GENERAL BIOLOGICAL RESOURCES ASSESSMENT

LUCERNE VALLEY
SAN BERNARDINO COUNTY, CALIFORNIA
(APN 0453-062-14)

Prepared for:

Albert A Webb Associates

Prepared by:

RCA Associates, Inc.
15555 Main Street, #D4-235
Hesperia, California 92345
(760) 596-0017

Principal Investigator:
Ryan Hunter, Senior Environmental Scientist &Wildlife Biologist
Brian Bunyi, Environmental Scientist & Wildlife Biologist

RCA ASSOCIATES,INC

Project: #2024-60 BA

May 31, 2024

TITLE PAGE

Date Report Written:	**May 31, 2024**
Date Field Work Completed:	**May 23, 2024**
Report Title:	**General Biological Resources Assessment**
Prepared For:	**Albert A Webb Associates**
Location:	**33433 Haynes Road** **Lucerne Valley, California**
Assessor's Parcel Number:	**0453-062-14**
Principal Investigators:	**Ryan Hunter:** **Senior Environmental Scientist & Wildlife Biologist** **Brian Bunyi:** **Environmental Scientist & Wildlife Biologist**
Contact Information:	**Randall C. Arnold, Jr.** **RCA Associates, Inc.** **15555 Main Street, #D4-235** **Hesperia, CA 92345** **(760) 586-0017** **rarnold@rcaassociatesllc.com** **www.rcaassociatesllc.com** **Ryan D. Hunter** **RCA Associates, Inc.** **15555 Main Street, #D4-235** **Hesperia, CA 92345** **(760) 998-7165** **rhunter@rcaassociatesllc.com** **www.rcaassociatesllc.com**

Table of Contents

1.0 INTRODUCTION AND SUMMARY 1
2.0 EXISTING CONDITIONS 1
3.0 METHODOLOGIES 4
4.0 LITERATURE SEARCH 4
5.0 RESULTS 7
5.1 General Biological Resources 7
5.2 Federal and State Listed Species 8
5.3 Wildlife Species of Special Concern 8
5.4 Jurisdictional Waters and Riparian Habitat 9
5.5 Protected Plants 9
6.0 IMPACTS AND MITIGATION MEASURES 10
6.1 General Biological Resources 10
6.2 Federal and State Listed and Species of Special Concern 10
7.0 CONCLUSIONS AND CONSIDERATIONS 11
8.0 BIBLIOGRAPHY 12
CERTIFICATION 14

Appendix A – Tables and Figures
Regulatory Content

1.0 INTRODUCTION AND SUMMARY

Biological surveys were conducted on a 20-acre parcel (approximately) located at 33433 Haynes Road in Lucerne Valley, California (Township 5 North, Range 1 West, Section 12, USGS White Horse Mountain, California Quadrangle, 1956) (Appendix A: Figures 1 and 2).

As part of the environmental process, California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS) data sources were reviewed. Following the data review, surveys were performed on the site on May 23, 2024, during which the biological resources on the site and in the surrounding areas were documented by biologists from RCA Associates, Inc. As part of the surveys, the property and adjoining areas were evaluated for the presence of native habitats which may support populations of sensitive wildlife species. The property was also evaluated for the presence of sensitive habitats including wetlands, vernal pools, riparian habitats, and jurisdictional areas.

Habitat assessments were also conducted for the desert tortoise, burrowing owl, and Mohave ground squirrel. Based on data from USFWS, CDFW, and a search of the California Natural Diversity Database (CNDDB, 2024). Scientific nomenclature for this report is based on the following references: Hickman (1993), Munz (1974), Stebbins (2003), Sibley (2016) and Whitaker (1980).

2.0 EXISTING CONDITIONS

The property is approximately 20-acre in size and is 33433 Haynes Road in Lucerne Valley, California (Township 5 North, Range 1 West, Section 12, USGS White Horse Mountain, California Quadrangle, 1956) (Appendix A: Figures 1 and 2). The property is bordered by mostly vacant land and sparse rural residential developments.

The site is approximately 953 meters above sea level with no slope and supports a heavily disturbed desert ruderal plant community. The vegetation community on site consists mostly of ornamental and ruderal plants species. Species present on the site were limited to the Asian mustard (*Brassica tournefortii*) and cheatgrass (*Bromus tectorum*). Several ornamental plants were present which include the ponderosa pine (*Pinus ponderosa*), chinaberry (*Melia azedarach*) and honey locust (*Gleditsia triacanthos*). Section 5.0 provides a more detailed discussion of the various plant species observed during the surveys.

The site supports a very minimal amount of wildlife. No, mammals were observed during the May 2024 Field investigation. Mamma;s that are expected to occur in the area include desert cottontails (*Sylvilagus audubonii*), California ground squirrel (*Otospermophilus beecheyi*), antelope ground squirrel (*Ammospermophilus leucurus),* and black-tailed jackrabbit (*Lepus californicus*). Coyotes (*Canis latrans*) may also occasionally traverse the site during hunting activities.

Birds observed include the common raven (*Corvus corax*), brewers blackbird (*Euphagus cyanocephalus*), mourning dove (*Zenaida macroura*) and the house finch (*Haemorhous mexicanus*). Section 5.0 provides a more detailed discussion of the various species observed during the surveys.

The only reptile observed during the survey was the western whiptail lizard (*Cnemidophorus tigris*). Reptiles that may occur on the site include the desert spiny lizard (*Sceloporus magister*), zebra-tailed lizard (*Callisaurus draconoides*), the long nose leopard lizard (Gambelia wislizenii), and the common side-blotched lizard (*Uta stansburiana*). Table 2 provides a compendium of wildlife species.

In addition, no sensitive habitats (e.g., sensitive species critical habitats, etc.) have been documented in the immediate area according to the CNDDB (2024) and none were observed during the field investigations.

3.0 METHODOLOGIES

General biological surveys were conducted on May 23, 2024, during which biologists from RCA Associates, Inc. walked 10-meter belt transects throughout the property_During the surveys, data was collected on the plant and animal species present on the site. All plants and animals detected during the surveys were recorded and are provided in Tables 1 & 2 (Appendix A). The property was also evaluated for the presence of habitats which might support sensitive species. Scientific nomenclature for this report is based on the following references: Hickman (1993), Munz (1974), Stebbins (2003), Sibley (2000) and Whitaker (1980). Following completion of the initial reconnaissance survey, habitat assessments were conducted for the desert tortoise, burrowing owl, and Mohave ground squirrel. Weather conditions consisted of wind speeds of 0 to 5 mph, temperatures in the low to mid 60's (°F) (AM), and 0% cloud cover. The applicable methodologies are summarized below.

General Plant and Animal Surveys: Meandering transects were walked on the site and in surrounding areas (i.e., the zone of influence) where accessible at a pace that allowed for careful documentation of the plant and animal species present on the site. All plants observed were identified in the field or sampled and brought back for further identification. Wildlife was identified through visual observations and/or by vocalizations. Habitat assessments were conducted for the desert tortoise, burrowing owl, and Mohave ground squirrel. Tables 1 and 2 (Appendix A) provide a comprehensive compendium of the various plant and animal species observed during the field investigations.

4.0 LITERATURE SEARCH

As part of the environmental process, a search of the California Natural Diversity Database (CNDDB) search was performed. Based on this review, it was determined that five special status wildlife species and four special status plant species have been documented within the White Horse Mountain Quadrangle of the property. The following tables provide data on each special status species which has been documented in the area.

Table 4-1: Special status wildlife and insects documented in the region (Source: CNDDB, 2024) or likely to occur in the region

E = Endangered; T = Threatened; SSC = Species of special concern; CNPS = California Native Plant Society; CNDDB = California Natural Diversity Data Base

NAME	STATUS	HABITAT REQUIREMENTS	PRESENCE/ ABSENCE ON PROPERTY
Wildlife Species			
Within the White Horse Mountain Quadrangle			
Desert tortoise (*Gopherus agassizii*)	Federal: Threatened State: Threatened	Desert scrub	The site is located within the known distribution of the species. An evaluation of the area and property was conducted, and no tortoises, tortoise sign, and it was determined that there is no suitable habitat for the species and no tortoises or tortoise sign was observed.
Golden Eagle (*Aquila chrysaetos*)	Federal: None State: None CDFW: FP/WL	Open mountains, foothills, plains, open country.	The site does not support suitable habitat for the species.
Western mastiff bat (*Eumops perotis californicus*)	Federal: None State: None CDFW: SSC	Dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, montane meadows, and agricultural areas.	The site does not support suitable habitat for the species; therefore, species is not likely to inhabit the site.
Prairie falcon (Falco mexicanus)	Federal: None State: None CDFW: WL	Open hills, plains, prairies, deserts.	The site does not support suitable habitat for the species; therefore, species is not likely to inhabit the site.

Le Conte's Thrasher (*Toxostoma lecontei*)	Federal: None State: None CDFW: SSC	Dry, lightly vegetated desert habitat.	The site does not support suitable habitat for the species; therefore, species is not likely to inhabit the site.

Table 4-2: Federal and State Listed Species and State Species of Special Concern.

E = Endangered; T = Threatened; SSC = Species of special concern; CNPS = California Native Plant Society; CNDDB = California Natural Diversity Data Base

NAME	STATUS	HABITAT REQUIREMENTS	PRESENCE/ ABSENCE ON PROPERTY
PLANTS			
Within the White Horse Mountain Quadrangle			
Clokey's cryptantha (*Cryptantha clokeyi*)	Federal: None State: None CNPS: 1B.2	Mojave desert scrub	The site does not support suitable habitat for the species; therefore, species is not likely to inhabit the site.
Mojave menodora (*Menodora spinecens var. mohavensis*)	Federal: None State: None CNPS: 1B.2	Mountain, canyon, and desert habitats.	The site does not support suitable habitat for the species; therefore, species is not likely to inhabit the site.
Creamy blazing star (*Mentzelia tridentata*)	Federal: None State: None CNPS: 1B.3	Wet depressions in prairies and sedge meadows.	The site does not support suitable habitat for the species; therefore, species is not likely to inhabit the site.
Beaver Dam breadroot (*Pediomelum castoreum*)	Federal: None State: None CNPS: 1B.2	Sandy soils alongside roads and sandy washes.	The site does not support suitable habitat for the species; therefore, species is not likely to inhabit the site.

Notes:

Status abbreviations:

CNPS List 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
CNPS List 1B: Plants rare, threatened, or endangered in California and elsewhere
CNPS List 2A: Plants presumed extirpated in California, but more common somewhere else
CNPS List 2B: Plants rare, threatened, or endangered in California, but more common somewhere else
CNPS List 3: Plants about which more information is needed - a review list
CNPS List 4: Plants of limited distribution - a watch list

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

.2 Moderately threatened in California (20-80% occurrences threatened/ moderate degree and immediacy of threat)

.3 No very threatened in California (<20% of occurrences threatened/ low degree and immediacy of threat or no current threats known)

5.0 RESULTS

5.1 General Biological Resources

The site supports a heavily disturbed desert ruderal plant community which sparsely covers the property (Figure 3). Species present on the site were limited to the Asian mustard (*Brassica tournefortii*) and cheatgrass (*Bromus tectorum*). Several ornamental plants were present which include the ponderosa pine (*Pinus ponderosa*), chinaberry (*Melia azedarach*) and honey locust (*Gleditsia triacanthos*). Table 1 provides a compendium of all plants occurring on the site and/or in the immediate surrounding area.

Birds observed included the common raven (*Corvus corax*), brewers blackbird (*Euphagus cyanocephalus*), mourning dove (*Zenaida macroura*) and the house finch (*Haemorhous mexicanus*). The only reptile observed during the survey was the western whiptail lizard (*Cnemidophorus tigris*). Some reptiles that may occur on the site include desert spiny lizard (*Sceloporus magister*), zebra-tailed lizard (*Callisaurus draconoides*), long nose leopard lizard (*Gambelia wislizenii*), and the common side-blotched lizard (*Uta stansburiana*). No native mammals were observed on site, although the California ground squirrel (*Otospermophilus beecheyi*) and Antelope ground squirrel (*Ammospermophilus leucurus*) are common in the area. The black-tailed jackrabbit (Lepus californicus), desert cottontails (*Sylvilagus audubonii*), coyote (*Canis latrans*), and Merriam's kangaroo rats (*Dipodomys merriami*) may also occur on the site given their wide-spread distribution in the region. Tables 1 and 2 (Appendix A) provides a compendium of the various plant and animal species identified during the field investigations and those common to the area. No distinct wildlife corridors were identified on the site or in the immediate area.

No sensitive habitats (e.g., wetlands, vernal pools, critical habitats for sensitive species, etc.) were observed on the site during the field investigations.

The following is a list of special status wildlife species which have been documented in the region; however, only a few of these species could potentially occur on the site. Several of the species are not expected to occur on the property due to absence of suitable habitat but are included for clarity.

5.2 Federal and State Listed Species

Desert Tortoise: The site is located within the documented tortoise, a state and federal threatened species, habitat according to CNDDB (2024). The property does supports not habitat for the desert tortoise based on the location of the site in Lucerne Valley. No tortoises were observed anywhere within the property boundaries during the May 23, 2024, surveys. The species is not expected to move onto the site in the near future based on the absence of any sign (e.g. burrows, scat, tracks), high disturbance of the site, absence of any recent observations in the immediate area, and the presence of roadways and developments within the projects vicinity which may act as barriers to migration of tortoises.

5.3 Wildlife Species of Special Concern

Sensitive Plants: There are four plant species that have been documented in the White Horse Mountain quadrangle, the Clokey's Cryptantha, Beaver Dam breadroot, Mojave menodora, and Creamy blazing star. The site does not support suitable habitat for any one of the four species listed above. None of the above species were observed on the site during the May 23, 2024, survey, and are not expected to occur in the foreseeable future. The project is not expected to impact any sensitive plant species.

Sensitive Wildlife: Within the White Horse Mountain quadrangle there are two wildlife species that is labeled as a Species of Special Concern, which is the Western mastiff bat and Le Conte's Thrasher. None of the above species were seen on the site and no habitat for either species were present. In addition, the site contains no suitable habitat and no suitable burrows for burrowing owls, no owl signs (e.g. whitewash, feathers, castings) were found on the property, and no burrowing owls were observed. It is the professional opinion of RCA Associates, Inc., that there are no owls currently inhabiting the site and owls are not expected to inhabit the site in the future given the lack of habitat for the species.

5.4 Jurisdictional Waters and Riparian Habitat

No riparian vegetation (e.g., cottonwoods, willows, etc.) exist on the site; and no channels or blueline streams were observed onsite or during the review of the USGS topographic maps. It is the opinion of RCA Associates Inc. that a comprehensive jurisdictional delineation will not be required in the future.

5.5 Protected Plants

As of July 10, 2023, California legislature passed and signed the Western Joshua Tree Conservation Act (WJTCA, Senate Bill 122) into effect listing the western Joshua tree (*Yucca brevifolia*) as an endangered species. The WJTCA authorizes CDFW to oversee the various permitting processes dealing with mitigation and/or removal of western Joshua trees. Joshua Trees were not observed on site or in the surrounding 50ft buffer on the May 2024 field investigation. Therefore, a Joshua Tree Census will not be required in the future.

6.0 IMPACTS AND MITIGATION MEASURES

6.1 General Biological Resources

Future development of the site will have minimal to no impact on the general biological resources present on the site due to the site being highly disturbed, and most, if not all, of the ruderal vegetation will likely be removed during future construction activities. Few wildlife will be impacted by development activities and those species with limited mobility (i.e., small mammals and reptiles) will experience increases in mortality during the construction phase. However, more mobile species (i.e., birds,) will be displaced into adjacent areas and will likely experience minimal impacts. Therefore, loss of about 20-acres of ruderal desert vegetation is not expected to have a significant cumulative impact on the overall biological resources in the region that the site has been graded in the past and no native vegetation is present. No sensitive habitats (e.g., wetlands, vernal pools, critical habitats for sensitive species, etc.) were observed on the site during the field investigations.

6.2 Federal and State Listed and Species of Special Concern

No federal or State-listed wildlife species were observed on the site during the field investigations including the Mohave ground squirrel and desert tortoise. In addition, there are no documented observations of these species either on the site or in the immediate area. The site is not expected to support populations of the desert tortoise based on the absence of sign and minimal suitable habitat.

As per CDFW protocol, the burrowing owl survey results are valid for only 30 days; therefore, CDFW may require a 30-day pre-construction survey be performed prior to any clearing/grading activities to determine if owls have moved on to the site since the May 23, 2024, surveys.

No listed plant species were observed during the May 2024 field investigations.

7.0 CONCLUSIONS AND CONSIDERATIONS

Future development activities are expected to grade the property and remove ruderal vegetation from the 20-acre parcel; however, cumulative impacts to the general biological resources (plants and animals) in the surrounding area are expected to be negligible. This assumption is based on the habitat containing scarce vegetation of native species and the area being heavily disturbed from vehicular and pedestrian traffic. In addition, future development activities are not expected to have any impact on any State or Federal listed or State special status plant or animal species. As discussed above, the site does not support any desert tortoises or Mohave ground squirrels. In addition, burrowing owls do not inhabit the site and are not expected to be impacted given the absence of any suitable burrows. No Western Joshua trees were observed during the May 2024 field investigation. The following mitigation measures should be considered:

1. Pre-construction surveys for burrowing owls, desert tortoise, and nesting birds protected under the Migratory Bird Treaty Act and Section 3503 of the California Fish and Wildlife Code shall be conducted prior to the commencement of Project-related ground disturbance.
    a. Appropriate survey methods and timeframes shall be established, to ensure that chances of detecting the target species are maximized. In the event that listed species, such as the desert tortoise, are encountered, authorization from the USFWS and CDFW must be obtained. If nesting birds are detected, avoidance measures shall be implemented to ensure that nests are not disturbed until after young have fledged.

If any sensitive species are observed on the property during future activities, CDFW and USFWS (as applicable) should be contacted to discuss specific mitigation measures which may be required for the individual species. CDFW and USFWS are the only agencies which can grant authorization for the "take" of any sensitive species and can approve the implementation of any applicable mitigation measures

8.0 BIBLIOGRAPHY

Baldwin, Bruce G, et. al.
2002. The Jepson Desert Manual. Vascular Plants of Southeastern California. University of California Press, Berkeley, CA.

Bureau of Land Management
January 2005. Final Environmental Impact Report and Statement for the West Mojave Plan. Vol. 1A.

California Burrowing Owl Consortium
1993. Burrowing Owl Survey Protocol and Mitigation Guidelines.

California Department of Fish and Game
1990. California Wildlife: Volume 1 (Amphibians and Reptiles), Volume II (Birds), and Volume III (Mammals).

California Department of Fish and Game
2003. Mohave Ground Squirrel Survey Guidelines.

California Department of Fish and Game
2014. Rarefind 3 Natural Diversity Database. Habitat and Data Analysis Branch. Sacramento, CA.

California Department of Fish and Game
March 7, 2013. Staff Report on Burrowing Owl Mitigation. 34 pp.

California Native Plant Society
2001. Inventory of Rare and Endangered Plants of California (sixth edition). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society. Sacramento, CA x + 388 pp.

Ehrlich, P., Dobkin., Wheye, D.
Birder's Handbook. A Field Guide to the Natural History of North American Birds. Simon & Schuster Building Rockefeller Center 1230 Avenue of the Americas. New York, New York 10020.

Hickman, James C.
The Jepson Manual Higher Plants of California. University of California Press. Berkeley, CA. 3rd Edition. 1996.

Jaeger, Edmund C.
1969. Desert Wild Flowers. Stanford University Press, Stanford, California. 321 pp.

Kays, R. W. & Wilson, D. E.
Mammals of North America. Princeton University Press, Princeton, New Jersey. 2002.

Munz, Philip A.
1974. A Flora of Southern California. University of California Press, Berkeley, California. 1086 pp.

Tugel, Arlene J., Woodruff, George A.
Soil Conservation Service, 1978. Soil Survey of San Bernardino County California, Mojave River Area.

Sibley, David Allen.
National Audubon Society. The Sibley guide to Birds. Alfred A Knopf, Inc. 2000.

Stebbins, Robert C.
A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin Company. 2003.

U.S. Fish and Wildlife Service
2010 Desert Tortoise Survey Protocol.

Whitaker, John O.
The Audubon Society Field Guide to North American Mammals. Alfred A Knopf, Inc. 1980.

CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits, presents the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Fieldwork conducted for this assessment was performed by Ryan Hunter and Brian Bunyi. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project applicant or applicant's representative and that I have no financial interest in the project.

Date: 05/31/2024 Signed: *Ryan Hunter*
Brian Bunyi

Field Work Performed By: Ryan Hunter
Senior Environmental Scientist/Biologist

Field Work Performed By: Brian Bunyi
Environmental Scientist/Biologist

Appendix A

Tables and Figures

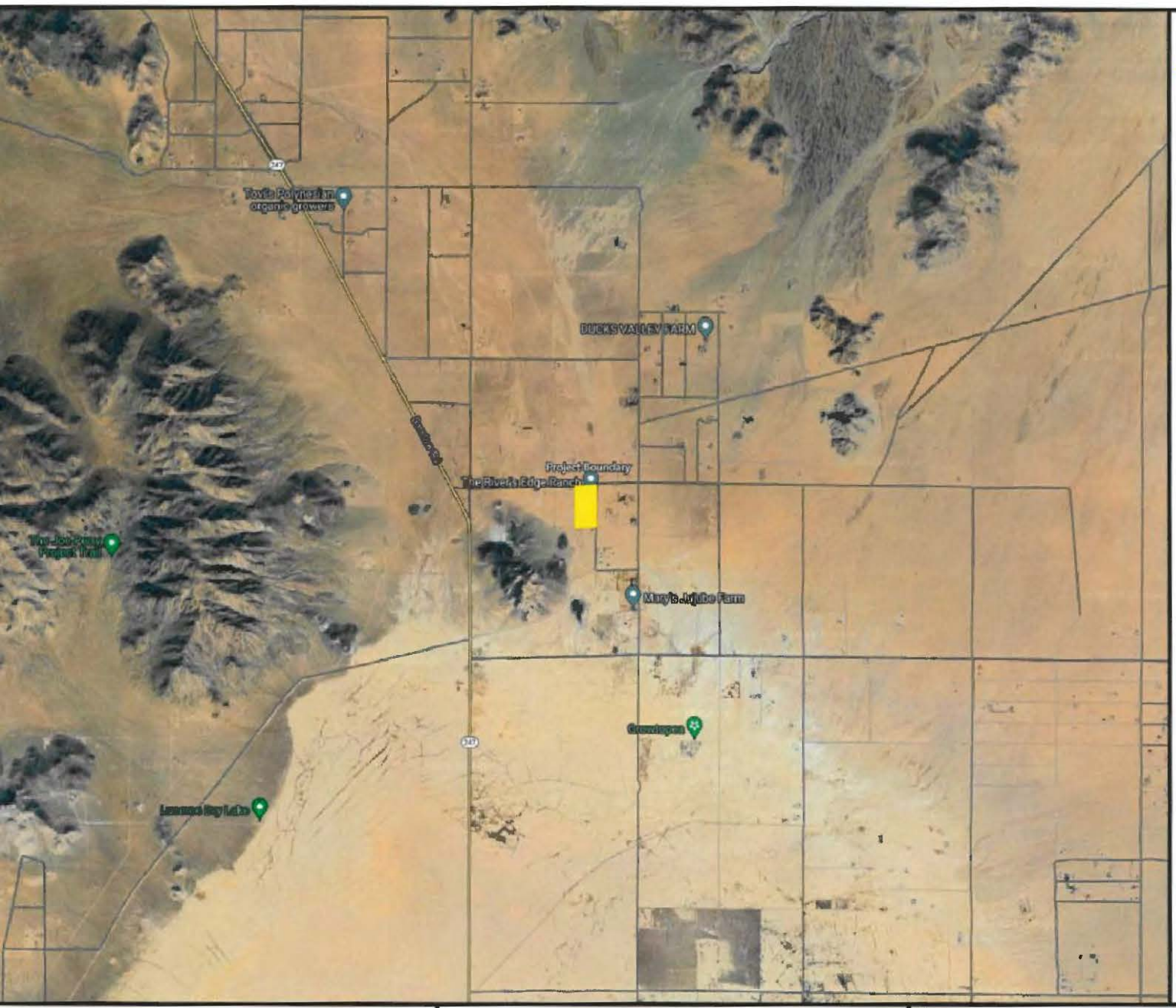


Figure 1: Regional Exhibit

Produced By: RCA Associates Inc.

SW of the Intersection of Haynes Rd. and Verdugo Rd. in Lucerne Valley, CA.

Source:	Uinta Software
Acreage:	20-Acres (Approximately)
Project #:	2024-60

Figure 2: Vicinity Exhibit

Produced By: RCA Associates Inc.

SW of the Intersection of Haynes Rd. and Verdugo Rd. in Lucerne Valley, CA.

Source:	Uinta Software
Acreage:	20-Acres (Approximately)
Project #:	2024-60

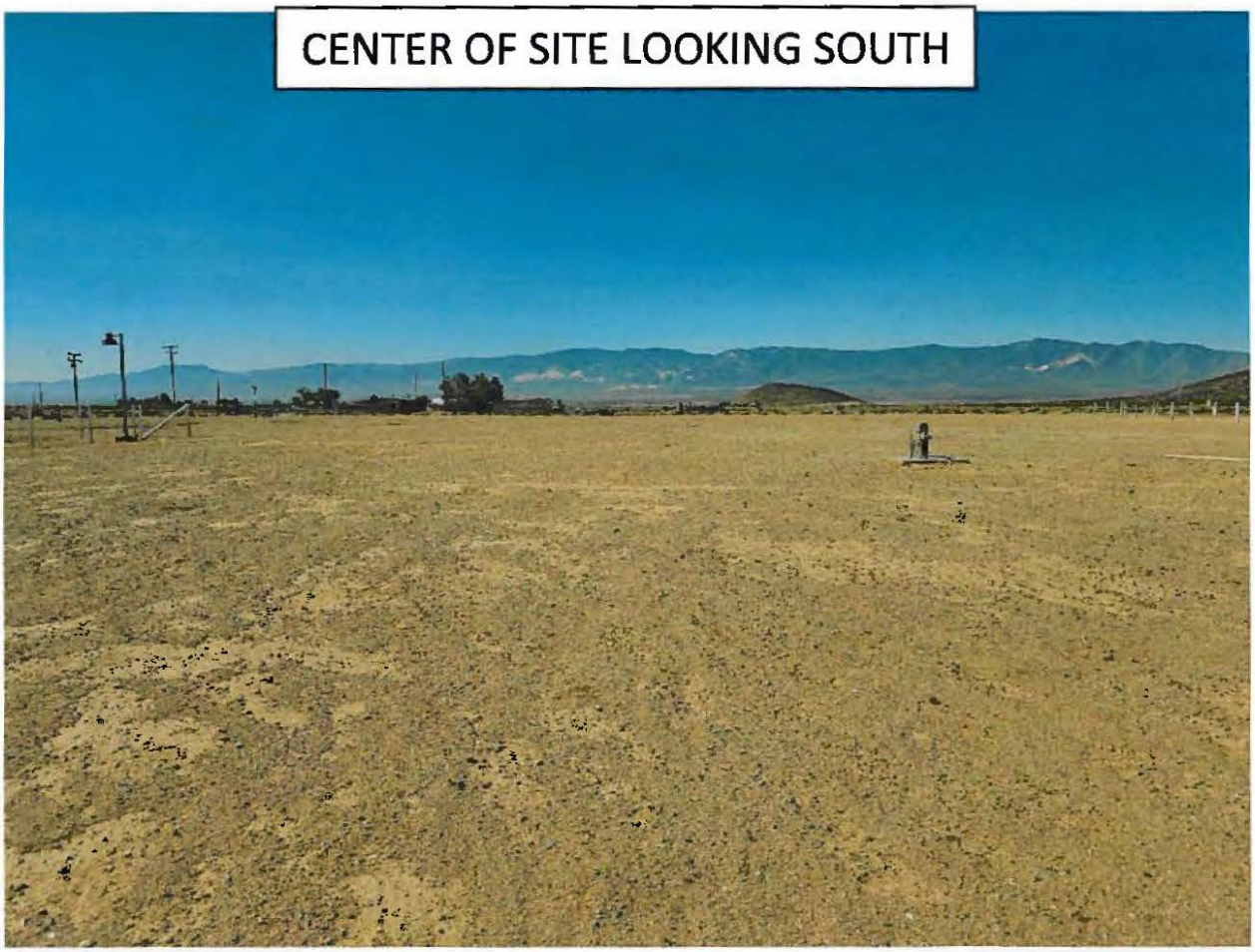
RCA EST. 1990 ASSOCIATES, INC

CENTER OF SITE LOOKING NORTH

CENTER OF SITE LOOKING EAST

FIGURE 3: PHOTOGRAPHS OF SITE

CENTER OF SITE LOOKING SOUTH



CENTER OF SITE LOOKING WEST

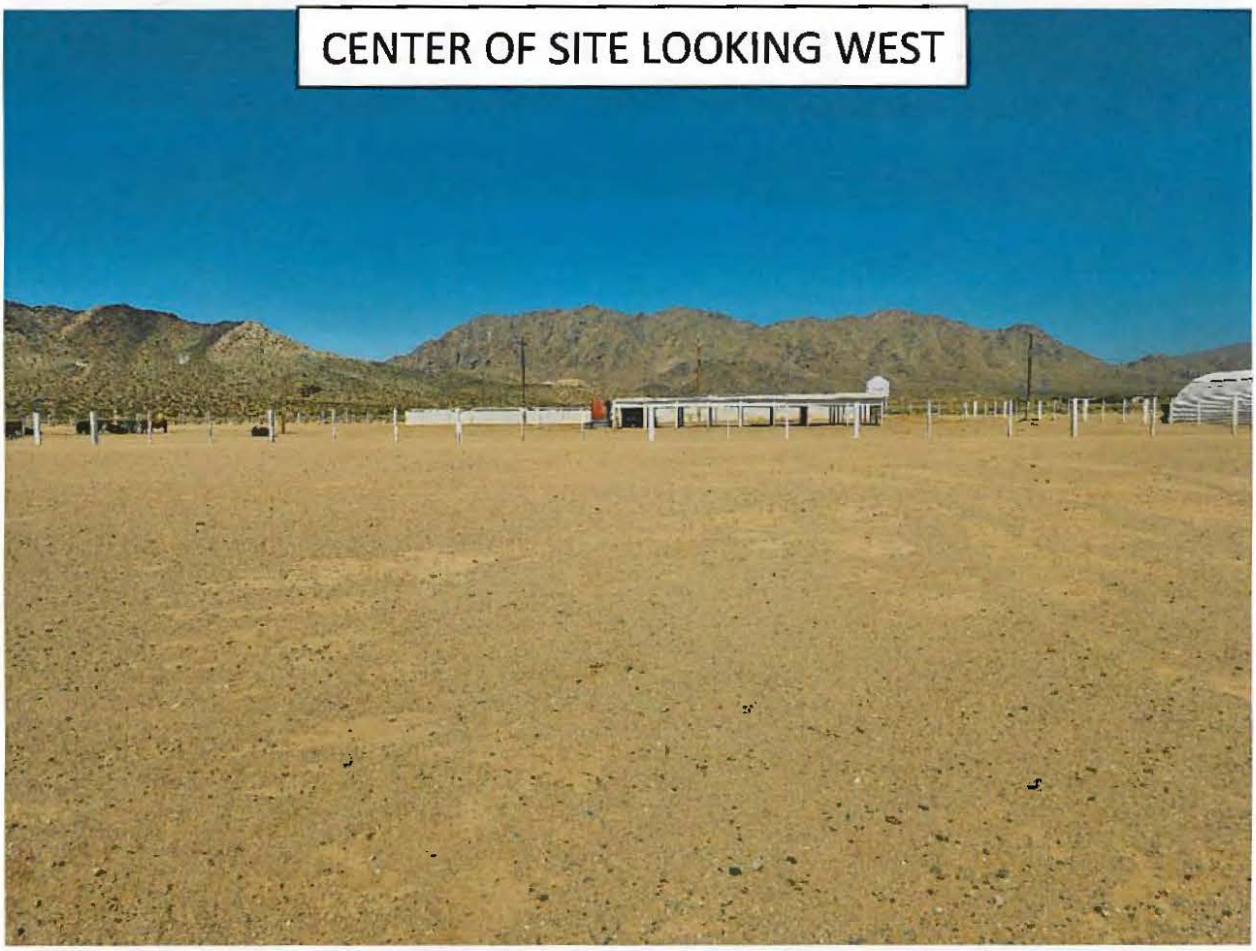


FIGURE 3, cont: PHOTOGRAPHS OF SITE

Table 1 - Plants observed on the site and known to occur in the immediate surrounding area.

Common Name	Scientific Name	Location
Asian mustard	*Brassica tournefortii*	On Site
Cheatgrass	*Bromus tectorum*	"
Ornamental Plants		
Chinaberry	*Melia azedarach*	On Site
Silver cholla	*Cylindropuntia echinocarpa*	"
Honey locust	*Gleditsia triacanthos*	"
Ponderosa pine	*Pinus ponderosa*	"

Note: The above list is not intended to be a comprehensive list of every plant which may occur on the site or in the zone of influence.

Table 2 - Wildlife observed on the site during the field investigations.

Common Name	Scientific Name	Location
Common Raven	*Amphispiza bilineata*	On site/Surrounding Area
Western whiptail lizard	*Cnemidophorus tigris*	"
House finch	*Haemorhous mexicanus*	"
Mourning Dove	*Zenaida macroura*	"
Eurasian collared dove	*Streptopelia decaocto*	"
Brewer's blackbird	*Euphagus cyanocephalus*	"
Domesticated Animals		
Horse	*Equus caballus*	"
Cattle	*Bos taurus*	"
Pig	*Sus scrofa domesticus*	"
Chicken	*Gallus gallus domesticus*	"

Note: The above Table is not a comprehensive list of every animal species which may occur in the area, but is a list of those common species which were identified on the site or which have been observed in the region by biologists from RCA Associates, Inc.

REGULATORY CONTENT

The following provides a summary of federal and state regulatory jurisdiction over biological and wetland resources. Although most of these regulations do not directly apply to the site, given the general lack of sensitive resources, they provide important background information.

Federal Endangered Species Act

The USFWS has jurisdiction over federally listed threatened and endangered plant and animal species. The federal Endangered Species Act (ESA) and its implementing regulations prohibit the take of any fish or wildlife species that is federally listed as threatened or endangered without prior approval pursuant to either Section 7 or Section 10 of the ESA. ESA defines "take" as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Federal regulation 50CFR17.3 defines the term "harass" as an intentional or negligent act that creates the likelihood of injuring wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns such as breeding, feeding, or sheltering (50CFR17.3). Furthermore, federal regulation 50CFR17.3 defines "harm" as an act that either kills or injures a listed species. By definition, "harm" includes habitat modification or degradation that actually kills or injures a listed species by significantly impairing essential behavior patterns such as breeding, spawning, rearing, migrating, feeding, or sheltering (50CFR217.12).

Section10(a) of the ESA establishes a process for obtaining an incidental take permit that authorizes nonfederal entities to incidentally take federally listed wildlife or fish. Incidental take is defined by ESA as take that is "incidental to, and not the purpose of, the carrying out of another wise lawful activity." Preparation of a habitat conservation plan, generally referred to as an HCP, is required for all Section 10(a) permit applications. The USFWS and National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) have joint authority under the ESA for administering the incidental take program. NOAA Fisheries Service has jurisdiction over anadromous fish species and USFWS has jurisdiction over all other fish and wildlife species.

Section 7 of the ESA requires all federal agencies to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any species listed under the ESA, or result in the destruction or adverse modification of its habitat. Federal agencies are also required

to minimize impacts to all listed species resulting from their actions, including issuance or permits or funding. Section 7 requires consideration of the indirect effects of a project, effects on federally listed plants, and effects on critical habitat (ESA requires that the USFWS identify critical habitat to the maximum extent that it is prudent and determinable when a species is listed as threatened or endangered). This consultation results in a Biological Opinion prepared by the USFWS stating whether implementation of the HCP will result in jeopardy to any HCP Covered Species or will adversely modify critical habitat and the measures necessary to avoid or minimize effects to listed species.

Although federally listed animals are legally protected from harm no matter where they occur, Section 9 of the ESA provides protection for endangered plants by prohibiting the malicious destruction on federal land and other "take" that violates State law. Protection for plants not living on federal lands is provided by the California Endangered Species Act.

California Endangered Species Act

CDFW has jurisdiction over species listed as threatened or endangered under Section 2080 of the California Fish and Wildlife Code. Section 2080 prohibits the take of a species listed by CDFW as threatened or endangered. The state definition of take is similar to the federal definition, except that Section 2080 does not prohibit indirect harm to listed species by way of habitat modification. To qualify as take under the state ESA, an action must have direct, demonstrable detrimental effect on individuals of the species. Impacts on habitat that may ultimately result in effects on individuals are not considered take under the state ESA but can be considered take under the federal ESA.

Proponents of a project affecting a state-listed species must consult with CDFW and enter into a management agreement and take permit under Section 2081. The state ESA consultation process is similar to the federal process. California ESA does not require preparation of a state biological assessment; the federal biological assessment and the CEQA analysis or any other relevant information can provide the basis for consultation. California ESA requires that CDFW coordinate consultation for joint federally listed and state-listed species to the extent possible; generally, the state opinion for the listed species is brief and references provisions under the federal opinion.

Clean Water Act, Section 404

The COE and the U.S. Environmental Protection Agency regulate the placement of dredged or fill material into "Waters of the United States" under Section 404 of the Clean Water Act. Waters of the United States include lakes, rivers, streams, and their tributaries, and wetlands. Wetlands are defined for regulatory purposes as "areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 Code of Federal Regulations [CFR] 328.3, 40 CFR 230.3).

The COE may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are pre-authorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits (NWP's) are general permits issued to cover particular fill activities. All NWP's have general conditions that must be met for the permits to apply to a particular project, as well as specific conditions that apply to each NWP.

Clean Water Act, Section 401

Section 401 of the Clean Water Act requires water quality certification and authorization of placement of dredged or fill material in wetlands and Other Waters of the United States. In accordance with Section 401 of the Clean Water Act, criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. As such, proponents of any new project which may impair water quality as a result of the project are required to create a post construction stormwater management plan to ensure offsite water quality is not degraded. The resulting requirements are used as criteria in granting National Pollution Discharge Elimination System (NPDES) permits or waivers, which are obtained through the Central Valley Regional Water Quality Control Board (RWQCB). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the RWQCB. The RWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

California Fish and Wildlife Code, Sections 1600-1616

Under the California Fish and Wildlife Code, Sections 1600-1616 CDFW regulates projects that divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake. Proponents of such projects must notify CDFW and enter into a streambed alteration agreement with them.

Section 1602 of the California Fish and Wildlife Code requires a state or local government agency, public utility, or private entity to notify CDFW before it begins a construction project that will: (1) divert, obstruct, or change the natural flow or the bed, bank, channel, or bank of any river, stream, or lake; (2) use materials from a streambed; or (3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake. Once the notification is filed and determined to be complete, CDFW issues a streambed alteration agreement that contains conditions for construction and operations of the proposed project.

California Fish and Wildlife Code, Section 3503.5

Under the California Fish and Wildlife Code, Section 3503.5, it is unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls). Take would include the disturbance of an active nest resulting in the abandonment or loss of young.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits the taking, hunting, killing, selling, purchasing, etc. of migratory birds, parts of migratory birds, or their eggs and nests. As used in the MBTA, the term "take" is defined as "to pursue, hunt, shoot, capture, collect, kill, or attempt to pursue, hunt, shoot, capture, collect, or kill, unless the context otherwise requires." Most bird species native to North America are covered by this act.

Sensitive Natural Communities

The California Office of Planning and Research and the Office of Permit Assistance (1986) define project effects that substantially diminish habitat for fish, wildlife, or plants, or that disrupt or divide the physical arrangement of an established community as significant impacts under CEQA.

This definition applies to certain natural communities because of their scarcity and ecological values and because the remaining occurrences are vulnerable to elimination. For this study, the term "sensitive natural community" includes those communities that, if eliminated or substantially degraded, would sustain a significant adverse impact as defined under CEQA. Sensitive natural communities are important ecologically because their degradation and destruction could threaten populations of dependent plant and wildlife species and significantly reduce the regional distribution and viability of the community. If the number and extent of sensitive natural communities continue to diminish, the status of rare, threatened, or endangered species could become more precarious, and populations of common species (i.e., not special status species) could become less viable. Loss of sensitive natural communities also can eliminate or reduce important ecosystem functions, such as water filtration by wetlands and bank stabilization by riparian woodlands for example.

Protected Plants

The California Desert Native Plant Act was passed in 1981 to protect non-listed California desert native plants from unlawful harvesting on both public and privately-owned lands. Harvest, transport, sale, or possession of specific native desert plants is prohibited unless a person has a valid permit. The following plants are under the protection of the California Desert Native Plants Act:

- Dalea spinosa (smoketree)
- All species of the genus Prosopis (mesquites)
- All species of the family Agavaceae (century plants, nolinas, yuccas)
- All species of Cactus
- Creosote Rings, ten feet in diameter or greater
- All Joshua Trees

The project would be required to comply with the County of San Bernardino Desert Native Plant Protection Ordinance. The removal of any trees listed under Section 88.01.060 would be required to comply with Section 88.01.050, which requires the project applicant to apply for a Tree or Plant Removal Permit prior to removal from the project site.