory

Classification of the vegetation communities and other land uses within the Survey Area is based on the descriptions of terrestrial vegetation classification systems described in *A Manual of California Vegetation* (Sawyer et al. 2009) and cross referenced with the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). Plant species nomenclature and taxonomy follow *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al. 2012). Refer to Appendix C, Plant Compendia for a complete list of plant species observed within the Survey Area.

2.2.2 General Wildlife Observations

Field guides used to assist with identification of species during the habitat assessment included *The Sibley Guide to Birds* (Sibley 2014) for birds, *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003) for herpetofauna and *A Field Guide to Mammals of North America* (Reid 2006). Although common names of wildlife species are well standardized, scientific names are provided immediately following common names of wildlife species in this Report (first reference only). To the extent possible, nomenclature of birds follows the most recent annual supplement of the American Ornithological Union's *Checklist of North American Birds* (Chesser et. al. 2020), nomenclature of amphibians and reptiles follows *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding*

Confidence in Our Understanding (Crother 2012), and nomenclature for mammals follows the *Revised Checklist of North American Mammals North of Mexico* (Bradley et. al. 2014). All wildlife species observed and/or otherwise detected through signs (e.g., tracks, scat) were recorded. Other wildlife species may occupy the Survey Area but, in some cases, may be nocturnal and not easily detectable during the day without extensive survey efforts during the appropriate season. Some species are transients or migrants and may occupy the Survey Area other times of the year outside of the time that the field survey was conducted. Refer to Appendix D, Wildlife Compendia for a complete list of wildlife species observed or otherwise detected within the Survey Area.

2.2.3 Wildlife Corridors

Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. A wildlife corridor is generally represented by a linear patch of habitat that provides a connection between two core areas of the same habitat, allowing for the large-scale movement of species within their native habitats. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife travel. Wildlife movement corridors are important because they provide access for breeding opportunities, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations.

2.3 OTHER FIELD STUDIES

A database search of the CDFW's CNDDB was used to identify and map all known ~~(~~federally and State Threatened species) locations within three (3) miles of the Project Site as well as a comprehensive literature review of available previous biological studies and environmental documents completed for the Project and its vicinity. Casc's biologists also reviewed USFWS Critical Habitat documentation to determine the Project's location in relation to critical habitat (Figure 4, Critical Habitat) (USFWS [ArcGIS Online] 2024). There is no critical habitat on or within close proximity to the Project Site. Casc's biologists walked transects at a width of fifteen (15) feet to gain 100-percent visual coverage of the Survey Area and performed a habitat assessment for special-status plants, animals and burrow search of the Project Site which included western burrowing owl (*Athene cunicularia*), Mohave ground squirrel (*Xerospermophilus mohavensis*), and desert tortoise (*Gopherus agassizii*).

2.3.1 Special-Status Plants and Vegetation Communities

A database search of the CDFW's CNDDB and the CNPS Online Inventory of Rare and Endangered Plants was used to identify and map rare plants recorded within a three (3) mile radius of the Project Site. Based on the database search and literature review, it was determined

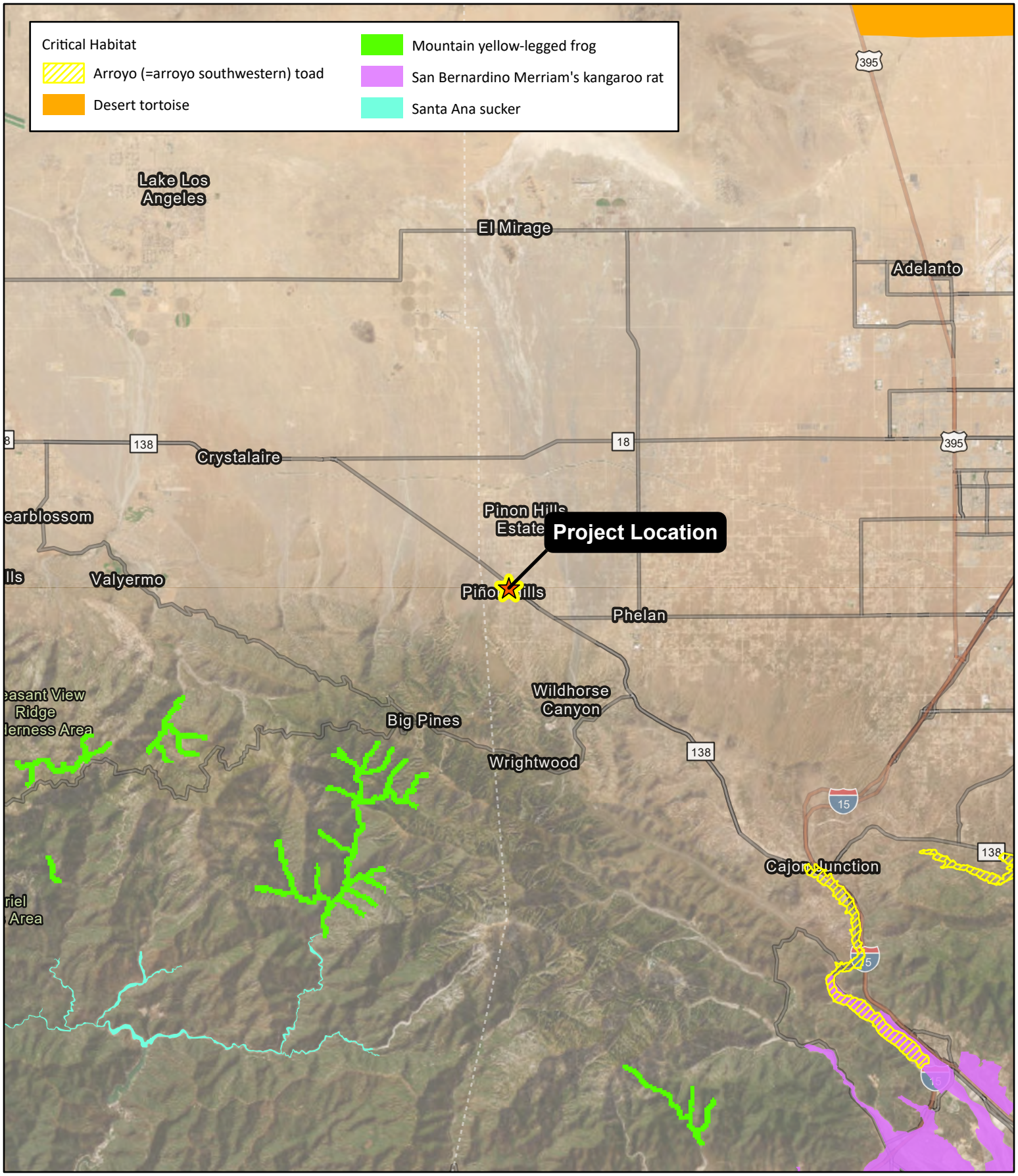
that two (2) special-status plants occur in the Project region. However, no special-status vegetation communities were identified in the Survey Area. Refer to Figure 5, CNDDB 3-Mile Radius Map of Occurrences from California Department of Fish and Wildlife (CDFW), California Natural Diversity Database (CNDDB) search conducted for the Project to verify these findings.

2.3.2 Special-Status Wildlife

A database search of the CDFW's CNDDB and RareFind/Bios Online Inventory was used to identify and map wildlife records within a 3-mile radius of the Project Site. Based on the database search and literature review, it was determined that a total of three (3) special-status wildlife species have the probability of occurrence within the general range of the Survey Area (Figure 5).

2.3.3 Jurisdictional Features Analysis

Casc conducted a thorough literature review of relevant resources to obtain an initial understanding of the environmental setting and to preliminarily identify features that could be regulated by the jurisdictional agencies. Casc reviewed the USFWS National Wetland Inventory (NWI) Mapper (USFWS 2023b, Figure 6, National Wetland Inventory Map) and USGS National Hydrography Dataset Map (USGS National Hydrology Dataset Plus Version 2.1 accessed March 2024) which determined one (1) ephemeral drainage which occurred in the northern part of the Survey Area. Field verification determined this feature occurs well outside the project boundaries, and that there are no potential jurisdictional features on the Project Site.



N

0 2 4 Miles

1" = 4 Miles

Figure 4

Critical Habitat

APN: 3067-051-29

SWC of Oasis Rd and Highway 138
San Bernardino County

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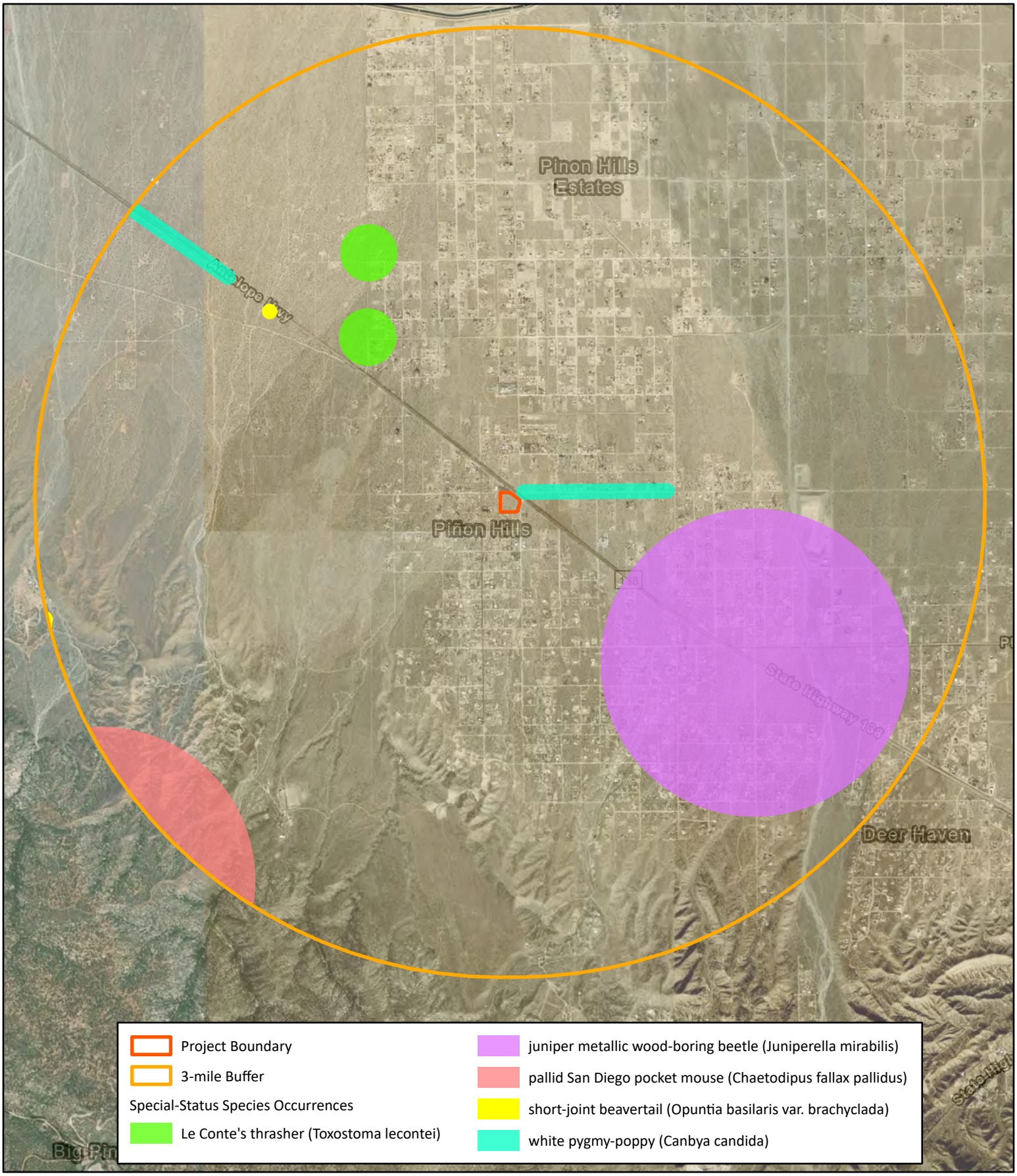
Aerial: ESRI World Imagery 2/1/2023
Critical Habitat: US Fish & Wildlife Service, Updated 4/25/2023
Map Date: 4/29/2024



N 0 2,150 4,300 Feet
1" = 4,300 Feet

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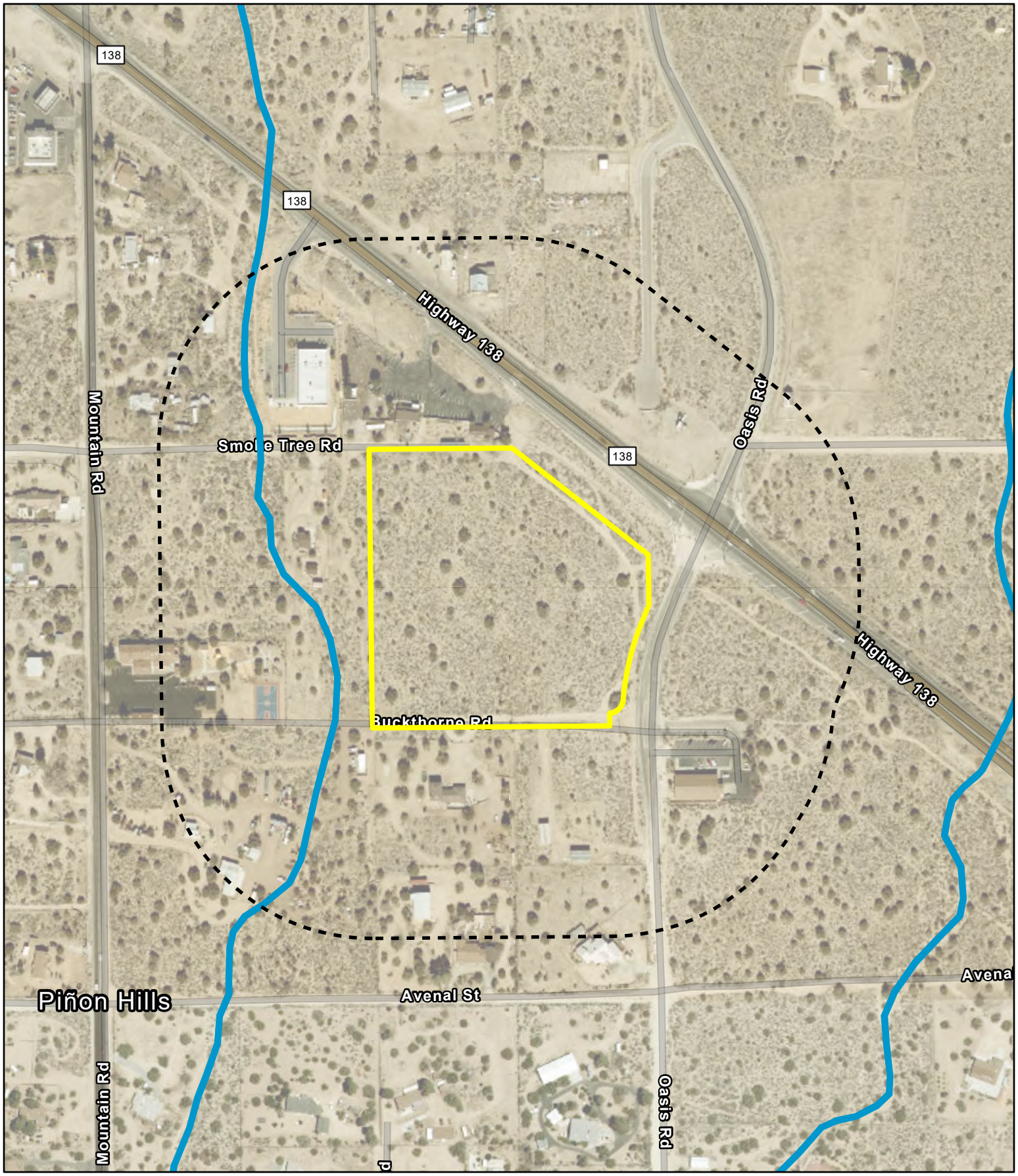
Figure 5

CNDDB

APN: 3067-051-29

Aerial: ESRI World Imagery 2/22/2023
CNDDB: Current as of 2/6/2024
Map Date: 4/29/2024

SWC of Oasis Rd and Highway 138
San Bernardino County



N 0 150 300 Feet
1" = 300 Feet

Project Boundary
500-ft Buffer
USA Wetlands
River

CASC Engineering and Consulting
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Figure 6
National Wetland Inventory Map

APN: 3067-051-29

Aerial: ESRI World Imagery 2/1/2023
NWI: U.S. Fish and Wildlife Service 10/7/2022, accessed 4/29/2024
Map Date: 4/29/2024

SWC of Oasis Rd and Highway 138
San Bernardino County

Section 3 Existing Conditions

The following is a summarization of the results of the database review and general biological resources survey performed by Casc. Discussions regarding the general environmental setting, vegetation communities and other land uses present, and plant and wildlife species observed are presented below. Representative photographs of the Project Site are provided in Appendix B, and a complete list of all the plant and wildlife species observed within the Survey Area (where accessible) during the field survey is provided in Appendix C and D, respectively.

3.1 ENVIRONMENTAL SETTING

The Project site is located at the southwest corner of Oasis Road and Highway 138 on an approximately 8.78-acre parcel (APN: 3067-051-29) that is currently vacant and undeveloped. There is residential development directly to the west and northwest of the Project Site. The terrain is moderately sloped with a moderate growth of native plants, trees, and shrubs. Access to the entire site was unobstructed and the biologists were able to perform a one hundred percent visualization of the Project Area.

3.1.1 Climate

Piñon Hills, California, experiences a semi-arid climate typical of the high desert region. Summers are typically hot and dry, with temperatures often exceeding 90°F (32°C) and occasionally reaching over 100°F (38°C). Winters are cooler, with temperatures dropping below freezing at night and occasionally experiencing snowfall. Precipitation is relatively low throughout the year, with most of it occurring during the winter months. Wind can also be a factor, particularly during the spring and fall months. Overall, Piñon Hills experiences significant temperature fluctuations between day and night due to its desert climate. Piñon Hills, California, receives an average annual rainfall of around 7-10 inches. However, it's important to note that precipitation in the area can vary significantly from year to year, with some years experiencing below-average rainfall and others experiencing above-average rainfall. The majority of precipitation typically occurs during the winter months, with occasional summer thunderstorms contributing to the total rainfall.

3.2 TOPOGRAPHY AND SOILS

The Survey Area is in a region of San Bernardino County known as the “High Desert” due to its approximate elevation of 4,050 feet above mean sea level (amsl). The Survey Area slopes from south to north with approximately a 3% slope.

Soils within the Survey Area and in adjoining areas were reviewed prior to the field survey using the Web Soil Survey (USDA 2024a) (Figure 7, USDA Soils Map). Mapped soils within the Survey Area include the following:

- Soboba Gravelly Sand, 2 to 9 Percent Slopes
- Tujunga Sand, 2 to 9 Percent Slopes

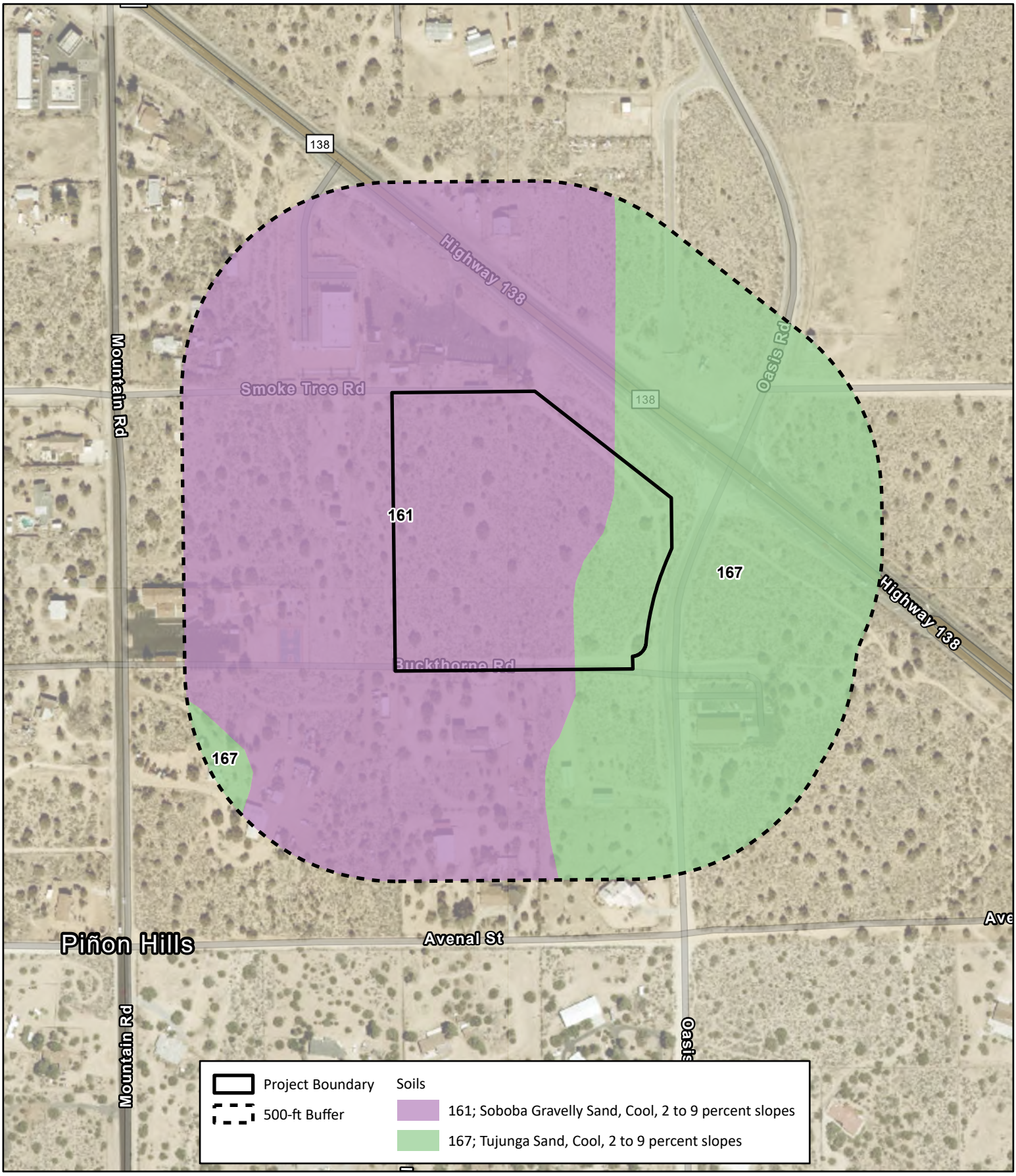
Soils on site are associated with alluvial fans, and primarily consist of alluvium derived from granite sources. These soils are sandy and range from somewhat excessively to excessively drained. Ponding is unlikely and any restrictive layer tends to be below 80 inches.

3.3 VEGETATION COMMUNITIES AND OTHER LAND USES

The Survey Area is partially developed with a vegetation community identified of California juniper (*Juniperus californica*), Western Joshua tree (*Yucca brevifolia*) (WJT), Nevada ephedra (*Ephedra nevadensis*), California buckwheat (*Eriogonum fasciculatum*), bastardsage (*Eriogonum wrightii*), and cheesebrush (*Ambrosia salsola*). WJT was present and are abundant on the Project Site. Vegetation communities within the Survey Area consist of Developed/Disturbed and California juniper woodland (*Juniperus californica* Woodland Alliance) (CNPS) (Figure 8, Vegetation Communities). There is also an unvegetated streambed located west of the Project Site, but within the 500-foot survey buffer. Refer to Appendix C for a complete list of plant species observed during the field survey.

3.4 GENERAL WILDLIFE OBSERVATIONS

Wildlife diversity observed during the field survey was generally low, likely due to the surrounding development. California ground squirrel (*Otospermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*), and western side-blotched lizard (*Uta stansburiana elegans*) were all abundant during surveys. Common bird species observed within the Survey Area included mourning dove (*Zenaida macroura*), black-throated sparrow (*Amphispiza bilineata*), and common raven (*Corvus corax*). Refer to Appendix D for a complete list of wildlife species observed during the field survey. No presence or sign was observed of Mohave ground squirrel or desert tortoise. Pedestrian coverage of the entire Project Site was very detailed as the survey included the mapping of all WJT on Project to include a 50-foot buffer.



N 0 150 300 Feet

1" = 300 Feet

CASC Engineering and Consulting www.cascinc.com

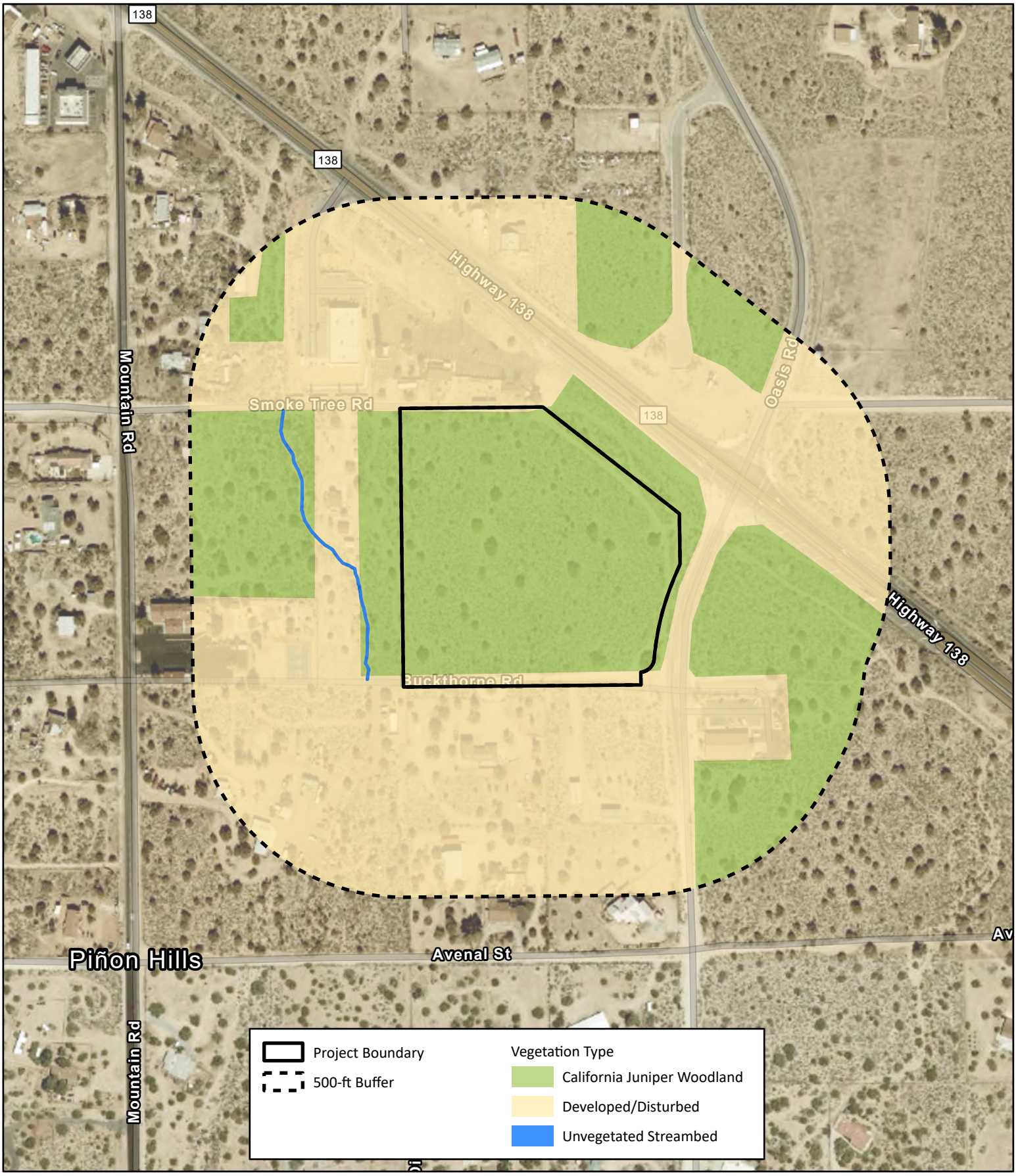
Aerial: ESRI World Imagery, 2/1/2023
Soils: USDA-NRCS, accessed 4/29/2024
Map Date: 4/29/2024

Figure 7

Soils

APN: 3067-051-29

SWC of Oasis Rd and Highway 138
San Bernardino County



N 0 150 300 Feet

1" = 300 Feet

CASC Engineering and Consulting www.cascinc.com

Aerial: ESRI World Imagery, 2/1/2023
Map Date: 4/29/2024

Figure 8

Vegetation Communities

APN: 3067-051-29

SWC of Oasis Rd and Highway 138
San Bernardino County

3.5 REGULATORY SETTING

3.5.1 Federal Regulations

Federal Endangered Species Act (FESA) of 1973

As defined within the FESA of 1973, an endangered species is any animal or plant listed by regulation as being in danger of extinction throughout all, or a significant portion, of its geographical range. A threatened species is any animal or plant that is likely to become endangered within the foreseeable future throughout all or a significant portion of its geographical range. Without a special permit, federal law prohibits the "take" of any individuals or habitat of federally listed species. Under Section 9 of the FESA, "take" is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." The term "harm" has been clarified to include "any act which actually kills or injures fish or wildlife and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." Enforcement of FESA is administered by the USFWS.

Under the definition used by the FESA, "Critical Habitat" refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species and that may require special management considerations or protection, regardless of whether the species is still extant in the area.

Migratory Bird Treaty Act (MBTA)

Pursuant to the MBTA (16 U.S. Government Code [USC] 703) of 1918, as amended in 1972, federal law prohibits the taking of migratory birds or their nests or eggs (16 USC 703; 50 CFR 10, 21). The statute states:

"Unless and except as permitted by regulations made as hereinafter provided in this subchapter, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill...any migratory bird, any part, nest, or egg of any such bird...included in the terms of the [Migratory Bird] conventions…"

The Act covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered a "take." This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six (6) families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons

and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protect all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

Executive Order 13112 – Invasive Species

On February 3, 1999, President William J. Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, which is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm, or harm to human health." Federal Highway Administration guidance issued August 10, 1999, directs the use of the State’s invasive species list, maintained by the California Invasive Species Council to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project. Under the Executive Order, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

3.5.2 State Regulations

California Environmental Quality Act (CEQA)

CEQA provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines “endangered” species as those whose survival and reproduction in the wild are in immediate jeopardy, while “rare” species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the State of California has its own CESA, enforced by the CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under the provisions of the CESA. Activities that may result in "take" of individuals (defined in CESA as; "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") are regulated by CDFW. Habitat degradation or modification is not included in the definition of "take" under CESA. Nonetheless, CDFW has interpreted "take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

California Fish and Game Code (CFGC)

Sections 3503, 3503.5, 3511, and 3513

The CDFW administers the CFGC. There are sections of the CFGC that are applicable to natural resource management. For example, Section 3503 makes it unlawful to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey), such as hawks, eagles, and owls, are protected under Section 3503.5 which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a Project Site. Section 3511 lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected include the golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). In addition, Section 3513 makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Section 4150

Section 4150 of the CFGC protects nongame mammals, defined as any naturally occurring mammal in California that is not a game mammal, fully protected mammal, or fur-bearing mammal. Non-game mammals, which includes bats and bat roosts, may not be taken or possessed except as provided by the CFGC or in accordance with applicable regulations.

Section 749.11, Title 14, California Code of Regulations

The proposed addition of Section 749.11, Title 14, California Code of Regulations creates a special-order allowing incidental take of western Joshua tree during CESA candidacy necessary to address this emergency.

On September 22, 2020, the Commission determined that listing may be warranted pursuant to FGC Section 2074.2. Western Joshua tree became a candidate species under CESA, effective upon publication of the notice of findings on October 9, 2020 (Office of Administrative Law notice number Z2020- 0924-01). Pursuant to FGC Section 2074.6, the Department will undertake a one-year status review. After the Commission receives the Department's status review, the

Commission will make a final decision on listing. As of October 12, 2023, the final decision by the Commission has been postponed until February 2023.

Statutory Authority

Candidate species are protected from "take" under CESA pursuant to FGC Section 2085 during the remainder of the CESA listing. Under FGC Section 2084, CESA provides that the Commission may adopt regulations to authorize take of candidate species, based on the best available scientific information, when the take is otherwise consistent with CESA. As with all regulations, the Commission may adopt a regulation under Section 2084 on an emergency basis when it determines that a situation exists which threatens public health and safety or general welfare.

Another means to allow take of CESA candidate species is by Incidental Take Permit (ITP) pursuant to FGC Section 2081, subdivision (b), from the Department. An ITP allows a permittee to take CESA listed or candidate species if such taking is incidental to, and for the purpose of, carrying out an otherwise lawful activity, including for research or monitoring activities of such activity.

Native Plant Protection Act

Sections 1900–1913 of the CFGC were developed to preserve, protect, and enhance Rare and Endangered plants in the State of California. The act requires all State agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Desert Native Plants Act (CDNPA)

Division 23 of the California Food and Agriculture Code consists of the CDNPA. The CDNPA was developed to protect certain species of California desert native plants from unlawful harvesting on both public and privately-owned lands. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the CDNPA prohibits the harvest, transport, sale, or possession of specific native desert plants unless a person has a valid permit or wood receipt, and the required tags and seals. The appropriate permits, tags and seals must be obtained from the sheriff or commissioner of the county where collecting will occur, and the county will charge a fee.

Western Joshua Tree Conservation Act (WJTCA)

The WJTCA authorizes the CDFW to permit impacts to the western Joshua tree only if specific conditions are met, including the avoidance and minimization of impacts while allowing an option for payment of fees calculated to mitigate for the specific impacts by specific project.

Fees are deposited in the western Joshua Tree Mitigation Fund which requires the CDFW to deploy the Fund, in collaboration with local Tribes and others, to address threats to the western Joshua tree, including, but not limited to, acquiring, and conserving western Joshua tree habitat. The WJTCA requires CDFW to develop and implement a western Joshua tree conservation plan in collaboration with the Commission, governmental agencies, California Native America Tribes, and the public. It required CDFW to consult with California Native American Tribes, includes co-management principles in the conservation plan, provides for the relocation of western Joshua trees to tribal lands upon a request from a tribe, and supports the incorporation of traditional ecological knowledge into the conservation plan.

WJTCA authorizes the CDFW to delegate to a county or city the ability to approve the removal or trimming of dead or dying trees, subject to conditions, and an option to pay fees, CDFW oversight, and express CDFW authority to revoke any delegation. WJTCA includes annual reporting to the Commission about the effectiveness, performance, and success of the program, with specific deadlines for accountability and flexibility to increase fees as necessary pursuant to public, transparent processes.

3.5.3 Local Policies and Ordinances

County of San Bernardino Countywide Plan

The Conservation Element of the County of San Bernardino Countywide Plan identifies measures to preserve the unique environmental features and natural resources of the desert region, including native wildlife and vegetation. One role of the Conservation Element involves the identification of a community's natural resources and the adoption of policies for their preservation, development, and wise use.

San Bernardino County Countywide Plan Policy Natural Resources (NR)-5.1 Coordinated Habitat Planning supports landscape scale habitat conservation planning and coordinate with public lands to increase certainty for both the conservation of species, habitats, wildlife corridors, and other important biological resources and functions, and for land development and infrastructure permitting.

NR-5.6 Mitigation Banking supports the proactive assemblage of lands to protect biological resources and facilitate development through private or public mitigation banking. The County does require public and private conservation lands or mitigation banks to ensure that easement and fee title agreements provide funding methods sufficient to manage the land in perpetuity.

Section 4 Results

The following discusses the potential for special-status plant and wildlife species and special-status vegetation communities to occur within the Survey Area. The CNDDB and CNPS Online Inventory were queried for reported locations of special-status plant and wildlife species as well as special-status natural vegetation communities. Special-status plant and wildlife species were evaluated for their potential to occur within the Survey Area based on habitat requirements, availability and quality of suitable habitat, and known distributions. Utilizing CNDDB, USGS 7.5-minute *Mescal Creek* Quadrangle was queried to provide a list of species known to occur within the entirety of the quadrangle. This summary report of special-status species is included in Appendix E, CNDDB Report Summary Table. This list was further refined to a three (3) mile radius around the Survey Area after the field surveys and consideration of current site conditions (Figure 5). An evaluation of the potential for each species identified in the database records search to occur within the Survey Area is presented in the following section.

4.1 SPECIAL-STATUS SPECIES

The literature search identified two (2) special-status plant species, no special-status vegetation communities, and three (3) special-status wildlife species were reported to occur within a three (3) mile radius of the Survey Area (Figure 5). Refer to Appendix F, Likelihood of Occurrence Definitions for Special-Status Species regarding the parameters that determined likelihood of occurrence and definitions of CDFW rare, State Endangered (SE), State Threatened (ST), Species of Special Concern (SSC), Watch List (WL), USFWS Federally Endangered (FE), candidate species for listing, and CNPS California Rare Plant Rank (CRPR).

4.1.1 Special-Status Plant Species

Three (3) special-status plant species were identified as having potential to occur within the region of the Survey Area in the literature search and Western Joshua tree (WJT) was observed during the survey. The results below are based on the field survey and a review of specific soil and vegetation associations, occurrence records, known distribution, elevational ranges, and habitat associations.

White pygmy-poppy (*Canbya candida*, CRPR 4.2)
This species has an occurrence adjacent to the northeast corner of the Project Site from 1986 as reported in the CNDDB (Figure 5, Appendix E). White pygmy-poppy is an annual herb that is native to California and prefers creosote bush scrub and Joshua Tree woodland vegetation communities. It blooms from March to June at elevations ranging from 1,310 feet to 7,085 feet and prefers loam and sandy loam soil types (CalFlora, accessed May 2024). Habitat suitable for this species does occur within the Project Site (soil and vegetation types, elevation of the Project Site). The eleven survey days conducted by Casc biologists, while mapping WJTs, occurred

within the blooming period for this species, and required a very thorough search for vegetation within the Project. There was no observation of this species in the Survey Area. Given the time since the last occurrence, 38 years, and the absence from the Project during eleven days of intense surveys, this species is **not expected to occur.**

Short-joint beavertail (*Opuntia basilaris var. brachyclada,* CRPR 1B.2)
This species has two occurrences as reported in the CNDDB which is 2 miles northwest of the Project Site during 1991 and 2012 (Figure 5, Appendix E). Short-joint beavertail is a shrub (stem succulent) that is native to California and prefers creosote bush scrub, chaparral, pinyon-juniper woodland and Joshua Tree woodland vegetation communities. It blooms from April to June at elevations ranging from 2,985 to 7,515 feet and prefers loam, sandy loam, loamy sand, and bedrock soil types (CalFlora, accessed May 2024). Habitat suitable for this species does occur within the Project Site (soil and vegetation types, elevation of the Project Site). Beavertail cactus (*Opuntia basilaris*) was observed during the survey (Appendix C). As identifiers for this species are subtle and difficult to distinguish between short-joint beavertail and beavertail cactus, the occurrence of the rare variant may require a botanist review. Given the time since the last occurrence and the absence from the Project during eleven days of intense surveys, this species is **considered absent.**

Western Joshua tree (*Yucca brevifolia*) (CDFW Candidate Threatened)
This species was observed within the Project Site and throughout the Survey Area and is recorded as **present** on the Project Site. Western Joshua tree is native to California and prefers Joshua Tree woodland vegetation communities. It blooms from March to June at elevations ranging from 1,575 to 7,350 feet and prefers loam, sandy loam, loamy sand, and sand soil types (CalFlora, accessed May 2024). A Western Joshua tree (WJT) inventory was conducted from March 7 to April 11, 2024. Data was collected in accordance with the guidelines presented in the WJTCA. The location of all WJTs were recorded using global positioning system (GPS) (Figure 9, Joshua Tree Locations).

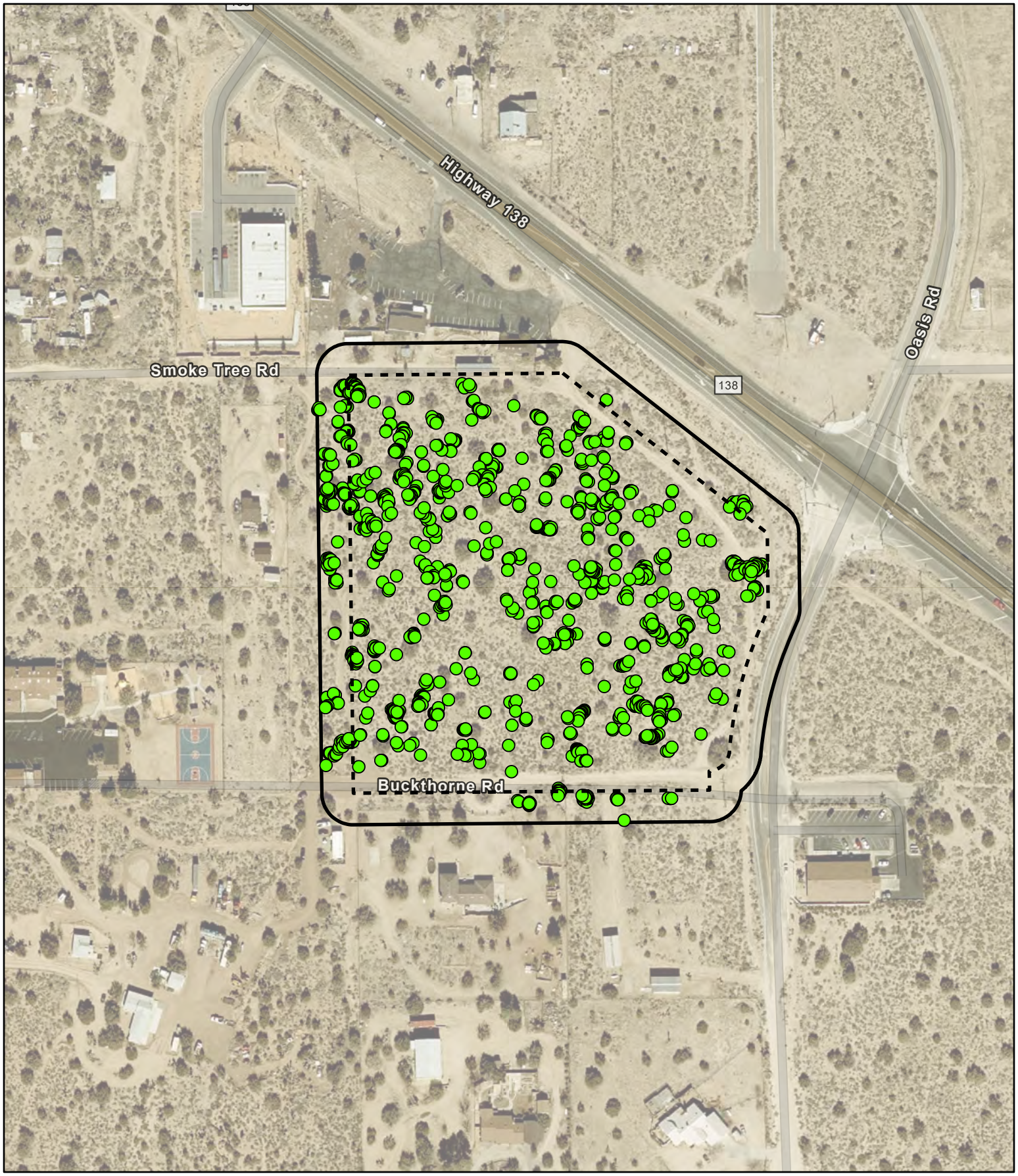
WJTs were inventoried and organized into three (3) size classes in accordance with the Western Joshua Tree Conservation Act (WJTCA). Live and dead trees within a 50-foot buffer were recorded as required by the WJTCA.

A total of one thousand three hundred and fifty-five (1,355) WJT were recorded on the Project Site.

- **Size Class A** are trees categorized as less than one meter in height.
  Total trees recorded in this size class: Seven hundred and thirty-seven (737) WJTs. Of which twelve (12) were recorded as dead.
- **Size Class B** are trees between one (1) and five (5) meters in height.

Total trees recorded in this size class: Six hundred and eleven (611) WJTs. Of which forty-four (44) were recorded as dead.

- **Size Class C** are trees more than five (5) meters in height.
  Total trees recorded in this size class: Seven (7) WJTs. Of which four (4) were recorded as dead.



N 0 100 200 Feet
1" = 200 Feet

Project Boundary
50-ft Buffer
WJT Location

Figure 9
Western Joshua Tree Map

CASC Engineering and Consulting
www.cascinc.com

APN: 3067-051-29

Aerial: ESRI World Imagery, 2/1/2023
Parcel: San Bernardino Parcels, accessed 4/29/2024
Map Date: 4/29/2024

SWC of Oasis Rd and Highway 138
San Bernardino County

4.1.2 Special-Status Wildlife Species

Six (6) special-status wildlife species were identified in the literature were identified to have potential to occur within the Survey Area. The results below are based on the field survey and a review of specific habitat preferences, occurrence records, known distributions, elevational ranges, and habitat associations.

Juniper metallic wood-boring beetle (*Juniperella mirabilis,* Locally significant in San Bernardino County)

The juniper metallic wood-boring beetle is known as a pest to California juniper (*Juniperus californica*) trees as it will bore under the bark of the shrub and consume the outer sapwood. It is known in three (3) locations: the holotype locale in the Santa Rosa Mountains in southern San Bernardino County, east of the community of Piñon Hills in west San Bernardino County. There is another occurrence in the southwestern corner of Utah in Washington County. They are found at about 4000 feet elevation. Given the extensive range of historical occurrences, it is highly likely that this species is more widespread than what is currently known. They will lay their eggs near the base of the shrub and young larvae will work in the roots. When a larva nearly reaches maturity, it travels up the trunk from four (4) inches to as high as three (3) feet boring under bark and channeling the outer sapwood. They construct a pupal cell in sapwood and the oval opening, which is tightly plugged with fine granular frass, is transverse with grain of the wood. Their boring work goes on under the shreddy bark and until the emergence hole appears, it is difficult to find infested trees. Juniper trees that are affected are usually in very unhealthy condition (BugGuide, accessed May 2024). Given the location and year of occurrence per CNDDB, as well as the amount of California junipers on the Project Site, this species is **not expected to occur** on the Project Site.

Desert Tortoise (*Gopherus agassizii*, FT/ST, Locally Significant in San Bernardino County)

Desert tortoise is a medium-sized tortoise that occupies desert scrub habitats in desert valleys and on bajadas in the Mojave and Colorado Deserts in California, Nevada, Arizona, and Utah in the United States. The species is an adept burrower, and retreats to cover sites, such as self-excavated burrows, caliche caves, and rock shelters, where it spends more than 95% of its time to avoid harsh desert conditions. Shrubs, especially creosote bushes, are important habitat for Agassiz's desert tortoises, and are used as shade resources to avoid the hot desert sun (Desert Tortoise Council, accessed December 7, 2023). The Project Site is on the edge of the historical range for this species and has not been recorded per the CNDDB within 3-miles of the site (Figure 5). Casc's biologists conducted eleven site visits to map all WJT. During these surveys, no burrows of appropriate size or shape to suggest that desert tortoise was currently inhabiting the Project Site. Based on the results of the field surveys, a review of specific habitat preferences, occurrence records, known distributions, and elevational ranges, it was determined that this species has **no likelihood of occurrence** within the Survey Area.

Le Conte's Thrasher (*Toxostoma lecontei,* SSC, Locally Significant in San Bernardino County)

Le Conte's thrashers live in low, sandy, open deserts that are home to few other bird species. Over most of their range, saltbush, shadscale, cholla cactus, creosote, yucca, mesquite, and ocotillo are common plants, but they are usually sparsely distributed in these mostly flat or rolling landscapes. The will discretely nest within cholla cactus. (All About Birds, accessed December 7, 2023). Per the CNDDB, this species was recorded within two (2)-miles of the Project Site (Figure 5). Le Conte's thrasher was not observed on the Project Site during the site assessments, but the Project Site does have potential to support this species for nesting and foraging. This species is considered to have a **moderate likelihood of occurrence** as there is suitable habitat on site and it is within the normal expected range for this species.

Western Burrowing Owl (*Athene cunicularia*, SSC, Locally Significant Species)

Western burrowing owl is considered locally significant within the County of San Bernardino. This small, long-legged owl prefers open grassy habitats, fallow agricultural fields, and disturbed habitats with sparse vegetation and interstitial spaces for line of sight. This species is typically found on the ground or perched on low fence posts or rocks. Western burrowing owls are active during the day and night when this species hunts mainly for insects and small mammals. This species will nest in burrows, often dug by ground squirrels or desert tortoise. The Project Site is within the historical range for this species. Casc's biologists conducted eleven site visits to map all WJT. During these surveys, no burrows of appropriate size or shape to suggest that western burrowing owl was currently inhabiting the Project Site, or burrowing owl sign were identified. Western burrowing owl is highly mobile and habitat conditions within the Survey Area are suitable to support this species. Based on the results of the field survey, and a review of specific habitat preferences, a **low likelihood of occurrence** within the Survey Area.

Mohave Ground Squirrel (*Xerospermophilus mohavensis*, ST, Locally Significant in San Bernardino County)

Mohave ground squirrel eats a wide variety of green vegetation, seeds, and fruits (Zembal and Gall 1980). This species forages on the ground or in shrubs and Joshua trees - fruiting Joshua trees may attract concentrations of ground squirrels. Restricted to the Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo counties, this species is rare throughout its range, and populations in the western Antelope Valley (west of State Route 138) appear to be extirpated (Leitner 2021 CDFW). Optimal habitats for this species are open desert scrub, alkali desert scrub, Joshua tree, and annual grasslands and can be found from 1,800 - 5,000 feet elevation. (Helgen et al. 2009). Several other common squirrels occur within the range of Mojave ground squirrel such as antelope ground squirrel (*Ammospermophilus leucurus),* round-tailed ground squirrel (*Xerospermophilus tereticaudus*) and the California ground squirrel (*Spermophilus beecheyi*). No occurrences of this species appear in the CNDDB literature search (Figure 5). Based on the results of the field survey, and a review of specific habitat preferences, occurrence records, known

distributions, and elevation ranges, it was determined that this species has **no likelihood of occurrence** within the Survey Area.

Pallid San Diego pocket mouse (*Chaetodipus fallax pallidus,* Locally Significant in San Bernardino County)

The pallid San Diego pocket mouse inhabits rocky loose soils in elevations ranging from sea level to 4,500 feet. This specific sub-species range is on the east side of the San Gabriel mountains at the edges of the Mojave Desert. This species is associated with pinyon juniper woodlands that also contain western Joshua trees (CDFW, Lackey 1996). An occurrence was identified during the literature search 2.5 miles north of the Project. This occurrence was from 1951 with no other occurrences documented within 3 miles of the Project Site within 73 years. The literature search was extended out to 5 miles to check for recent occurrences but no known occurrences were recorded. Based on the results of the field surveys, a review of specific habitat preferences, occurrence records, known distributions, and elevational ranges, it was determined that this species has **no likelihood of occurrence** within the Survey Area.

4.2 NESTING BIRDS AND WILDIFE MOVEMENT

Vegetation on site is relatively low growing but the presence of WJT and California juniper (*Juniperus californica*) provides resources and cover for birds common to the high desert region such as Anna's hummingbird (*Calypte anna*), and house finch (*Carpodacus mexicanus*), cactus wren (*Campylorhynchus brumeicapillus)*, American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), and turkey vulture (*Cathartes aura*). There is also an opportunity for common ground nesting species to nest on site such as mourning dove (*Zenaida macroura)*, killdeer *(Charadrius vociferus),* and horned lark (*Eremophila alpestris*). Mammals such as black-tailed jackrabbit (*Lepus californicus*), coyote (*Canis latrans*), and bobcat (*Lynx rufus*), may forage on site and travel across the Project Site to access adjacent properties.

4.3 SPECIAL-STATUS VEGETATION COMMUNITIES

Dominant species on the Project Site consist of California juniper, WJT, Nevada ephedra, California buckwheat, bastard-sage, and cheese-brush. The vegetation community corresponds to California juniper woodland (*Juniperus californica* Woodland Alliance) (CNPS). WJT is very abundant on the site well over the required 1% or greater cover to qualify as Joshua Tree Woodland, however the absolute cover of California Juniper was well over 1% (approximately 7%), and thus the vegetation community is classified as California juniper woodland. Most of the WJT were of small to medium size with few trees over 5 meters. Photo 8 in Appendix B shows a representative example of site conditions where a single large California Juniper is surrounded by 24 individual WJT ranging in size from 0.1 to 3 meters. California juniper woodland is not classified as a special-status vegetation community.

4.4 REGIONAL CONNECTIVITY

Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. The Project Site does not function as a wildlife corridor within unincorporated Piñon Hills or San Bernardino County.

4.5 CRITICAL HABITAT

USFWS-designated critical habitat (proposed or final) is not within the Survey Area (Figure 4). Designated critical habitat is greater than 5-miles from the Project Site, therefore, no critical habitat will be impacted by Project development.

4.6 JURISDICTIONAL FEATURES ANALYSIS

The NWI indicated there were no jursidictional features on the Project Site (Figure 6). Project plans indicate no opportunity for deleterious impacts to jurisdictional waters during development.

Non-Wetland Waters Features

There are no non-wetland features within the Project Area. There is one non-wetland waters feature that runs through the Survey Area. This is an ephemeral streambed that runs north of the Project on developed residential land within the Survey Area. Project site activities will avoid all impacts to this area.

Wetland Waters Features

There are no wetland water features within the Project Site or Survey Area.

Section 5 Conclusion and Recommendations

CEQA requires Project proponents to analyze and disclose potential environmental impacts associated with Project development. Any potentially significant impact must be mitigated to the extent feasible. CEQA requires public agencies in California to analyze and disclose potential environmental impacts associated with a project that the agency will carry out, fund, or approve. Any potentially significant impact must be mitigated to the extent feasible. Impacts to special-status species designated as endangered, threatened, rare, or a candidate species would require disclosure under CEQA. Impacts to Species of Special Concern are not considered significant under CEQA and warrant no legal protection but may simply require CEQA disclosure.

The following are conclusions and recommendations intended to provide best management practices for Project development, provide guidance for local, State, and federal guidelines, protect natural resources, and mitigate all impacts to less than significant.

5.1 SPECIAL STATUS PLANT AND VEGETATION COMMUNITIES

Based on the results of the site assesments and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined one (1) special-status plant, WJT is **present** and special-status vegetation communities are **absent** from the Project Site. No further results or findings regarding special-status vegetation communities will be discussed in this document. The following avoidance and minimization measure is recommended to reduce potential impacts and lessen mitigation obligation for special-status WJT to **less than significant**.

Mitigation can consist of avoidance, removal, on-site relocation, off-site relocation, and purchase of credits in a CDFW approved mitigation bank. In the instance of relocation of western Joshua tree, the Project proponent will be responsible for preparation of long-term maintenance, monitoring, watering, and weeding plan to ensure the health of the transplanted tree, the placement of fencing and signage around transplanted trees, and if requested by CDFW, an endowment to maintain the relocated trees. Purchase of credits in a CDFW approved mitigation bank can be an option once bank approval is finalized.

BIO-1: Incidental Take Permit from CDFW

CDFW approved the WJTCA to assist land owners in expediting the ITP process. Application and supporting documentation shall be submitted to CDFW for review and approval for removal of WJTs on the Project Site. An ITP establishes a performance standard requiring that the impacts be “minimized and fully mitigated” with “measures that are roughly proportional in extent to the impact of the authorized taking of the species (Fish & G. Code § 2081(b); Cal. Code Regs., tit. 14, §§ 783.2-783.8). Therefore, additional mitigation measures, such as the purchase of credits from an approved conservation or

mitigation bank, land acquisition, or entry into a conservation easement, will be determined in consultation with CDFW to meet ITP requirements. Because the western Joshua tree was designated as a candidate species in October 2020 and is still subject to a status review by CDFW, it is impractical to determine the specific details of mitigation, beyond compliance with the ITP. A completed application requires an approved CEQA document to accompany the ITP application. CDFW requires the CEQA document to have a state clearing house number, show proof of filing fees, and that the document has been circulated. CDFW will then review the ITP and CEQA document and make a determination of mitigation.

BIO-2: California Desert Native Plants Act Protection and Relocation Plan

If mitigation measures of the ITP (BIO-1) include preservation in place through avoidance or relocation, then a *Desert Native Plant Protection and Relocation Plan* (Plan) for those trees proposed for relocation or preservation shall be composed which will provide detailed specifications for the proposed treatment, avoidance, or relocation of all western Joshua trees and those desert species included under the CDNPA. Other native desert species included for protection under CDNPA includes smoke trees (*Cotinus* sp.), species in the Agavacea family, mesquite (*Prosopis* sp.), and large creosote bushes (*Larrea* sp.). Further, the CDNPA will provide measures to meet the requirements of CEQA.

5.2 SPECIAL-STATUS WILDLIFE SPECIES

There are no special-status wildlife species expected to occur on the Project Site. Therefore, no additional survey measures will be recommended.

5.3 SPECIAL-STATUS BIRDS AND NESTING BIRDS

Potential impacts to Le Conte's thrasher and other bird species common to the Project region can be mitigated to **less than significant** with the following measure.

5.3.1 Avoidance and Minimization Measures

Pursuant to the MBTA (16 U.S. Government Code [USC] 703) of 1918, as amended in 1972, federal law prohibits the taking of migratory birds or their nests or eggs (16 USC 703; 50 CFR 10, 21). The following avoidance and minimization measure is recommended to reduce potential impacts to nesting birds to a **less than significant**.

Impacts to special-status species designated as endangered, threatened, rare, or a candidate species would require disclosure under CEQA. Impacts to SSC species are not considered significant under CEQA and warrant no legal protection but may simply require CEQA disclosure.

BIO-3: Nesting Bird Preconstruction Surveys

If it is not feasible to avoid the nesting bird season (typically January through July for raptors and February through August for other avian species), a qualified biologist shall conduct a pre-construction nesting bird survey for avian species to determine the presence/absence, location, and status of any active nests on or directly adjacent to the Project Site. If active nests are located, the extent of the survey buffer area surrounding the nest should be established by the qualified biologist to ensure that direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the MBTA and the CFGC, the nesting bird survey shall occur no earlier than 30 days prior to the commencement of construction.

In the event active nests are discovered, a suitable buffer (distance to be determined by the biologist) shall be established around such active nests, and no construction within the buffer allowed, until the biologist has determined that the nest(s) is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest).

5.4 REGIONAL CONNECTIVITY AND WILDLIFE MOVEMENT

The Project Site is surrounded by partially developed ranchettes and Highway 138 and is not identified as a wildlife corridor by the County of San Bernardino or unincorporated Piñon Hills. Therefore, no impacts to regional connectivity or wildlife corridors will occur due to Project development.

5.5 CRITICAL HABITAT

There is no USFWS-designated critical habitat mapped within the Survey Area. Therefore, no impacts to critical habitat are expected to occur as a result of Project development.

5.6 JURISDICTIONAL FEATURES ANALYSIS

There are no wetland or non-wetland features on the Project Site. Therefore, no impacts to jurisdictional features will occur as a result of Project development.

5.7 CONCLUSION

To the best of our knowledge, this Report is intended to identify additional needs relating to field studies and possible constraints associated with Project development. All figures and species lists were created specifically for this Project and reflect site conditions at the time of the site assessments.

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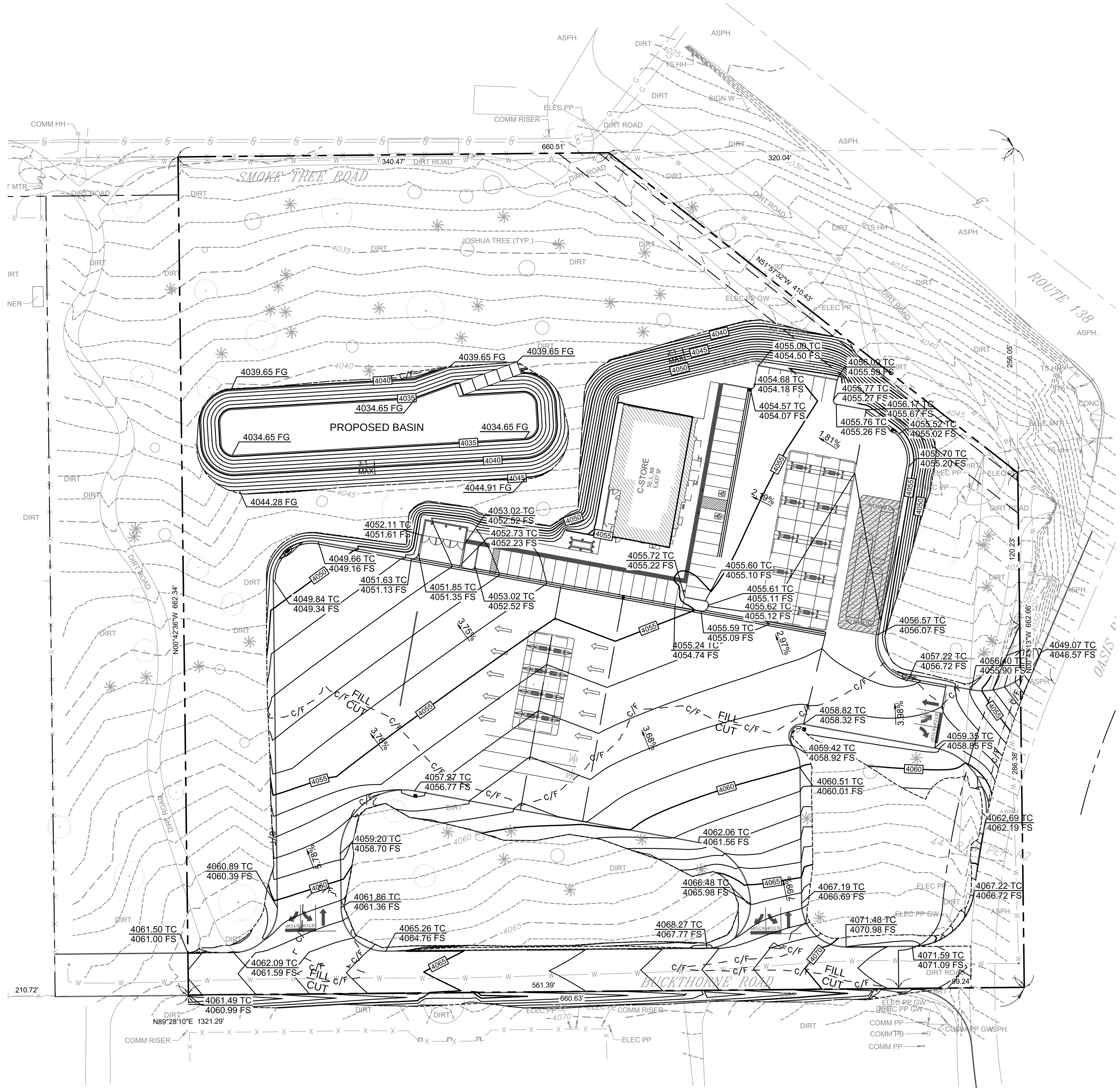
Appendix A

Grading Plans



GRADING LEGEND

- EXISTING PROPERTY BOUNDARY LINE
- EXISTING ROAD CENTERLINE
- PROPOSED DITCH CENTERLINE
- PROPOSED LIMITS OF BMP / DETENTION
- CUT / FILL LINE
- PROPOSED STORM PIPE
- EXISTING 5' INTERVAL CONTOUR LINE
- EXISTING 1' INTERVAL CONTOUR LINE
- PROPOSED 5' INTERVAL CONTOUR LINE
- PROPOSED 1' INTERVAL CONTOUR LINE
- PROPOSED GRADE BREAK
- RIM XX.XX / TC XX.XX FS XX.XX — PROPOSED SPOT SHOTS
- (RIM XX.XX) / (TC XX.XX) (FS XX.XX) — MATCH EXISTING ELEVATION
- FL XX.XX / TC XX.XX — EXISTING SPOT SHOTS
- EXISTING CURB
- EXISTING CURB AND GUTTER
- PROPOSED CURB
- PROPOSED CURB AND GUTTER
- PROPOSED RIP RAP
- PROPOSED CONCRETE PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LANDSCAPE AREA
- EXISTING SANITARY STRUCTURES
- EXISTING WATER STRUCTURES

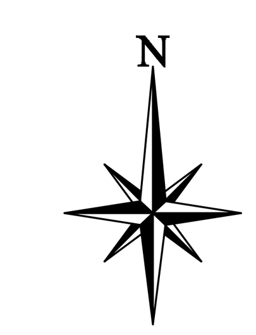
ABBREVIATIONS

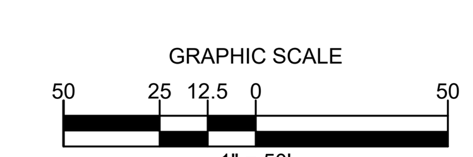
FF	FINISH FLOOR
FL	FLOW LINE
FG	FINISHED GRADE
FS	FINISH SURFACE
INV	INVERT ELEVATION
TC	TOP OF CURB
TP	TOP OF PAVEMENT
TG	TOP OF GRATE
LIP	GUTTER LIP
RIM	RIM
(XX)	EXISTING ELEVATION

EARTHWORK QUANTITIES

CUT 6,882± CY
FILL 20,592± CY
NET 13,710± (FILL)

NOTE: ENGINEERS ESTIMATE OF EARTHWORK ARE RAW VOLUME AND IS BASE ON THE EXISTING GROUND AT THE TIME OF SURVEY. ESTIMATE DOES NOT INCLUDE SHIRK OR SHELL FACTORS.





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PREPARED FOR: MAVERIK

REVISIONS

REV	DATE	COMMENT	BY

DOCUMENT
CONCEPTUAL SITE PLAN FOR MAVERIK PROGRAM

SITE LOCATION
SUNSET BOULEVARD & SOUTH LOOP ROAD
PLACER COUNTY, CALIFORNIA

ENGINEER SEAL

NOT FOR CONSTRUCTION

SHEET TITLE
GRADING PLAN

JOB #:	MAV.37445.CIVIL
DATE:	2/23/2024
SCALE:	AS SHOWN
DRAWN BY:	JAO/EC
CHECKED BY:	SR

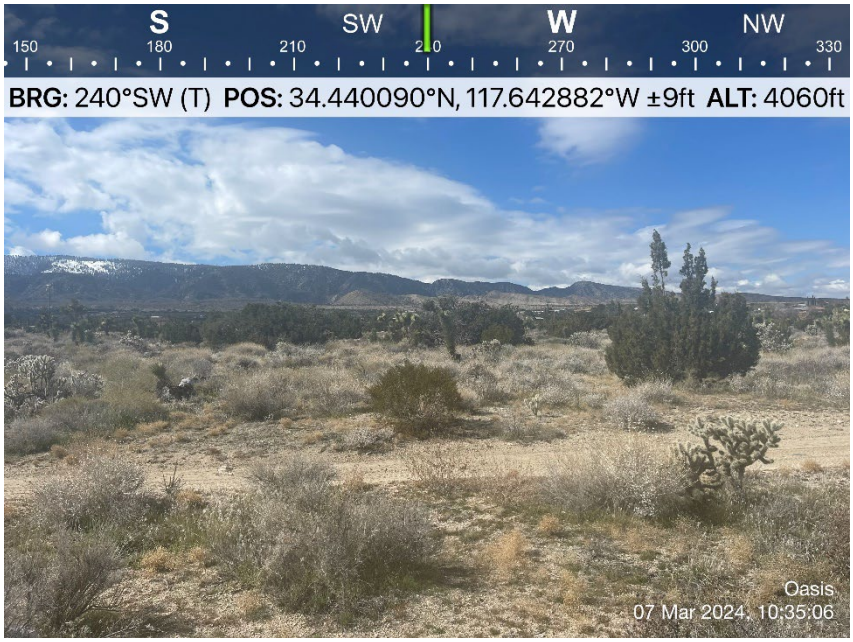
SHEET NO.
C5

Appendix B

Project Site Photographs

Photograph 1. Taken from southeast corner of Project.

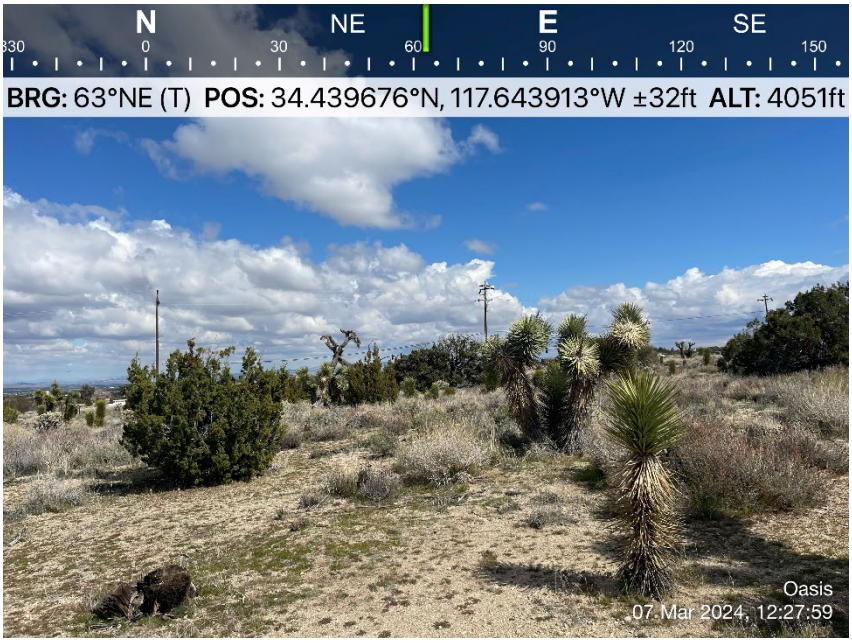
Photograph 2. Looking west across southern portion of Project.



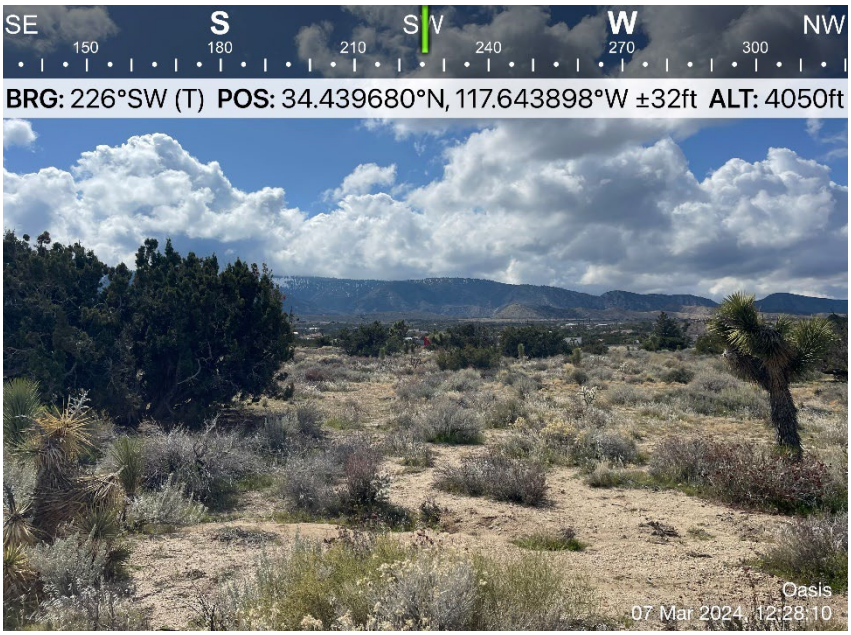
Photograph 3. Looking southwest from northeastern portion of Project.

Photograph 4. Looking south from northern portion of Project.

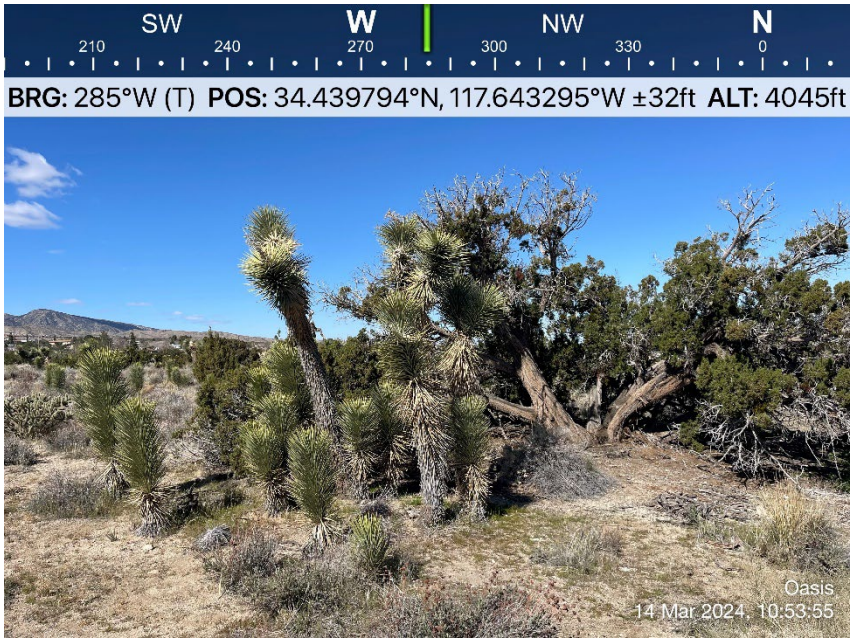
Photograph 5. Looking southeast from northwest corner of Project.



Photograph 6. Looking northeast from interior of Project.



Photograph 7. Looking southwest from interior of Project.



Photograph 8. Large California juniper surrounded by 24 Joshua trees.

Appendix C

Plant Compendia

APPENDIX C

Plant Compendia

The following vascular plant species were observed by Casc at the Project Site in unincorporated Pinon Hills, San Bernardino County, California during the field site visits from March 7 - April 11, 2024.

*Indicates introduced nonnative species

SPECIES/SCIENTIFIC NAME	FAMILY/COMMON NAME
ANGIOSPERMAE	***FLOWERING PLANTS***
AGAVACEAE (AGAVOIDEAE)	*AGAVE AND YUCCA FAMILY*
Hesperoyucca whipplei	chaparral yucca
Yucca brevifolia	Joshua tree
ASTERACEAE	*ASTER FAMILY*
Ambrosia salsola	cheesebrush
Encelia farinosa	brittlebush
Ericameria linearifolia	narrowleaf goldenbush
Ericameria nauseosa	rubber rabbitbrush
Gutierrezia sarothrae	broom snakeweed
Layla platyglossa	tidytips
CACTACEAE	*CACTUS FAMILY*
Cylindropuntia echinocarpa	silver cholla
Opuntia basilaris	beavertail cactus
CHENOPODIACEAE	*GOOSEFOOT FAMILY*
Grayia spinosa	hop sage
Krascheninnikovia lanata	winterfat
HYDROPHYLLACEAE (HYDROPHYLLOIDEAE)	*WATERLEAF FAMILY*
Phacelia crenulata	heliotrope phacelia
Phacelia ramoisissima	branching phacelia
Phacelia tanacetifolia	lacy phacelia
KOEBERLINIACEAE	*CROWN OF THORNS FAMILY*
Koeberlinia spinosa	crown of thorns
LAMIACEAE	*MINT FAMILY*
Salvia dorrii	Dorr's sage
LOASACEAE	*STRIKING PLANT FAMILY*
Mentzelia albicaulis	white stemmed blazing star

POLYGONACEAE	*BUCKWHEAT FAMILY*
Eriogonum fasciculatum	California buckwheat
Eriogonum wrightii	bastardsage
SARCOBATACEAE	*GREASEWOOD FAMILY*
Sarcobatus vermiculatus	greasewood
SOLANACEAE	*NIGHTSHADE FAMILY*
Lycium andersonii	Anderson thornbush
ZYGOPHYLLACEAE	*TWINLEAF FAMILY*
Larrea tridentata	creosote bush

GYMNOSPERMAE	***CONIFERS***
CUPRESSACEAE	*CYPRUS FAMILY*
Juniperus californica	California juniper
EPHEDRACEAE	*EPHEDRA FAMILY*
Ephedra nevadensis	Nevada ephedra

MONOCOTYLEDONES	***MONOCOTS***
POACEAE	*GRASS FAMILY*
*Bromus tectorum**	cheatgrass

Floral compendia identified during surveys were recorded in terms of relative abundance and host habitat type. Floral taxonomy used in this report follows the *Jepson Manual* (Hickman 1993) and for sensitive species, the *California Native Plant Society Rare Plant Inventory*, 5th Edition (Pavlik and Skinner 1994). Additional common plant names are taken from Munz (1974) and Sawyer and Keeler-Wolf (2009)

Appendix D

Wildlife Compendia

APPENDIX D

Wildlife Compendia

The following is a list of wildlife species recorded by Casc at the Project Site in unincorporated Pinon Hills, San Bernardino County, California during the field site visits from March 7 - April 11, 2024. Presence may be noted if a species is seen or heard, or identified by the presence of tracks, scat, or other sign.

*Indicates introduced nonnative species

SPECIES/SCIENTIFIC NAME	FAMILY/COMMON NAME
REPTILIA	***REPTILES***
IGUANIDAE	*IGUANID LIZARDS FAMILY*
Uta stansburiana elegans	Western side-blotched lizard
PHRYNOSOMATIDAE	*SPINY LIZARDS FAMILY*
Sceloporus occidentalis	Western fence lizard
AVES	***BIRDS***
ACCIPITRIDAE	*HAWK FAMILY*
Accipiter cooperii	Cooper's hawk
CATHARTIDAE	*NEW WORLD VULTURE FAMILY*
Cathartes aura	turkey vulture
COLUMBIDAE	*PIGEON AND DOVE FAMILY*
Columba livia	rock pigeon
Zenaida macroura	mourning dove
CORVIDAE	*CROWS AND RAVENS FAMILY*
Aphelocoma californica	*California scrub-jay*
Corvus corax	common raven
FRINGILLIDAE	*FINCH FAMILY*
Haemorhous mexicanus	house finch
Spinus psaltria	lesser goldfinch
ODONTOPHORIDAE	*NEW WORLD QUAIL FAMILY*
Callipepla californica	California quail
PARULIDAE	*NEW WORLD WARBLER FAMILY*
Setophaga coronata	yellow-rumped warbler
PASSERELLIDAE	*SPARROWS FAMILY*
Amphispiza bilineata	black-throated sparrow
Melospiza melodia	song sparrow
TROCHILIDAE	*HUMMINGBIRD FAMILY*
Calypte anna	Anna's hummingbird
TROGLODYTIDAE	*WREN FAMILY*
Salpinctes obsoletus	rock wren

Thryomanes bewickii	Bewick's wren
TURDIDAE	*THRUSH FAMILY*
Sialia Mexicana	Western bluebird
TYRANNIDAE	*TYRANT FLYCATCHER FAMILY*
Sayornis nigricans	black phoebe
MAMMALIA	***MAMMALS***
LEPORIDAE	*RABBIT FAMILY*
Lepus californicus	black-tailed jackrabbit
Sylvilagus audubonii	desert cottontail
SCIURIDAE	*SQUIRREL FAMILY*
Otospermophilus beecheyi	California ground squirrel

Taxonomy and nomenclature follows Beher (1998) and Laudenslayer et.al. (1991. A checklist of the amphibians, reptiles, birds, and mammals of California. California Fish and Game 77:109-141.), Sibley (2000) and the American Ornithologists' Union (1998. The A.O.U. Checklist of North American Birds, 7th Ed. American Ornithologists' Union, Washington D.C.

Appendix E

CNDDB Summary Table

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Mescal Creek (3411746))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Ammospermophilus nelsoni Nelson's (=San Joaquin) antelope squirrel	G2G3 S3	None Threatened	BLM_S-Sensitive IUCN_EN-Endangered	3,450 3,450	287 S:1	0	0	0	0	0	1	1	0	1	0	0
Astragalus lentiginosus var. antonius San Antonio milk-vetch	G5T2 S2	None None	Rare Plant Rank - 1B.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture USFS_S-Sensitive	7,000 7,000	12 S:1	0	0	0	0	0	1	1	0	1	0	0
Astragalus leucolobus Big Bear Valley woollypod	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive IUCN_VU-Vulnerable SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	5,700 7,200	118 S:10	1	4	1	0	0	4	3	7	10	0	0
Bombus crotchii Crotch's bumble bee	G2 S2	None Candidate Endangered	IUCN_EN-Endangered	3,400 3,400	437 S:1	0	0	0	0	0	1	1	0	1	0	0
Bombus pensylvanicus American bumble bee	G3G4 S2	None None	IUCN_VU-Vulnerable	7,000 7,000	365 S:1	0	0	0	0	0	1	1	0	1	0	0
Canbya candida white pygmy-poppy	G3G4 S3S4	None None	Rare Plant Rank - 4.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	3,800 3,900	30 S:2	0	0	0	0	0	2	2	0	2	0	0
Chaetodipus fallax pallidus pallid San Diego pocket mouse	G5T3T4 S3S4	None None		4,400 5,900	79 S:3	0	0	0	0	0	3	3	0	3	0	0
Euphydryas editha quino quino checkerspot butterfly	G4G5T1T2 S1S2	Endangered None		6,155 6,155	186 S:1	0	0	0	0	1	0	1	0	0	0	1
Icaricia saepiolus aureolus San Gabriel Mountains blue butterfly	G5T1 S1	None None	USFS_S-Sensitive	6,860 6,860	2 S:1	0	0	0	0	0	1	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Juniperella mirabilis juniper metallic wood-boring beetle	G2 S1	None None		4,300 4,300	2 S:1	0	0	0	0	0	1	1	0	1	0	0
Linanthus concinnus San Gabriel linanthus	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	5,600 6,700	43 S:3	1	0	0	0	1	1	2	1	2	1	0
Microtus californicus stephensi south coast marsh vole	G5T2T3 S2	None None	CDFW_SSC-Species of Special Concern	6,600 6,600	7 S:1	0	0	0	0	0	1	1	0	1	0	0
Muhlenbergia californica California muhly	G4 S4	None None	Rare Plant Rank - 4.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	6,500 6,500	5 S:1	0	0	0	0	0	1	1	0	1	0	0
Myotis ciliolabrum western small-footed myotis	G5 S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern	5,420 5,420	82 S:1	0	0	0	0	0	1	1	0	1	0	0
Nemacladus secundiflorus var. robbinsii Robbins' nemacladus	G3T2 S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive		9 S:1	0	0	0	0	0	1	1	0	1	0	0
Opuntia basilaris var. brachyclada short-joint beavertail	G5T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	3,860 6,600	199 S:8	0	3	2	0	0	3	4	4	8	0	0
Phrynosoma blainvillii coast horned lizard	G4 S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	4,400 6,200	841 S:5	0	0	1	0	0	4	5	0	5	0	0
Toxostoma lecontei Le Conte's thrasher	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	3,450 3,850	239 S:6	0	0	0	0	0	6	6	0	6	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Viola pinetorum ssp. grisea grey-leaved violet	G4G5T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	7,200 7,200	90 S:1	0	0	1	0	0	0	0	1	1	0	0
Xerospermophilus mohavensis Mohave ground squirrel	G3 S2	None Threatened	BLM_S-Sensitive IUCN_NT-Near Threatened	3,400 3,400	432 S:1	0	0	0	0	0	1	1	0	1	0	0

Appendix F

Likelihood of Occurrence Definitions

APPENDIX F

Likelihood of Occurrence and Definitions for Sensitive Species Status

The likelihood of occurrence for special-status species was based on the following definitions:

- **Present:** the species was observed or detected within the Survey Area during the field survey.
- **High**: Recent occurrence records indicate that the species has been known to occur on or within 1 mile of the Survey Area and the Survey Area is within the normal or expected range of this species. Intact, suitable habitat preferred by this species occurs within the Survey Area and/or there is viable landscape connectivity to a local known extant population(s) or sighting(s).
- **Moderate**: Recent occurrence records indicate that the species has been known to occur within 1 mile of the Survey Area and the Survey Area is within the normal expected range of this species. There is suitable habitat within the Survey Area, but the site is ecologically isolated from any local known extant populations or sightings.
- **Low**: Recent occurrence records indicate that the species has been known to occur within 5 miles of the Survey Area, but the Survey Area is outside of the normal expected range of the species and/or there is poor quality or marginal habitat within the Survey Area.
- **Not Expected**: There are no occurrence records of the species occurring within 1 mile of the Survey Area, there is no suitable habitat within the Survey Area, and/or the Survey Area is outside of the normal expected range for the species.
- **Absent**: The species has been determined to conclusively be absent from the Survey Area.

California Rare Plant Rank

The California Rare Plant Rank status applies to plants only. The California Rare Plant Ranks are a ranking system originally developed by the California Native Plant Society (CNPS) to better define and categorize rarity in California's flora. These ranks were previously known as the CNPS lists but were renamed to the California Rare Plant Ranks to better reflect the joint effort among the CNPS, the CNDDB, and a wide range of botanical experts, who work together to assign a rarity ranking. All plants tracked by the CNDDB are assigned to a California Rare Plant Rank category. These categories are:

California Rare Plant Rank	Description
1A	Plants presumed extinct in California and rare/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
2A	Plants presumed extirpated in California, but more common elsewhere
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
2B.3	Plants rare, threatened, or endangered in California, but more common elsewhere; not very threatened in California
3.1	Plants about which we need more information; seriously threatened in California
3.2	Plants about which we need more information; fairly threatened in California
3.3	Plants about which we need more information; not very threatened in California
4.1	Plants of limited distribution; seriously threatened in California
4.2	Plants of limited distribution; fairly threatened in California
4.3	Plants of limited distribution; not very threatened in California

California Department of Fish and Wildlife Status

The California Department of Fish and Wildlife (CDFW) Status applies to animals only.

Status	Description
ST	**State Threatened.** Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. 16 U.S.C., §1532 (20); 50 C.F.R. § 17.3; - A native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. *Fish & G. Code, §2067.*
SE	**State Endangered.** Any species which is in danger of extinction throughout all or a significant portion of its range. *16 U.S.C., §1532 (6); 50 C.F.R. § 17.3*; A native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease. *Fish & G. Code, §2062.*
FP	**Fully Protected.** This classification was the State of California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts.
SSC	**Species of Special Concern (State).** It is the goal and responsibility of the Department of Fish and Wildlife to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as "Species of Special Concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as "Species of Special Concern" is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability.
WL	**Watch List (State)**. The Department of Fish and Wildlife maintains a list consisting of taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.
C	**Candidate (State).** A species that we find warrants a proposal to list as endangered or threatened, but listing is precluded by higher priority listing activities, is referred to as a candidate species. Candidate species are protected from “take” under CESA pursuant to FGC Section 2085 during the remainder of the CESA listing. Under FGC Section 2084, CESA provides that the Commission may adopt regulations to authorize take of candidate species, based on the best available scientific information, when the take is otherwise consistent with CESA. As with all regulations, the Commission may adopt a regulation under Section 2084 on an emergency basis when it determines that a situation exists which threatens public health and safety or general welfare.
FE	**Federally Endangered**. Refers to plant and animal species that are at risk of extinction throughout all or a significant portion of their range, and as a result, they are protected under the laws of the United States. The Endangered Species Act (ESA) is the primary legislation that governs the protection of endangered and threatened species. Species listed as federally endangered receive legal safeguards and conservation measures to help prevent their extinction. The U.S. Fish and Wildlife Service (USFWS) is responsible for implementing and enforcing the Endangered Species Act.
FT	**Federally Threatened.** Federally threatened species, similar to federally endangered species, are plants and animals that are considered at risk of becoming endangered in the foreseeable future throughout all or a significant portion of their range. Like federally endangered species, federally threatened species receive protection and conservation measures under the Endangered Species Act (ESA) in the United States. The ESA categorizes species into two main groups: endangered and threatened. While both are afforded legal protections, the distinction lies in the immediacy and severity of the risk of extinction. Endangered species are those facing a higher risk of extinction, while threatened species are at risk but may not be as critically endangered. The U.S.

	Fish and Wildlife Service (USFWS) administers the ESA and works to conserve and recover both federally endangered and threatened species to ensure their long-term survival.