

# **Appendix A**

## **EXISTING LAWS, CODES, AND POLICIES**



## Appendix A. EXISTING LAWS, CODES, AND POLICIES

The goals and guidelines in the General Plan provide some of the broadest level of direction for management of Red Rock Canyon State Park (the Park) and are based on existing federal and state laws, codes, state executive orders, and the California Department of Parks and Recreation (State Parks) policies.

To understand the implications of the actions described in the General Plan, it is important to describe some of the laws, codes, and policies that underlie the management actions. Many management actions for the Park are required based on law and/or policy and are therefore not affected by the General Plan. For instance, a general plan is not needed to decide that it is appropriate to protect endangered species, control nonnative invasive species, protect archaeological sites, conserve artifacts, or provide for universal access – laws, codes, and policies already require State Parks to fulfill these mandates. State Parks would continue to implement these requirements with or without a General Plan.

The following includes the most pertinent laws, codes, and policies related to planning and managing the Park:

### A.1 AIR QUALITY

The Clean Air Act of 1970, (42 US Code [USC], Sections 7401 et seq.) regulates air emissions from area, stationary, and mobile sources. Under this law, National Ambient Air Quality Standards (NAAQS) are established for each state by the EPA to protect public health and the environment.

#### A.1.1. POLICY GUIDANCE/SOURCES:

*Clean Air Act, 1970.*

### A.2 CLIMATE CHANGE

Numerous state and federal laws, policies, and guidelines have been enacted to reduce greenhouse gas emissions, mitigate for emissions, and sequester carbon in an effort to slow the rate of climate change.

#### A.2.1. POLICY/GUIDANCE SOURCES:

*California Executive Order B-18-12*

Requires State Agencies to reduce overall greenhouse gas emissions by at least 10% by 2015 and 20% by 2020, as measured against a 2010 baseline. It also requires all buildings built or undergoing major renovations after 2025 be constructed as Zero Net Energy facilities. Further, State Agencies shall continue to take action to reduce grid-based energy purchases by at least 20% by 2018.



### ***California Executive Order S-03-05***

Establishes greenhouse gas emission reduction targets, creates the Climate Action Team, and directs the Secretary of Cal/EPA to coordinate efforts with meeting the targets the heads of other state agencies.

### ***State Senate Bill 97***

Requires development of CEQA guidelines “for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions.”

## **A.3 CULTURAL RESOURCES**

Cultural resources embrace human values, ranging from the evidences of early people dating back more than 10,000 years to sites and buildings of people who are making history today. “History”, as it is used by State Parks, means the totality of human experience in California. Some of the federal and state laws, codes, and policies that are in place to help preserve, protect, and restore archaeological and historical resources are listed below:

### **A.3.1. POLICY GUIDANCE/SOURCES:**

#### ***California Code of Regulations (CCR)***

Title 14, Division 3, Chapter 1: **§ 4308**. Prohibits removal, defacement, destruction, etc. of archaeological or historical objects on State Park lands.

Title 14, Division 6, Chapter 3: **§ 15064.5**. Determining the Significance of Impacts to Archaeological and Historical Resources.

#### ***California Environmental Quality Act of 1970 (CEQA)***

The California Environmental Quality Act of 1970 (CEQA) requires state agencies to analyze and disclose the potential environmental effects, both direct and indirect, of a proposed discretionary action. The Environmental Impact Report (EIR) is an integral component of this General Plan.

#### ***Department Operations Manual (DOM) Chapter 0600***

Provides the environmental review directives and guidelines for State Parks. The objectives, criteria, and specific procedures contained in the chapter define the roles, responsibilities, and authority for State Parks’ compliance with the CEQA and its Guidelines.

#### ***Department Operations Manual (DOM) Chapter 0400***

Cultural Resources and associated Departmental Notices are the basic policy document for the State Park System. Together, they guide the management of cultural resources under the jurisdiction of the Department.



***Departmental Notice No. 2007- 05***

Consultation with Native Americans.

***Governor's Executive Order B-10-11***

Consultation with Native American Tribes.

***Governor's Executive Order W-26-92***

Preservation, protection, restoration, maintenance of historical, architectural, and archaeological resources.

***Government Code***

**§ 6254.(r)** Restriction of record disclosure regarding Native American graves, cemeteries, and sacred sites.

**§ 6254.10** Non-disclosure of archaeological site information maintained by CDPR.

***Health and Human Safety Code***

**§ 7050.5** Prohibits removal of human remains.

**§ 7052** Prohibits mutilation, disinterment, removal of, or sexual contact with human remains.

***National Historic Preservation Act of 1966 (NHPA)***

Established the National Register of Historic Places, National Historic Landmarks, and State Historic Preservation Offices (SHPO). It also requires the evaluation of impacts of projects on historic properties through use of the "Section 106" process.

***National Environmental Policy Act of 1969 (NEPA)***

Applies in addition to CEQA when Federal monies are used, such as through a grant or partnership agreement.

***Penal Code***

**§ 622 ½** Prohibits destruction, defacement of objects of archaeological or historical interest.

**§ 623** Prohibits destruction, removal, or defacement of natural or cultural material.

***Public Resources Code***

**§ 5021** Registration of State Landmarks and Points of Interest; publications of archaeological investigations.





§ 5024 State-owned historical resources; policies to preserve; master list; documentation.

§ 5024.5 State-owned historical resources; notice and summary of proposed actions to SHPO; mediation responsibility.

§ 5097 Archaeological, paleontological, and historical sites definitions; state lands.

§ 5097.5 Prohibits removal or destruction of archaeological and historical sites.

§ 5097.7 Upon a conviction pursuant to § 5097.5, lists items that are subject to forfeiture.

§ 5097.9 Native American historical, cultural, and sacred sites; free exercise of religion; cemeteries, place of worship on ceremonial sites.

§ 5097.99 Prohibits removal or possession of Native American remains; felony.

§ 5097.991 Repatriation. It is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.

§ 21080.3.1 Consultation with Native Americans.

§ 21083.2 Determining project's effects to Archaeological resources.

§ 21084 Guidelines shall list classes of projects exempt from Act.

§ 21084.1 Historical resources guidelines.

§ 21084.3 Avoid damages to tribal cultural resources.

## **A.4 NATURAL RESOURCES**

Conservation and management of natural resources within the Park are driven by multiple federal and state laws and statutes as well as State Parks policies.

### **A.4.1. POLICY GUIDANCE/SOURCES:**

#### ***Bald and Golden Eagle Protection Act of 1940***

Prohibits the take, possession, and commerce of bald and golden eagles.

#### ***California Code of Regulations (CCR)***

The official compilation and publication of the regulations adopted, amended, or repealed by state agencies and have the force of law.



***California Environmental Quality Act OF 1970 (CEQA)***

The California Environmental Quality Act of 1970 (CEQA) requires state agencies to analyze and disclose the potential environmental effects, both direct and indirect, of a proposed discretionary action.

***Porter-Cologne Water Quality Control Act***

The Porter-Cologne Act grants the State Water Resources Control Board and each of the nine RWQCBs power to protect water quality and is the primary vehicle for implementation of California's responsibilities under the Clean Water Act.

***Department Operations Manual (DOM) Chapter 0600***

Provides the environmental review directives and guidelines for State Parks. The objectives, criteria, and specific procedures contained in the chapter define the roles, responsibilities, and authority for State Parks' compliance with the CEQA and its Guidelines.

***Department Operations Manual (DOM) CHAPTER 0300***

Natural Resources and associated Departmental Notices are the basic policy document for the State Park System. Together, they guide the management of natural resources under the jurisdiction of the Department.

***Endangered Species Act of 1973 (ESA)***

Provides for the conservation of ecosystems upon which threatened and endangered species depend, authorizes the listing of species, and prohibits unauthorized take of endangered species.

***Migratory Bird Treaty Act of 1918***

Prohibits activities detrimental to migratory songbirds such as to "pursue, hunt, take, capture, kill," or attempt to do any of these actions. It also protects "any part, nest, or egg" of migratory birds.

***National Environmental Policy Act of 1969 (NEPA)***

Applies in addition to CEQA when Federal monies are used, such as through a grant or partnership agreement.



## **A.5 PHYSICAL RESOURCES**

### **A.5.1. POLICY GUIDANCE/SOURCES:**

#### ***California Executive Order B-18-12***

Orders State agencies to reduce overall water use at the facilities they operate by 10% by 2015 and by 20% by 2020, as measured against a 2010 baseline.

#### ***Clean Water Act (1972)***

Regulates discharges of pollutants into waters of the United States and regulates surface water quality standards. Requires a National Pollutant Discharge Elimination System (NPDES) permit to discharge any pollutant from a point source.

### **A.5.2. Built Environment/Physical Resources**

#### ***Americans with Disabilities Act of 1990***

The Americans with Disabilities Act (ADA) prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the public. It sets minimum standards for accessibility for alterations and new construction of facilities. It also requires public accommodations to remove barriers in existing buildings where it is easy to do so without much difficulty or expense.

#### ***Access for Visitors with Disabilities***

One of the goals of California State Parks is to make sure that everyone – including visitors with mobility challenges – has access to the natural and cultural wonders that make up the system. The Access to Parks Guidelines, first issued in 1994 and revised in 2015, details the procedure to make state parks more accessible while maintaining the quality of park resources. Recommendations and regulations for complying with ADA and state regulations are also included in the guidelines. The All Visitors Welcome: Accessibility in State Park Interpretive Programs and Facilities was issued in 2003, providing guidance on developing accessible interpretive programs and facilities.



# **Appendix B**

## **BIOLOGICAL RESOURCES REPORT**

# **Biological Resources Report Red Rock Canyon State Park Kern County, California**

*Prepared for:*



**California Natural Resources Agency  
Department of Parks and Recreation**

*Prepared by:*

**DUDEK**

605 Third Street  
Encinitas, California 92024

**SEPTEMBER 2019**



# Biological Resources Report Red Rock Canyon State Park

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# **Biological Resources Report Red Rock Canyon State Park**

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## **SUMMARY**

This Biological Resources Report was prepared to compile, synthesize, and update the biological resource information in support of an update to the General Plan for the Red Rock Canyon State Park located in the Mojave Desert of Kern County, California. This report integrates information from federal, state, and regional sources with data from numerous Park-specific studies and observations from 2018 and 2019 field reconnaissance to establish the biological resources baseline for the Park. This overall effort focused on vegetation communities and special features, plant and wildlife species, and wildlife movement. Following synthesis of the biological resource information, key biological functions and management considerations for RRCSP were identified.

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## 1 INTRODUCTION

Red Rock Canyon State Park (RRCSP or Park) is an approximately 25,325-acre California State Park unit located 25 miles northwest of Mojave, California, off State Route (SR-) 14 at the western edge of the Mojave Desert in Kern County, California. RRCSP is underlain by complex geological formations that create a unique and spectacular landscape for which this Park is known, including sheer colorful cliffs, deep shady canyons, steep ridgelines, and broad alluvial fans interspersed with braided washes.

Originally identified in 1929 by Frederick Law Olmstead as an outstanding area recommended for the State Park system, Red Rock Canyon was brought into the system in 1973 (DPR 1982). Since that time, numerous land acquisitions and transfers have since occurred to this Park unit. In 1994 as part of the California Desert Protection Act, a substantial land transfer from the Bureau of Land Management (BLM) to the State of California, referred to as the Last Chance Canyon Addition, nearly tripled the size of Park. RRCSP currently consists of a primitive campground, nature trails, picnic tables, a visitor center, equestrian day uses, and stargazing via a primitive road network that connects to other public lands in the region. RRCSP, as shown on Figure 1, is the focus of this Biological Resources Report.

### 1.1 Purpose of the Report

The purpose of this report is to compile, synthesize, and update the baseline biological resource information for RRCSP in support of the ongoing revision of the Park's General Plan. This report integrates information from numerous previous biological surveys with surveys conducted in 2018 to assemble an existing biological setting for RRCSP that will be used in the Park's General Plan revision, which sets the California Department of Parks and Recreation (DPR) policy and management framework for the Park.

### 1.2 Park Location and Description

RRCSP is located in eastern Kern County, California, along SR-14 approximately 80 miles east of Bakersfield and 35 miles southeast of Ridgecrest. The Park occurs in the western Mojave Desert along the El Paso Mountain Range. The Park is located in the following U.S. Geological Survey (USGS) 7.5-minute quadrangles: Saltdale NW, Dove Spring, Cantil, and Cinco (Figures 1 and 2).

### 1.3 Planning and Regulatory Context

As stated in Section 1.1, the purpose this Biological Resources Report is to provide baseline biological resources information to support a General Plan update for RRCSP. In 1982, a General Plan was approved for Red Rock Canyon State Park when it consisted of approximately 3,015 acres. The General Plan proposed a number of improvements for the park, as well as policies to protect the

## **Biological Resources Report Red Rock Canyon State Park**

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scenic resources. Through subsequent land acquisitions and agreements, the Park has grown to about 25,325 acres. The purpose of the General Plan update is to revise/update the current general plan for RRCSP to include the new properties added since 1982 and establish clear goals and guidelines for future management, development, access, and use of Park properties in their relationship with adjacent public lands and appropriate uses (DPR 2018).

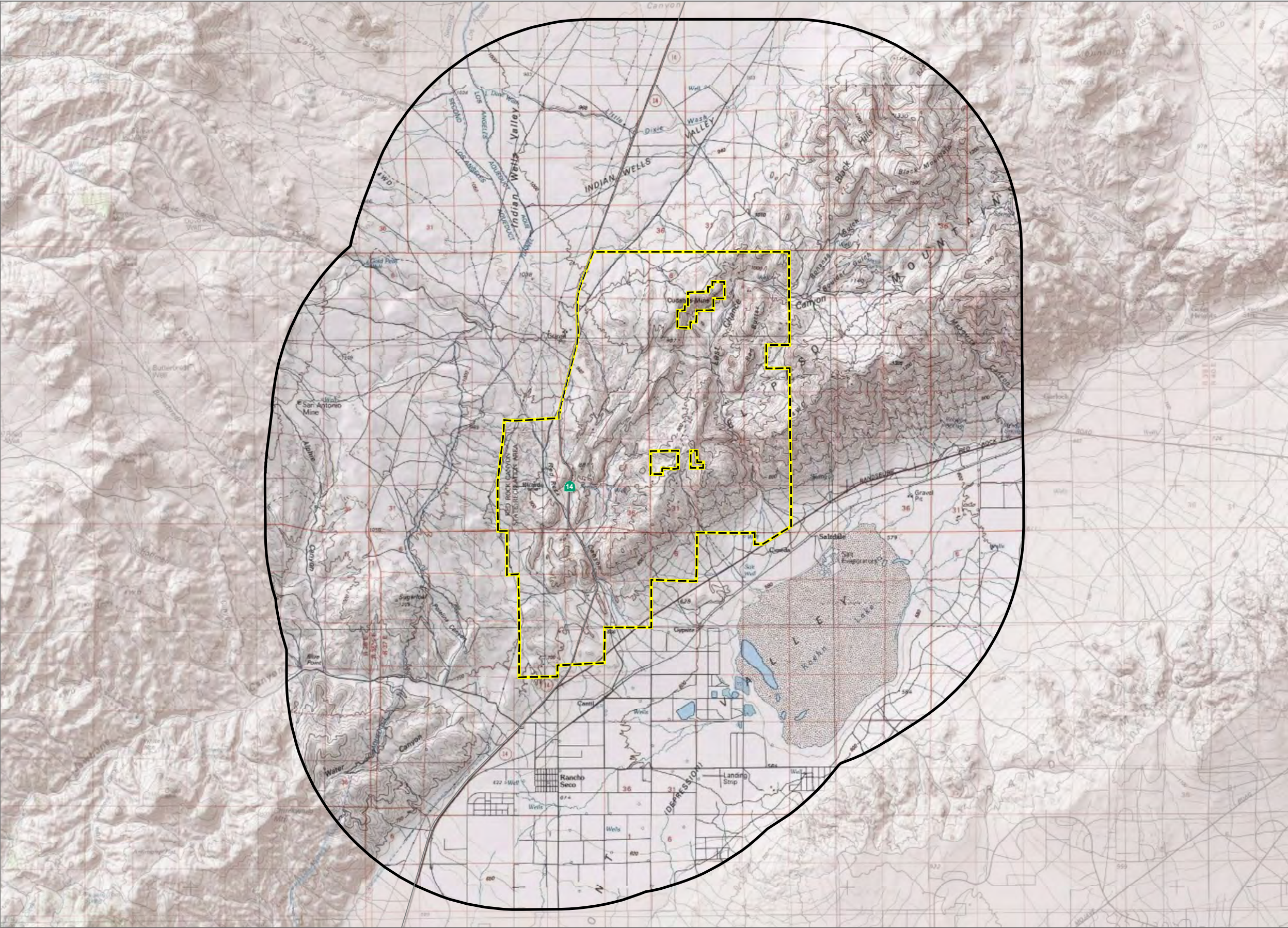
RRCSP is situated in a region with various land ownerships and designations (Figure 3). Public lands administered by the BLM occur to the west, north, and east of the Park. BLM lands are managed according to the BLM's California Desert Conservation Area (CDCA) and Desert Renewable Energy Conservation Plan (DRECP) (BLM 2016a, 2016b). With the exception of BLM Dove Springs Open Off-Highway Vehicle (OHV) Area and Jawbone Canyon Open OHV Area adjacent to the Park, the remainder of the BLM lands surrounding the Park (and the Park itself) are designated as Areas of Critical Environmental Concern (ACECs). ACECs are areas of ecological and cultural significance with specific management directives. The Park, itself, is part of the Mohave Ground Squirrel ACEC and Last Chance Canyon ACEC, and the surrounding ACECs include: Mohave Ground Squirrel, Last Chance Canyon, Jawbone/Butterbrecht, El Paso to Golden, and Eagle Flyway. The BLM also identifies this region as a Special Recreation Management Area. Additionally, the El Paso Mountains Wilderness Area occurs just northeast of the Park and the Kiavah Wilderness Area in the southern Sierra Nevada Mountains is situated approximately 6 miles northwest of the Park. DPR's Off-Highway Motor Vehicle Recreation Division recently purchased approximately 28,000 acres of private lands within the matrix of BLM lands immediately adjacent to the Park to the west, which are referred to as the East Kern County Acquisitions. DPR's Off-Highway Motor Vehicle Recreation Division is partnered with BLM to manage OHV recreation and other uses on these lands.

Although this Biological Resources Report was not prepared to support or evaluate any specific action or decision, a federal and state regulatory context was considered in preparing this study. Biological resources relevant to the federal regulatory context include species listed as endangered, threatened, or candidates under the federal Endangered Species Act; sensitive species listed by the BLM; migratory birds protected under the Migratory Bird Treaty Act; the Bald and Golden Eagle Protection Act; and wetlands and waters features regulated under the Clean Water Act. Biological resources relevant to the state regulatory context include species listed as endangered, threatened, or candidates under the California Endangered Species Act; fully protected and species of special concern listed by the California Department of Fish and Wildlife (CDFW); birds and birds of prey protected under California Fish and Game Code (CFGF) Sections 3503, 3503.5, and 3513; and wetlands and waters features regulated under the CFGF Section 1600 and the Porter-Cologne Act. This report was developed to provide sufficient information to establish the biological resource baseline conditions under the California Environmental Quality Act.





- Red Rock Canyon State Park
- 5 Mile Buffer

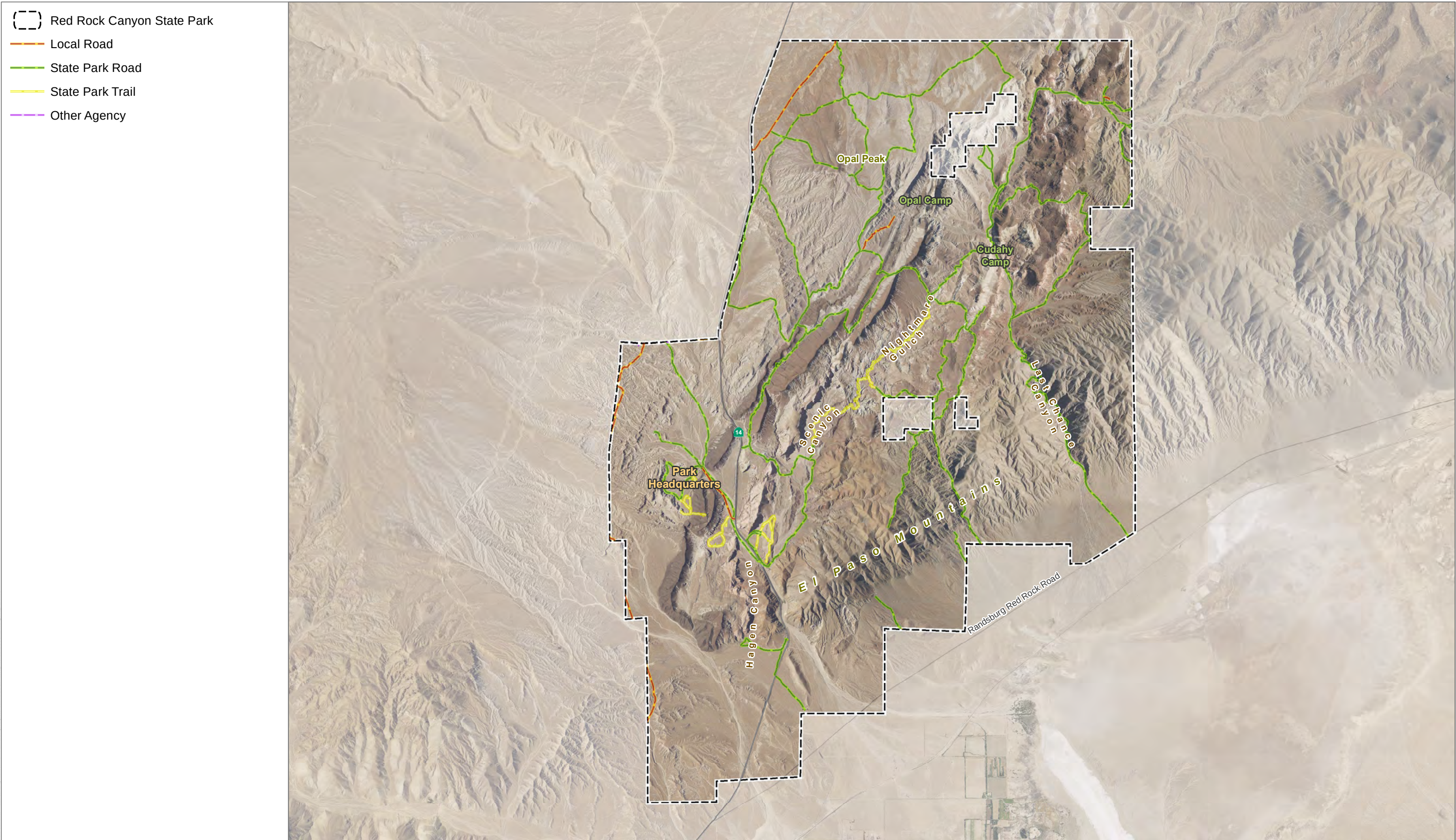


SOURCE: USGS 7.5-minute Quadrangle



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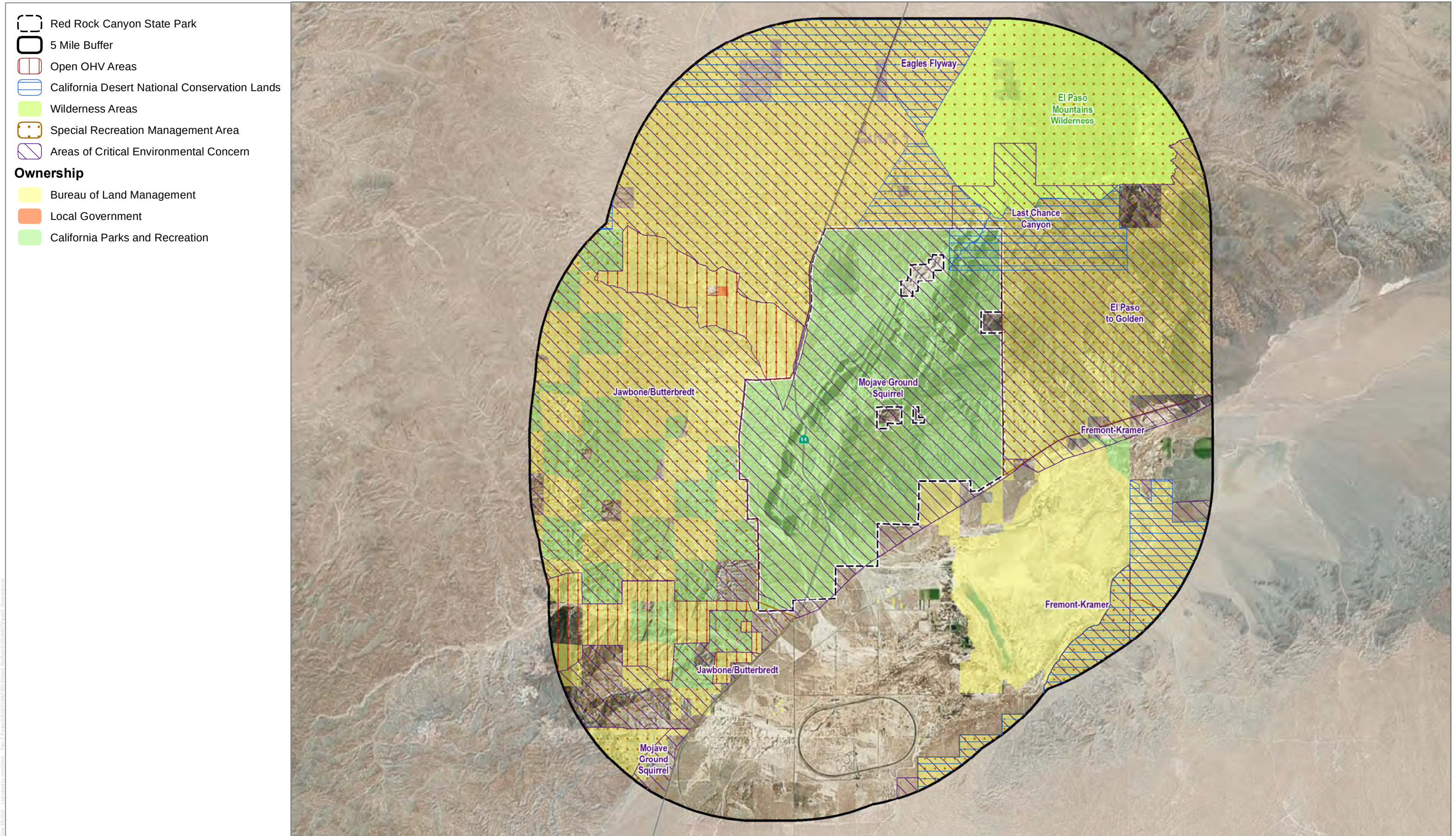


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SOURCE: Bing Maps 2018; BLM 2018



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## **2 ENVIRONMENTAL SETTING**

### **2.1 Ecoregional Context**

RRCSP is situated in a unique transition zone between major California ecoregions: the Mojave Desert and the Sierra Nevada (USDA 2007). The western and lower elevation areas of the Park lie in the High Desert Plains and Hills ecoregion subsection of the Mojave Desert ecoregion, and the El Paso Mountain range portion of the Park is in the Searles Valley–Owlshead Mountains ecoregion subsection of the Mojave Desert ecoregion (Figure 4).

### **2.2 Climate**

The California desert region's climate is generally characterized by hot, dry summers and mild to cold winters. Rainfall events originate from winter frontal storms off the Pacific Ocean and occasional summer convective monsoons, but these sources are variable in different regions of the desert (Lichvar and McColley 2008). The Mojave Desert is a “cold,” or winter, desert with about 50% to 70% of rainfall occurring during the winter (Redmond 2009). The western portion of the Mojave Desert has more predictable winter precipitation than the other subregions of the Mojave, accounting for an estimated 82% to 97% of the annual rainfall (Webb et al. 2009). Rainfall amounts are also geographically and seasonally variable and are related to topography and elevation. Annual rainfall totals range from about 2 to 5 inches in valley areas of the Mojave Desert and about 10 to 30 inches in the mountain ranges (Redmond 2009). Drought and wet periods in the Mojave Desert are related to the El Niño Southern Oscillation cycle, which is a cyclical climatic pattern that typically results in increased winter precipitation in Central and Southern California.

### **2.3 Geology and Soils**

The scenic landscapes of RRCSP originate from its unique geological formations. The Park is situated along the Garlock and El Paso faults at the confluence of the Mojave Desert, Basin and Range, and Sierra Nevada geomorphic provinces (Whistler 1987; Department of Conservation 2002). Underlying parent material along the El Paso Mountain Range is granitic. Surficial geology of the Hagen Canyon, Scenic Canyon, and Nightmare Gulch areas is tertiary volcanic flow rock, and uplifting has exposed the underlying sandstone material creating the colorful cliffs of these canyons. Surficial geology in the remainder of the Park is characterized by sedimentary alluviums (Department of Conservation 2000). Where soils mapping is available in the Park, soils include coarse sands, sands, loamy sands, and sandy loams (USDA 2018a).

### **2.4 Terrain**

The El Paso Mountain Range and the cliffs and canyons described in Section 2.3 are the central geomorphological features of the Park. Topography in the RRCSP ranges from approximately

## **Biological Resources Report Red Rock Canyon State Park**

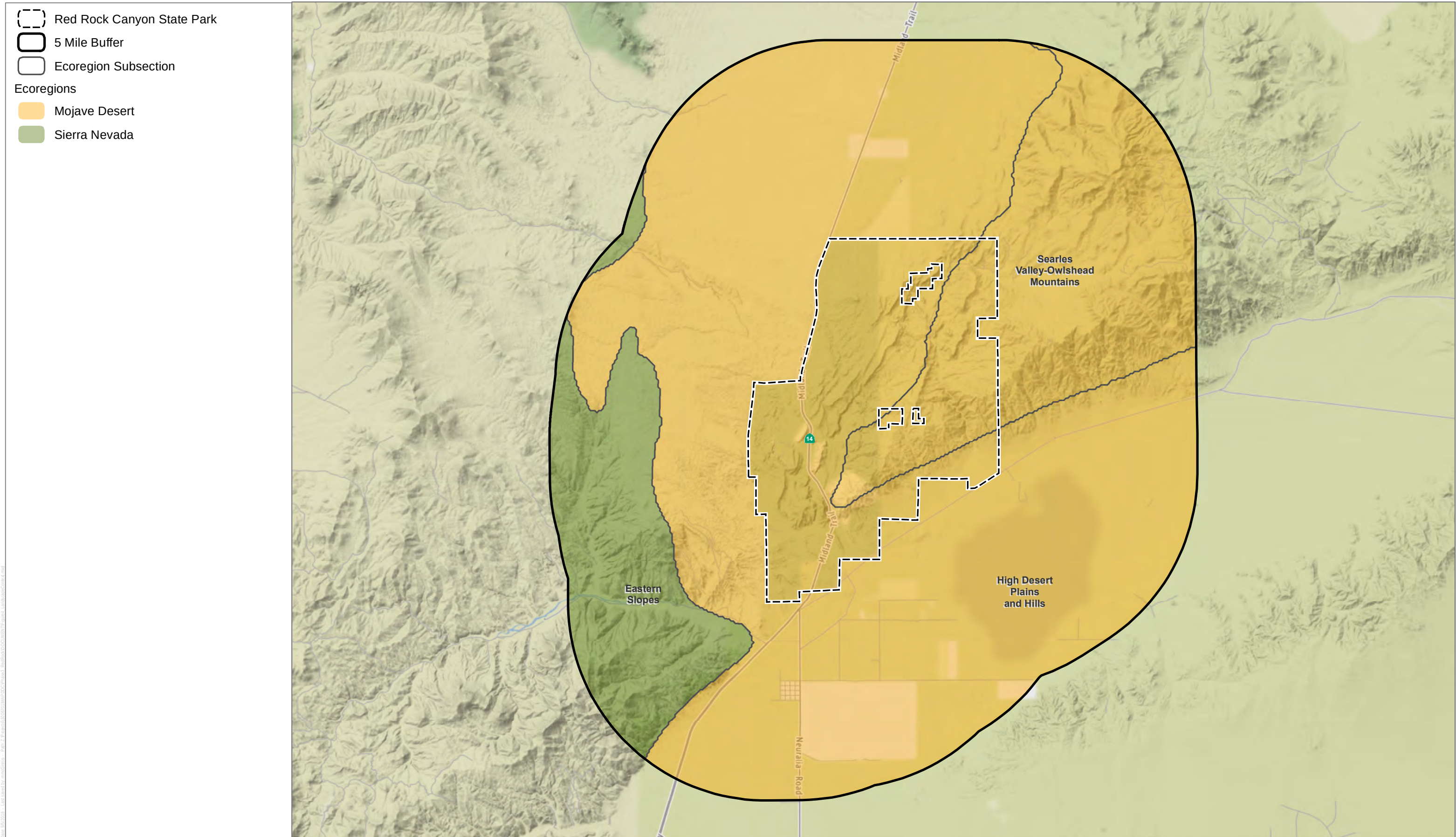
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2,000 feet above mean sea level along the southern Park boundary to nearly 3,700 feet above mean sea level at the northeastern corner of the Park. Environmental gradients and physical landforms have been identified as important landscape features that can provide climate refugia and allow for climate change adaptation (Beier and Brost 2010; Theobald et al. 2015). The Park can be categorized into four landform classes based on a standard 30-meter digital elevation model (USGS 2007): canyons/deeply incised streams, mountain tops/high ridges, open slopes, and plains, as shown on Figure 5.

### **2.5 Land Uses**

RRCSP is a unit of the California State Park System designated for public open space and uses such as camping, hiking, and exploring. The Park includes a visitor center, campgrounds, marked routes and trails, day use areas, picnic tables, and signage. Equestrian and vehicle use is permitted on all marked open routes. Patrolling and facility maintenance activities occur throughout the Park, as necessary. Additionally, natural and cultural resource management activities take place throughout the Park, as necessary, including monitoring, enforcement, area/route closures, and habitat restoration. Several private land inholdings occur within the outer boundary of the Park, including lands associated with the Old Dutch Cleanser Mine. Historically, mining was an active land use in the Park and in surrounding lands. A Los Angeles Department of Water and Power utility corridor runs along the western boundary of the Park roughly paralleling SR-14, containing a 500-kilovolt transmission line and a 230-kilovolt transmission line. Additionally, the surrounding lands are a popular OHV and outdoor recreation destination.





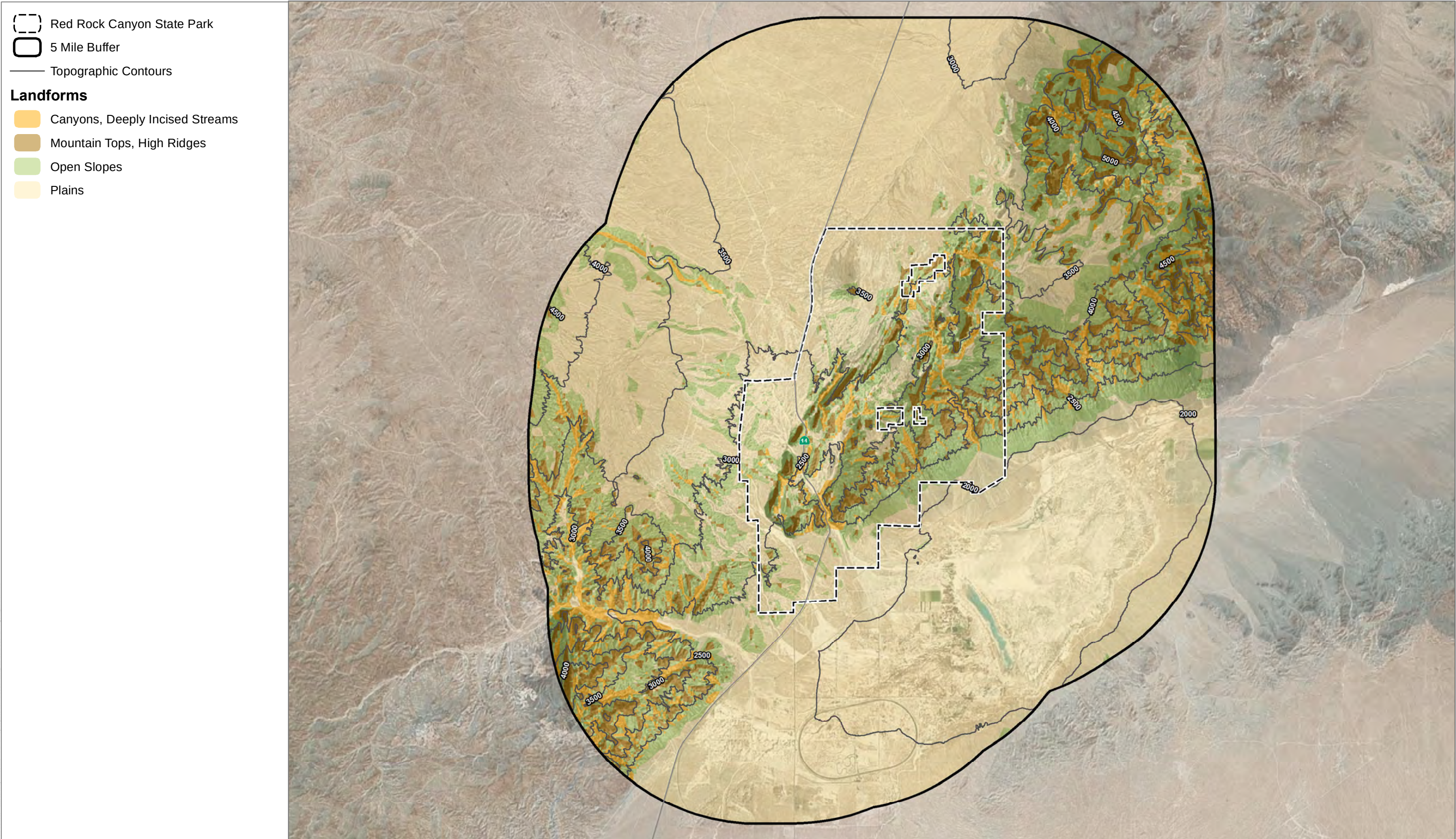
SOURCE: USDA 2016

FIGURE 4

## Landscape Context

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SOURCE: Bing Maps 2018



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### 2.6 Watersheds and Hydrology

Surface waters are scarce in the desert region and streams are typically ephemeral and formed by flashy, episodic events. Red Rock Canyon, Last Chance Canyon, and numerous other channels drain the Park. Stream channels in the Park have typical channel forms as those found throughout the arid west, including braided channels, discontinuous ephemeral channels, and alluvial fans (Lichvar and McColley 2008). A majority of RRCSP drains south and into Koehn Lake just southeast of the Park, while the portion of the Park north of Opal Peak drains north towards Indian Wells Valley. The study area is in the South Lahontan Hydrologic Region (DWR 2003) within the Indian Wells Valley Groundwater Basin and the Fremont Valley Groundwater Basin. Springs/seeps occur where groundwater surfaces through cracks and fissures. Seeps and springs are known from the Park and the surrounding areas; however, no mapped seeps/springs occur in the Park based on the USGS National Hydrography Dataset or U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (USGS 2010; USFWS 2018). Figure 6 shows the hydrological features of the Park and surrounding area.

### 2.7 Fire History

Historically infrequent in the southwestern deserts, fire has increased in frequency and extent in recent decades and has been attributed to the invasion of non-native annual grasses (e.g., red brome [*Bromus rubens*] and buffelgrass [*Pennisetum ciliare*]) (Abella 2010; Brooks and Matchett 2006). Non-native plant invasions can alter fire regimes by changing the frequency, intensity, extent, type, or seasonality of fire (Brooks and Matchett 2006). However, invasive non-native plant species have historically not been a substantial issue in the Park. Based on the state fire history inventory, wildfire has never been reported in the Park (CAL FIRE 2017). The nearest historical fires are all greater than 10 miles west and north of RRCSP in the southern Sierra Nevada Mountains. The most recent fire in the vicinity of the Park was the 48,000-acre 2016 Erskine Fire, which burned within 14 miles of RRCSP (CAL FIRE 2017).

## Biological Resources Report Red Rock Canyon State Park

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### 3 METHODS

The following provides a description of the information sources and methods used to compile and gather information for the Park from a data and literature review and field reconnaissance.

#### 3.1 Literature and Data Review

Dudek conducted an extensive literature and data review of available resources for RRCSP, including relevant data on vegetation communities, plant and wildlife species, landscape processes, and existing biological resources to assist with biological resource surveys.

##### 3.1.1 Statewide and Regional Information

The following statewide and regional information was used as reference and base layers in the preparation of this report.

##### **Vegetation Communities**

- *A Manual of California Vegetation* (Sawyer et al. 2009)
- CDFW vegetation mapping of the California deserts (VegCAMP et al. 2013; AIS 2013)

##### **Special Features**

- National Hydrography Dataset mapping of hydrological features, including waterbodies, linear water features, and point features (USGS 2010)
- National Wetland Inventory mapping of wetland and riparian features (USFWS 2018)
- Mineral Resources Data System mapping of mines (USGS 2018)

##### **Special-Status Species**

- Historic golden eagle nest locations (BLM 2012)
- Desert Renewable Energy Conservation Plan (CEC et al. 2014): Multisource species occurrence dataset and peer-reviewed species distribution models
- USFWS Critical Habitat designations (USFWS 2017): areas of designated critical habitat for federally listed species
- CDFW California Natural Diversity Database (CNDDDB) (CDFW 2018a): Occurrence records for special-status species and vegetation communities
- CNPS Rare Plant Inventory (CNPS 2018a): Inventory and status information for rare plants in California

# Biological Resources Report Red Rock Canyon State Park

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## Habitat Linkages

- California Essential Habitat Connectivity project (Spencer et al. 2010)
- Desert Linkage Network (Penrod et al. 2012)
- West Mojave Connectivity Mapping project (CBI 2017)

### 3.1.2 Park-Specific Studies and Data

The following Park-specific studies and data were used in the preparation of this report.

- *Field Guide to the Geology of Red Rock Canyon and the Southern El Paso Mountains, Mojave Desert, California* (Whistler 1987)
- “Recognition of Cultural Significance at Red Rock Canyon, Kern County, California” (Faull 2000)
- *Red Rock Canyon State Park Resource Inventory, Overview and Status* (DPR 2003)
- “Excavations at the Red Rock Canyon Rock Shelter (CA-KER-147), Western Mojave Desert, California” (Sutton et al. 2006)
- “The Effects of Off-Highway Vehicles on Archaeological Sites and Selected Natural Resources of Red Rock Canyon State Park” (Sampson 2007)
- “Status of the Desert Tortoise in Red Rock Canyon State Park” (Berry et al. 2008)
- *Mohave Ground Squirrel Surveys at Red Rock Canyon State Park, California 2008* (Leitner 2009)
- “The Effects of Off-Highway Vehicles on the Cultural Resources of Red Rock Canyon State Park, California” (Sampson 2009)
- “Revised Miocene Biostratigraphy and Biochronology of the Dove Spring Formation, Mojave Desert, California” (Whistler et al. 2009).
- *Mohave Ground Squirrel Surveys at Red Rock Canyon State Park, California 2010* (Leitner 2010)
- *Special-Status Wildlife Surveys for Renewable Resources’ Property Acquisition Project, Kern County, California* (Biosearch Associates 2012)
- *2013 Biological Surveys Summary at Red Rock Canyon State Park, California* (CDFW 2013)
- *2013-2014 Biological Surveys Summary at Red Rock Canyon State Park, California* (CDFW 2014)
- *Red Rock Canyon State Park Nightmare Gulch Route Assessment Report* (DPR 2017)



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- *Population Surveys and Seed Banking for Erythranthe rhodopetra (Red Rock Canyon Monkeyflower) in Red Rock Canyon State Park, Kern County, California* (Fraga 2018)
- DPR geographic information system (GIS) datasets: Wildlife occurrence points, plant occurrence points, vegetation communities, and route network.

### 3.2 Field Reconnaissance

Biological field surveys were conducted by Dudek biologists during spring and summer 2018. Surveys consisted of general biological reconnaissance, vegetation community mapping updates, special features mapping, and plant and wildlife species habitat assessments to document the existing biological resources in the Park. Table 1 summarizes the 2018 field reconnaissance survey dates, personnel, and conditions.

**Table 1**  
**2018 Field Reconnaissance Survey Dates, Personnel, and Conditions**

| Date       | Personnel      | Survey Time | Air Temp. (°F) | Cloud Cover (%) | Wind Speed (mph) |
|------------|----------------|-------------|----------------|-----------------|------------------|
| 05/07/2018 | BO, MH, KD, SC | 0900–1700   | 74–90          | 0               | 3–15             |
| 05/08/2018 | BO, MH, KD, SC | 0830–1711   | 65–67          | 0–20            | 4–10             |
| 06/05/2018 | KD, SC         | 1700–1825   | 89             | 0               | 15–25            |
| 06/06/2018 | KD, SC         | 0722–1639   | 71–89          | 0               | 2–25             |
| 06/07/2018 | KD, SC         | 0555–1406   | 69–79          | 0               | 3–5              |
| 06/25/2018 | RS, PG         | 0900–2100   | 84–99          | 0               | 4–8              |
| 06/26/2018 | RS, PG         | 0755–1915   | 78–93          | 0               | 11–18            |

Personnel: BO (Brock Ortega), MH (Mike Howard), KD (Kathleen Dayton), SC (Shana Carey), RS (Russel Sweet), PG (Pedro Garcia)

Additional field reconnaissance was conducted by State Parks staff in 2019 to provide additional information regarding special-status plants and vegetation communities in the Park.

#### 3.2.1 Vegetation Communities and Special Features

Vegetation communities are defined by a vegetation classification scheme based on the plant species growing together with characteristically uniform structures and habitats, consistent species compositions, and recurrence across the landscape (Jennings et al. 2009). RRCSP and the surrounding West Mojave ecoregion have been mapped using the National Vegetation Classification Standard from multiple sources by combining fine-scale alliance-level mapping conducted in 2011, 2012, and 2014 (AIS 2013; VegCAMP et al. 2013). This land cover dataset (referred to as the CDFW West Mojave Vegetation layer) was used as the baseline layer during field reconnaissance. This dataset is hierarchical and vegetation communities can be described at various levels, including at the broad, general vegetation level and the fine-scale alliance-level.

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The vegetation alliances are assigned standardized rarity rankings based on the Natural Heritage methodology one to five scale, ranging from critically imperiled (1) to demonstrably secure (5) at global, national, and state scales. Alliances with a state ranking of S1 through S3 are generally considered rare.

Using the CDFW West Mojave Vegetation layer as the base layer, Dudek biologists conducted field verification and refinement to create a Park-specific vegetation community map. Vegetation communities and land cover within RRCSP were mapped in the field using a mobile device application with the CDFW West Mojave Vegetation layer and an aerial photograph and routes of the Park. Following completion of the fieldwork, all edits to the CDFW West Mojave Vegetation layer were digitized using ArcGIS and a GIS coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover present within the Park was determined.

In addition to vegetation community data, National Hydrography Dataset (USGS 2018) and National Wetland Inventory (USFWS 2018) data were used as base layers for wetland and water features during field reconnaissance (see Figure 6). National Hydrography Dataset and National Wetland Inventory data were considered complete and adequate for the mapping of non-wetland channels and other waters in the Park. Dudek biologists did not focus on refining the mapping of non-wetland channels during field reconnaissance, and a formal jurisdictional delineation was not conducted for the Park.

USGS Mineral Resources Data System mines data were used as a base dataset during field reconnaissance. Dudek biologists did not focus on updating or refining the mapping of mines, but used this information to identify potential focal areas of bat activity in the Park.

DPR route network was used as the base dataset for roads and trails in the Park (see Figure 2). Dudek biologists used this road and trail network to access the Park during field reconnaissance but did not focus on updating or refining the mapping of roads or trails. The DPR route network is a line dataset and was used as an overlay with the vegetation community dataset (i.e., routes were not integrated as part of the land cover). Although unauthorized/non-system routes were observed in the field, it was beyond the scope of the 2018 field reconnaissance to comprehensively map the extent of OHV activity in the Park.

### 3.2.2 Plants

Statewide, regional, and Park-specific studies and data were reviewed by Dudek biologists before conducting field reconnaissance. Available plant species GIS datasets, as listed in Section 3.1, were used as the base layers for special-status plant species during field reconnaissance. Plant species encountered during the field surveys were identified and recorded. Latin and common names for plant species with a California Rare Plant Rank (CRPR; formerly CNPS List) follow

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the Inventory of Rare and Endangered Plants (CNPS 2018a). For plant species without a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2018) and common names follow the List of Vegetation Alliances and Associations (CDFG 2010) or the U.S. Department of Agriculture Natural Resources Conservation Service Plants Database (USDA 2018b). In addition to plant species historically known from the Park or detected during 2018 and 2019 reconnaissance surveys, potential for plant species to occur in the Park was determined based on known habitat preferences of local species and knowledge of their relative distributions in the area.

### **3.2.3 Wildlife**

Statewide, regional, and Park-specific studies and data were reviewed by Dudek biologists before conducting field reconnaissance. Available wildlife species GIS datasets, as listed in Section 3.1, were used as the base layers for special-status wildlife species during field reconnaissance. Wildlife species detected by sight, call, scat, or other sign during the field surveys were identified and recorded. Latin and common names for wildlife species follow Crother (2012) for reptiles and amphibians, American Ornithologists' Union (AOU) (2018) for birds, and Wilson and Reeder (2005) for mammals. In addition to wildlife species historically known from the Park or detected during 2018 reconnaissance surveys, potential for wildlife species to occur in the Park was determined based on known habitat preferences of local species and knowledge of their relative distributions in the area.

### **3.3 Study Limitations**

As described in Section 1.1, the purpose of this report is to compile, synthesize, and update the baseline biological resource information for RRCSP. The content of this report was compiled from statewide and regional information, Park-specific studies and data, and field reconnaissance, as described in Sections 3.1 and 3.2.

Statewide and regional information used in this report are all from legitimate, authoritative sources; however, these data have inherent limitations unique to each layer. The statewide/regional scale of the information provided from these sources should be acknowledged. Information from Park-specific studies are limited to the methods used in each study. GIS data for species occurrence records were mapped as centroids, but the species use area and spatial accuracy varies with each record.

Limitations to the 2018 field reconnaissance surveys included season, time of day, accessibility, and survey intensity. Surveys were conducted in May and June 2018. The Park receives the majority its rainfall during the winter months, typical of the Mojave Desert region. The nearest active weather stations to the Park with historical records show an average annual precipitation of



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5.93 inches in Mojave, California, and 6.40 inches in Randsburg, California (Western Regional Climate Center 2018). As of August 2018 the Park had only received approximately 1 inch of rainfall for the year. Because temperatures in the summer months can exceed 100°F for days on end, many annual plants in the region bloom in spring and do not persist long into the summer. The short blooming season coupled with high temperatures and limited rainfall this year may have limited the number of annual plant species that germinated this year and/or were able to be detected and identified during field reconnaissance.

Surveys were mainly conducted during diurnal hours; therefore, nocturnal species such as bats could not be identified/detected. Evening emergence observations were conducted in the vicinity of several mines during one evening of the 2018 field reconnaissance; however, the entire Park was not thoroughly surveyed for bats and acoustic techniques were not employed. Bird species identified may have been limited to the season during which surveys were conducted. Nocturnal or fall migrants would not have been detected during surveys. Surveys did not include focused, protocol, or presence-absence surveys for plant or wildlife species, nor did they include formal wetland delineations. Dudek biologists conducted field reconnaissance in all parts of the Park accessible by vehicle or by hiking; however, the surveys did not provide 100% coverage of the entire Park acreage due to areas with limited accessibility or steep, rocky terrain. Documentation of species occupancy and habitat conditions were limited in extremely rugged areas of the park, such as sheer cliffs and steep canyons, due to inaccessibility.

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## 4 RESULTS

The following presents the results of the comprehensive data and literature review and 2018 biological field reconnaissance conducted for RRCSP.

### 4.1 Vegetation Communities, Land Covers, and Plant Diversity

Vegetation communities and other land covers in the Park include desert scrub communities, riparian communities, wetland communities, desert outcrop and badlands, and developed/disturbed lands (Table 2). The following provides a description of these vegetation communities and other land covers in RRCSP. Figure 7 shows the vegetation communities and land covers mapped in the Park. Detailed maps of the vegetation community mapping are provided in the Biological Resources Mapbook presented in Appendix A. The list of plant species observed in the Park is presented in Appendix B.

**Table 2**  
**Vegetation Communities and Land Covers**

| General Vegetation<br>Vegetation Alliance                                                          | Park Acreage  |
|----------------------------------------------------------------------------------------------------|---------------|
| <b>Desert Scrub</b>                                                                                | <b>21,777</b> |
| <i>Ambrosia dumosa</i> (white bursage scrub)                                                       | 1,328         |
| <i>Atriplex confertifolia</i> (shadscale scrub)                                                    | 35            |
| <i>Atriplex polycarpa</i> (allscale scrub)                                                         | 797           |
| <i>Coleogyne ramosissima</i> (black brush scrub)                                                   | 51            |
| <i>Grayia spinosa</i> (spiny hop sage scrub)                                                       | 549           |
| <i>Krascheninnikovia lanata</i> (winterfat scrub)*                                                 | 573           |
| <i>Larrea tridentata</i> (creosote bush scrub)                                                     | 811           |
| <i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> (creosote bush – white bursage scrub)            | 17,316        |
| <i>Salazaria mexicana</i> (bladder sage scrub)                                                     | 15            |
| <i>Yucca brevifolia</i> (Joshua tree woodland)*                                                    | 301           |
| <b>Riparian</b>                                                                                    | <b>673</b>    |
| <i>Ambrosia salsola</i> (cheesebush scrub)                                                         | 112           |
| <i>Ericameria paniculata</i> (black-stem rabbitbrush scrub)*                                       | 82            |
| <i>Lepidospartum squamatum</i> (scale broom scrub)*                                                | 452           |
| Madrean Warm Semi-Desert Wash Woodland/Scrub                                                       | 24            |
| <i>Salix laevigata</i> (red willow thickets)*                                                      | 2             |
| <b>Wetland</b>                                                                                     | <b>2</b>      |
| <i>Juncus arcticus</i> (var. <i>balticus</i> , <i>mexicanus</i> ; Baltic and Mexican rush marshes) | 2             |
| <b>Desert Outcrop and Badlands</b>                                                                 | <b>2,821</b>  |
| North American warm desert bedrock cliff and outcrop                                               | 2,821         |
| <b>Other Land Cover</b>                                                                            | <b>79</b>     |
| Developed                                                                                          | 76            |

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**Table 2**  
**Vegetation Communities and Land Covers**

| General Vegetation<br>Vegetation Alliance | Park Acreage  |
|-------------------------------------------|---------------|
| Disturbed                                 | 3             |
| <b>Park Total</b>                         | <b>25,351</b> |

**Notes:** Vegetation communities and land cover based on the CDFW West Mojave Vegetation layer (AIS 2013; VegCAMP et al. 2013) with Park-specific mapping refinements based on 2018 and 2019 field reconnaissance.

\* Vegetation communities with state rarity ranking of S1–S3. These are discussed further in Section 4.3.1.

## 4.1.1 Desert Scrub Communities

### *Ambrosia dumosa* (White Bursage Scrub)

The *Ambrosia dumosa* shrubland alliance (white bursage scrub) has white bursage (*Ambrosia dumosa*) as the dominant or co-dominant shrub in the canopy. This alliance has an open to intermittent canopy and is less than 1 meter (3 feet) in height with an open to intermittent ground layer in which annuals are seasonally present (CNPS 2018b).

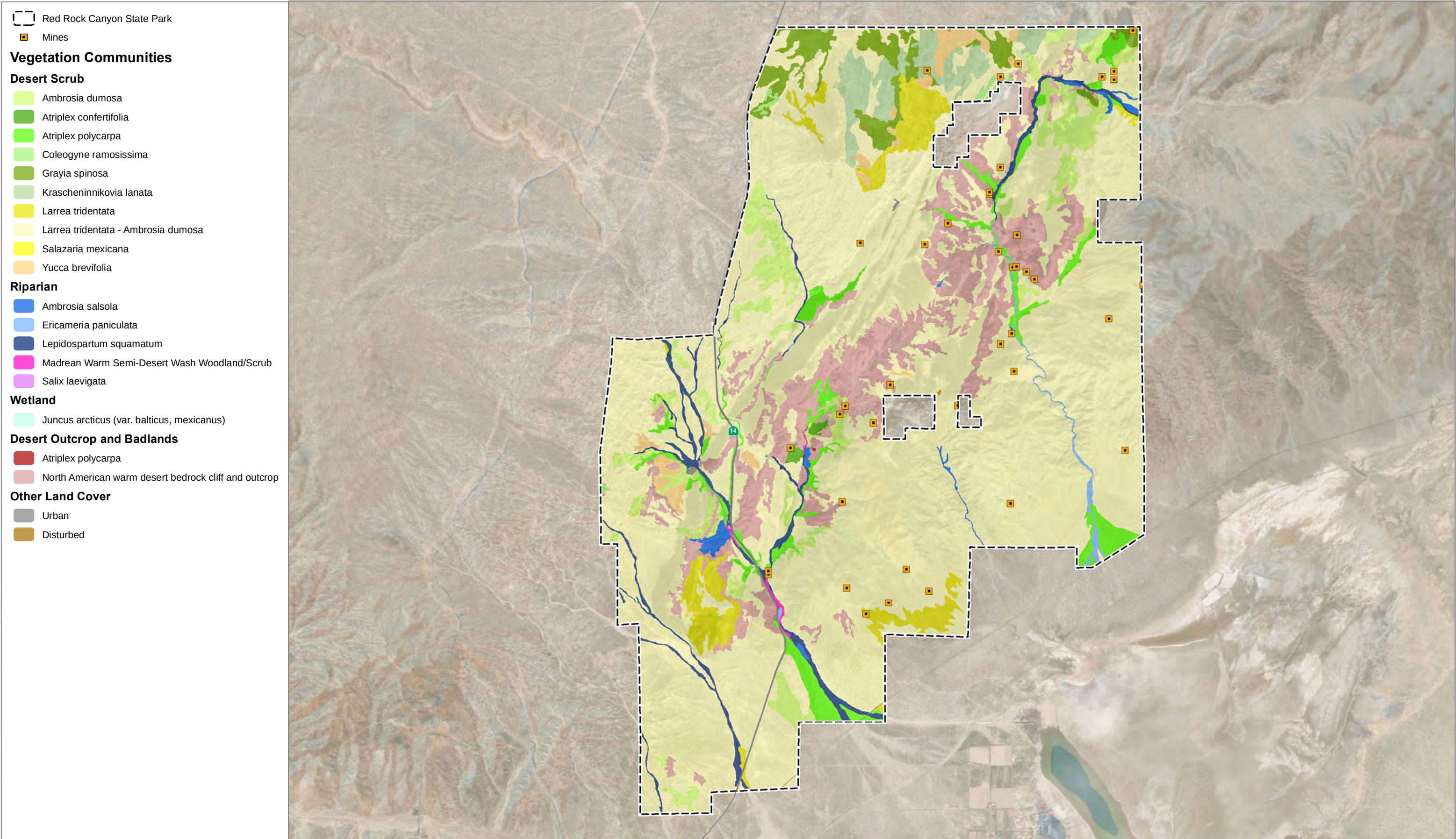
Species associated with the *Ambrosia dumosa* shrubland alliance include saltbushes (*Atriplex* spp.), teddy-bear cholla (*Cylindropuntia bigelovii*), Death Valley ephedra (*Ephedra funerea*), brittlebush (*Encelia farinosa*), creosote bush (*Larrea tridentata*), beavertail cactus (*Opuntia basilaris*), and ocotillo (*Fouquieria splendens*) (CNPS 2018b). The *Ambrosia dumosa* shrubland alliance often occurs on older washes and river terraces, alluvial fans, bajadas, and upland slopes. Soils on which this alliance occurs are sandy, clay-rich, or calcareous and may have pavement surface (CNPS 2018b). The *Ambrosia dumosa* shrubland alliance is ranked by the CDFW (2018b) as a G5S5 alliance. This ranking indicates that the alliance is secure globally and within California.

On site, the *Ambrosia dumosa* shrubland alliance occurs primarily in the western and northeastern portion of the Park (Figure 7). This community includes cheesebush, creosote bush, allscale, desert pepperweed, bladder sage, Nevada jointfir, shadscale, and Arabian shismus as associated species.

### *Atriplex confertifolia* (Shadscale Scrub)

The *Atriplex confertifolia* shrubland alliance (shadscale scrub) includes shadscale (*Atriplex confertifolia*) as the dominant or co-dominant shrub in the canopy. Shadscale has at least 2% absolute cover in the shrub canopy with no other species having greater cover, except woody subshrubs such as ratany (*Krameria* spp.). This alliance has an open to continuous canopy and is less than 1 meter (3 feet) in height with a sparse to abundant herbaceous layer (CNPS 2018b).





SOURCE: Bing Maps 2018; CDFW 2018



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Some species associated with the *Atriplex confertifolia* shrubland alliance include white bursage, allscale (*Atriplex polycarpa*), spinescale (*A. spinifera*), sticky-flowered rabbitbrush (*Chrysothamnus viscidiflorus*), black brush (*Coleogyne ramosissima*), Acton's brittlebush (*Encelia actoni*), Virgin River brittlebush (*Encelia virginensis*), Nevada joint fir (*Ephedra nevadensis*), Heermann's buckwheat (*Eriogonum heermannii*), and spiny hop sage (*Grayia spinosa*) (CNPS 2018b). The *Atriplex confertifolia* shrubland alliance occurs on alluvial fans, flats, lower slopes, rocky hills, valleys, small shallow channels, washes, and playas edges. Soils on which this alliance occurs are variable (CNPS 2018b). The *Atriplex confertifolia* shrubland alliance is ranked by the CDFW (2018b) as a G5S4 alliance. This ranking indicates that the alliance is secure globally and apparently secure within California.

The *Atriplex confertifolia* shrubland alliance occurs in Scenic Canyon (Figure 7). Based on vegetation sampling conducted during fieldwork, this alliance in the Park includes shadscale and allscale as co-dominant with creosote bush and white bursage as important species.

### ***Atriplex polycarpa* (Allscale Scrub)**

The *Atriplex polycarpa* shrubland alliance (allscale scrub) includes allscale as the dominant shrub in the canopy. Allscale has more than 2% absolute cover and more than 50% relative cover in the shrub canopy. Allscale scrub has an open to continuous shrub canopy less than 3 meters (10 feet) in height with a variable herbaceous layer (CNPS 2018b).

Species associated with the *Atriplex polycarpa* shrubland alliance include white bursage, cheesebush (*Ambrosia salsola*), four-winged saltbush (*Atriplex canescens*), Big Bend spurge (*Euphorbia polycarpa*), bladderpod (*Peritoma arborea*), alkali goldenbush (*Isocoma acradenia*), and creosote bush. Emergent trees, such as honey mesquite (*Prosopis glandulosa*), may also be present at a low cover (CNPS 2018b). The *Atriplex polycarpa* shrubland alliance occurs on dissected alluvial fans, rolling hills, washes, playas, and terraces. Soils may be carbonate-rich, alkaline, sandy, or sandy clay loams (CNPS 2018b). The *Atriplex polycarpa* shrubland alliance is ranked by the CDFW (2018b) as a G4S4 alliance. This ranking indicates that the alliance is apparently secure both globally and in California.

In the Park, the *Atriplex polycarpa* shrubland alliance occurs around Park Headquarters, in Hagen Canyon and southeast of Hagen Canyon east of SR-14, along Scenic Canyon, at the southern end of Last Chance Canyon, east of Nightmare Gulch, and along the washes around Cudahy Camp (Figure 7). Based on the vegetation sampling collected during fieldwork in the Park, this community includes an important component of black-stem rabbitbrush (*Ericameria paniculata*), cheesebush, and Nevada jointfir. Associated species with less cover include white bursage, peach thorn (*Lycium cooperi*), California buckwheat, scale broom (*Lepidospartum squamatum*), and threadleaf snakeweed (*Gutierrezia microcephala*). The herbaceous layer includes redstem stork's

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bill (*Erodium cicutarium*), sowthistle desertdandelion (*Malacothrix sonchoides*), seaside heliotrope (*Heliotropium curassavicum* var. *oculatum*), Booth's evening primrose (*Eremothera boothii*), chia (*Salvia columbariae*), and Arabian schismus.

### ***Coleogyne ramosissima* (Black Brush Scrub)**

The *Coleogyne ramosissima* shrubland alliance (black brush scrub) includes black brush as the dominant or co-dominant shrub in the canopy. Black brush has at least 2% absolute cover in the shrub canopy. Nevada joint fir and/or white ratany (*Krameria grayi*) may have twice the cover of black brush. Cheesebush, bladder sage (*Scutellaria mexicana*; previously *Salazaria mexicana*), rabbitbrush (*Ericameria* spp.), or California buckwheat (*Eriogonum fasciculatum*), may exceed the cover of black brush, especially in disturbed settings. Black brush scrub has an open to continuous shrub canopy less than 2 meters (7 feet) in height with a variable herbaceous layer with cryptogammic crusts (CNPS 2018b).

Species associated with the *Coleogyne ramosissima* shrubland alliance include big sagebrush (*Artemisia tridentata*), shadscale, ephedras (*Ephedra* spp.), needleleaf rabbitbrush (*Ericameria teretifolia*), California buckwheat, spiny hop sage, winterfat (*Krascheninnikovia lanata*), and creosote, among others. Emergent trees, such as junipers (*Juniperus californica*, *J. osteosperma*), singleleaf pinyon (*Pinus monophylla*), and Joshua tree (*Yucca brevifolia*), may also be present at a low cover (CNPS 2018b). The *Coleogyne ramosissima* shrubland alliance occurs on alluvial fans, slopes, and rocky highlands. Soils are thin and sandy with exposed rock (CNPS 2018b). The *Coleogyne ramosissima* shrubland alliance is ranked by the CDFW (2018b) as a G5S4 alliance. This ranking indicates that the alliance is secure globally and apparently secure in California.

In the Park, the *Coleogyne ramosissima* shrubland alliance occurs along the western boundary of the Park east of Park Headquarters, northwest of Opal Peak, northwest of Nightmare Gulch, and just north of private land in the northern portion of the Park (Figure 7). Based on the vegetation sampling collected during fieldwork in the Park, this community includes black brush as a dominant species, with lesser components of cheesebush, peach thorn, California buckwheat, and Cooper's goldenbush (*Ericameria cooperi*).

### ***Grayia spinosa* (Spiny Hop Sage Scrub)**

The *Grayia spinosa* shrubland alliance (spiny hop sage scrub) is not recognized by CDFW (2018b), but is described in the 2013 *California Vegetation Map in Support of the Desert Renewable Energy Conservation Plan* (Menke et al. 2013). This alliance is dominated or co-dominated by spiny hop sage, which attains at least 2% absolute cover in the shrub layer. No other



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species have substantially greater cover, but several co-dominant species may be present (Menke et al. 2013).

Associated species include Mojave cottonthorn (*Tetradymia stenolepis*), Cooper's goldenbush (*Ericameria cooperi*), peach thorn, desert pepperweed (*Lepidium fremontii*), desert senna (*Senna armata*), Anderson's boxthorn (*Lycium andersonii*), bladder sage, and Acton's brittlebush (Menke et al. 2013). The *Grayia spinosa* shrubland alliance occurs on north-facing slopes, middle and upper slopes that are gently sloping to moderately steep, mid-slopes, lower basins, basin margins, and cold-air drainages. Soils are relatively well-drained and medium-textured (Menke et al. 2013). Because the *Grayia spinosa* shrubland alliance is not included in CDFW (2018b), it is not assigned an official rarity ranking. However, the CDFW West Mojave Vegetation layer did not consider this alliance rare. Therefore, it is assumed that the *Grayia spinosa* shrubland alliance would not be considered a sensitive alliance.

The *Grayia spinosa* shrubland alliance occurs in the northeastern portion of the Park (Figure 7). Based on vegetation sampling conducted in the Park, spiny hop sage was dominant in this community with Nevada jointfir, white bursage, and California buckwheat as associated species.

### ***Krascheninnikovia lanata* (Winterfat Scrubland)**

The *Krascheninnikovia lanata* shrubland alliance (winterfat scrubland) is dominated or co-dominated by winterfat with more than 50% relative cover in the shrub canopy with no other species exceeding its cover. The canopy is open to continuous and herbaceous layer is open or grassy (CNPS 2018b).

Species associated with this alliance include black sagebrush (*Artemisia nova*), shadscale, sticky-flowered rabbitbrush, black brush, and bud sagebrush (*Picrothamnus desertorum*) (CNPS 2018b). The *Krascheninnikovia lanata* shrubland alliance occurs on alkaline flats, plains, and old lakebeds. Soils are silty clay loams that are calcareous, moderately alkaline, and sometimes saline (CNPS 2018b). The *Krascheninnikovia lanata* shrubland alliance is ranked by the CDFW (2018b) as a G4S3 alliance. This ranking indicates that globally the alliance is apparently secure, but is vulnerable within California and is, therefore, considered sensitive.

The *Krascheninnikovia lanata* shrubland alliance occurs in the northeastern portion of the Park (Figure 7). Based on the vegetation sampling conducted this alliance includes fourwing saltbush, creosote bush, cheesebush, desert trumpet, and peach thorn as associated species.

### ***Larrea tridentata* (Creosote Bush Scrub)**

The *Larrea tridentata* shrubland alliance (creosote bush scrub) includes creosote bush as the dominant or co-dominant shrub in the canopy. This alliance has an intermittent to open shrub

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canopy less than 3 meters (10 feet) in height with an open to intermittent ground layer in which annuals or perennial grasses are seasonally present (CNPS 2018b).

Species associated with the creosote bush scrub alliance include Shockley's golden head (*Acamptopappus shockleyi*), white bursage, woolly brickellbush (*Brickellia incana*), ephedras, saltbushes, and brittlebush. Joshua tree and honey mesquite may be present at a low cover (CNPS 2018b). The *Larrea tridentata* shrubland alliance often occurs on alluvial fans, minor intermittent washes, and upland slopes. Soils on which this alliance occurs are well-drained and may have pavement surface (CNPS 2018b). The *Larrea tridentata* shrubland alliance is ranked by the CDFW (2018b) as a G5S5 alliance. This ranking indicates that the alliance is secure both globally and within California.

Within the Park, the *Larrea tridentata* shrubland alliance occurs east of Hagen Canyon, along the southeastern Park boundary, and near Opal Peak in the northern portion of the Park (Figure 7). Based on the vegetation sampling conducted, creosote bush was the most consistent shrub in a diverse stand including cheesebush, shadscale, winterfat, and less than 1% of Joshua tree.

### ***Larrea tridentata*–*Ambrosia dumosa* (Creosote Bush–White Bursage Scrub)**

The *Larrea tridentata*–*Ambrosia dumosa* (creosote bush–white bursage scrub) alliance includes creosote bush and white bursage as co-dominant shrubs in the canopy, each with more than 1% absolute cover, and both creosote bush and white bursage exceeding twice the cover of other shrub species. This alliance has a two-tiered shrub canopy less than 3 meters (10 feet) in height with an absent to intermittent ground layer in which annuals are seasonally present (CNPS 2018b).

Species associated with the creosote bush–white bursage scrub alliance include chaffbush (*Amphipappus fremontii*), saltbushes, sweetbush (*Bebbia juncea*), California croton (*Croton californicus*), brittlebush, ephedras, Anderson's boxthorn, dalea (*Psoralea* spp.), bladder sage, and desert senna. Emergent Joshua tree or ocotillo may also be present at a low cover (CNPS 2018b). The creosote bush–white bursage scrub alliance is often located in washes and rills, on alluvial fans, valleys, basins, mesas, and upland slopes. Soils on which this alliance occurs are well-drained, alluvial, colluvial, sandy, and may have desert pavement surface (CNPS 2018b). The creosote bush–white bursage scrub alliance is ranked by the CDFW (2018b) as a G5S5 alliance. This ranking indicates that the alliance is considered secure both globally and within California.

The *Larrea tridentata*–*Ambrosia dumosa* shrubland alliance occurs throughout the vast majority of the Park (Figure 7). Because this community was the most common in the Park, several associated species were present. Based on limited sampling, cheesebrush, desert trumpet, Nevada jointfir, and allscale were commonly associated species.

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### *Salazaria mexicana* (Bladder Sage Scrub)

The *Salazaria mexicana* alliance (bladder sage scrub) is not recognized by CDFW (2018b), but is described in the 2013 *California Vegetation Map in Support of the Desert Renewable Energy Conservation Plan* (Menke et al. 2013). This alliance is dominated or co-dominated by bladder sage, which comprises more than 2% cover in the shrub layer. Other species have less than half the cover of bladder sage with the exception of desert lavender (*Hyptis emoryi*), dessert senna, or purple sage (*Salvia dorrii*), which may have equal or higher cover. Other associated species include cheesebush, sweetbush, California buckwheat, Acton's brittlebush, Nevada jointfir, and needleleaf rabbitbrush (Menke et al. 2013).

The *Salazaria mexicana* alliance occurs on sandy or gravelly washes, and disturbed steep and rocky uplands. Soils are often granitic or composed of crystalline non-calcareous metamorphic material (Menke et al. 2013). Because the *Salazaria mexicana* shrubland alliance is not included in CDFW (2018b), it is not assigned an official rarity ranking. However, the *Larrea tridentata*–*Ambrosia dumosa*–*Salazaria mexicana* association within the *Larrea tridentata*–*Ambrosia dumosa* shrubland alliance is not considered sensitive. Therefore, it is assumed that the *Salazaria mexicana* alliance would also not be considered a sensitive alliance.

The *Salazaria mexicana* shrubland alliance occurs in a single stand in the Park, along the eastern boundary south of Last Chance Canyon Road (Figure 7). Based on vegetation sampling conducted, this alliance was mapped as a diverse stand consisting of bladder sage, cheesebush, spiny hop sage, Nevada jointfir, white bursage, California buckwheat, and allscale, as well as lesser components of winterfat and Johnson's indigobush.

### *Yucca brevifolia* (Joshua Tree Woodland)

The *Yucca brevifolia* (Joshua tree) woodland alliance includes evenly distributed Joshua trees with at least 1% absolute cover in the tree canopy. Cover of junipers (*Juniperus* spp.) and pines (*Pinus* spp.) totals less than 1% absolute cover. This alliance has an open to intermittent canopy less than 14 meters (46 feet) in height with an open to intermittent shrub layer and open to intermittent herbaceous layer (CNPS 2018b).

Species associated with the *Yucca brevifolia* woodland alliance include white bursage, cheesebush, big sagebrush, sticky-flowered rabbitbrush, black brush, buck-horn cholla (*Cylindropuntia acanthocarpa*), Nevada jointfir, California buckwheat, threadleaf snakeweed (*Gutierrezia microcephala*), winterfat, creosote bush, Anderson's boxthorn, and yuccas (*Yucca baccata*, *Y. schidigera*) (CNPS 2018b). The *Yucca brevifolia* woodland alliance is often found on alluvial fans, ridges, and on gentle to moderate slopes. Soils on which this alliance occurs are coarse sands, very fine silts, gravel, or sandy loams. Soils may be bimodal with both coarse sands and fine silts (CNPS



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2018b). The *Yucca brevifolia* woodland alliance is ranked by the CDFW (2018b) as a G4S3 alliance. This ranking indicates that the alliance is considered apparently secure globally, but vulnerable within California and therefore is considered sensitive.

Within the Park, the *Yucca brevifolia* woodland alliance occurs around Park Headquarters and northeast of Park Headquarters, south of Nightmare Gulch, and around and northeast of Opal Peak (Figure 7). Based on the vegetation sampling collected during the fieldwork, Joshua tree is not present at high cover in this community, but is consistent in the stand. Creosote bush and white bursage are important shrubs. Johnson's indigobush (*Psoralea arborescens* var. *minutifolia*) and California buckwheat are present at lower cover. The herbaceous layer includes Arabian schismus, chia, and common fiddleneck (*Amsinckia intermedia*).

### 4.1.2 Riparian Communities

#### *Ambrosia salsola* (Cheesebrush Scrub)

The *Ambrosia salsola* (cheesebrush scrub) alliance is not recognized by CDFW (2018b), but is described in the 2013 *California Vegetation Map in Support of the Desert Renewable Energy Conservation Plan* (Menke et al. 2013). This alliance is strongly dominated by cheesebrush, with at least 60% relative cover in the shrub layer. However, desert senna may be present at equal or higher cover in some stands of this alliance (Menke et al. 2013).

The *Ambrosia salsola* alliance occurs on washes or on gently sloping disturbed uplands (Menke et al. 2013). Because the *Ambrosia salsola* alliance is not included in CDFW (2018b), it is not assigned an official rarity ranking. However, the *Ambrosia salsola* association within the *Ambrosia salsola*–*Bebbia juncea* alliance is not considered sensitive. Therefore, it is assumed that the *Ambrosia salsola* alliance would also not be considered a sensitive alliance.

Within the Park, the *Ambrosia salsola* alliance occurs southwest of the Park headquarters, along the wash east of Highway 14 in the southern portion of the Park, in Scenic Canyon, along Nightmare Gulch, Last Chance Canyon, a wash west of Last Chance Canyon, and along Last Chance Canyon Road in the northeastern portion of the Park (Figure 7). Based on vegetation sampling in the Park, this community includes the following associated species: creosote bush, shadscale, allscale, desert pepperweed, desert trumpet (*Eriogonum inflatum*), and Arabian schismus.

#### *Ericameria paniculata* (Black-Stem Rabbitbrush Scrub)

The *Ericameria paniculata* shrubland (black-stem rabbitbrush scrub) alliance includes black-stem rabbitbrush as a dominant or co-dominant shrub in the canopy with more than 5% cover of black-stem rabbitbrush. Additionally, no other shrub has more than 50% relative cover in the canopy and

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trees are less than 2% absolute cover. This alliance has an open to closed canopy less than 5 meters (16 feet) in height with an open herbaceous layer composed of seasonal annuals (CNPS 2018b).

Species associated with the *Ericameria paniculata* shrubland alliance include woolly fruit bur ragweed (*Ambrosia eriocentra*), cheesebush, woolly bristlebush, coyote gourd (*Cucurbita palmata*), brittlebush, Virgin River brittlebush, ephedras, California buckwheat and purple sage (CNPS 2018b). This alliance often occurs in intermittently flooded arroyos, channels, and washes. Soils are usually well-drained coarse to fine sand (CNPS 2018b). The *Ericameria paniculata* shrubland alliance is ranked by the CDFW (2018b) as a G4S3 alliance. This ranking indicates that the alliance is considered apparently secure globally, but vulnerable within California and therefore is considered sensitive.

On site, the *Ericameria paniculata* shrubland alliance occurs along Last Chance Canyon in the southeastern portion of the Park (Figure 7). Based on vegetation sampling conducted during the fieldwork, this alliance was mapped along washes where black-stem rabbitbush was dominant and allscale was an important species. Scale broom, cheesebush, and sweetbush were also present at less than 1% absolute cover.

### ***Lepidospartum squamatum* (Scale Broom Scrub)**

The *Lepidospartum squamatum* shrubland (scale broom scrub) alliance includes scale broom as a dominant, co-dominant, or conspicuous shrub in the canopy with more than 1% absolute cover. This alliance has an open to continuous two-tiered canopy less than 2 meters (7 feet) in height with a variable herbaceous layer (CNPS 2018b).

Species associated with the *Lepidospartum squamatum* shrubland alliance include cheesebush, California sagebrush (*Artemisia californica*), mulefat (*Baccharis salicifolia*), bladderpod, California cholla (*Cylindropuntia californica*), brittlebush, yerba santa (*Eriodictyon crassifolium*, *E. trichocalyx*), California buckwheat, chaparral yucca (*Hesperoyucca whipplei*), and deer weed (*Acmispon glaber*), among others. Emergent trees may also be present at low cover (CNPS 2018b). This alliance occurs in the low-gradient alluvial deposits along streams, washes, and fans that are intermittently or rarely flooded (CNPS 2018b). The *Lepidospartum squamatum* shrubland alliance is ranked by the CDFW (2018b) as a G3S3 alliance. This ranking indicates that the alliance is vulnerable both globally and within California and therefore is considered sensitive.

Within the Park, the *Lepidospartum squamatum* shrubland alliance occurs along several drainages and washes, but primarily in the western portion of the Park (Figure 7). Based on the vegetation sampling collected during fieldwork, scale broom scrub includes black-stem rabbitbrush, allscale, and cheesebush. Subshrubs at lower cover include desert pepperweed and brownplume wirelettuce (*Stephanomeria pauciflora*). The herbaceous layer includes Arabian shismus and desert trumpet.

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### Madrean Warm Semi-Desert Wash Woodland/Scrub

Madrean warm semi-desert wash woodland/scrub is a macrogroup in the California manual of vegetation, which corresponds to the level of vegetation that includes groups and sets of alliances within those groups. This higher level was mapped where stands were dominated by unvegetated wash and river bottoms in the Park. Madrean warm semi-desert wash woodland/scrub occurs along the wash that runs along SR-14 and in Scenic Canyon (Figure 7).

#### *Salix laevigata* (Red Willow Thickets)

The *Salix laevigata* woodland (red willow thickets) alliance includes red willow (*Salix laevigata*) as the dominant or co-dominant tree or shrub in the canopy. This alliance has an open to continuous tree canopy less than 20 meters (66 feet) in height with an open to continuous shrub layer and variable herbaceous layer (CNPS 2018b).

Species associated with the *Salix laevigata* woodland alliance include box-elder (*Acer negundo*), California buckeye (*Aesculus californica*), white alder (*Alnus rhombifolia*), pines (*Pinus jeffreyi*, *P. sabiniana*), California sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), oaks (*Quercus agrifolia*, *Q. chrysolepis*), willows (*Salix gooddingii*, *S. lasiolepis*, *S. lucida* ssp. *lasiandra*), and blue elderberry (*Sambucus nigra*) (CNPS 2018b). This alliance occurs on floodplains and lake edges and in ditches and low-gradient depositions along streams (CNPS 2018b). The *Salix laevigata* woodland alliance is ranked by the CDFW (2018b) as a G3S3 alliance. This ranking indicates that the alliance is vulnerable both globally and within California and therefore is considered sensitive.

The *Salix laevigata* woodland alliance occurs in a small stand just west of SR-14 and north of Cudahy Camp (Figure 7). At the stand north of Cudahy Camp, red willow was the dominant tree, but Fremont cottonwood was also present. In the shrub layer, scale broom was dominant, with herbaceous layer was dominated by Baltic rush (*Juncus arcticus* var. *balticus*).

### 4.1.3 Wetland Communities

#### *Juncus arcticus* (var. *balticus*, *mexicanus*) (Baltic and Mexican Rush Marshes)

The *Juncus arcticus* (var. *balticus*, *mexicanus*) herbaceous alliance (Baltic and Mexican rush marshes) includes Baltic rush or Mexican rush (*Juncus arcticus* var. *balticus* or *Juncus arcticus* var. *mexicanus*) as dominant or co-dominant in the herbaceous layer. This alliance has an intermittent to continuous canopy less than 1 meter (3 feet) in height (CNPS 2018b).

Species associated with the *Juncus arcticus* (var. *balticus*, *mexicanus*) herbaceous alliance include sturdy bulrush (*Bolboschoenus robustus*), ripgut brome (*Bromus diandrus*), sedges (*Carex* spp.),

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poison hemlock (*Conium maculatum*), salt grass (*Distichlis spicata*), needle spike rush (*Eleocharis acicularis*), rushes (*Juncus effusus*, *J. phaeocephalus*), perennial pepper weed (*Lepidium latifolium*), common threesquare (*Schoenoplectus pungens*), and alkali sacaton (*Sporobolus airoides*), among others. Emergent trees and shrubs may occur at low cover (CNPS 2018b). This alliance occurs in wet and mesic meadows, along stream banks, rivers, lakes, and ponds. Marsh habitats can be fresh, brackish, or alkaline. Soils are poorly drained and often have a thick organic layer (CNPS 2018b). The *Juncus arcticus* (var. *balticus*, *mexicanus*) herbaceous alliance is ranked by the CDFW (2018b) as a G5S4 alliance. This ranking indicates that the alliance is considered secure globally and apparently secure within California.

Within the Park, the *Juncus arcticus* (var. *balticus*, *mexicanus*) herbaceous alliance occurs in three stands, two of which are just west of SR-14 and one that occurs at a seep west of Scenic Canyon (Figure 7). Based on vegetation sampling conducted during fieldwork, this community was strongly dominated by Baltic rush, with southern cattail (*Typha domingensis*) also present. Additionally, the following species were documented at very low cover: flatspine bur ragweed (*Ambrosia acanthicarpa*), seaside heliotrope, fourwing saltbush (*Atriplex canescens*), red willow, Washington fan palm (*Washingtonia robusta*), and honey mesquite.

### 4.1.4 Desert Outcrop and Badlands

#### North American Warm Desert Bedrock Cliff and Outcrop

North American warm desert bedrock cliff and outcrop is a group in the California manual of vegetation, which corresponds to the level above alliances. This higher level was mapped where stands were dominated by largely unvegetated slopes. These areas occur throughout the Park, especially along Hagen Canyon, Scenic Canyon, Nightmare Gulch, and along Last Chance Canyon Road (Figure 7). Based on vegetation sampling conducted during fieldwork, a low cover of creosote bush and Arabian schismus occur in these areas.

### 4.1.5 Other Land Cover

#### Urban

Urban refers to land in which the ground layer has been altered such that vegetation is no longer sustainable. For example, paved roads, concrete pads, and buildings would all constitute urban development. Urban areas include the Park Headquarters, Opal Camp, SR-14, and Redrock Randsburg Road (Figure 7).



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### Disturbed

Disturbed land refers to land that has been subject to anthropogenic disturbance and is largely devoid of vegetation, though some non-native annuals may be present. Disturbed areas occur northeast of Opal Peak and in previously mined areas just north of private land west of Last Chance Canyon (Figure 7). The primitive road network (see Figure 2) would be considered disturbed land; however, these dirt roads were not captured at the resolution of the vegetation mapping.

#### 4.1.6 Plant Diversity

The Mojave Desert in California has about 1,409 native taxa. Compared to 709 native taxa in the Colorado/Sonoran Desert, the higher level of plant diversity in the Mojave Desert reflects the greater climatic and elevation diversity of this region (Baldwin et al. 2002). Approximately 600 species have been recorded in the Red Rock Canyon State Park region per the Calflora database (Calflora 2018). Appendix B lists the plant species recorded within the Park during the 2018 surveys.

### 4.2 Wildlife Diversity

The Park is characterized by desert scrub, riparian and wetland, and outcrop and cliff habitats that can support a variety of wildlife species. The wildlife diversity of RRCSP has been previously studied and documented in the specific studies and data cited in Section 3.1.2. During the 2018 field reconnaissance, 35 wildlife species were observed in the Park. A cumulative list of wildlife species observed during these surveys is provided in Appendix C.

A brief discussion of the general reptile, bird, and mammal diversity observed in the Park during the 2018 field reconnaissance is provided below; amphibian, fish, and invertebrate species were not detected in the Park.

#### Reptiles

Nine reptile species were observed in the Park during the 2018 surveys (Appendix C). Commonly observed reptiles included the common side-blotched lizard (*Uta stansburiana*), desert horned lizard (*Phrynosoma platyrhinos*), and zebra-tailed lizard (*Callisaurus draconoides*). Other reptiles, such as the desert spiny lizard (*Sceloporus magister*) and western whiptail (*Cnemidophorus tigris*), have also been previously documented at the Park (CDFW 2014). Special-status reptile species, including desert tortoise (*Gopherus agassizii*), are discussed in Section 4.3.3.

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### Birds

Twenty-two bird species were observed in the Park during the 2018 surveys (Appendix C). Commonly observed birds included the black-throated sparrow (*Amphispiza bilineata*), mourning dove (*Zenaida macroura*), and common raven (*Corvus corax*). Other common bird species have been previously reported at the Park include rock wren (*Salpinctes obsoletus*), horned lark (*Eremophila alpestris*), Wilson's warbler (*Cardellina pusilla*), sage sparrow (*Amphispiza belli*), white-throated swift (*Aeronautes saxatalis*), and red-tailed hawk (*Buteo jamaicensis*) (CDFW 2014). Special-status bird species, including riparian birds, scrub birds, and golden eagle (*Aquila chrysaetos*) and other raptors, are discussed in Section 4.3.3.

### Mammals

Four mammal species were detected in the Park during the 2018 surveys (Appendix C). Commonly observed mammals included the white-tailed antelope squirrel (*Ammospermophilus leucurus*) and black-tailed jackrabbit (*Lepus californicus*). Additionally, unidentified bat species were detected during the 2018 reconnaissance. Other common mammal species that have been previously reported at the Park include Merriam's kangaroo rat (*Dipodomys merriami*), long-tailed pocket mouse (*Chaetodipus formosus*), and deer mouse (*Peromyscus sp.*) (CDFW 2014). Special-status mammal species, including Mohave ground squirrel (*Xerospermophilus mohavensis*), bat species, and other small mammal and furbearers, are discussed in Section 4.3.3.

## 4.3 Special-Status Resources

For the purposes of this Biological Resources Report, special-status resources refers to (1) the biological resources typically regulated or protected by federal, state, and local laws and policies (see Section 1.3), and (2) any other biological resources of interest in the region or Park itself.

### 4.3.1 Sensitive Vegetation Communities

#### Wetlands and Waters

Collectively, wetlands and waters refers to riparian vegetation communities, wetland vegetation communities, and non-wetland water features (e.g., unvegetated washes and braided channels) that provide habitat value and hydrologic connectivity functions. As outlined in Section 4.1, the Park supports approximately 649 acres of riparian communities and 2 acres of wetland communities. As described in Section 2.6, the Park also contains numerous unvegetated washes and channels within upland vegetation communities, as represented in Figure 6. These wetlands and waters features provide important habitat for resident and migratory wildlife species and are potentially subject to federal and state regulatory agency jurisdiction (i.e., Clean Water Act Sections 404 and 401, California Fish and Game Code Section 1600, Porter-Cologne Act). Furthermore, wetlands

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and waters are critical features for wildlife in arid, desert landscapes and serve as climate refugia where the effects of changing climate conditions are less severe or ameliorated (CNRA 2014; NFWP 2012).

### Joshua Tree Woodland

Joshua tree woodlands (*Yucca brevifolia*) are the iconic vegetation type of the Mojave Desert, and approximately 301 acres have been mapped in the Park. Unlawful harvest of this species and other native desert plants is prohibited under the California Desert Native Plants Act. Additionally, this community (and the species itself) is of increasing conservation interest due to observed range contractions resulting from increasing temperatures and altered precipitation seasonality arising from climate change (Barrows and Murphy-Mariscal 2012; Cole et al. 2011). The Park is near the western edge of the species range where the population has been modeled as unsustainable (Cole et al. 2011).

### Other Sensitive Vegetation Communities

As described in Section 4.1, the Park supports 19 vegetation communities and land covers. Of these, five vegetation communities are considered sensitive and are listed in Table 3. Sensitive vegetation communities account for approximately 5% of the overall Park acreage. Vegetation communities are described in Section 4.1 and are depicted on Figure 7.

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**Table 3**  
**Sensitive Vegetation Communities**

| General Vegetation<br>Vegetation Alliance                   | Rarity Ranking* | Park Acreage |
|-------------------------------------------------------------|-----------------|--------------|
| <b>Desert Scrub</b>                                         |                 | <b>875</b>   |
| <i>Krascheninnikovia lanata</i> (winterfat scrub)           | G4S3            | 573          |
| <i>Yucca brevifolia</i> (Joshua tree woodland)              | G4S3            | 301          |
| <b>Riparian</b>                                             |                 | <b>537</b>   |
| <i>Ericameria paniculata</i> (black-stem rabbitbrush scrub) | G4S3            | 82           |
| <i>Lepidospartum squamatum</i> (scale broom scrub)          | G3S3            | 452          |
| <i>Salix laevigata</i> (red willow thickets)                | G3S3            | 2            |
| <b>Park Total</b>                                           |                 | <b>1,411</b> |

**Notes:** Vegetation communities and land cover based on the CDFW West Mojave Vegetation layer (AIS 2013; VegCAMP et al. 2013) with Park-specific mapping refinements based on 2018 and 2019 field reconnaissance.

\* Rarity rankings from *California Natural Community List* (CDFW 2018b). Vegetation communities with state rarity ranking of S1–S3 are considered sensitive.

### 4.3.2 Special-Status Plant Species

The following is a discussion of special-status plant species that are known or have the potential to occur in RRCSP. A review of all potentially occurring special-status plant species in the vicinity of the Park is provided in Appendix D. Special-status plant species that have been recorded in and around RRCSP are shown in Figure 8, with more detailed mapping provided in the Biological Resources Mapbook in Appendix A. Table 4 provides an estimate of the potentially suitable habitat for the special-status plant species that occur or have the potential to occur in the Park based on known habitat associations.

**Table 4**  
**Special-Status Plant Species Potentially Suitable Habitat**

| Special-Status Plant Species Groupings                                            | Species Name                                                                                                                                                                                                                                                                                                                                                                                                      | Park Acreage |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Species generally associated with Desert Scrub, Desert Wash, and Wetland Habitats | Alkali mariposa lily ( <i>Calochortus striatus</i> )<br>Spiny-hair blazing star ( <i>Mentzelia tricuspidis</i> )<br>Wine-colored tufa moss ( <i>Plagiobryoides vinosula</i> )<br>Mojave indigo-bush ( <i>Psoralea argophylla</i> var. <i>arborescens</i> )                                                                                                                                                        | 22,451       |
| Species generally associated with Desert Scrub Habitats                           | Red rock tarplant ( <i>Deinandra arida</i> )<br>Kern County evening-primrose ( <i>Camissonia kernensis</i> ssp. <i>kernensis</i> )<br>White pygmy-poppy ( <i>Canbya candida</i> )<br>Mojave spineflower ( <i>Chorizanthe spinosa</i> )<br>Death Valley sandmat ( <i>Euphorbia vallis-mortae</i> )<br>Solitary blazing star ( <i>Mentzelia eremophila</i> )<br>Creamy blazing star ( <i>Mentzelia tridentata</i> ) | 21,777       |



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**Table 4**  
**Special-Status Plant Species Potentially Suitable Habitat**

| Special-Status Plant Species Groupings                             | Species Name                                                                                                                                                    | Park Acreage |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|                                                                    | Crowned muilla ( <i>Muilla coronata</i> )<br>Charlotte's phacelia ( <i>Phacelia nashiana</i> )<br>Mojave fish-hook cactus ( <i>Sclerocactus polyancistrus</i> ) |              |
| Species generally associated with Desert Wash and Wetland Habitats | Red Rock Canyon monkeyflower ( <i>Erythranthe rhodopetra</i> )<br>Sierra Nevada monkeyflower ( <i>Erythranthe sierrae</i> )                                     | 674          |
| Species generally associated with Woodland Habitats                | Inland gilia ( <i>Gilia interior</i> )                                                                                                                          | 301          |

### Federal and State Listed Plant Species

No federally listed plant species are known to occur or potentially occur within the Park. Additionally, no state-listed endangered or threatened species occur or potentially occur in RRCSP; however, red rock tarplant, a state listed rare species, has been documented in the Park and is described below.

#### *Red Rock Tarplant*

Red rock tarplant (*Deinandra arida*) is a state listed rare species and a CRPR 1B.2 species. Red rock tarplant is an annual herb that occurs within Mojavean desert scrub on clay and volcanic tuff soils. This species is recorded in the CNDDDB within the Park, as well as in the State Parks dataset, and was documented during fieldwork in 2018 and 2019. The tarplant was observed in several locations, but mainly in the south-central region of the Park (Figure 8).

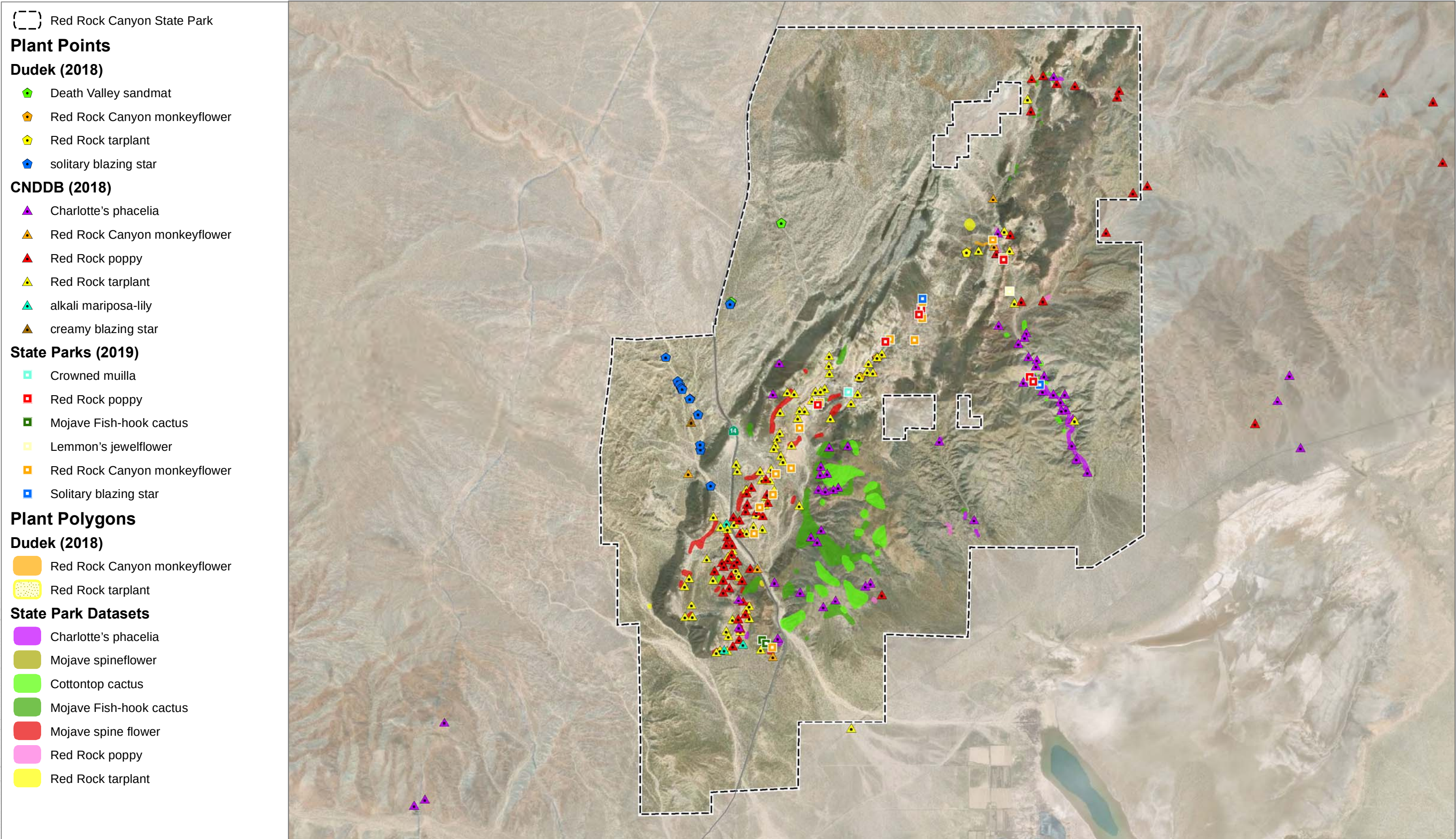
### Other Plant Species of Interest

The following provides a discussion of other plant species of interest that occur or potentially occur in the Park.

#### *Alkali Mariposa Lily*

Alkali mariposa lily (*Calochortus striatus*) is a CRPR 1B.2 species. This perennial bulbiferous herb occurs in chaparral, chenopod scrub, Mojavean desert scrub, and meadows and seeps on mesic alkaline soils (CNPS 2018a). Alkali mariposa lily has been recorded in the CNDDDB within the Park along and west of SR-14 (Figure 8).





SOURCE: Bing Maps 2018; California State Parks 2018; CDFW 2018



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### ***Kern County Evening-Primrose***

Kern County evening-primrose (*Camissonia kernensis* ssp. *kernensis*) is a CRPR 4.3 species. This annual herb occurs within chaparral, Joshua tree woodland, pinyon and juniper woodland on sandy, gravelly, or granitic soils (CNPS 2018a). Kern County evening-primrose was recorded in creosote bush scrub in the northeastern portion of the Park along the eastern fork of Last Chance Canyon in 1960 (CCH 2018).

### ***White Pygmy-Poppy***

White pygmy-poppy (*Canbya candida*) is a CRPR 4.2 species. This annual herb occurs in Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland on gravelly, sandy, or granitic soils. There is a single historical occurrence of this species from the central area of the Park from 1932 (CCH 2018).

### ***Lemmon's Jewelflower***

Lemmon's jewelflower (*Caulanthus lemmonii*) is a CRPR 1B.2 species. This annual herb occurs in pinyon and juniper woodland and grasslands (CNPS 2019). Only a single plant of this species was observed in bloom right next to a wash along Last Chance Canyon in April 2019.

### ***Mojave Spineflower***

Mojave spineflower (*Chorizanthe spinosa*) is a CRPR 4.2 species. This annual herb occurs in chenopod scrub, Joshua tree woodland, Mojavean desert scrub, and on playas. Soils where this species occurs are sometimes alkaline. This species has been recorded within the Park on either side of SR-14 and was observed in 2019 (Figure 8).

### ***Red Rock Canyon Monkeyflower***

Red Rock Canyon monkeyflower (*Erythranthe rhodopetra*) is a CRPR 1B.1 species that occurs in Mojavean desert scrub and canyon washes in sandy soils. This species is recorded in the CNDDDB within the Park and was observed during fieldwork in 2018 and during surveys conducted in portions of the Park in 2017 (Fraga 2018). The species has been reported along and in the wash just west of SR-14, near Cudahy Camp, near Red Rooster rock formation, near Hagen Canyon, near Red Buttes, and in Last Chance Canyon. Several occurrences of Red Rock Canyon monkeyflower were observed in 2019 along the canyon northwest of the El Paso Mountains from north SR-14 to near Cudahy Camp (Figure 8).



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### *Sierra Nevada Monkeyflower*

Sierra Nevada monkeyflower (*Erythranthe sierrae*) is a CRPR 4.2 species that occurs in openings in cismontane woodland and lower montane coniferous forest, as well as dry meadows and seeps, vernal wet depressions, swales, and along streambanks. The plant can typically be found in substrates that are usually granitic and sandy. This species was previously documented along Tarweed Creek in the Park in 1969. Records indicate the monkeyflower was common in moist subalkaline sand in creosote bush scrub along the small creek (CCH 2018).

### *Red Rock Poppy*

Red rock poppy (*Eschscholzia minutiflora* ssp. *twisselmannii*) is a CRPR 1B.2 species that occurs in Mojavean desert scrub on volcanic tuff substrates. This annual herb has been recorded in the CNDDDB within the Park and is included in the Park dataset, including from 2019 fieldwork. The species occurs at the base of the El Paso Mountains, near and northeast of Cudahy Camp, along Last Chance Canyon, and between Last Chance Canyon and SR-14, and on either side of SR-14 in the western portion of the Park (Figure 8).

### *Death Valley Sandmat*

Death Valley sandmat (*Euphorbia vallis-mortae*) is a CRPR 4.2 species that occurs in Mojavean desert scrub in sandy or gravelly soils. This perennial herb has been recorded in four locations west of SR-14 within the Park (CCH 2018) and was documented in similar locations during fieldwork in 2018 (Figure 8).

### *Inland Gilia*

Inland gilia (*Gilia interior*) is a CRPR 4.3 species that occurs in rocky cismontane woodland, Joshua tree woodland, and lower montane coniferous forest. This annual herb has not been recorded in the Park, but has a moderate potential to occur. There is suitable Joshua tree woodland habitat and the nearest record is approximately 5 miles north of the Park. There are several records north and northwest of the Park (CCH 2018).

### *Solitary Blazing Star*

Solitary blazing star (*Mentzelia eremophila*) is CRPR 4.2 species that occurs in Mojavean desert scrub. This annual herb has been recorded in several locations within the Park, primarily along SR-14 and the road west of SR-14 and in Scenic Canyon (CCH 2018) and was also documented in similar locations during fieldwork in 2018. In 2019, this species was observed along and west of Last Chance Canyon (Figure 8).

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### *Spiny-Hair Blazing Star*

Spiny-hair blazing star (*Mentzelia tricuspis*) is CRPR 2B.1 species that occurs in Mojavean desert scrub on slopes or in washes with sandy or gravelly substrates. This species has been recorded 2 miles north of Red Rock Canyon along SR-14 at the edge of the Park (CCH 2018).

### *Creamy Blazing Star*

Creamy blazing star (*Mentzelia tridentata*) is a CRPR 1B.3 species that occurs in Mojavean desert scrub in rocky, gravelly, and sandy soils (CNPS 2018a). This annual herb has been recorded in the CNDDDB at one location within the Park, west of SR-14 and north of Park Headquarters (Figure 8).

### *Crowned Muilla*

Crowned muilla (*Muilla coronata*) is a CRPR 4.2 species that occurs in chenopod scrub, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland (CNPS 2018a). Two records of this perennial bulbiferous herb occur west of SR-14 within the Park (Calflora 2018). Crowned muilla was also observed east of SR-14 and north of the El Paso Mountains in 2019. There is also a historical sighting of this species from 1932, just east of the Park (CCH 2018).

### *Charlotte's Phacelia*

Charlotte's phacelia (*Phacelia nashiana*) is a CRPR 1B.2 species that occurs in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland in soils that are usually granitic and sandy (CNPS 2018a). This annual herb is included in the CNDDDB within the Park and in the Park dataset in several locations, including Last Chance Canyon and the El Paso Mountains. A long stretch of Charlotte's phacelia was mapped along Last Chance Canyon in 2019 (Figure 8).

### *Wine-Colored Tufa Moss*

Wine-colored tufa moss (*Plagiobryoides vinosula*) is a CRPR 4.2 species that occurs in cismontane woodland, Mojavean desert scrub, meadows and seeps, pinyon and juniper woodland, and riparian woodland. Substrates that support this species are typically granitic and sometimes clay, with occurrences generally documented along seeps and streams. This moss has a moderate potential to occur, but has not been recorded in the Park. There is suitable desert scrub habitat, as well as seeps and streams within the Park. The Park falls within the species' range, with a record from the Cinco quadrangle just west of RRCSP (CNPS 2018).

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### *Mojave Indigo-Bush*

Mojave indigo-bush (*Psoralea arborescens* var. *arborescens*) is CRPR 4.3 perennial deciduous shrub that occurs in Mojavean desert scrub and riparian scrub. A historical record of this variety occurs along SR-14 within RRCSP, but no CNPS records are known in the vicinity of the Park (Calflora 2018; CCH 2018; CNPS 2018a).

### *Mojave Fish-Hook Cactus*

Mojave fish-hook cactus (*Sclerocactus polyancistrus*) is a CRPR 4.2 species that occurs in Great Basin scrub, Joshua tree woodland, and Mojavean desert scrub, generally on carbonate substrates. Mojave fish-hook cactus has been recorded within the Park dataset in the southern portion of RRCSP and was observed in that area in 2019 (Figure 8).

### **4.3.3 Special-Status Wildlife Species**

The following is a discussion of special-status wildlife species that are known or have the potential to occur in RRCSP. A review of all potentially occurring special-status wildlife species in the vicinity of the Park is provided in Appendix E. Special-status wildlife species that have been recorded in and around RRCSP are shown in Figure 9, with more detailed mapping provided in the Biological Resources Mapbook in Appendix A. Table 5 provides an estimate of the potentially suitable habitat for the special-status wildlife species that occur or have the potential to occur in the Park based on known habitat associations.

### **Federal and State Listed Wildlife Species**

The following provides a discussion of federally and state listed wildlife species that occur or potentially occur within the Park.

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**Table 5**  
**Special-Status Wildlife Species Potentially Suitable Habitat**

| Special-Status Wildlife Species Groupings                                                       | Species Name                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Park Acreage |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Species generally associated with Desert Scrub, Desert Washes, and Desert Outcrops and Badlands | Desert tortoise ( <i>Gopherus agassizii</i> )<br>Golden eagle ( <i>Aquila chrysaetos</i> ) and other raptors (foraging habitat)<br>American badger ( <i>Taxidea taxus</i> )<br>Desert kit fox ( <i>Vulpes macrotis arsipus</i> )                                                                                                                                                                                                                                        | 25,270       |
| Species generally associated with Desert Scrub and Desert Washes                                | Mohave ground squirrel ( <i>Xerospermophilus mohavensis</i> )<br>loggerhead shrike ( <i>Lanius ludovicianus</i> )<br>Bendire's thrasher ( <i>Toxostoma bendirei</i> )<br>Crissal thrasher ( <i>Toxostoma crissale</i> )<br>LeConte's thrasher ( <i>Toxostoma lecontei</i> )<br>Brewer's sparrow ( <i>Spizella breweri</i> )<br>Tulare grasshopper mouse ( <i>Onychomys torridus tularensis</i> )<br>Yellow-eared pocket mouse ( <i>Perognathus parvus xanthonotus</i> ) | 22,450       |
| Species generally associated with Desert Outcrop and Badlands                                   | Golden eagle and other raptors (nesting habitat)<br>Bat species (roosting habitat)                                                                                                                                                                                                                                                                                                                                                                                      | 2,821        |
| Species associated with Riparian Woodlands                                                      | Willow flycatcher ( <i>Empidonax traillii</i> )                                                                                                                                                                                                                                                                                                                                                                                                                         | 2            |
| Species associated with Wetlands                                                                | Tricolored blackbird ( <i>Agelaius tricolor</i> )                                                                                                                                                                                                                                                                                                                                                                                                                       | 2            |

### ***Desert Tortoise***

The Mojave population of desert tortoise occurs north and west of the Colorado River in California, Arizona, Nevada, and Utah and is federally and state listed as threatened. Federal critical habitat was designated for the desert tortoise in 1994, and a Recovery Plan for the species was issued in 2011 (59 FR 5820–5866; USFWS 2011). RRCSP is near the western edge of the species' range, which is bounded in the west Mojave Desert by the Tehachapi and Sierra Nevada mountain ranges. USFWS critical habitat for desert tortoise is designated just 3 miles east of the Park, and the BLM Desert Tortoise Research Natural Area is located just south of Koehn Lake approximately 4 miles from RRCSP. Nearly the entire Park, with the exception of the El Paso Mountain Range, is modeled as suitable for desert tortoise, based on the USGS species distribution model (Nussear et al. 2009).

Available database occurrences for the desert tortoise are shown in Figure 9 (magenta symbols). Desert tortoise was most recently reported in CNDDDB and BLM datasets in RRCSP in 2007.

Occurrence points for desert tortoise provide an indication of the spatial distribution and suitability of the Park to support the species, rather than any indication of number or density of tortoise in RRCSP. In 2002 through 2004, the USGS surveyed the western portion of the Park for desert tortoise using demographic and landscape plots. This study estimated that population densities



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were less than 5 individuals per kilometer (2.7 to 3.6/square kilometers), and the total RRCSP desert tortoise population was estimated at approximately 108 individuals (Berry et al. 2008). This study also found evidence of tortoise population decline in the Park, similar to findings in the adjacent Fremont Valley.

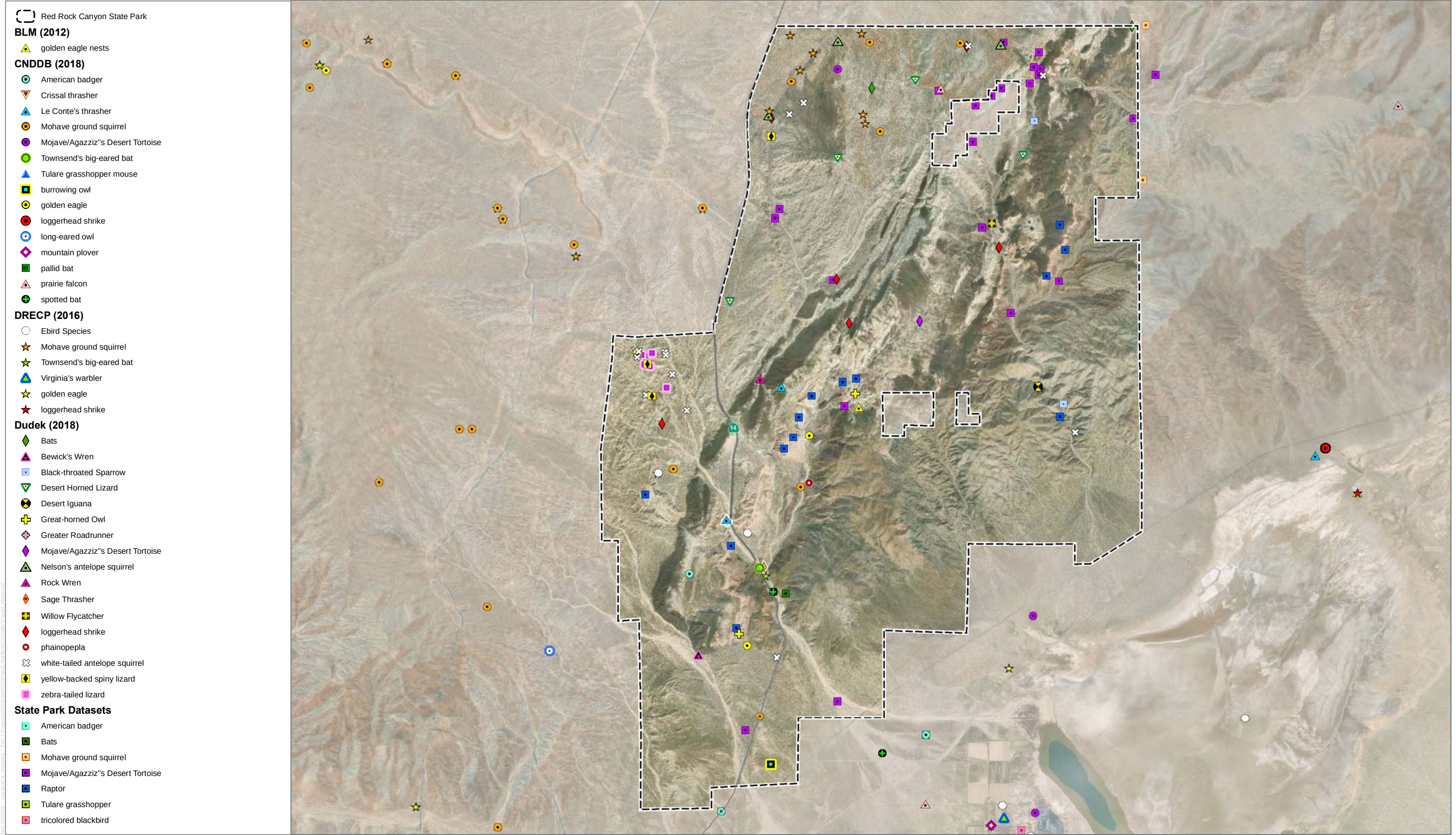
Desert tortoise surveys were conducted by CDFW/DPR in Nightmare Gulch and Last Chance Canyon in 2013 and 2014. Although no live tortoises were detected, desert tortoise sign was observed at 11 locations in the Nightmare Gulch study area primarily in the desert scrub areas above the canyon bottom. No desert tortoise sign, however, was detected in Last Chance Canyon during these surveys (CDFW 2014). During the 2018 field reconnaissance in upper Nightmare Gulch, Dudek biologists discovered a tortoise carapace wedged under a low rock overhang, but, no further information could be gathered regarding this observation without damaging the shell or rock. CDFW/DPR biologists noted that the canyon bottoms of Nightmare Gulch and Last Chance Canyon provide little to no habitat for desert tortoise due to the bare soil and rock conditions, which support little forage (CDFW 2014). Based on all available information, as summarized above, all areas of the Park would generally be considered suitable for desert tortoise except for areas of steep rock outcrops, cliff faces, and rocky canyon bottoms, where habitat is limited or inaccessible to the species.

### ***Tricolored Blackbird***

Tricolored blackbird (*Agelaius tricolor*) is a resident songbird largely endemic to California. The species is in a marked decline throughout much of its range, and in 2018, the California Fish and Game Commission determined that listing the species as threatened in California was warranted (currently designated as a State Candidate species). The tricolored blackbird nests in large breeding colonies, typically characterized by freshwater wetlands composed of cattail (*Typha* spp.), bulrush (*Schoenoplectus* spp.), blackberry (*Rubus armeniacus*), and/or willows (*Salix* spp.), and forages in adjacent fields (Beedy and Hamilton 1999). This species is also noted frequently moving to different breeding sites each season.

No records of tricolored blackbird occur in the Park. Very little breeding habitat is known within RRCSP, and foraging opportunities for a breeding colony are limited. A tricolored blackbird breeding colony and occurrence records occur less than 2 miles southwest of the Park at Koehn Lake. Due to the proximity of this breeding colony location to the Park, this species has the potential to occur near and/or migrate through RRCSP.





SOURCE: Bing Maps 2018; California State Parks 2018; DRECP 2016; BLM 2012

**FIGURE 9**  
**Wildlife Species**



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### *Willow Flycatcher*

Three willow flycatcher (*Empidonax traillii*) occur in California: the southwestern willow flycatcher (*E. t. extimus*), little willow flycatcher (*E. t. brewsteri*), and Great Basin willow flycatcher (*E. t. adastus*). All subspecies look very similar and can only be differentiated by slight differences in plumage, morphology, song, and breeding time/location (Unitt 1987; Sogge et al. 2010). The southwestern willow flycatcher is federally listed as endangered and willow flycatcher (regardless of subspecies) is state-listed as endangered in California. Willow flycatchers are small, insect-eating, Neotropical migratory birds that breed in the United States and Canada and winter in southern Mexico, Central America, and northern South America (Sogge et al. 2010; USFWS 2014). Due to variability in geography, elevation, weather, and other factors, the little and Great Basin willow flycatcher subspecies migrate through areas of nesting southwestern subspecies early (northbound migrants) and late (southbound migrants) in the southwestern breeding season. Due to their similarities in appearance and song, willow flycatchers observed within the southwestern willow flycatcher range can be assumed to be southwestern only during the period of approximately June 15 through July 20 (USFWS 2002).

RRCSP is situated at the boundary between the breeding ranges for southwestern willow flycatcher and little willow flycatcher. The breeding range of the little willow flycatcher extends from the Tehachapi and southern Sierra Nevada mountains north through California and the Pacific Northwest, whereas the southwestern willow flycatcher breeding range includes southern California and the arid southwest (Sogge et al. 2010). The southwestern willow flycatcher has not been reported in or near the vicinity of RRCSP. The area nearest to the Park known to support southwestern willow flycatcher is at Lake Isabella approximately 22 miles northwest of RRCSP.

During the 2018 field reconnaissance, Dudek biologists detected willow flycatcher at one location in the Park: the riparian habitat in Last Chance Canyon near Cudahy Camp (see Figure 9). This observation was made on May 8; therefore, the subspecies of willow flycatcher was not determined. Other database records for willow flycatcher (undetermined subspecies) occur outside the Park, including at Koehn Lake and in Butterbrecht Canyon. Based on all available information as summarized above, willow flycatcher likely uses the Park for foraging and stopovers during annual northward and southward migration. However, nesting habitat for willow flycatchers is limited and likely would only occur in the riparian habitat at Cudahy Camp.

### *Mohave Ground Squirrel*

The Mohave ground squirrel (*Xerospermophilus mohavensis*) is a state threatened species that occurs entirely within the western Mojave Desert of California. The range of this species extends from the Antelope and Victor valleys in the south, through the entire west Mojave Desert, including Edwards Air Force Base, western San Bernardino County, the California City area, and



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north into the Owens and Searles valleys (Leitner 2013; 2008). Nearly the entire Park is modeled as suitable for Mohave ground squirrel, based on the USGS species distribution model (Inman et al. 2013). Additionally, as noted above in Section 1.3, BLM has designated the Mohave Ground Squirrel ACEC over the Park and surrounding lands. Further, extensive trapping and camera studies for the species have been conducted in the region over the past couple decades to support planning efforts in the West Mojave, which CDFW synthesized into designated Mojave Ground Squirrel “Important Areas.” Important areas include key population centers, habitat linkages between population centers, expansion areas around key population centers, and a climate change extension (CEC et al. 2014). The northern portion of the Park is part of the Little Dixie Wash key population center, and the remainder of the Park outside the El Paso Mountains is considered part of the species’ population expansion area.

Numerous focused surveys for Mohave ground squirrel have occurred in recent times both within and around the Park. Trapping surveys for Mohave ground squirrel at RRCSP were conducted by Leitner in 2007, 2008, and 2010 (Leitner 2009, 2010). Surveys in 2007 detected the species at four locations in the northwestern portion of the Park, and surveys in 2008 confirmed that these areas could support the species (Leitner 2009). Surveys in 2010 again detected Mohave ground squirrel in the northwestern sections of the Park; however, the species was not detected in the southwestern portions of RRCSP west of SR-14 (Leitner 2010). Mohave ground squirrel camera trapping surveys were conducted by CDFW/DPR in Nightmare Gulch and Last Chance Canyon in 2013 and 2014. No Mohave ground squirrels were detected in either canyon during these surveys, and these canyon bottoms were determined to provide little to no habitat for this fossorial species due to limited soil development and rocky substrates (CDFW 2014).

In 2015, Leitner and Delany (2015) conducted camera study surveys west of the Park in and around the Desert Tortoise Research Natural Area. In addition, trapping and camera surveys for Mohave ground squirrel and other small mammals were conducted in 2012 on the adjacent Eastern Kern County Acquisition lands acquired by State Parks (Biosearch Associates 2012). The species has been documented in areas around RRCSP to the west, north, and east (Leitner and Delany 2015; Leitner 2013; Biosearch Associates 2012). Available database occurrence records for Mohave ground squirrel are shown on Figure 9 (orange symbols). Occurrence points for this species provide an indication of the spatial distribution and suitability of the Park to support Mohave ground squirrel, rather than any indication of species’ number or density within RRCSP.

Based on all available information as summarized above, all areas of the Park would generally be considered suitable for Mohave ground squirrel except for areas of steep rock outcrops, cliff faces, and rocky canyon bottoms where habitat is limited or inaccessible to the species.

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### Other Wildlife Species of Interest

The following provides a discussion of other wildlife species of interest that occur or potentially occur in the Park.

#### *Golden Eagle*

Golden eagle (*Aquila chrysaetos*) is a fully protected species in California and a BLM Sensitive species protected under the Bald and Golden Eagle Protection Act and California Fish and Game Code. Golden eagles occur throughout western North America and are primarily a year-round resident in California. The species uses essentially all terrestrial habitats with preferred nesting areas in the desert region consisting of cliffs, rock outcrops, and ledges of mountain ranges. Golden eagles are extremely wide-ranging, with average home range size in Southern California being estimated at 36 square miles (Dixon 1937) and foraging home ranges in the western U.S. being estimated at 8.5 to 12.7 square miles during the breeding season (Kochert et al. 2002). More recently, Braham et al. (2015) found that eight telemetered golden eagles in the Mojave Desert had an average home range size of 118.8 square miles, but that spatial use varied widely (range from 1.7 to 1,369.6 square miles) depending on time of year, elevation and terrain, breeding status, and age.

In their resource management planning efforts in the California Desert, BLM identified the El Paso Mountain Range as one of the “key raptor areas” for golden eagle and other raptor species in the Mojave Desert (CEC et al. 2014). Based on a review of the cumulative BLM golden eagle nest dataset, CNDDDB, and DPR datasets, RRCSP and the surrounding lands are important areas for golden eagle nesting and foraging. Golden eagle has been recorded at four locations in the Park (see yellow symbols on Figure 9): the peaks above Nightmare Gulch (two locations), the cliffs of Hagen Canyon, and the cliffs of Ricardo Campground. Additionally, golden eagle activity may also occur in the area referred to as Red Bluffs, east of Cudahy Camp (see generic “raptor” points on Figure 9 in the eastern portion of the Park). Surrounding the Park, golden eagle occurrences/nest locations are concentrated in three locations: approximately 4 miles southwest of the Park in Jawbone Canyon, approximately 4 miles west of the Park in Dove Springs Canyon, and approximately 5 miles east of the Park in the El Paso Mountains above Garlock.

Based on all available information as summarized above, all areas of the Park would generally be considered foraging habitat for golden eagle. Additionally, RRCSP and surrounding areas, particularly areas of steep rock outcrops and cliff faces, support and have historically supported nesting golden eagles and serve as excellent nesting habitat.

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### *Other Raptors*

The Park is known to provide nesting and foraging habitat for a suite of owls, hawks, and falcons. In addition to golden eagle (see discussion above), other raptor species of interest that occur or have the potential to occur in RRCSP include long-eared owl (*Asio otus*), burrowing owl (*Athene cunicularia*), and prairie falcon (*Falco mexicanus*). The long-eared owl is a California species of special concern whose range stretches throughout nearly all of North America, except the extreme northern regions and tropical coastal regions. In the west, this species prefers shrubby habitat adjacent to open space. Interestingly, the birds do not build their own nests, but tend to use abandoned stick nests built by corvids or hawks, and will occasionally even share nesting areas with crows (Cornell Lab of Ornithology 2018). In the past, multiple occurrences (i.e., CNDDDB, eBird) of long-eared owl have been documented in the Park. Prairie falcons are a USFWS bird of conservation concern that are indiscriminate residents of grasslands, shrublands, and open areas with suitable cliffs or ledges for nesting (Cornell Lab of Ornithology 2018). According to existing databases (i.e., CNDDDB, eBird), many observations of prairie falcon have been recorded within RRCSP. Lastly, the burrowing owls is a California species of special concern and a USFWS bird of conservation concern found throughout nearly all of the southern portion of western North America, most frequently in arid, open landscapes with sparse or low vegetation. This species typically does not dig or burrow as the birds rely on rodents and other fossorial animals such as badgers, skunks, and tortoises to create their burrows for them (Cornell Lab of Ornithology 2018). With regard to the burrowing owl, multiple records (i.e., CNDDDB, eBird) of the species have been noted in the vicinity of the Park.

The Park is also known to support more common raptor species like great horned owl (*Bubo virginianus*), barn owl (*Tyto alba*), merlin (*Falco columbarius*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*). Further, evidence of raptor nesting activity (i.e., stick nests, white wash) is primarily concentrated in four areas of the Park: Nightmare Gulch, Hagen Canyon, Ricardo Campground, and Red Bluffs east of Cudahy Camp (see “raptor” points on Figure 9).

### *Desert Scrub Birds*

A variety of desert scrub bird species of interest that occur or have the potential to occur in the Park, including loggerhead shrike (*Lanius ludovicianus*), Bendire’s thrasher (*Toxostoma bendirei*), Crissal thrasher (*Toxostoma crissale*), LeConte’s thrasher (*Toxostoma lecontei*), and Brewer’s sparrow (*Spizella breweri*). See Figure 9 for occurrence locations for each species.

Loggerhead shrike is a California species of special concern and a USFWS bird of conservation concern that may be common in localized areas, but is in population decline. As a predatory species that hunts other birds, reptiles, small mammals, and insects, shrikes prefer open habitats in which

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to hunt and nest including shrubland, deserts, and other landscapes with low-growing plants (Cade and Woods 1997). Several Loggerhead shrikes were identified during the 2018 surveys within the Park. Based on all available information, Loggerhead shrikes are likely present in the Park year-round (Yosef 1996).

Three thrasher species are also potentially present within and around RRCSP: Bendire's, Crissal, and LeConte's. Bendire's thrasher is a California species of special concern and a USFWS bird of conservation concern. Database records show that this species has been detected in the Butterbredt Spring area, approximately 5 miles west of the Park, and may use RRCSP for nesting or foraging. Crissal thrasher is a California species of special concern. The CNDDDB records indicate that this species was identified within the Park in 1978; however, the nearest documented occurrence is 145 miles east in Mojave National Preserve. LeConte's thrasher is a California species of special concern and USFWS bird of conservation concern. Database records show that this species has been detected in and around the Park. Based on all available information, LeConte's thrasher likely uses RRCSP year-round for nesting, breeding, and foraging.

Brewer's sparrow is a USFWS bird of conservation concern. The species primarily uses scrub habitats and prefers landscapes dominated by big sagebrush (*Artemisia tridentata*), creosote (*Larrea tridentata*), and saltbush (*Atriplex* spp.) (Rottenberry 1999). During the fall southward migration, the Brewer's sparrow usually reaches the Mojave desert by September (Small 1994) and database records show that the species has been documented in and around the Park.

### ***Migratory Birds***

The Pacific Flyway is one of the primary migratory bird routes in the western hemisphere. Millions of birds each year travel along this route that stretches from the Bering Strait to the southern tip of South America. The Mojave Desert and RRCSP lies within the portion of the pathway known as the "interior" Pacific Flyway. Due to the Park's geographic location and unique habitats such as riparian areas and Joshua tree woodland, many migratory birds use the Park as a place to breed, rest, and feed during their journeys to and from their wintering and breeding grounds.

The availability of surface water features provide important stopover resources for migratory birds. Seeps and springs and riparian habitat in the Park, as well as the nearby Koehn Lake, can serve as attractants for migratory birds. Least Bell's vireo (*Vireo bellii pusillus*), mountain plover (*Charadrius montanus*), western snowy plover (*Charadrius nivosus nivosus*), yellow warbler (*Setophaga petechial*), and yellow-breasted chat (*Icteria virens*) are just a few of the vast array of migratory bird species that may use the Park or adjacent features.



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### *Bat Species*

RRCSP is known to provide roosting and foraging habitat for a variety of bat species of interest including the pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*), and western mastiff bat (*Eumops perotis californicus*). The abundance of caves, steep cliffs, and rock outcrops in the Park and the potential water sources in and around RRCSP provide roosting and foraging habitat for these and other species of bats.

### *Small Mammals*

The Tulare grasshopper mouse (*Onychomys torridus tularensis*) is a California species of special concern. According to CNDDDB records, a female specimen was identified in the park in 1970; however, as with many small mammals, there is limited research available, and current range and population data is not fully understood. Compared to similar rodents, this species is believed to have larger home ranges and lower overall population densities (McCarty 1975; Tremor et al. 2017). Tulare grasshopper mice prefer arid, grassland and shrub habitats. Their diet consists of various invertebrates, and the species can be preyed upon by a suite of larger animals within the Park (Collins 1998).

Yellow-eared pocket mouse (*Perognathus parvus xanthonotus*) is a BLM sensitive species. The species is known to inhabit the eastern slopes of the Piute Mountains, as well as the extreme western edge of the Mojave Desert, but overall has a relatively small range and its population status is not fully understood. This pocket mouse is especially sensitive to habitat disturbances, and research has shown that OHV activity may be a potential threat as it damages vegetation communities and degrades pristine habitat (Laabs 2005). The species has been documented in a variety of habitats including desert scrub, sagebrush, and Joshua tree woodland habitat, all of which can be found within RRCSP (Laabs 2005).

### *Other Furbearers*

The American badger (*Taxidea taxus*) is a California species of special concern that has been previously recorded in the Park. Their diet consists of small rodents, insects, lizards, and occasionally birds. Badgers prefer habitats with ample open space and very little cover, such as grasslands and deserts. The desert kit fox (*Vulpes macrotis arsipus*) is a mammal species of increasing conservation interest that has the potential to occur within and around RRCSP. In California, their range extends throughout nearly the entire southeast, including both the Mojave and Sonoran deserts. Desert bighorn sheep (*Ovis canadensis nelsoni*), one of several subspecies of bighorn sheep, is a BLM sensitive species and a state fully protected species that inhabits extremely arid, rocky habitats characterized by sheer cliffs, canyons, and washes. Desert bighorn sheep are

not expected to inhabit or use the Park. According to CNDDDB, the closest species record is about 35 miles east of RRCSP in the West Granite Mountains.

### 4.4 Wildlife Corridors and Habitat Linkages

Terrestrial wildlife species typically occupy habitat patches most favorable to each species within a landscape matrix, and they may move between favorable habitat patches through less favorable habitats (Rosenberg et al. 1997). These wildlife movement areas between larger habitat patches are generally referred to as habitat linkages or movement corridors. Movement ecology is particularly species- and scale-specific and often include short-term individual movements, such as foraging within an organism's home range; long-term dispersal or one-time emigration and immigration events between disparate populations; and seasonal or periodic migration. Corridors and habitat linkages can allow for long- or short-term movements, dispersal, and migration depending on the life history requirements and ability of a particular species to travel through a landscape. Locations that serve as corridors or habitat linkages for some species may serve as core habitat for other species. Habitat linkages also allow for range shifts of natural communities and plant and animal species in response to changing climate conditions.

RRCSP is situated at the boundary between two major ecoregions and supports varied terrain and topographies that indicate the Park plays an important role in regional landscape connectivity and wildlife movement. The Park is located at the western edge of the Mojave Desert ecoregion near the boundary with the Sierra Nevada ecoregion (see Figure 4), and this unique location suggests that RRCSP may be used by terrestrial wildlife for up- or downslope seasonal movements or range shifts between desert and forest ecosystems. The southwest-to-northeast oriented El Paso Mountain Range bisects the Park, and the ridgelines and slopes of these mountains (see Figure 5) provide for local terrestrial wildlife movement within the Park and a habitat linkage to adjacent lands to the northeast, including the BLM El Paso Mountains Wilderness Area. The mountain canyons provide for movement and dispersal between upper and lower elevations and connectivity to the broad, surrounding alluvial plains.

The Park is considered relatively permeable to wildlife movement, as it is predominately unfragmented habitat and connected to adjacent areas. Wildlife movement is generally unconstrained by land uses, with the exception of SR-14, other roadways, fences, and other structures that can limit or restrict movement for some species. The steep cliffs and escarpments likely limit wildlife movement pathways in some areas of the Park, particularly for smaller or less mobile species. Resident birds, as well as migratory birds using the Pacific Flyway movement corridor, move relatively unimpeded through the Park and its surroundings.

Habitat linkages and corridors are modeled through least cost pathway and landscape permeability analyses. Least cost pathway analyses identify corridors between habitat cores that would require

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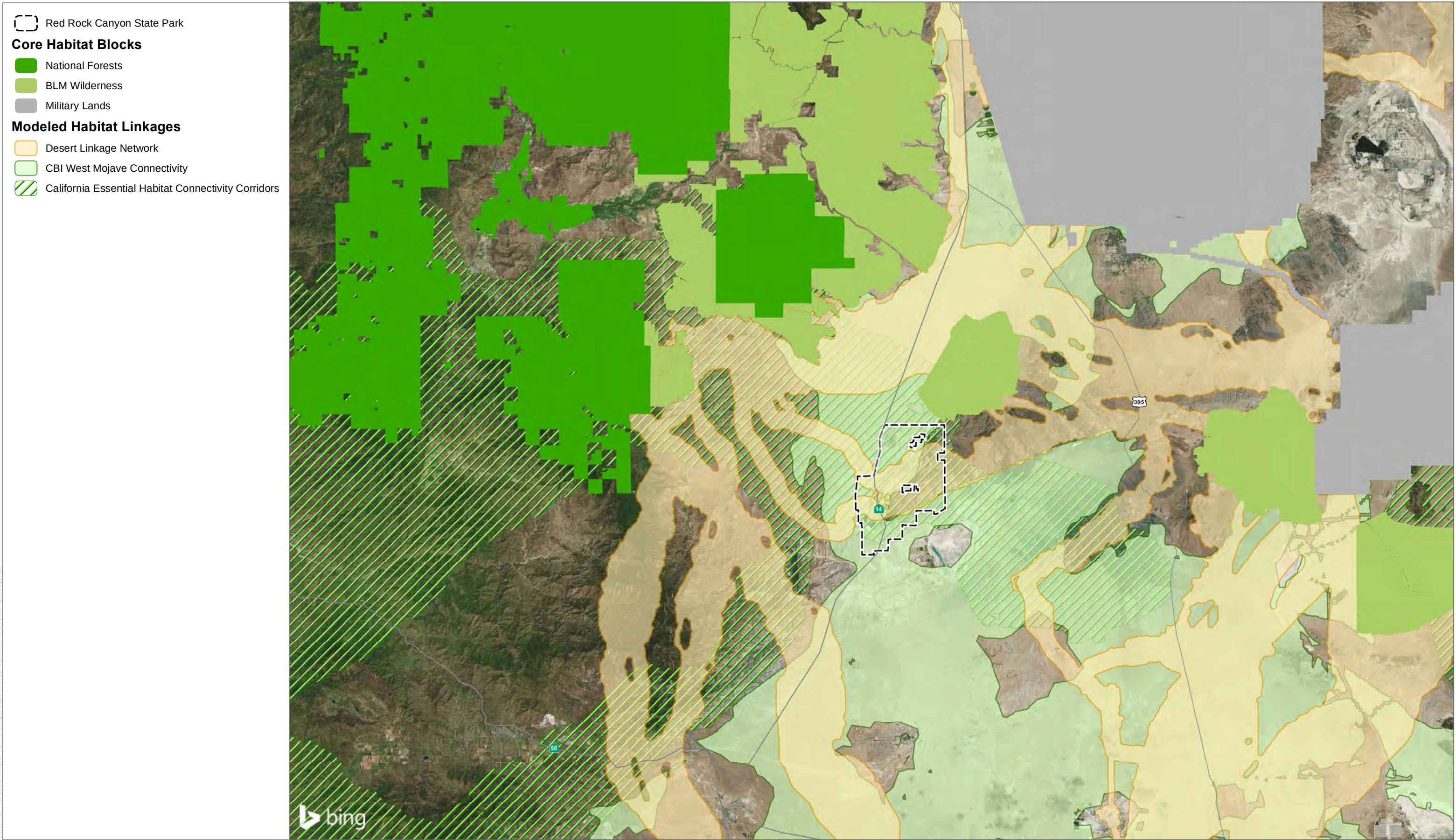
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the least effort (cost) for a traveling individual. Landscape permeability analyses incorporate physical landforms to analyze regional permeability. As shown on Figure 10, three habitat connectivity modeling studies identify the Park as providing important regional habitat linkage functions: the California Essential Habitat Connectivity project (Spencer et al. 2010), the California Desert Connectivity project (also referred to as the Desert Linkage Network) (Penrod et al. 2012), and the West Mojave Connectivity Mapping project (CBI 2017). Based on these studies, RRCSP contributes to providing the following important habitat connectivity:

- **El Paso Mountains and Fremont Valley to Southern Sierra Nevada Mountains:** The Park provides a habitat linkage between the Fremont Valley southeast of the Park through the El Paso Mountains and into the southern Sierra Nevada Mountains (Spencer et al. 2010; Penrod et al. 2012). Penrod et al. (2012) model specific corridors along the El Paso Mountains and in the western portion of RRCSP along Dove Springs Canyon and Butterbrecht Canyon.
- **West Mojave transition to Tehachapi Mountains:** The Park is part of a broad habitat linkage along the southwest-to-northeast oriented Tehachapi Mountain Range, which is a transition zone along the edge of the Mojave Desert (Spencer et al. 2010).
- **Fremont Valley to Indian Wells Valley:** RRCSP links the desert floor of the Fremont Valley southeast of the Park to the Indian Wells Valley north of the Park through a broad corridor along the entire western portion of RRCSP (CBI 2017).

As these studies show, RRCSP is a regionally important area for habitat connectivity and wildlife movement. At a local scale, wildlife movement is influenced by landscape features, and the movement and dispersal capabilities of individual species. Landscape features like washes, canyons, riparian habitat, and ridgelines are landforms often used by species for movement and would be considered important for the maintenance of habitat connectivity in the region.





SOURCE: Bing Maps 2018; South Coast Wildlands 2018; CDFW 2018; CBI 2018; BLM 2018



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## 5 MANAGEMENT CONSIDERATIONS

Situated at the western edge of the Mojave Desert in a transition zone to the southern Sierra Nevada Mountains, RRCSP is a biologically diverse Park unit supporting unique and rich assemblages of plant and wildlife species and vegetation communities. Management of RRCSP must take into consideration a myriad resource values and Park uses, including biological resources. Table 4 synthesizes the biological information provided in this report to highlight the key biological functions and management considerations for RRCSP.

**Table 6**  
**Biological Management Considerations**

| General Habitats                             | Key Biological Functions                                                                                                                                                                                                                                                                                                                                                                                                                           | Management Considerations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Desert Scrubs</b>                         | <ul style="list-style-type: none"> <li>• Desert tortoise habitat and western edge of species range</li> <li>• Mohave ground squirrel key population center and population expansion area</li> <li>• Resident scrub bird nesting and foraging</li> <li>• Raptor foraging</li> <li>• Migratory bird movement, stop over, and foraging</li> <li>• Joshua tree woodlands</li> <li>• Habitat connectivity</li> <li>• Hydrologic connectivity</li> </ul> | <ul style="list-style-type: none"> <li>• Continue to protect and maintain the biological functions of desert scrub habitats within the Park.</li> <li>• Continue to implement route management activities to maintain access and appropriate use within the Park, including designating open and closed routes, fencing and signage, route maintenance, patrolling, enforcement, and agency and user group partnerships.</li> <li>• Implement periodic species population monitoring activities in the Park, using structured and repeatable methods that contribute to regional monitoring by state/federal agencies in the Mojave Desert, to detect trends in distribution, occupancy, or abundance of key species such as desert tortoise, Mohave ground squirrel, scrub birds, and Joshua tree.</li> </ul> |
| <b>Riparian and Wetland and Other Waters</b> | <ul style="list-style-type: none"> <li>• Riparian bird nesting, stop over, and foraging</li> <li>• Bat foraging</li> <li>• Migratory bird movement, stop over, and foraging</li> <li>• Wildlife movement</li> <li>• Surface water source</li> <li>• Climate refugia</li> </ul>                                                                                                                                                                     | <ul style="list-style-type: none"> <li>• Continue to protect and maintain the biological functions of riparian and wetland habitats within the Park.</li> <li>• Continue to implement route management activities to maintain access and appropriate vehicle use within the Park.</li> <li>• Implement access restrictions as necessary to protect riparian and wetland areas, seeps/springs, or areas of surface water, particularly those areas supporting willow, mesquite, rushes, and cattails.</li> <li>• Implement periodic qualitative assessments of the willow riparian habitat at Cudahy Camp and rush marsh stands along SR-14 to track persistence and function.</li> </ul>                                                                                                                       |
| <b>Cliffs, Outcrops, and Canyons</b>         | <ul style="list-style-type: none"> <li>• Nesting for raptors, including golden eagles, hawks, falcons, owls</li> <li>• Bat roosting</li> <li>• Wildlife movement</li> <li>• Climate refugia</li> </ul>                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>• Continue to protect and maintain the biological functions of cliff, outcrop, and canyon habitats within the Park.</li> <li>• Continue to implement route management activities to maintain access and appropriate vehicle use within the Park.</li> <li>• Implement seasonal access restrictions in areas of active nesting for golden eagle and other raptors, including but not limited to Nightmare Gulch and Red Bluffs, to avoid disrupting nesting during the season from February through June, unless nest monitoring documents the absence or completion of nesting during that season.</li> </ul>                                                                                                                                                           |

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# **APPENDIX A**

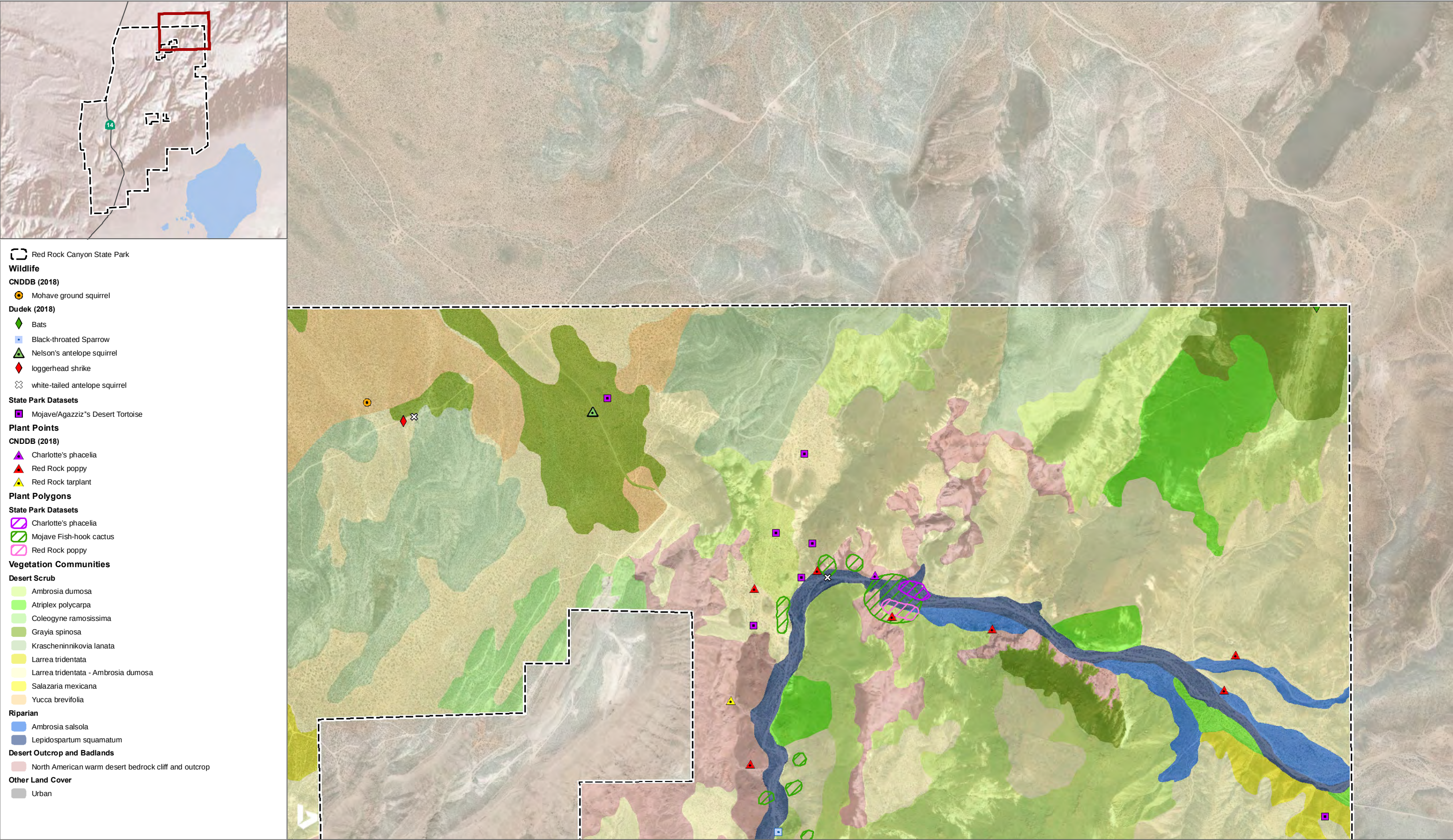
## ***Biological Resources Mapbook***





SOURCE: Bing Maps 2018; CDFW 2018; California State Parks 2018; DRECP 2016; BLM 2012





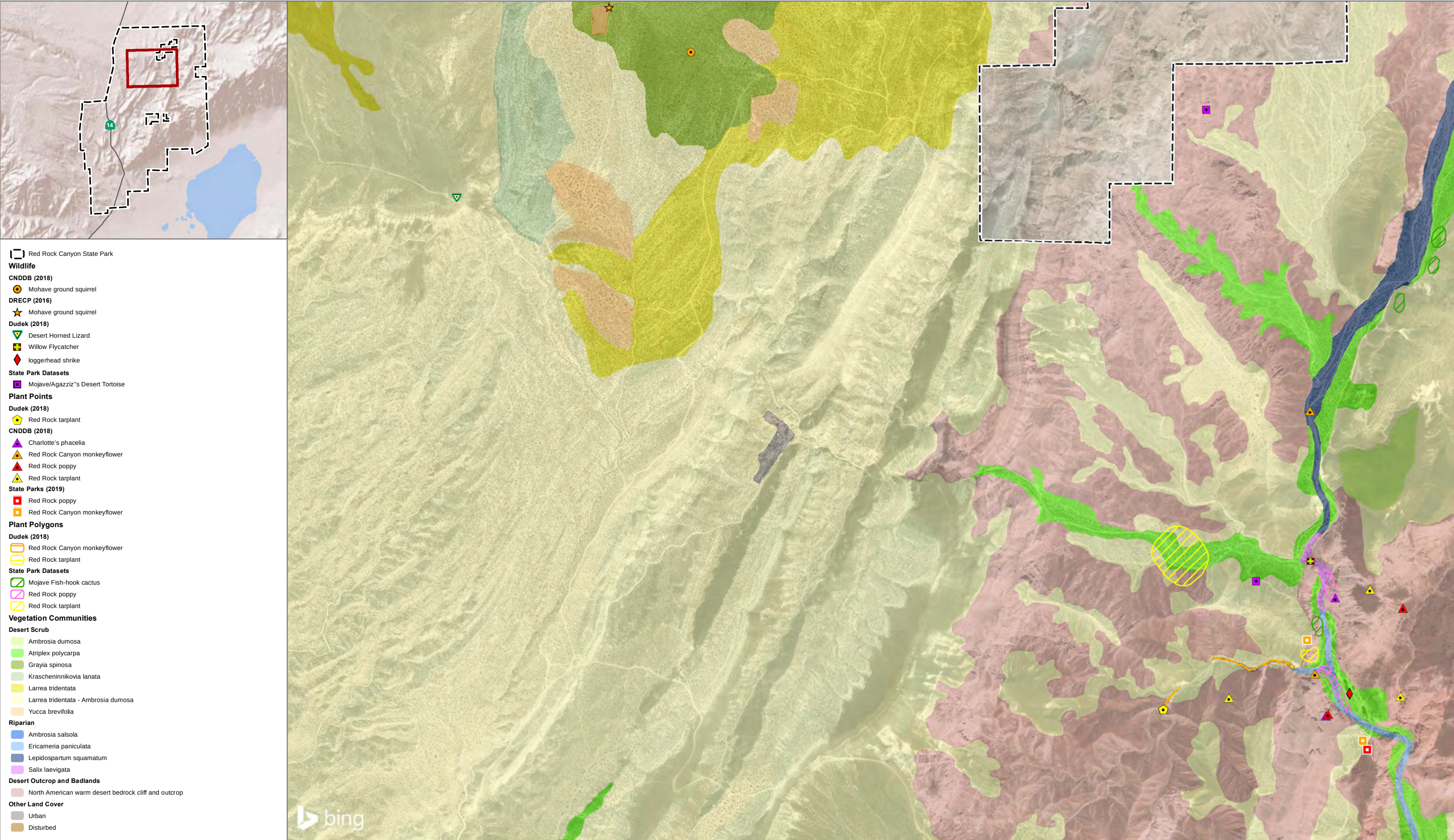
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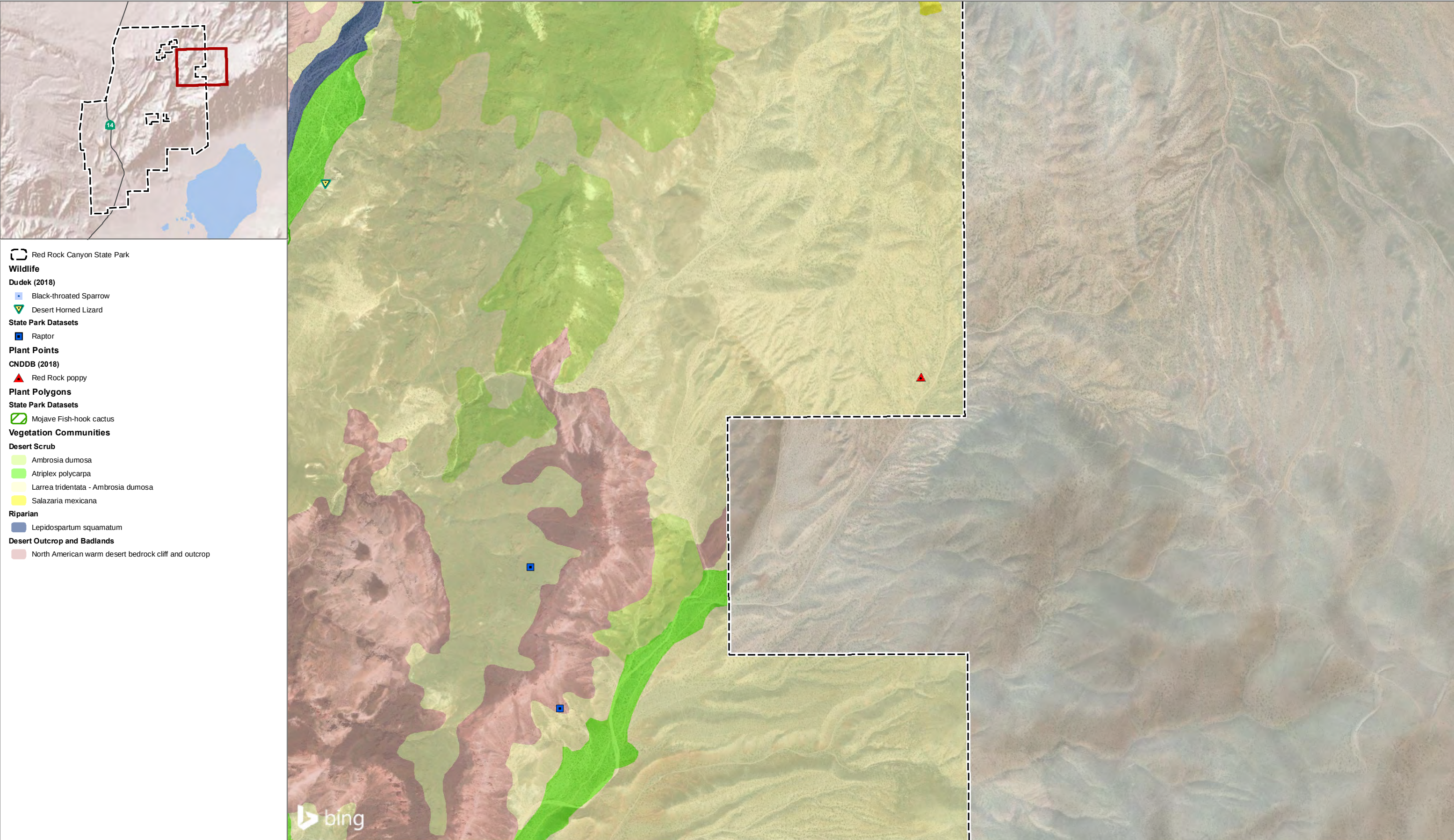
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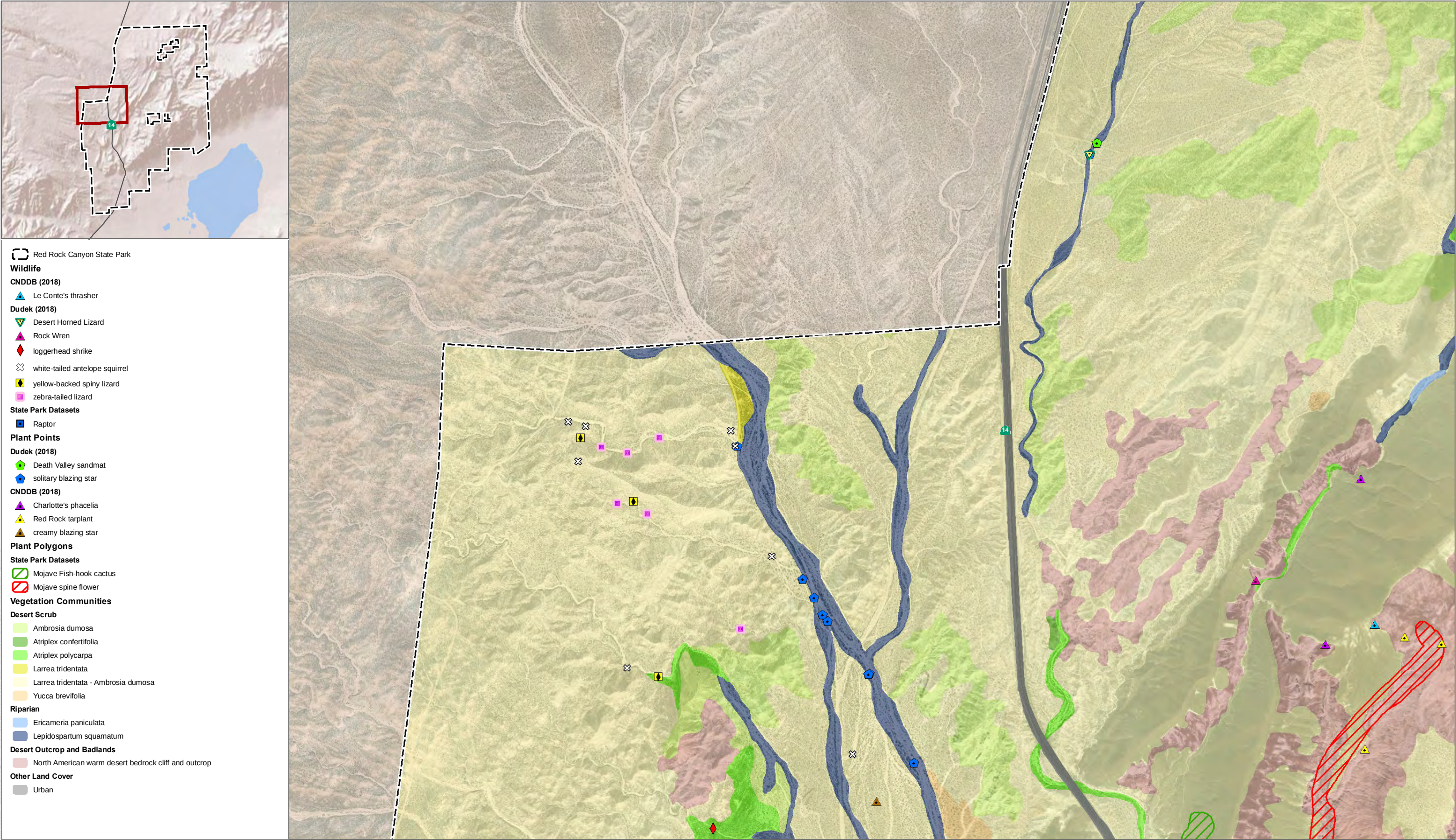
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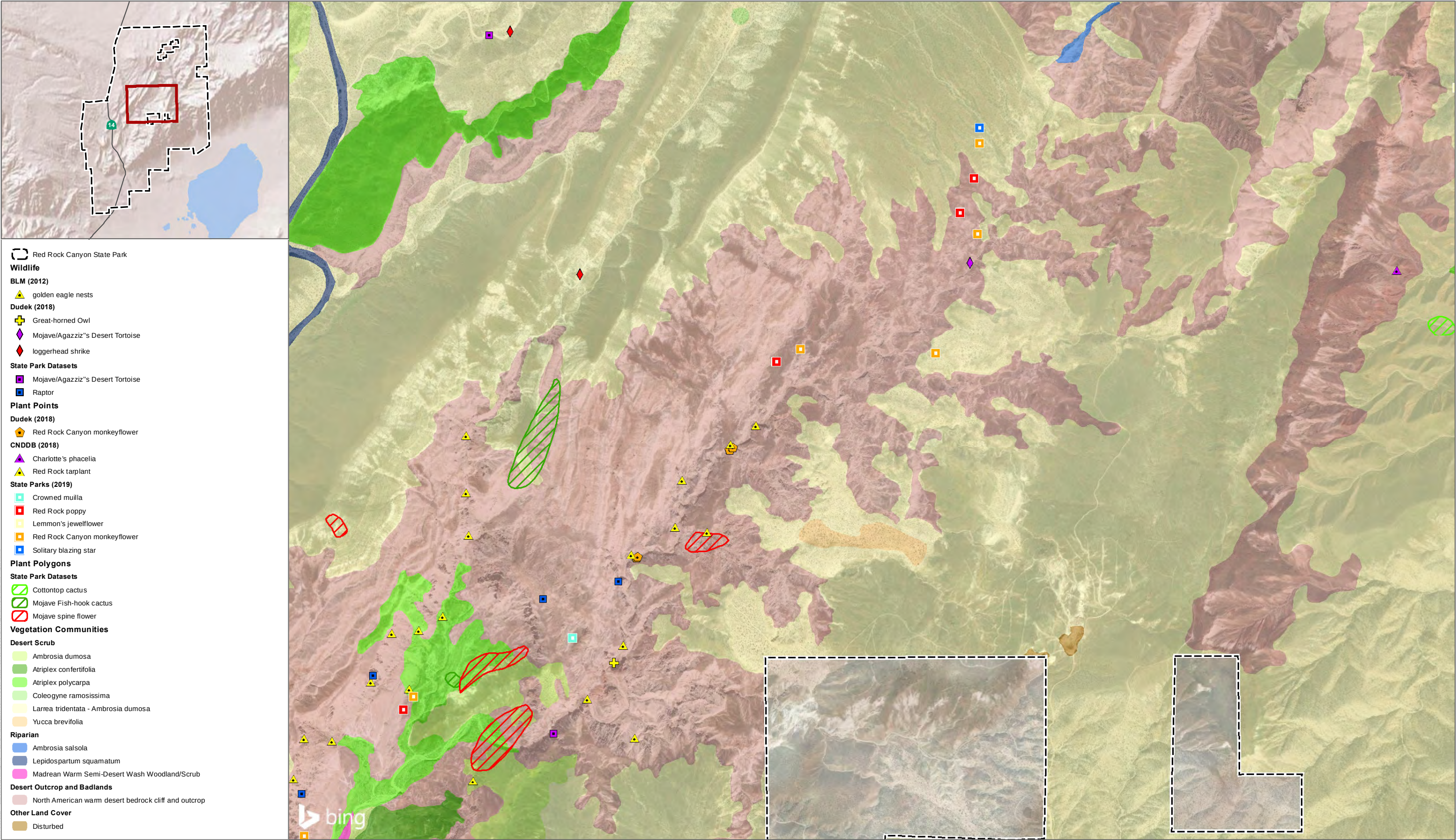
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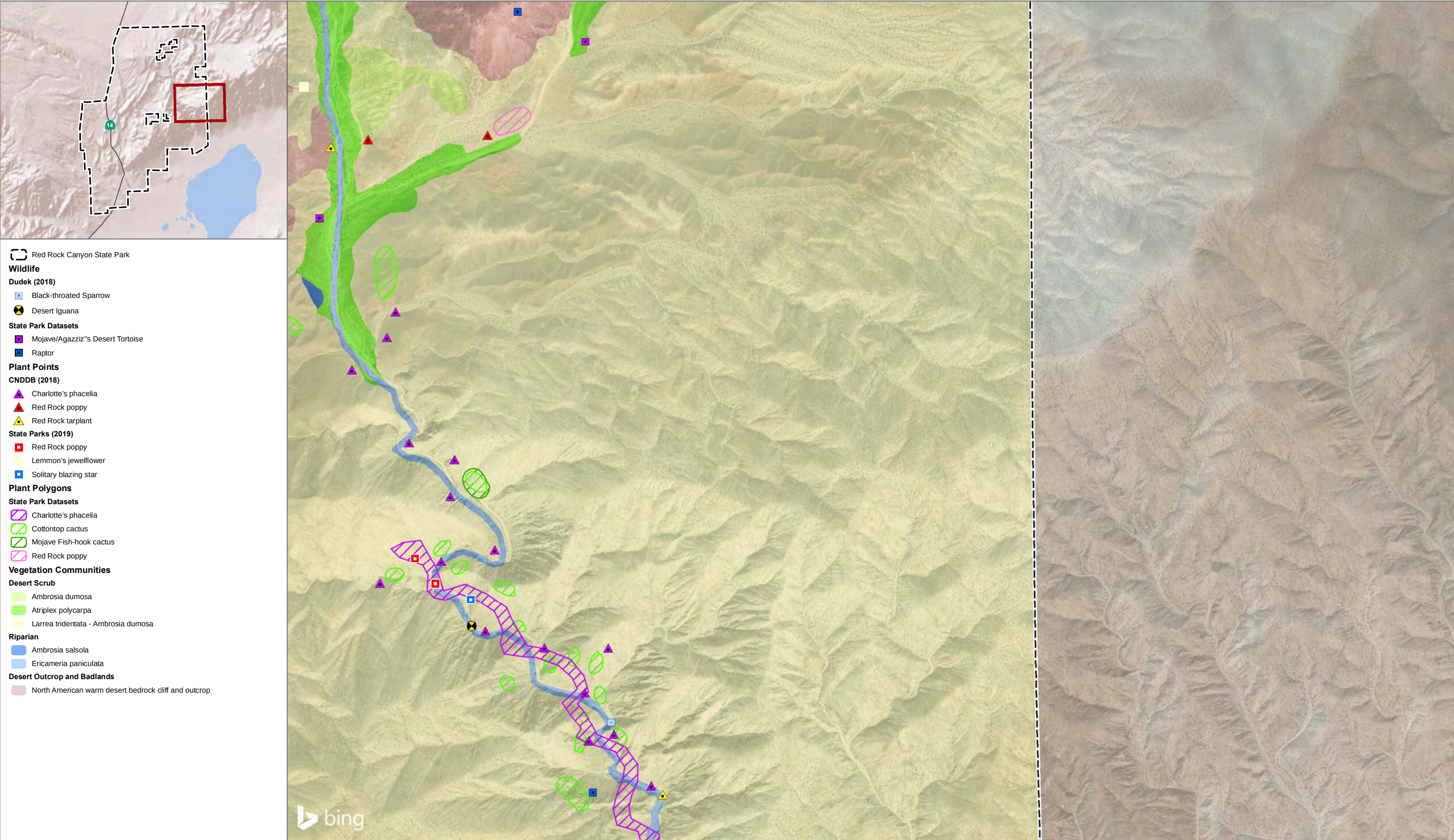
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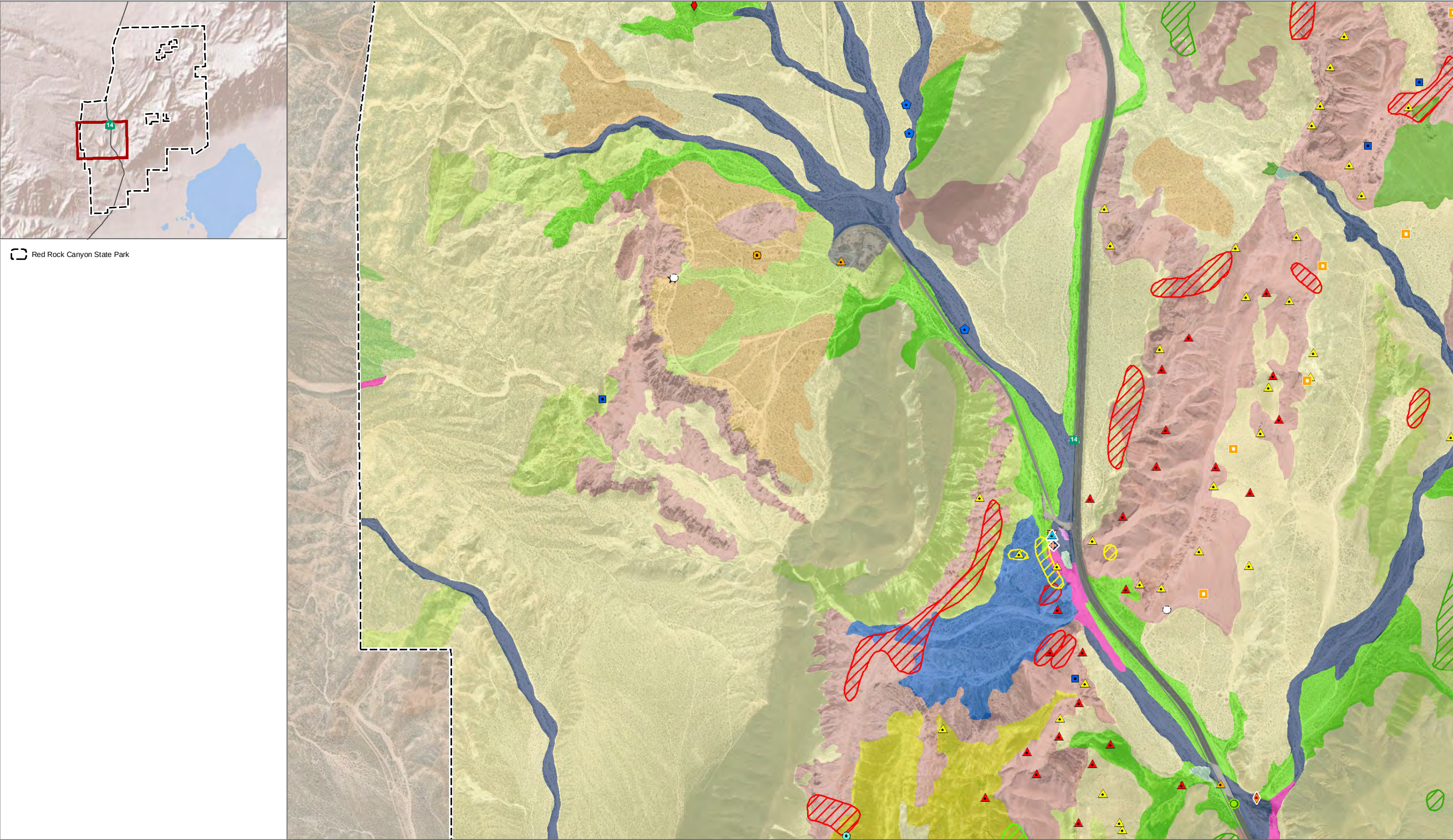
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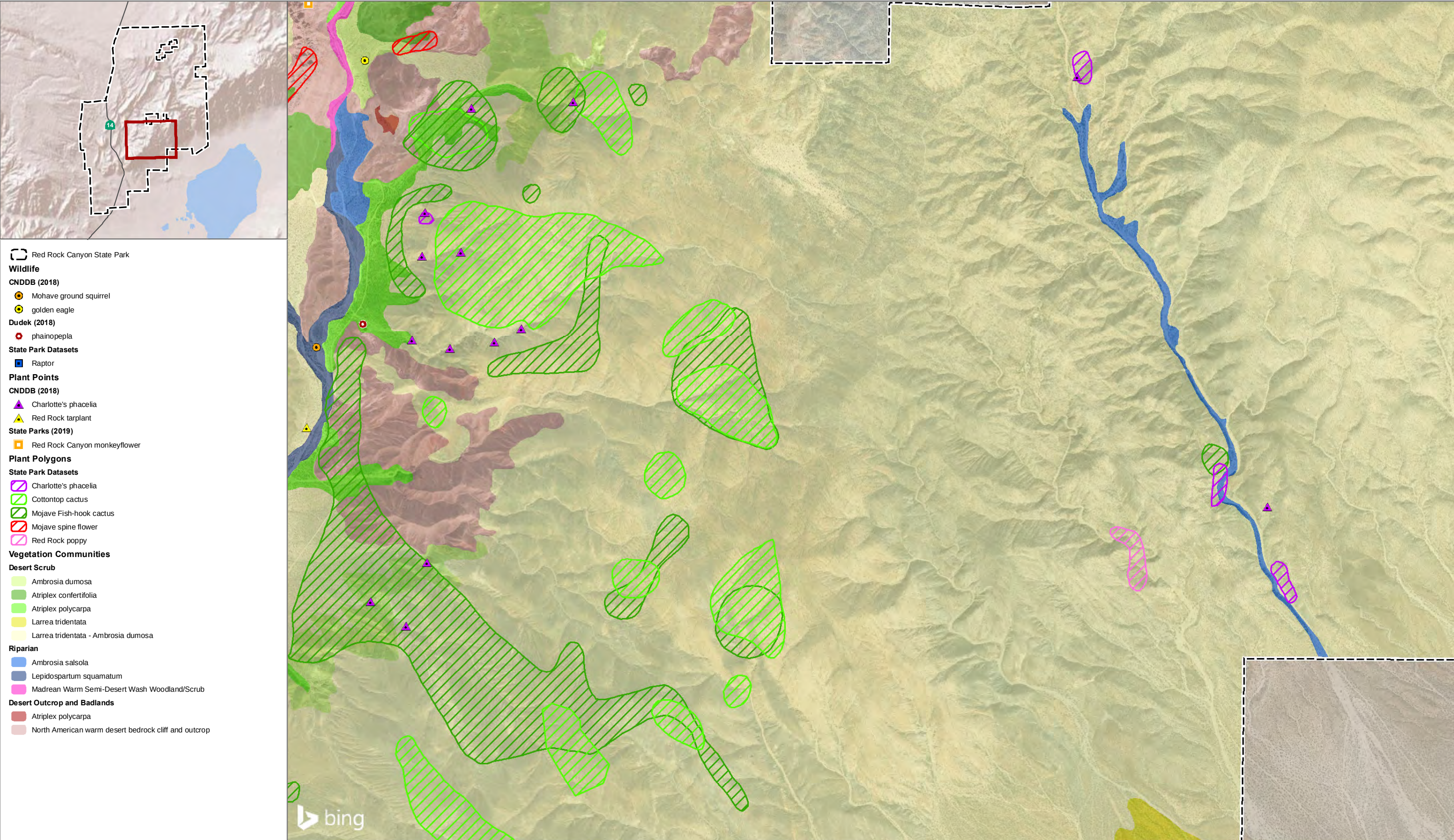
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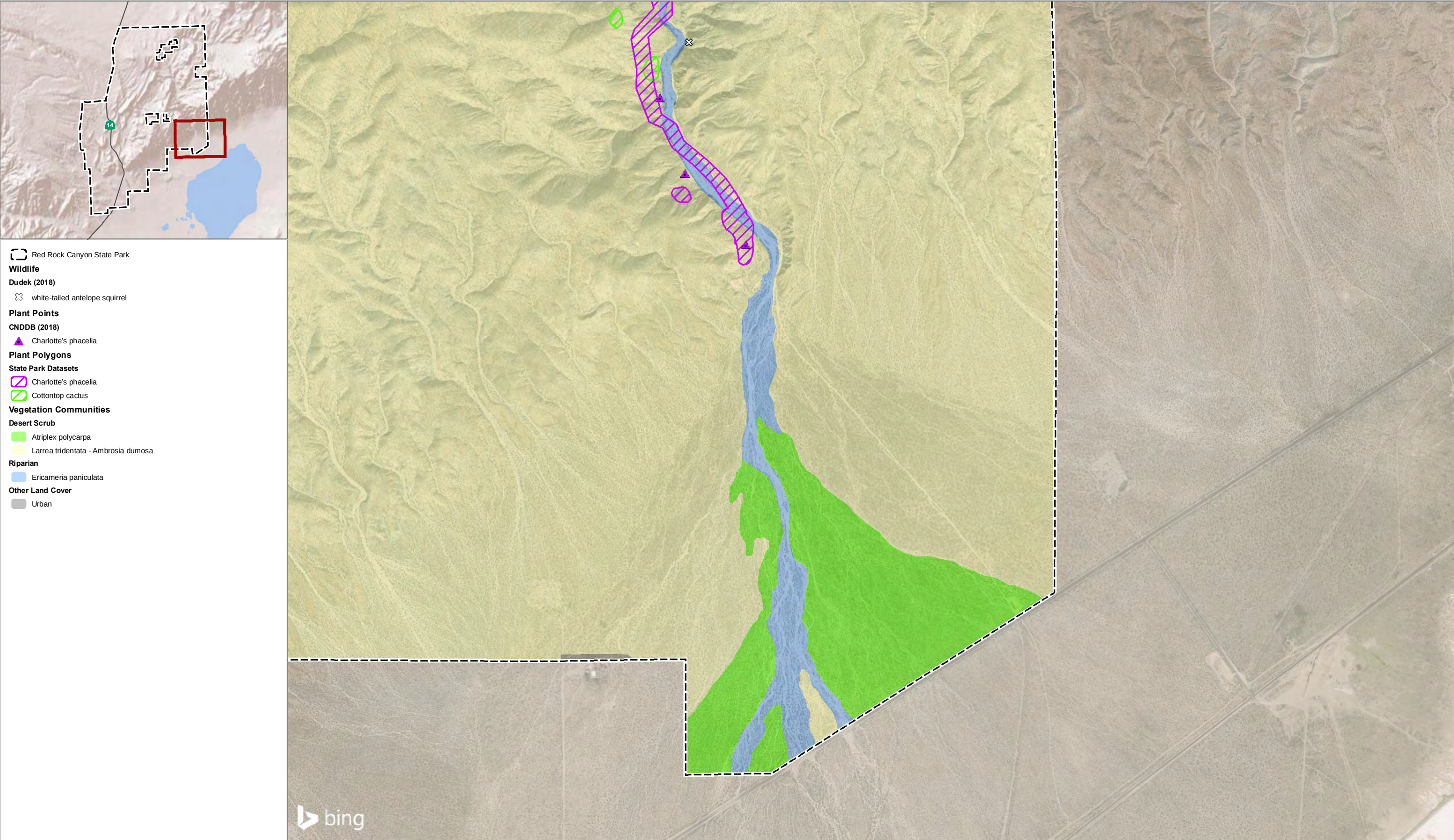
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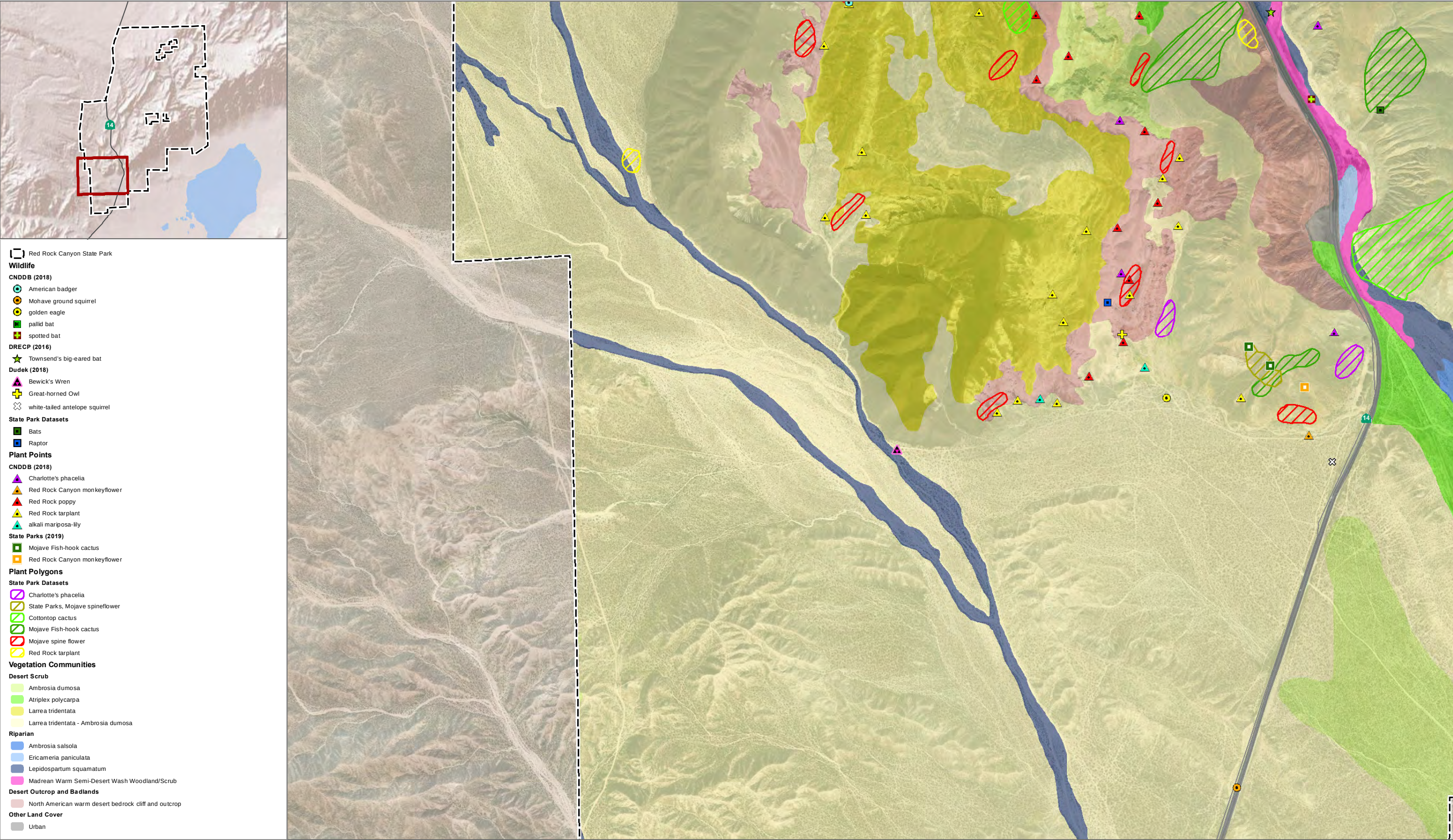
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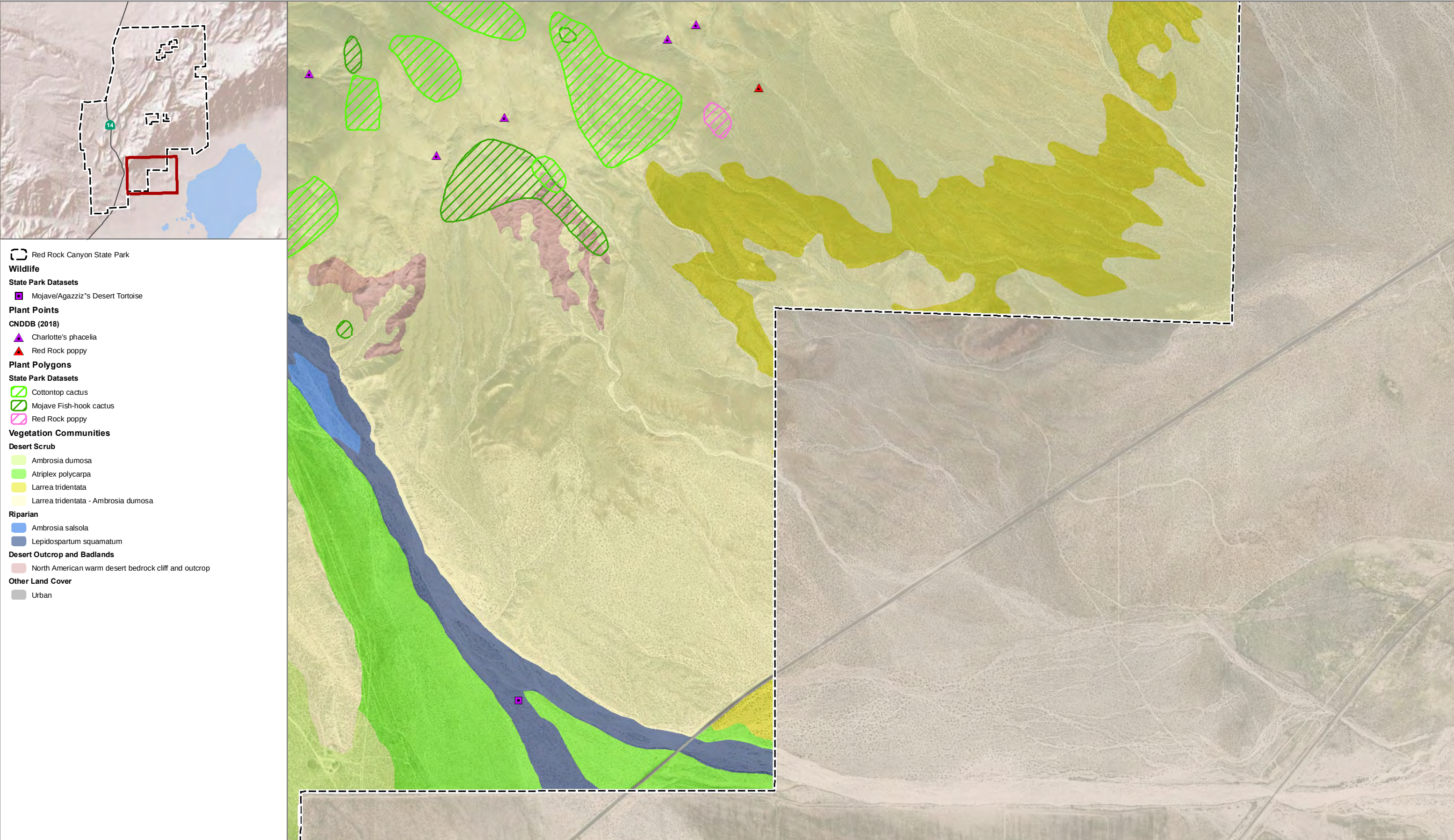
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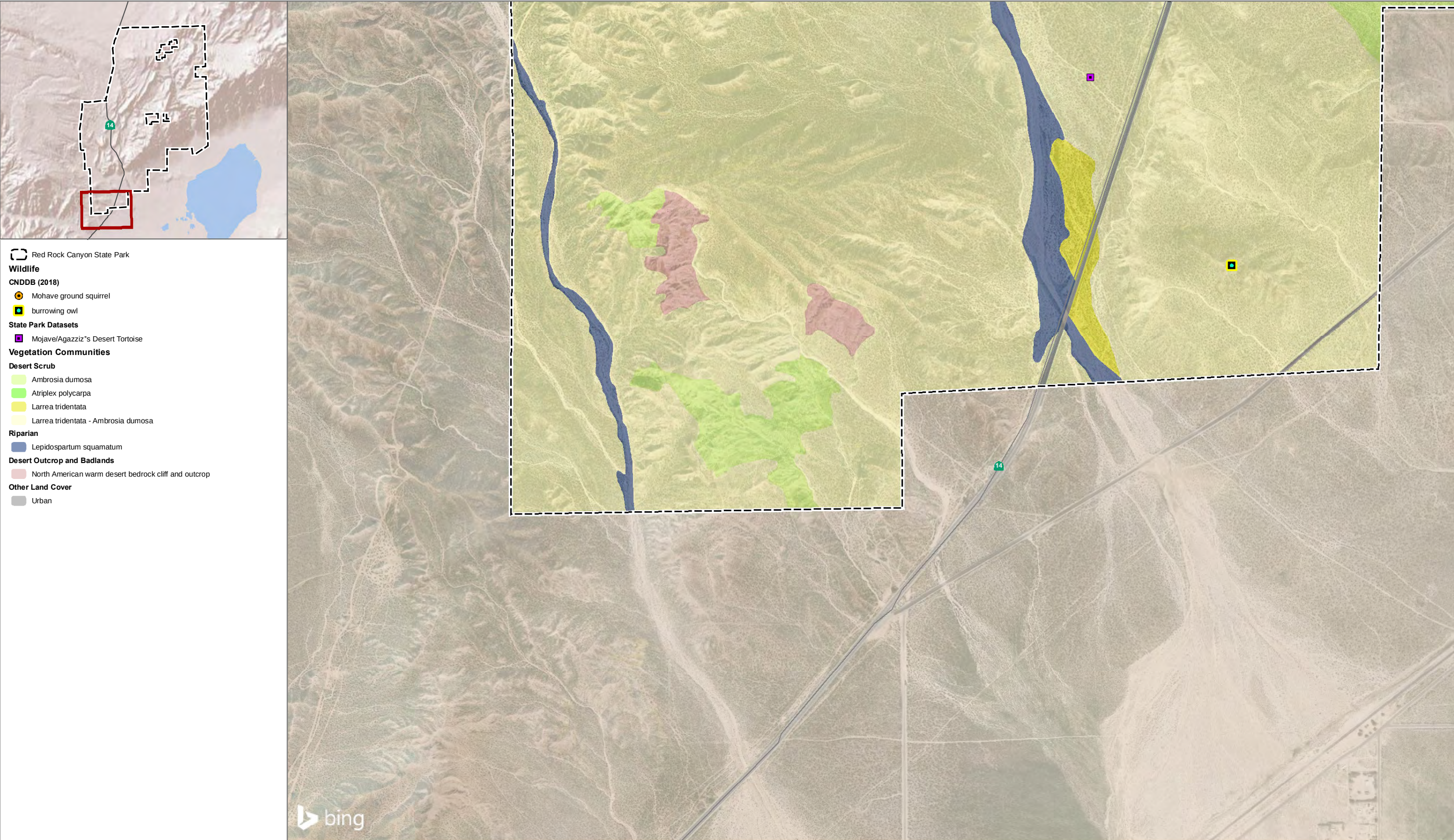
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SOURCE: Bing Maps 2018; CDFW 2018; California State Parks 2018; DRECP 2016; BLM 2012





SOURCE: Bing Maps 2018; CDFW 2018; California State Parks 2018; DRECP 2016; BLM 2012



# **APPENDIX B**

## *Plant Species List*

## APPENDIX B

### PLANT COMPENDIUM

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#### EUDICOTS

#### VASCULAR SPECIES

##### AMARANTHACEAE—AMARANTH FAMILY

- \* *Amaranthus albus*—prostrate pigweed
- Tidestromia suffruticosa* var. *oblongifolia*—Arizona honey sweet

##### APIACEAE—CARROT FAMILY

- Cymopterus deserticola*—desert cymopterus
- Lomatium mohavense*—Mojave desertparsley

##### APOCYNACEAE—DOGBANE FAMILY

- Asclepias erosa*—desert milkweed

##### ASTERACEAE—SUNFLOWER FAMILY

- Acamptopappus sphaerocephalus* var. *hirtellus*—rayless goldenhead
- Ambrosia acanthicarpa*—flatspine bur ragweed
- Ambrosia dumosa*—white bursage
- Ambrosia salsola* var. *salsola*—burrobrush
- Ambrosia salsola*—cheesebush
- Anisocoma acaulis*—scalebud
- Artemisia spinescens*—bud sagebrush
- Baccharis salicifolia* ssp. *salicifolia*—mulefat
- Baccharis sergiloides*—broom baccharis
- Bebbia juncea* var. *aspera*—sweetbush
- Brickellia californica*—California brickellbush
- Brickellia desertorum*—desert brickellbush
- Calycoseris parryi*—yellow tackstem
- \* *Centaurea benedicta*—blessed thistle
- Chaenactis carphoclinia* var. *carphoclinia*—pebble pincushion
- Chaenactis fremontii*—pincushion flower
- Chaenactis macrantha*—bighead dustymaiden
- Deinandra arida*—Red Rock tarplant
- Deinandra kelloggii*—Kellogg's tarweed
- Dicoria canescens*—desert twinbugs
- Encelia actoni*—Acton's brittlebush
- Ericameria cooperi* var. *cooperi*—Cooper's goldenbush
- Ericameria linearifolia*—narrowleaf goldenbush
- Ericameria nauseosa* var. *mohavensis*—Mojave rabbitbrush
- Ericameria nauseosa* var. *oreophila*—rubber rabbitbrush



## APPENDIX B

### PLANT COMPENDIUM

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- Ericameria paniculata*—black-stem rabbitbrush  
*Ericameria teretifolia*—needleleaf rabbitbrush
- \* *Erigeron bonariensis*—asthmaweed  
*Eriophyllum ambiguum* var. *paleaceum*—beautiful woolly sunflower  
*Eriophyllum pringlei*—Pringle's woolly sunflower  
*Eriophyllum wallacei*—woolly easterbonnets  
*Glyptopleura marginata*—carveseed  
*Glyptopleura setulosa*—holy dandelion  
*Gnaphalium palustre*—western marsh cudweed  
*Gutierrezia microcephala*—threadleaf snakeweed
- \* *Lactuca serriola*—prickly lettuce  
*Lasthenia californica*—California goldfields  
*Lasthenia gracilis*—needle goldfields  
*Layia glandulosa*—whitedaisy tidytips  
*Layia heterotricha*—pale-yellow layia  
*Lepidospartum squamatum*—scale broom  
*Leptosyne bigelovii*—Bigelow's tickseed  
*Leptosyne californica*—California tickseed  
*Lessingia glandulifera* var. *peirsonii*—valley lessingia  
*Lessingia glandulifera*—valley lessingia  
*Leucosyris carnosa*—no common name  
*Logfia depressa*—dwarf cottonrose  
*Malacothrix coulteri*—snake's head  
*Malacothrix glabrata*—smooth desertdandelion  
*Malacothrix sonchoides*—sowthistle desertdandelion
- \* *Matricaria discoidea*—disc mayweed  
*Monolopia lanceolata*—common monolopia  
*Monoptilon bellidiforme*—daisy desertstar  
*Monoptilon bellioides*—Mojave desertstar  
*Nicolletia occidentalis*—Mojave hole-in-the-sand plant  
*Perityle emoryi*—Emory's rockdaisy  
*Peucephyllum schottii*—Schott's pygmycedar  
*Prenanthes exiguua*—brightwhite  
*Psathyrotes annua*—annual psathyrotes  
*Rafinesquia neomexicana*—New Mexico plumeseed
- \* *Sonchus asper*—spiny sowthistle  
*Stephanomeria exigua*—small wirelettuce  
*Stephanomeria parryi*—Parry's wirelettuce  
*Stephanomeria pauciflora*—brownplume wirelettuce  
*Stylocline psilocarphoides*—baretwig neststraw

## APPENDIX B

### PLANT COMPENDIUM

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*Syntrichopappus fremontii*—yellowray Fremont's-gold  
*Tetradymia axillaris*—longspine horsebrush  
*Tetradymia glabrata*—littleleaf horsebrush  
*Tetradymia stenolepis*—Mojave cottonthorn  
*Uropappus lindleyi*—Lindley's silverpuffs  
*Xylorhiza tortifolia* var. *tortifolia*—Mojave woodyaster  
*Xylorhiza tortifolia*—Mojave woodyaster

#### **BORAGINACEAE—BORAGE FAMILY**

*Amsinckia intermedia*—common fiddleneck  
*Amsinckia tessellata*—bristly fiddleneck  
*Amsinckia vernicosa*—green fiddleneck  
*Cryptantha circumscissa* var. *circumscissa*—cushion cryptantha  
*Cryptantha decipiens*—gravelbar cryptantha  
*Cryptantha dumetorum*—bushloving cryptantha  
*Cryptantha micrantha*—redroot cryptantha  
*Cryptantha mohavensis*—Mojave cryptantha  
*Cryptantha nevadensis* var. *nevadensis*—Nevada cryptantha  
*Cryptantha oxygona*—sharpnut cryptantha  
*Cryptantha pterocarya* var. *pterocarya*—wingnut cryptantha  
*Cryptantha similis*—desert cryptantha  
*Cryptantha utahensis*—scented cryptantha  
*Emmenanthe penduliflora* var. *penduliflora*—whisperingbells  
*Eucrypta chrysanthemifolia* var. *bipinnatifida*—spotted hideseed  
*Eucrypta micrantha*—dainty desert hideseed  
*Heliotropium curassavicum* var. *oculatum*—seaside heliotrope  
*Heliotropium curassavicum*—salt heliotrope  
*Nama demissa*—no common name  
*Nama depressa*—no common name  
*Pectocarya heterocarpa*—chuckwalla combseed  
*Pectocarya linearis* ssp. *ferocula*—sagebrush combseed  
*Pectocarya penicillata*—sleeping combseed  
*Pectocarya platycarpa*—broadfruit combseed  
*Pectocarya recurvata*—curvenut combseed  
*Pectocarya setosa*—moth combseed  
*Phacelia distans*—distant phacelia  
*Phacelia fremontii*—Fremont's phacelia  
*Phacelia nashiana*—Charlotte's phacelia  
*Phacelia pachyphylla*—blacktack phacelia  
*Phacelia ramosissima*—branching phacelia



## APPENDIX B

### PLANT COMPENDIUM

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*Phacelia rotundifolia*—roundleaf phacelia

*Phacelia tanacetifolia*—lacy phacelia

*Phacelia vallis-mortae*—Death Valley phacelia

*Pholisma arenarium*—desert christmas tree

*Pholistoma membranaceum*—white fiestaflower

*Plagiobothrys arizonicus*—Arizona popcornflower

*Plagiobothrys jonesii*—Mojave popcornflower

*Tiquilia nuttallii*—Nuttall's crinklemat

#### BRASSICACEAE—MUSTARD FAMILY

- \* *Brassica nigra*—black mustard
- \* *Capsella bursa-pastoris*—shepherd's purse
- Caulanthus cooperi*—Cooper's wild cabbage
- Caulanthus inflatus*—desert candle
- Caulanthus lasiophyllus*—California mustard
- Caulanthus lemmonii*—Lemmon's jewelflower
- Descurainia pinnata*—western tansymustard
- \* *Descurainia sophia*—herb sophia
- Dithyrea californica*—California shieldpod
- Erysimum capitatum* var. *capitatum*—sanddune wallflower
- \* *Hirschfeldia incana*—shortpod mustard
- Lepidium dictyotum*—alkali pepperweed
- Lepidium flavum*—yellow pepperweed
- Lepidium fremontii*—desert pepperweed
- Lepidium lasiocarpum*—shaggyfruit pepperweed
- Lepidium nitidum*—shining pepperweed
- \* *Sisymbrium altissimum*—tall tumbledustard
- \* *Sisymbrium orientale*—Indian hedgemustard
- Stanleya pinnata* var. *pinnata*—desert princesplume
- Streptanthella longirostris*—longbeak streptanthella
- Thysanocarpus curvipes*—sand fringe pod
- Tropidocarpum gracile*—dobie pod

#### CACTACEAE—CACTUS FAMILY

*Cylindropuntia echinocarpa*—Wiggins' cholla

*Echinocactus polycephalus* var. *polycephalus*—cotton-top cactus

*Opuntia basilaris* var. *basilaris*—beavertail pricklypear

*Sclerocactus polyancistrus*—Mojave fish-hook cactus

## APPENDIX B

### PLANT COMPENDIUM

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#### CAMPANULACEAE—BELLFLOWER FAMILY

- Nemacladus gracilis*—slender nemacladus  
*Nemacladus orientalis*—glandular threadplant  
*Nemacladus rubescens*—desert threadplant  
*Nemacladus sigmoideus*—sigmoid threadplant

#### CARYOPHYLLACEAE—PINK FAMILY

- Loeflingia squarrosa*—spreading pygmyleaf  
*Sagina decumbens* ssp. *occidentalis*—western pearlwort  
*Spergularia atrosperma*—blackseed sandspurry  
*Spergularia marina*—salt sandspurry

#### CHENOPODIACEAE—GOOSEFOOT FAMILY

- Atriplex canescens*—fourwing saltbush  
*Atriplex confertifolia*—shadscale  
*Atriplex hymenelytra*—desert holly  
*Atriplex parryi*—Parry's saltbush  
*Atriplex polycarpa*—allscale  
\* *Atriplex rosea*—tumbling saltweed  
*Atriplex serenana* var. *serenana*—bractscale  
\* *Bassia hyssopifolia*—fivehorn smotherweed  
*Chenopodium leptophyllum*—narrowleaf goosefoot  
*Grayia spinosa*—spiny hop sage  
*Krascheninnikovia lanata*—winterfat  
*Monolepis nuttalliana*—Nuttall's povertyweed  
\* *Salsola paulsenii*—barbwire Russian thistle  
\* *Salsola tragus*—prickly Russian thistle  
*Stutzia covillei*—no common name

#### CLEOMACEAE—CLEOME FAMILY

- Peritoma arborea*—bladderpod spiderflower

#### CONVOLVULACEAE—MORNING-GLORY FAMILY

- Cuscuta denticulata*—desert dodder

#### CUCURBITACEAE—GOURD FAMILY

- Cucurbita palmata*—coyote gourd

#### EUPHORBIACEAE—SPURGE FAMILY

- Croton setiger*—dove weed  
*Euphorbia albomarginata*—whitemargin sandmat



## APPENDIX B

### PLANT COMPENDIUM

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*Euphorbia setiloba*—Yuma sandmat  
*Euphorbia vallis-mortae*—Death Valley sandmat  
*Stillingia paucidentata*—Mojave toothleaf

#### FABACEAE—LEGUME FAMILY

*Acmispon brachycarpus*—foothill deervetch  
*Acmispon maritimus* var. *brevivexillus*—coastal bird's-foot trefoil  
*Astragalus didymocarpus* var. *dispermus*—dwarf white milkvetch  
*Astragalus lentiginosus* var. *variabilis*—freckled milkvetch  
*Astragalus pachypus*—thickpod milkvetch  
*Lupinus albifrons* var. *albifrons*—silver lupine  
*Lupinus concinnus*—bajada lupine  
*Lupinus excubitus* var. *excubitus*—grape soda lupine  
*Lupinus microcarpus* var. *horizontalis*—sunset lupine  
*Lupinus odoratus*—Mojave lupine  
*Lupinus shockleyi*—purple desert lupine  
\* *Medicago sativa*—alfalfa  
*Prosopis glandulosa* var. *torreyana*—western honey mesquite  
*Psoralea argophylla* var. *minutifolia*—Johnson's indigobush  
*Psoralea argophylla*—Mojave indigobush  
*Psoralea fremontii* var. *fremontii*—Fremont's dalea  
*Senna armata*—desertsenna

#### GERANIACEAE—GERANIUM FAMILY

\* *Erodium cicutarium*—redstem stork's bill  
*Erodium texanum*—Texas stork's bill

#### LAMIACEAE—MINT FAMILY

*Salvia carduacea*—thistle sage  
*Salvia columbariae*—chia  
*Salvia dorrii* var. *dorrii*—purple sage  
*Scutellaria mexicana*—bladder sage

#### LOASACEAE—LOASA FAMILY

*Eucnide urens*—desert stingbush  
*Mentzelia affinis*—yellowcomet  
*Mentzelia albicaulis*—whitestem blazingstar  
*Mentzelia eremophila*—solitary blazing star  
*Mentzelia involucreata*—whitebract blazingstar  
*Mentzelia nitens*—shining blazingstar  
*Mentzelia tricuspidata*—spiny-hair blazing star

## APPENDIX B

### PLANT COMPENDIUM

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*Mentzelia tridentata*—creamy blazing star  
*Petalonyx nitidus*—shinyleaf sandpaper plant  
*Petalonyx thurberi* ssp. *thurberi*—Thurber's sandpaper plant  
*Petalonyx thurberi*—Thurber's sandpaper plant

#### MALVACEAE—MALLOW FAMILY

*Eremalche exilis*—white mallow  
*Eremalche rotundifolia*—desert fivespot  
*Sphaeralcea ambigua*—desert globemallow

#### MONTIACEAE—MONTIA FAMILY

*Calandrinia menziesii*—red maids  
*Calyptidium monandrum*—common pussypaws  
*Claytonia parviflora*—streambank springbeauty

#### NYCTAGINACEAE—FOUR O'CLOCK FAMILY

*Abronia pogonantha*—Mojave sand verbena  
*Mirabilis laevis* var. *retrorsa*—wishbone-bush

#### ONAGRACEAE—EVENING PRIMROSE FAMILY

*Camissonia campestris* ssp. *campestris*—Mojave suncup  
*Camissonia kernensis* ssp. *gilmanii*—Gilman's evening primrose  
*Camissonia kernensis* ssp. *kernensis*—Kern County evening-primrose  
*Chylismia claviformis* ssp. *claviformis*—no common name  
*Eremothera boothii* ssp. *condensata*—shredding suncup  
*Eremothera boothii* ssp. *desertorum*—desert suncup  
*Eremothera boothii*—Booth's evening primrose  
*Oenothera californica*—California evening primrose  
*Oenothera cespitosa*—tufted evening primrose  
*Oenothera deltoides*—birdcage evening primrose  
*Oenothera primiveris*—desert evening primrose  
*Tetrapteron palmeri*—Palmer evening primrose

#### OROBANCHACEAE—BROOM-RAPE FAMILY

*Castilleja chromosa*—northwestern Indian paintbrush  
*Castilleja exserta* ssp. *venusta*—exserted Indian paintbrush

#### PAPAVERACEAE—POPPY FAMILY

*Argemone munita*—flatbud pricklypoppy  
*Eschscholzia californica*—California poppy  
*Eschscholzia minutiflora* ssp. *covillei*—Coville's pygmy poppy



## APPENDIX B

### PLANT COMPENDIUM

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*Eschscholzia minutiflora* ssp. *minutiflora*—pygmy poppy  
*Eschscholzia minutiflora* ssp. *twisselmannii*—Red Rock poppy  
*Eschscholzia minutiflora*—pygmy poppy  
*Platystemon californicus*—creamcups

#### PHRYMACEAE—LOPSEED FAMILY

*Diplacus bigelovii*—Bigelow's monkeyflower  
*Erythranthe guttata*—common monkey flower  
*Erythranthe palmeri*—Palmer's monkeyflower  
*Erythranthe rhodopetra*—Red Rock Canyon monkeyflower

#### PLANTAGINACEAE—PLANTAIN FAMILY

*Mohavea breviflora*—golden desert-snapdragon  
*Plantago ovata*—desert Indianwheat

#### POLEMONIACEAE—PHLOX FAMILY

*Aliciella hutchinsifolia*—desert pale gilia  
*Aliciella latifolia*—broad-leaf gilia  
*Aliciella leptomeria*—sand gilia  
*Aliciella lottiae*—Lott's gilia  
*Aliciella micromeria*—dainty gilia  
*Allophyllum gilioides* ssp. *violaceum*—dense false gilyflower  
*Eriastrum densifolium* ssp. *densifolium*—giant woollystar  
*Eriastrum densifolium* ssp. *mohavense*—giant woollystar  
*Eriastrum diffusum*—miniature woollystar  
*Eriastrum eremicum*—desert woollystar  
*Eriastrum pluriflorum*—Tehachapi woollystar  
*Gilia aliquanta*—puffcalyx gilia  
*Gilia brecciarum* ssp. *neglecta*—Nevada gilia  
*Gilia cana* ssp. *speciosa*—showy gilia  
*Gilia latiflora*—hollyleaf gilia  
*Gilia malior*—scrub gilia  
*Gilia scopulorum*—rock gilia  
*Gilia sinuata*—rosy gilia  
*Gilia stellata*—star gilia  
*Leptosiphon aureus*—golden linanthus  
*Linanthus bigelovii*—Bigelow's linanthus  
*Linanthus dichotomus*—eveningsnow  
*Linanthus filiformis*—yellow gilia  
*Linanthus parryae*—sandblossoms

## APPENDIX B

### PLANT COMPENDIUM

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*Loeseliastrum matthewsii*—desert calico

*Loeseliastrum schottii*—Schott's calico

#### POLYGONACEAE—BUCKWHEAT FAMILY

*Centrostegia thurberi*—red triangles

*Chorizanthe brevicornu*—brittle spineflower

*Chorizanthe rigida*—devil's spineflower

*Chorizanthe spinosa*—Mojave spineflower

*Chorizanthe watsonii*—fivetooth spineflower

*Eriogonum angulosum*—anglestem buckwheat

*Eriogonum brachyanthum*—shortflower buckwheat

*Eriogonum brachypodum*—Parry's buckwheat

*Eriogonum deflexum* var. *baratum*—flatcrown buckwheat

*Eriogonum fasciculatum* var. *polifolium*—California buckwheat

*Eriogonum gracillimum*—rose and white buckwheat

*Eriogonum inflatum*—desert trumpet

*Eriogonum maculatum*—spotted buckwheat

*Eriogonum mohavense*—Western Mojave buckwheat

*Eriogonum nidularium*—birdnest buckwheat

*Eriogonum nudum* var. *westonii*—Weston's buckwheat

*Eriogonum ovalifolium*—cushion buckwheat

*Eriogonum plumatella*—yucca buckwheat

*Eriogonum pusillum*—yellowturbans

*Eriogonum reniforme*—kidneyleaf buckwheat

*Eriogonum trichopes*—little deserttrumpet

*Eriogonum viridescens*—twotooth buckwheat

*Mucronea perfoliata*—perfoliate spineflower

*Oxytheca perfoliata*—roundleaf oxytheca

*Rumex hymenosepalus*—canaigre dock

#### RANUNCULACEAE—BUTTERCUP FAMILY

*Delphinium parishii* ssp. *parishii*—Parish's larkspur

#### ROSACEAE—ROSE FAMILY

*Coleogyne ramosissima*—black brush

#### SALICACEAE—WILLOW FAMILY

*Populus fremontii*—Fremont cottonwood

*Salix laevigata*—red willow

*Salix lasiolepis*—arroyo willow



## APPENDIX B

### PLANT COMPENDIUM

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#### SOLANACEAE—NIGHTSHADE FAMILY

*Datura wrightii*—sacred thorn-apple

*Lycium andersonii*—Anderson's boxthorn

*Lycium cooperi*—peach thorn

#### TAMARICACEAE—TAMARISK FAMILY

\* *Tamarix aphylla*—Athel tamarisk

\* *Tamarix parviflora*—smallflower tamarisk

\* *Tamarix ramosissima*—tamarisk

#### ZYGOPHYLLACEAE—CALTROP FAMILY

*Larrea tridentata*—creosote bush

### FERNS AND FERN ALLIES

#### VASCULAR SPECIES

#### PTERIDACEAE—BRAKE FAMILY

*Myriopteris viscida*—viscid lace fern

### GYMNOSPERMS AND GNETOPHYTES

#### VASCULAR SPECIES

#### EPHEDRACEAE—EPHEDRA FAMILY

*Ephedra nevadensis*—Nevada joint fir

### MONOCOTS

#### VASCULAR SPECIES

#### AGAVACEAE—AGAVE FAMILY

*Yucca brevifolia*—Joshua tree

#### ALLIACEAE—ONION FAMILY

*Allium fimbriatum* var. *fimbriatum*—fringed onion

*Allium fimbriatum* var. *mohavense*—Mojave fringed onion

*Allium lacunosum* var. *davisiae*—pitted onion

#### ARECACEAE—PALM FAMILY

\* *Washingtonia robusta*—Washington fan palm

## APPENDIX B

### PLANT COMPENDIUM

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#### CYPERACEAE—SEDGE FAMILY

- Bolboschoenus maritimus*—salt bulrush
- Eleocharis parishii*—Parish's spikerush
- Schoenoplectus americanus*—American bulrush
- Schoenoplectus pungens* var. *longispicatus*—common threesquare

#### JUNCACEAE—RUSH FAMILY

- Juncus balticus* ssp. *ater*—Baltic rush
- Juncus bufonius* var. *occidentalis*—toad rush

#### JUNCAGINACEAE—ARROW-GRASS FAMILY

- Triglochin concinna* var. *debilis*—no common name

#### LILIACEAE—LILY FAMILY

- Calochortus kennedyi* var. *kennedyi*—desert mariposa lily
- Calochortus striatus*—alkali mariposa lily

#### MELANTHIACEAE—FALSE HELLEBORE FAMILY

- Toxicoscordion brevibracteatum*—desert deathcamas

#### POACEAE—GRASS FAMILY

- \* *Avena barbata*—slender oat
- Bromus arizonicus*—Arizona brome
- \* *Bromus diandrus*—ripgut brome
- \* *Bromus madritensis* ssp. *rubens*—red brome
- \* *Bromus madritensis*—compact brome
- \* *Bromus tectorum*—cheatgrass
- \* *Chloris virgata*—feather fingergrass
- \* *Cynodon dactylon*—Bermudagrass
- Deschampsia danthonioides*—annual hairgrass
- Distichlis spicata*—salt grass
- Elymus elymoides* var. *brevifolius*—squirreltail
- Festuca microstachys*—six-weeks fescue
- Festuca octoflora*—sixweeks fescue
- Hordeum depressum*—dwarf barley
- \* *Hordeum murinum* ssp. *glaucum*—smooth barley
- \* *Hordeum murinum*—mouse barley
- Melica imperfecta*—smallflower melicgrass
- Muhlenbergia asperifolia*—scratchgrass
- Poa bigelovii*—Bigelow's bluegrass
- Poa fendleriana* ssp. *longiligula*—muttongrass



## APPENDIX B

### PLANT COMPENDIUM

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*Poa secunda* ssp. *secunda*—Sandberg bluegrass

*Poa secunda*—curly blue grass

\* *Polypogon monspeliensis*—annual rabbitsfoot grass

\* *Schismus arabicus*—Arabian schismus

\* *Schismus barbatus*—common Mediterranean grass

*Sporobolus airoides*—alkali sacaton

*Stipa hymenoides*—Indian rice grass

*Stipa speciosa*—desert needlegrass

\* *Triticum aestivum*—common wheat

#### THEMIDACEAE—BRODIAEA FAMILY

*Dichelostemma capitatum*—bluedicks

*Muilla coronata*—crowned muilla

#### TYPHACEAE—CATTAIL FAMILY

*Typha domingensis*—southern cattail

\* signifies introduced (non-native) species

# **APPENDIX C**

## *Wildlife Species List*



## **APPENDIX C**

### **Wildlife Compendium**

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#### **BIRD**

#### **FALCONS**

##### ***FALCONIDAE—CARACARAS AND FALCONS***

*Falco sparverius*—American kestrel

#### **FINCHES**

##### ***FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES***

*Haemorrhous mexicanus*—house finch

#### **FLYCATCHERS**

##### ***TYRANNIDAE—TYRANT FLYCATCHERS***

*Empidonax traillii*—willow flycatcher

*Sayornis saya*—Say's phoebe

#### **HAWKS**

##### ***ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES***

*Buteo jamaicensis*—red-tailed hawk

#### **JAYS, MAGPIES AND CROWS**

##### ***CORVIDAE—CROWS AND JAYS***

*Corvus brachyrhynchos*—American crow

*Corvus corax*—common raven

#### **LARKS**

##### ***ALAUDIDAE—LARKS***

*Eremophila alpestris*—horned lark

#### **MOCKINGBIRDS AND THRASHERS**

##### ***MIMIDAE—MOCKINGBIRDS AND THRASHERS***

*Mimus polyglottos*—northern mockingbird

*Oreoscoptes montanus*—sage thrasher

#### **NEW WORLD QUAIL**

## APPENDIX C (Continued)

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### **ODONTOPHORIDAE—NEW WORLD QUAIL**

*Callipepla californica*—California quail

### **OWLS**

### **STRIGIDAE—TYPICAL OWLS**

*Bubo virginianus*—great horned owl

### **PIGEONS AND DOVES**

### **COLUMBIDAE—PIGEONS AND DOVES**

*Zenaida macroura*—mourning dove

### **ROADRUNNERS AND CUCKOOS**

### **CUCULIDAE—CUCKOOS, ROADRUNNERS, AND ANIS**

*Geococcyx californianus*—greater roadrunner

### **SHRIKES**

### **LANIIDAE—SHRIKES**

*Lanius ludovicianus*—loggerhead shrike

### **SILKY FLYCATCHERS**

### **PTILOGONATIDAE—SILKY-FLYCATCHERS**

*Phainopepla nitens*—phainopepla

### **SWIFTS**

### **APODIDAE—SWIFTS**

*Aeronautes saxatalis*—white-throated swift

### **WOOD WARBLERS AND ALLIES**

### **PARULIDAE—WOOD-WARBLERS**

*Cardellina pusilla*—Wilson's warbler

### **WRENS**

### **TROGLODYTIDAE—WRENS**

*Salpinctes obsoletus*—rock wren

*Thryomanes bewickii*—Bewick's wren



## APPENDIX C (Continued)

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### NEW WORLD SPARROWS

#### **PASSERELLIDAE—NEW WORLD SPARROWS**

*Amphispiza bilineata*—black-throated sparrow

*Chondestes grammacus*—lark sparrow

### MAMMAL

#### CANIDS

#### **CANIDAE—WOLVES AND FOXES**

*Canis latrans*—coyote

### HARES AND RABBITS

#### **LEPORIDAE—HARES AND RABBITS**

*Lepus californicus*—black-tailed jackrabbit

*Sylvilagus audubonii*—desert cottontail

### SQUIRRELS

#### **SCIURIDAE—SQUIRRELS**

*Ammospermophilus leucurus*—white-tailed antelope squirrel

### REPTILE

#### LIZARDS

#### **PHRYNOSOMATIDAE—IGUANID LIZARDS**

*Callisaurus draconoides*—zebra-tailed lizard

*Phrynosoma platyrhinos*—desert horned lizard

*Sceloporus uniformus*—yellow-backed spiny lizard

*Uta stansburiana*—common side-blotched lizard

#### **TEIIDAE—WHIPTAIL LIZARDS**

*Aspidoscelis tigris tigris*—Great Basin whiptail

#### **CROTAPHYTIDAE—COLLARED LIZARDS**

*Gambelia wislizenii*—long-nosed leopard lizard

#### **IGUANIDAE—IGUANAS**

*Dipsosaurus dorsalis*—desert iguana

## APPENDIX C (Continued)

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### SNAKES

#### ***COLUBRIDAE—COLUBRID SNAKES***

*Coluber flagellum piceus*—Red Racer

### TURTLES

#### ***TESTUDINIDAE—TRUE LAND TORTOISES***

*Gopherus agassizii*—Mohave Desert tortoise



# **APPENDIX D**

*Special-Status Plant Species Potential to Occur*

## APPENDIX D

### Special-Status Plant Species Potential to Occur

| Scientific Name                                   | Common Name                  | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)                                                                                  | Potential to Occur                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------|------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Allium shevockii</i>                           | Spanish Needle onion         | None/None/1B.3              | Pinyon and juniper woodland, Upper montane coniferous forest; rocky/perennial bulbiferous herb/May–June/2785–8200                                                 | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                                                                                |
| <i>Androsace elongata</i> ssp. <i>acuta</i>       | California androsace         | None/None/4.2               | Chaparral, Cismontane woodland, Coastal scrub, Meadows and seeps, Pinyon and juniper woodland, Valley and foothill grassland/annual herb/Mar–June/490–4280        | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                                                                                |
| <i>Calochortus striatus</i>                       | alkali mariposa lily         | None/None/1B.2              | Chaparral, Chenopod scrub, Mojavean desert scrub, Meadows and seeps; alkaline, mesic/perennial bulbiferous herb/Apr–June/225–5235                                 | Recorded in the CNDDDB within the State Park.                                                                                                                                                                                                                                                                         |
| <i>Camissonia integrifolia</i>                    | Kern River evening-primrose  | None/None/1B.3              | Chaparral/annual herb/(Apr)May/2295–3280                                                                                                                          | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                                                                                |
| <i>Camissonia kernensis</i> ssp. <i>kernensis</i> | Kern County evening-primrose | None/None/4.3               | Chaparral, Joshua tree woodland, Pinyon and juniper woodland; sandy or gravelly, granitic/annual herb/Mar–May/2590–6990                                           | Recorded in the CalFlora database within the State Park.                                                                                                                                                                                                                                                              |
| <i>Canbya candida</i>                             | white pygmy-poppy            | None/None/4.2               | Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland; gravelly, sandy, granitic/annual herb/Mar–June/1965–4790                                | Historical occurrence within the State Park from 1932 (CalFlora 2018).                                                                                                                                                                                                                                                |
| <i>Castilleja plagiotoma</i>                      | Mojave paintbrush            | None/None/4.3               | Great Basin scrub (alluvial), Joshua tree woodland, Lower montane coniferous forest, Pinyon and juniper woodland/perennial herb (hemiparasitic)/Apr–June/980–8200 | Low potential to occur. There is suitable Joshua tree woodland present, but the nearest record is 13 miles from the State Park and records are generally concentrated in the Caliente Range area and the southern edge of the Mojave Desert where it borders the San Bernardino and San Gabriel Mountains (CCH 2018). |
| <i>Caulanthus lemmonii</i>                        | Lemmon's jewelflower         | None/None/1B.2              | Pinyon and juniper woodland, Valley and foothill grassland/annual herb/Feb–May/260–5185                                                                           | Recorded within the State Park in 2019.                                                                                                                                                                                                                                                                               |
| <i>Chorizanthe spinosa</i>                        | Mojave spineflower           | None/None/4.2               | Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, Playas; Sometimes alkaline/annual herb/Mar–July/15–4265                                              | Recorded within the State Park (Tomlinson 2014).                                                                                                                                                                                                                                                                      |

## APPENDIX D (Continued)

| Scientific Name                                         | Common Name               | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)                                                                                                 | Potential to Occur                                                                                                                                                                                                                             |
|---------------------------------------------------------|---------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Clarkia xantiana</i> ssp. <i>parviflora</i>          | Kern Canyon clarkia       | None/None/4.2               | Chaparral, Cismontane woodland, Great Basin scrub, Valley and foothill grassland; often sandy, sometimes rocky, slopes, sometimes roadsides/annual herb/May–June/2295–11875      | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                         |
| <i>Claytonia lanceolata</i> var. <i>peirsonii</i>       | Peirson's spring beauty   | None/None/3.1               | Subalpine coniferous forest, Upper montane coniferous forest; Scree/perennial herb/(Mar)May–June/4950–9005                                                                       | Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.                                                                                                                  |
| <i>Claytonia parviflora</i> ssp. <i>grandiflora</i>     | streambank spring beauty  | None/None/4.2               | Cismontane woodland; rocky/annual herb/Feb–May/820–3935                                                                                                                          | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                         |
| <i>Cordylanthus rigidus</i> ssp. <i>brevibracteatus</i> | short-bracted bird's-beak | None/None/4.3               | Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest; openings, granitic/annual herb (hemiparasitic)/July–Aug(Oct)/2000–8495 | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                         |
| <i>Cymopterus deserticola</i>                           | desert cymopterus         | None/None/1B.2              | Joshua tree woodland, Mojavean desert scrub; sandy/perennial herb/Mar–May/2065–4920                                                                                              | Low potential to occur. While there is suitable habitat and there are records of this species in the Mojave ecoregion, the nearest record is over 18 miles south of the State Park and all records are southeast of the State Park (CCH 2018). |
| <i>Deinandra arida</i>                                  | Red Rock tarplant         | None/SR/1B.2                | Mojavean desert scrub (clay, volcanic tuff)/annual herb/Apr–Nov/980–3115                                                                                                         | Recorded in the CNDDDB within the State Park.                                                                                                                                                                                                  |
| <i>Deinandra mohavensis</i>                             | Mojave tarplant           | None/SE/1B.3                | Chaparral, Coastal scrub, Riparian scrub; mesic/annual herb/(May)June–Oct(Jan)/2095–5250                                                                                         | Low potential to occur. There is limited suitable mesic habitat. The nearest record is approximately 7 miles from the State Park (CCH 2018).                                                                                                   |
| <i>Delphinium parryi</i> ssp. <i>blochmaniae</i>        | dune larkspur             | None/None/1B.2              | Chaparral (maritime), Coastal dunes/perennial herb/Apr–June/0–655                                                                                                                | Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.                                                                                                                  |
| <i>Delphinium parryi</i> ssp. <i>purpureum</i>          | Mt. Pinos larkspur        | None/None/4.3               | Chaparral, Mojavean desert scrub, Pinyon and juniper woodland/perennial herb/May–June/3280–8530                                                                                  | Low potential to occur. Although there is suitable desert scrub present, the nearest record is almost 40 miles from the State Park and the species' known distribution is primarily southwest of the State Park (CCH 2018).                    |



## APPENDIX D (Continued)

| Scientific Name                                           | Common Name                  | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)                                                                                                                                                    | Potential to Occur                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------|------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Diplacus mohavensis</i>                                | Mojave monkeyflower          | None/None/1B.2              | Joshua tree woodland, Mojavean desert scrub; sandy or gravelly, often in washes/annual herb/Apr–June/1965–3935                                                                                                                      | Low potential to occur. Although there is suitable habitat mapped within the State Park for Mojave monkeyflower, the nearest record of this species is over 50 miles from the State Park and most records are concentrated around Barstow (CCH 2018), indicating that the State Park is outside of this species' known range. |
| <i>Dudleya abramsii</i> ssp. <i>calicicola</i>            | limestone dudleya            | None/None/4.3               | Chaparral, Pinyon and juniper woodland; carbonate/perennial herb/Apr–Aug/1640–8530                                                                                                                                                  | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                                                                                        |
| <i>Eriastrum tracyi</i>                                   | Tracy's eriastrum            | None/SR/3.2                 | Chaparral, Cismontane woodland, Valley and foothill grassland/annual herb/May–July/1030–5840                                                                                                                                        | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                                                                                        |
| <i>Eriogonum kennedyi</i> var. <i>pinicola</i>            | Kern buckwheat               | None/None/1B.1              | Chaparral, Pinyon and juniper woodland; clay/perennial herb/May–June(July)/4395–6400                                                                                                                                                | Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.                                                                                                                                                                                                 |
| <i>Erythranthe rhodopetra</i>                             | Red Rock Canyon monkeyflower | None/None/1B.1              | Mojavean desert scrub; sandy, canyon washes/annual herb/Mar–Apr/2000–3000                                                                                                                                                           | Recorded in the CNDDDB within the State Park.                                                                                                                                                                                                                                                                                 |
| <i>Erythranthe shevockii</i>                              | Kelso Creek monkeyflower     | None/None/1B.2              | Joshua tree woodland, Pinyon and juniper woodland; granitic or metamorphic, sandy or gravelly/annual herb/Mar–May/2620–4395                                                                                                         | Low potential to occur. This species has a narrow distribution mainly in the Kelso Creek area over 10 miles northwest of the State Park (CCH 2018).                                                                                                                                                                           |
| <i>Erythranthe sierrae</i>                                | Sierra Nevada monkeyflower   | None/None/4.2               | Cismontane woodland (openings), Lower montane coniferous forest (openings), Meadows and seeps (dry); Usually granitic, usually sandy, sometimes gravelly, vernal wet depressions, swales, streambanks/annual herb/Mar–July/605–7495 | Recorded in the within the State Park in 1969 along Tarweed Creek (CCH 2018).                                                                                                                                                                                                                                                 |
| <i>Eschscholzia minutiflora</i> ssp. <i>twisselmannii</i> | Red Rock poppy               | None/None/1B.2              | Mojavean desert scrub (volcanic tuff)/annual herb/Mar–May/2230–4035                                                                                                                                                                 | Recorded in the CNDDDB within the State Park.                                                                                                                                                                                                                                                                                 |
| <i>Euphorbia vallis-mortae</i>                            | Death Valley sandmat         | None/None/4.2               | Mojavean desert scrub (sandy or gravelly)/perennial herb/May–Oct/750–4790                                                                                                                                                           | There are four records of this species west of Hwy 14 within the State Park (CCH 2018).                                                                                                                                                                                                                                       |
| <i>Frasera tubulosa</i>                                   | Coville's green-gentian      | None/None/4.3               | Lower montane coniferous forest, Upper montane coniferous forest; Granitic, sandy/perennial herb/July–Aug/3130–10795                                                                                                                | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                                                                                        |

## APPENDIX D (Continued)

| Scientific Name                                           | Common Name               | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)                                                                 | Potential to Occur                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------|---------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Gilia interior</i>                                     | inland gilia              | None/None/4.3               | Cismontane woodland, Joshua tree woodland, Lower montane coniferous forest; rocky/annual herb/Mar,May/2295–5575                                  | Moderate potential to occur. There is suitable Joshua tree woodland habitat and the nearest record is approximately 5 miles north of the State Park. There are several records north and northwest of the State Park (CCH 2018).                                                                                                                                                      |
| <i>Layia heterotricha</i>                                 | pale-yellow layia         | None/None/1B.1              | Cismontane woodland, Coastal scrub, Pinyon and juniper woodland, Valley and foothill grassland; alkaline or clay/annual herb/Mar–June/980–5595   | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                                                                                                                                                |
| <i>Mentzelia eremophila</i>                               | solitary blazing star     | None/None/4.2               | Mojavean desert scrub/annual herb/Mar–May/2295–4005                                                                                              | Several records of this species occur within the State Park (CCH 2018).                                                                                                                                                                                                                                                                                                               |
| <i>Mentzelia tricuspidis</i>                              | spiny-hair blazing star   | None/None/2B.1              | Mojavean desert scrub; sandy, gravelly, slopes, and washes/annual herb/Mar–May/490–4200                                                          | Recorded 2 miles north of Red Rock Canyon along Hwy 14 at the edge of the State Park (CCH 2018).                                                                                                                                                                                                                                                                                      |
| <i>Mentzelia tridentata</i>                               | creamy blazing star       | None/None/1B.3              | Mojavean desert scrub; rocky, gravelly, sandy/annual herb/Mar–May/2295–3855                                                                      | Recorded in the CNDDDB within the State Park.                                                                                                                                                                                                                                                                                                                                         |
| <i>Monardella linoides</i> ssp. <i>oblonga</i>            | Tehachapi monardella      | None/None/1B.3              | Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest/perennial rhizomatous herb/(May)June–Aug/2950–8105 | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                                                                                                                                                |
| <i>Muilla coronata</i>                                    | crowned muilla            | None/None/4.2               | Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland/perennial bulbiferous herb/Mar–Apr(May)/2195–6430       | Two records of this species occur west of Hwy 14 within the State Park (CalFlora 2018).                                                                                                                                                                                                                                                                                               |
| <i>Nemacladus secundiflorus</i> var. <i>secundiflorus</i> | large-flowered nemacladus | None/None/4.3               | Chaparral, Valley and foothill grassland; gravelly, openings/annual herb/Apr–June/655–6560                                                       | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                                                                                                                                                |
| <i>Opuntia basilaris</i> var. <i>treleasei</i>            | Bakersfield cactus        | FE/SE/1B.1                  | Chenopod scrub, Cismontane woodland, Valley and foothill grassland; sandy or gravelly/perennial stem succulent/Apr–May/390–4755                  | Low potential to occur. Not recorded in the USGS quadrangle (quad) overlapping the State Park or in the surrounding quads and there is suitable habitat mapped within the State Park for Bakersfield cactus. However, the nearest record is located near Mojave with most records concentrated around Bakersfield (CCH 2018). Therefore, the Park is out of the species' known range. |
| <i>Pentachaeta fragilis</i>                               | fragile pentachaeta       | None/None/4.3               | Chaparral, Lower montane coniferous forest (sandy); often openings/annual herb/Mar–June/145–6890                                                 | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                                                                                                                                                |

## APPENDIX D (Continued)

| Scientific Name                                           | Common Name                 | Status (Federal/State/CRPR) | Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)                                                                                                                                | Potential to Occur                                                                                                                                                                                                                                    |
|-----------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Perideridia pringlei</i>                               | adobe yampah                | None/None/4.3               | Chaparral, Cismontane woodland, Coastal scrub, Pinyon and juniper woodland; Serpentine, often clay/perennial herb/Apr–June(July)/980–5905                                                                       | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                |
| <i>Phacelia hubbyi</i>                                    | Hubby's phacelia            | None/None/4.2               | Chaparral, Coastal scrub, Valley and foothill grassland; gravelly, rocky, talus/annual herb/Apr–July/0–3280                                                                                                     | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                |
| <i>Phacelia nashiana</i>                                  | Charlotte's phacelia        | None/None/1B.2              | Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland; usually granitic, sandy/annual herb/Mar–June/1965–7220                                                                                | Recorded in the CNDDDB within the State Park.                                                                                                                                                                                                         |
| <i>Plagiobryoides vinosula</i>                            | wine-colored tufa moss      | None/None/4.2               | Cismontane woodland, Mojavean desert scrub, Meadows and seeps, Pinyon and juniper woodland, Riparian woodland; usually granitic rock or granitic soil along seeps and streams, sometimes clay/moss/N.A./95–5690 | Moderate potential to occur. There is suitable desert scrub habitat, as well as seeps and streams within the State Park. The State Park is within the species' range with a record from the Cinco quadrangle just west of the State Park (CNPS 2018). |
| <i>Psoralethamnus arborescens</i> var. <i>arborescens</i> | Mojave indigo-bush          | None/None/4.3               | Mojavean desert scrub, Riparian scrub/perennial deciduous shrub/Apr–May/1310–3890                                                                                                                               | A historical record of this variety occurs along Hwy 14 within the State Park, but no CNPS records occur in the vicinity (CalFlora 2018; CCH 2018; CNPS 2018).                                                                                        |
| <i>Sclerocactus polyancistrus</i>                         | Mojave fish-hook cactus     | None/None/4.2               | Great Basin scrub, Joshua tree woodland, Mojavean desert scrub; usually carbonate/perennial stem succulent/Apr–July/2095–7610                                                                                   | Recorded within the State Park (Tomlinson 2014).                                                                                                                                                                                                      |
| <i>Streptanthus cordatus</i> var. <i>piutensis</i>        | Piute Mountains jewelflower | None/None/1B.2              | Broadleaved upland forest, Closed-cone coniferous forest, Pinyon and juniper woodland; clay or metamorphic/perennial herb/May–July/3590–5990                                                                    | Not expected to occur. No suitable vegetation present.                                                                                                                                                                                                |



## APPENDIX D (Continued)

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# **APPENDIX E**

*Special-Status Wildlife Species Potential to Occur*

## APPENDIX E

### Special-Status Wildlife Species Potential to Occur

| Scientific Name                                   | Common Name               | Status<br>(Federal/State) | Habitat                                                                                                                                                                                                                                           | Potential to Occur                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------|---------------------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Reptiles</i>                                   |                           |                           |                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                              |
| <i>Anniella campi</i>                             | Big Spring legless lizard | None/SSC                  | Desert canyons and springs along western edge of the Mojave Desert in Kern and Inyo counties. Often found underneath leaf litter, rocks, and logs (CDFW 2017).                                                                                    | Low potential to occur. Very limited range for this species, has only been discovered in three areas within eastern Sierra Nevada, two of which are in Kern County (Papenfuss and Parham 2013). Although both areas are outside of Park, one population has been discovered only about 15 miles north in an area called Big Spring, while the other is located to the south. |
| <i>Anniella stebbinsi</i>                         | San Diegan legless lizard | None/SSC                  | Coastal dunes, stabilized dunes, beaches, dry washes, valley-foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils                                          | Not expected to occur. Smaller and disjunct northern populations of the species (closer to the Park than the southern population) has only been located in the Piute and Tehachapi mountains, as well as the area around Caliente Creek.                                                                                                                                     |
| <i>Gopherus agassizii</i>                         | Mohave Desert tortoise    | FT/ST                     | Arid and semi-arid habitats in Mojave and Sonoran Deserts, including sandy or gravelly locations along riverbanks, washes, sandy dunes, canyon bottoms, desert oases, rocky hillsides, creosote flats, and hillsides                              | Recorded in the CNDDDB within the Park and within a 5 mile buffer. There is also DRECP suitable habitat for this species mapped within the State Park. A shell from an expired tortoise was found in Nightmare Gulch by Dudek biologists during May 2018 surveys.                                                                                                            |
| <i>Birds</i>                                      |                           |                           |                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                              |
| <i>Agelaius tricolor</i><br>(nesting colony)      | tricolored blackbird      | BLM:S/SC                  | Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture                                                                                                | Moderate potential to occur. No CNDDDB records within the Park, but there is DRECP suitable habitat for this species mapped within the State Park. CNDDDB records show that the species has been identified within 5 miles of park, including nearby Koehn Lake.                                                                                                             |
| <i>Aquila chrysaetos</i><br>(nesting & wintering) | golden eagle              | BGEPA/FP                  | Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats | Recorded in the CNDDDB within the Park. There is also DRECP suitable habitat for this species mapped within the Park.                                                                                                                                                                                                                                                        |



## APPENDIX E (Continued)

| Scientific Name                                                                                         | Common Name            | Status<br>(Federal/State)                                                             | Habitat                                                                                                                                                                        | Potential to Occur                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Asio otus</i> (nesting)                                                                              | long-eared owl         | None/SSC                                                                              | Nests in riparian habitat, live oak thickets, other dense stands of trees, edges of coniferous forest; forages in nearby open habitats                                         | Moderate potential to occur. Species has been identified within a 5 mile buffer around the Park. These owls prefer forests, grasslands, and shrublands. There is a small amount of riparian habitat on-site.        |
| <i>Athene cunicularia</i><br>(burrow sites & some wintering sites)                                      | burrowing owl          | BCC/SSC                                                                               | Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows                                                                         | Recorded in the CNDDDB within the Park. There is also suitable habitat for this species mapped within the State Park.                                                                                               |
| <i>Buteo swainsoni</i><br>(nesting)                                                                     | Swainson's hawk        | BCC/ST                                                                                | Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture    | Low potential to nest in the Park and foraging opportunities in the vicinity are limited. DRECP suitable habitat mapped in the State Park. The species has also been identified within a 5 mile buffer of the Park. |
| <i>Charadrius montanus</i><br>(wintering)                                                               | mountain plover        | BCC/SSC                                                                               | Winters in shortgrass prairies, plowed fields, open sagebrush, and sandy deserts                                                                                               | Low potential to occur within Park, but species has been known to winter in deserts, often far from water.                                                                                                          |
| <i>Charadrius nivosus</i><br><i>nivosus</i> (inland);<br>formerly <i>Charadrius alexandrius nivosus</i> | Western snowy plover   | None/SSC                                                                              | On coasts nests on sandy marine and estuarine shores, in the interior nests on sandy, barren, or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds | Low potential to occur within Park, but species has been known to winter in deserts and rarely nest at dry salt ponds.                                                                                              |
| <i>Empidonax traillii</i>                                                                               | Willow flycatcher      | FE ( <i>E.t. extimus</i> ; southwestern subspecies only) / SE (full species; nesting) | Nests and roosts in dense willow thickets. Uses low, exposed branches for singing posts and hunting perches.                                                                   | Moderate potential to occur or migrate through the Park. A willow flycatcher was identified by Dudek biologists during May 2018 surveys in riparian habitat in the Park in Land Chance Canyon at Cudahy Camp.       |
| <i>Eremophila alpestris actia</i>                                                                       | California horned lark | None/WL                                                                               | Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the Sierra Nevada                                                   | Not expected to occur. This species range does not extend into eastern Kern County.                                                                                                                                 |
| <i>Falco mexicanus</i><br>(nesting)                                                                     | prairie falcon         | BCC/WL                                                                                | Forages in grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs                                                                  | Recorded in the CNDDDB within the Park and surrounding area.                                                                                                                                                        |

## APPENDIX E (Continued)

| Scientific Name                      | Common Name          | Status<br>(Federal/State) | Habitat                                                                                                                                                                                                                                        | Potential to Occur                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------|----------------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Gymnogyps californianus</i>       | California Condor    | FE/SE                     | Species requires vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest. | Low potential to occur. Species is generally rare in the wild and they do not have territories. Outside of the nesting season, they often roost in a different place each night as they travel daily. Foraging may occur in the park as there is vast open space within and surrounding (Safford 2015). There is one recorded sighting of 3 birds within the park in 1978, and another sighting of 1 bird about 20km west of the park in 2010 (eBird 2018). |
| <i>Icteria virens</i>                | Yellow-breasted chat | None/SSC                  | Nests and forages in low, dense riparian habitat consisting of willow, blackberry, and wild grape within 10' of ground. In the arid west it is often found in shrubby areas near a water source.                                               | Moderate potential to occur. There are several riparian areas with willows in the park that provide ample breeding, nesting, and foraging opportunities.                                                                                                                                                                                                                                                                                                    |
| <i>Lanius ludovicianus</i> (nesting) | loggerhead shrike    | BCC/SSC                   | Nests and forages in open habitats with scattered shrubs, trees, or other perches                                                                                                                                                              | Recorded in the Park. Multiple loggerhead shrikes were identified by Dudek biologists during surveys.                                                                                                                                                                                                                                                                                                                                                       |
| <i>Setophaga petechial</i>           | Yellow Warbler       | BCC/SSC                   | Nests and forages in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders, near to water.                                                                                                | Moderate potential to occur during breeding or migration. There are several riparian areas within the park that provide ample breeding, nesting, and foraging opportunities. The species has also been recorded within 5 miles of the park.                                                                                                                                                                                                                 |
| <i>Toxostoma bendirei</i>            | Bendire's thrasher   | BCC/SSC                   | Nests and forages in desert succulent shrub and Joshua tree habitat in Mojave Desert; nests in yucca, cholla, and other thorny scrubs or small trees                                                                                           | Moderate potential to occur, especially during breeding season. Joshua trees and other succulents within Park provide ample nesting and foraging opportunities.                                                                                                                                                                                                                                                                                             |
| <i>Toxostoma crissale</i>            | Crissal thrasher     | None/SSC                  | Nests and forages in desert riparian and desert wash; dense thickets of sagebrush and other shrubs such as mesquite, iron catclaw acacia, and arrowweed willow within juniper and pinyon-juniper woodlands                                     | Recorded in the CNDDDB within the Park.                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <i>Toxostoma lecontei</i>            | LeConte's thrasher   | BCC/SSC                   | Nests and forages in desert wash, desert scrub, alkali desert scrub, desert succulent, and Joshua tree habitats; nests in spiny shrubs or cactus                                                                                               | Recorded in the CNDDDB within the Park and surrounding area.                                                                                                                                                                                                                                                                                                                                                                                                |

## APPENDIX E (Continued)

| Scientific Name                    | Common Name                 | Status<br>(Federal/State) | Habitat                                                                                                                                                                                                                                       | Potential to Occur                                                                                                                                                                                            |
|------------------------------------|-----------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Vireo bellii pusillus</i>       | Least Bell's vireo          | FE/SE                     | Nests and forages in dense, shrubby, often riparian areas near a water source. Nests placed along margins of bushes or on twigs projecting into pathways, usually in willow, Baccharis, mesquite.                                             | Low potential to occur. Although there is suitable habitat within the Park, the closest documented sightings have been at Lake Isabella, approximately 30 miles to the NW (CNDDDB, eBird).                    |
| <i>Vireo vicinior</i> (nesting)    | gray vireo                  | BCC/SSC                   | Nests and forages in pinyon-juniper woodland, oak, and chamise and redshank chaparral                                                                                                                                                         | Not expected to occur. No suitable vegetation present.                                                                                                                                                        |
| <i>Mammals</i>                     |                             |                           |                                                                                                                                                                                                                                               |                                                                                                                                                                                                               |
| <i>Antrozous pallidus</i>          | pallid bat                  | None/SSC                  | Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees                                                                              | Recorded in the CNDDDB within the Park. There is also DRECP suitable habitat for this species mapped within the Park.                                                                                         |
| <i>Corynorhinus townsendii</i>     | Townsend's big-eared bat    | None/SSC                  | Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels                                                       | Recorded in the CNDDDB within the Park. There is also DRECP suitable habitat for this species mapped within the Park.                                                                                         |
| <i>Euderma maculatum</i>           | spotted bat                 | None/SSC                  | Foothills, mountains, desert regions of southern California, including arid deserts, grasslands, and mixed-conifer forests; roosts in rock crevices and cliffs; feeds over water and along washes                                             | Recorded in the CNDDDB within the Park on multiple occasions.                                                                                                                                                 |
| <i>Eumops perotis californicus</i> | Western mastiff bat         | BLM:S/SSC                 | Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.                                              | Low potential to occur. This species sometimes prefers dry habitats and CNDDDB records show that this species has been documented slightly SW of Lake Isabella, approximately 40 miles from the Park.         |
| <i>Myotis ciliolabrum</i>          | Western small-footed myotis | BLM:S/none                | Wide range of habitats, mostly arid wooded & brushy uplands near water, open stands in forests and woodlands. Seeks cover in caves, buildings, mines, and crevices. Requires drinking water. Feeds on a wide variety of small flying insects. | Low potential to occur. CNDDDB records show that the closest record of this species to the Park is near Lake Isabella about 30 miles NW.                                                                      |
| <i>Myotis thysanodes</i>           | Fringed myotis              | BLM:S/none                | Wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood & hardwood-conifer. Uses caves, mines, buildings or crevices for maternity colonies and roosts.                                                       | Low potential to occur. This species prefers forests, which are not present within the Park. CNDDDB records show that the closest record of this species to the park is near Lake Isabella about 30 miles NW. |



## APPENDIX E (Continued)

| Scientific Name                       | Common Name               | Status<br>(Federal/State) | Habitat                                                                                                                                                                                               | Potential to Occur                                                                                                                                                                                                                                            |
|---------------------------------------|---------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Myotis yumanensis</i>              | Yuma myotis               | BLM:S/none                | Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices. Optimal habitats are open forests and woodlands with sources of water over which to feed. | Low potential to occur as this species is closely tied to water. CNDDDB records show that the closest record of this species to the Park is near Lake Isabella about 30 miles NW and just north of Ridgecrest.                                                |
| <i>Onychomys torridus tularensis</i>  | Tulare grasshopper mouse  | None/SSC                  | Low, open scrub, and semi-scrub habitats in arid Lower Sonoran associations                                                                                                                           | Recorded in the CNDDDB within the State Park.                                                                                                                                                                                                                 |
| <i>Ovis canadensis nelsoni</i>        | Desert bighorn sheep      | BLM:S/FP                  | Open, rocky, steep areas with available water and herbaceous forage.                                                                                                                                  | Not expected to occur. No occurrence records for the species occur in the Park or the vicinity and CDFW range maps for the species show that it does not occur in Kern County.                                                                                |
| <i>Perognathus parvus xanthonotus</i> | yellow-eared pocket mouse | BLM:S/None                | Joshua tree woodland and Great Basin sagebrush                                                                                                                                                        | Low potential to occur. The species is relatively uncommon but is known to inhabit canyons of Eastern Sierran slopes; and have been recorded in Joshua tree woodlands, desert scrubland, and similar dry habitats (Laabs 2001 sourced from multiple authors). |
| <i>Xerospermophilus mohavensis</i>    | Mohave ground squirrel    | None/ST                   | Desert scrub habitats including those dominated by creosote bush and burrobush, desert sink scrub, and desert saltbush scrub                                                                          | Recorded in the CNDDDB within the State Park. There is also DRECP suitable habitat for this species mapped within the State Park.                                                                                                                             |
| <i>Taxidea taxus</i>                  | American badger           | None/SSC                  | Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils                                                                                        | Recorded in the CNDDDB within the State Park.                                                                                                                                                                                                                 |

**Notes:**

BLM:S – Bureau of Land Management “Sensitive”

CDFW – California Department of Fish and Wildlife

SSC – Species of Special Concern

FP – Fully Protected

FT – Federally Threatened

FE – Federally Endangered

ST – State Threatened

SE – State Endangered

SC – State Candidate

USFWS:BCC – United States Fish and Wildlife Service “Bird of Conservation Concern”

## APPENDIX E (Continued)

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# **APPENDIX F**

## ***California Natural Diversity Database Forms***



For Office Use Only

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

Date of Field Work (mm/dd/yyyy): 05/07/2018

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Deinandra arida*

Common Name: Red Rock tarplant

Species Found? ☒ Yes ☐ No If not, why? \_\_\_\_\_

Total No. Individuals 1 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☐ no ☐ unk.  
Yes, Occ. # \_\_\_\_\_

Collection? If yes: \_\_\_\_\_  
Number Museum / Herbarium

Reporter: Katie Dayton

Address: 605 Third St.  
Encinitas, CA 92024

E-mail Address: kdayton@dudek.com

Phone: (760) 479-4241

Plant Information

Phenology: 0% vegetative 100% flowering 0% fruiting

Animal Information

# adults # juveniles # larvae # egg masses # unknown  
☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ other

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

Located within Red Rock Canyon State Park. See GIS data.

County: Kern Landowner / Mgr.: State Parks

Quad Name: Saltdale NW Elevation: 2,800 ft

T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: ☐ H ☐ M ☐ S Source of Coordinates (GPS, topo. map & type): GPS

T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: ☐ H ☐ M ☐ S GPS Make & Model \_\_\_\_\_

DATUM: NAD27 ☐ NAD83 ☒ WGS84 ☐ Horizontal Accuracy \_\_\_\_\_ meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒

Coordinates: 117°56'0.45"W 35°24'36.32"N

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Associated with Eriogonum inflatum and Ambrosia salsola. Observed alongside, but outside of, a rocky narrow wash with Erythranthe rhodopetra.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ☒ Excellent ☐ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: Open space

Visible disturbances: Along a road

Threats: None identified

Comments:

Determination: (check one or more, and fill in blanks)

- ☒ Keyed (cite reference): Jepson  
☐ Compared with specimen housed at: \_\_\_\_\_  
☐ Compared with photo / drawing in: \_\_\_\_\_  
☐ By another person (name): \_\_\_\_\_  
☐ Other: \_\_\_\_\_

Photographs: (check one or more)

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

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

For Office Use Only

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

Date of Field Work (mm/dd/yyyy): 05/07/2018

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Deinandra arida*

Common Name: Red Rock tarplant

Species Found? ☒ Yes ☐ No If not, why? \_\_\_\_\_

Total No. Individuals 1 Subsequent Visit? ☐ yes ☒ no

Is this an existing NDDDB occurrence? ☐ no ☐ unk.  
Yes, Occ. # \_\_\_\_\_

Collection? If yes: \_\_\_\_\_  
Number Museum / Herbarium

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E-mail Address: kdayton@dudek.com

Phone: (760) 479-4241

Plant Information

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Animal Information

# adults # juveniles # larvae # egg masses # unknown  
☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ other

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

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DATUM: NAD27 ☐ NAD83 ☒ WGS84 ☐ Horizontal Accuracy \_\_\_\_\_ meters/feet

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☐ By another person (name): \_\_\_\_\_  
☐ Other: \_\_\_\_\_

Photographs: (check one or more)

|                    | Slide                    | Print                    | Digital                  |
|--------------------|--------------------------|--------------------------|--------------------------|
| Plant / animal     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Habitat            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Diagnostic feature | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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

For Office Use Only

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

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Reset

California Native Species Field Survey Form

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Common Name: Red Rock tarplant

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Photographs: (check one or more)

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

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



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California Native Species Field Survey Form

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Common Name: Red Rock tarplant

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Photographs: (check one or more)

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

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

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Reset

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Send Form

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Common Name: Red Rock tarplant

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DATUM: NAD27 ☐ NAD83 ☒ WGS84 ☐ Horizontal Accuracy \_\_\_\_\_ meters/feet

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Threats: None identified

Comments:

Determination: (check one or more, and fill in blanks)

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☐ Compared with photo / drawing in: \_\_\_\_\_  
☐ By another person (name): \_\_\_\_\_  
☐ Other: \_\_\_\_\_

Photographs: (check one or more)

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

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

Mail to:  
California Natural Diversity Database  
California Dept. of Fish & Wildlife  
P.O. Box 944209  
Sacramento, CA 94244-2090  
CNDDDB@wildlife.ca.gov

For Office Use Only

Source Code: \_\_\_\_\_ Quad Code: \_\_\_\_\_  
Elm Code: \_\_\_\_\_ Occ No.: \_\_\_\_\_  
EO Index: \_\_\_\_\_ Map Index: \_\_\_\_\_

Date of Field Work (mm/dd/yyyy): 3/25/2019

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: Erythranthe rhodopetra

Common Name: Red Rock Canyon Monkeyflower

Species Found? ☒ Yes ☐ No

If not found, why?

Total No. Individuals: 30 patches Subsequent Visit? ☐ Yes ☒ No

Is this an existing NDDDB occurrence? ☒ No ☐ Unk.

Yes, Occ. #

Collection? If yes: 1901 UC Davis  
Number Museum / Herbarium

Reporter: Leah Gardner

Address: 1416 9th St., Rm. 923

Sacramento, CA 95814

E-mail Address: leah.gardner@parks.ca.gov

Phone: 916-653-3254

Plant Information

Phenology:

20% 80%  
% vegetative % flowering % fruiting

Animal Information

# adults # juveniles # larvae # egg masses # unknown  
☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ lek ☐ other

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

Nightmare Gulch in Red Rock Canyon State Park

County: Kern Landowner / Mgr: Cal. State Parks

Quad Name: Salt dale NW Elevation: 2776'

T 29S R 37E Sec 25, 1/4 of 1/4, Meridian: H ☐ M ☒ S ☐ Source of Coordinates (GPS, topo. map & type): GPS

T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, 1/4 of 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model: Android phone + Bad Elf GPS

DATUM: NAD27 ☐ NAD83 ☒ WGS84 ☐ Horizontal Accuracy: 12' meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒

Coordinates: 35° 39' 41"  
117° 94' 85"

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

rocky s-facing slope just above wash in Nightmare Gulch  
with Lasthenia gracilis, Lepidium flavum

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: State Park

Visible disturbances: none

Threats: Off-highway vehicles, foot traffic, trampling

Comments:

Determination: (check one or more, and fill in blanks)

- ☒ Keyed (cite reference): Jepson eflora  
☐ Compared with specimen housed at: \_\_\_\_\_  
☒ Compared with photo / drawing in: Cal Photos  
☐ By another person (name): \_\_\_\_\_  
☒ Other: Experience as a professional botanist

Photographs: (check one or more)

|                    | Slide                    | Print                    | Digital                             |
|--------------------|--------------------------|--------------------------|-------------------------------------|
| Plant / animal     | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Habitat            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Diagnostic feature | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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



Mail to:  
California Natural Diversity Database  
California Dept. of Fish & Wildlife  
P.O. Box 944209  
Sacramento, CA 94244-2090  
CNDDB@wildlife.ca.gov

For Office Use Only

Source Code: \_\_\_\_\_ Quad Code: \_\_\_\_\_  
Elm Code: \_\_\_\_\_ Occ No.: \_\_\_\_\_  
EO Index: \_\_\_\_\_ Map Index: \_\_\_\_\_

Date of Field Work (mm/dd/yyyy): 3/26/2019

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: Phacelia nashiana

Common Name: Charlotte's Phacelia

Species Found? ☒ Yes ☐ No If not found, why?

Total No. Individuals: 100+ Subsequent Visit? ☐ Yes ☒ No

Is this an existing NDDDB occurrence? ☒ No ☐ Unk.  
Yes, Occ. # \_\_\_\_\_

Collection? If yes: 1902 UC Davis  
Number Museum / Herbarium

Reporter: Leah Gardner  
Address: 1416 9th St., Rm. 923  
Sacramento, CA 95814  
E-mail Address: leah.gardner@parks.ca.gov  
Phone: 916-653-3254

Plant Information

Phenology:  
100%  
% vegetative % flowering % fruiting

Animal Information

# adults # juveniles # larvae # egg masses # unknown  
☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ lek ☐ other

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

in Red Rock Canyon State Park  
Last Chance Canyon  
County: Kern Landowner / Mgr: Cal. State Parks  
Quad Name: Salt Lake NW Elevation: 2440'  
T 29S R 37E Sec 25, 1/4 of 1/4, Meridian: H ☐ M ☒ S ☐  
T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, 1/4 of 1/4, Meridian: H ☐ M ☐ S ☐  
DATUM: NAD27 ☐ NAD83 ☒ WGS84 ☐  
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒  
Coordinates: 35° 37' 22"  
117° 40' 14"

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

W-facing slope, very rocky (granitic?), steep  
mouth of Last Chance Canyon, El Paseo Mountains  
Encelia cactoni, Larrea tridentata, Eriogonum fasciculatum polifolium,  
Roucephyllum schottii, Lepedivum fremontii, Atriplex spp.,  
Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: State Park

Visible disturbances: natural erosion

Threats: Off-highway vehicles, foot traffic, trampling

Comments:

Determination: (check one or more, and fill in blanks)

- ☒ Keyed (cite reference): Jepson eflora  
☐ Compared with specimen housed at: \_\_\_\_\_  
☒ Compared with photo / drawing in: CalPhotos  
☐ By another person (name): \_\_\_\_\_  
☒ Other: Experience as a professional botanist

Photographs: (check one or more)

|                    | Slide                    | Print                    | Digital                             |
|--------------------|--------------------------|--------------------------|-------------------------------------|
| Plant / animal     | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Habitat            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Diagnostic feature | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

## Appendix C

# COMPREHENSIVE PLANT COMPENDIUM



## Appendix C. Comprehensive Plant Compendium

This plant compendium is compiled from previous plant lists by Dudek in 2018 (see Appendix B – Biological Resources Report); Mark Faull in 2005 Calflora observations; and personal observations by Leah Gardner, NRD botanist, California Department of Parks and Recreation, March 29, 2019.

### C.1 EUDICOTS - VASCULAR SPECIES

#### AMARANTHACEAE – Amaranth family

- \* *Amaranthus albus* – Pigweed amaranth
- Tidestromia suffruticosa* var. *oblongifolia* - Honeysweet

#### APIACEAE – Carrot family

- Cymopterus deserticola* – Desert cymopterus
- Lomatium mohavense* - Mohave wild parsley

#### APOCYNACEAE – Dogbane family

- Asclepias erosa* – Desert milkweed

#### ASTERACEAE – Sunflower family

- Acamptopappus sphaerocephalus* var. *hirtellus* – Rayless goldenhead
- Ambrosia acanthicarpa* – Annual burweed, flatspine bur ragweed
- Ambrosia dumosa* – White bursage
- Ambrosia salsola* - Cheesebush
- Ambrosia salsola* var. *salsola* – Burrobush
- Anisocoma acaulis* – Scalebud
- Artemisia spinescens* – Bud sage
- Baccharis salicifolia* ssp. *salicifolia* – Mulefat
- Baccharis sergiloides* – Desert baccharis, broom baccharis
- Bebbia juncea* var. *aspera* – Rough sweetbush
- Brickellia californica* – California brickelbush
- Brickellia desertorum* – Desert brickelbush
- Calycoseris parryi* – Yellow tackstem
- \* *Centaurea benedicta* – Blessed thistle
- Chaenactis carphoclinia* var. *carphoclinia* – Pebble pincushion
- Chaenactis fremontii* – Fremont’s pincushion
- Chaenactis macrantha* – Mojave pincushion
- Deinandra arida* – Red rock tarplant
- Deinandra kelloggii* – Kellogg’s tarweed
- Dicoria canescens* – Desert dicoria





- Encelia actoni* – Acton’s brittlebush
- Ericameria cooperi* var. *cooperi* – Cooper’s goldenbush
- Ericameria linearifolia* – Narrowleaf goldenbush
- Ericameria nauseosa* var. *mojavensis* – Mojave rabbitbrush
- Ericameria nauseosa* var. *oreophila* – Rubber rabbitbrush
- Ericameria paniculata* – Black-stem rabbitbrush
- Ericameria teretifolia* – Green rabbitbrush
- \* *Erigeron bonariensis* – Flax-leaved horseweed
- Eriophyllum ambiguum* var. *paleaceum* – Beautiful wooly sunflower
- Eriophyllum pringlei* – Pringle’s wooly sunflower
- Eriophyllum wallacei* – Wallace’s wooly sunflower, Easter bonnets
- Glyptopleura marginata* - Keysia
- Glyptopleura setulosa* – Holy dandelion
- Gnaphalium palustre* – Lowland cudweed
- Gutierrezia microcephala* – Sticky snakeweed, matchweed
- \* *Lactuca seriola* – Prickly lettuce
- Lasthenia californica* – California goldfields
- Lasthenia gracilis* – Needle goldfields
- Layia glauca* - White layia
- Layia heterotricha* – Pale yellow layia
- Lepidospartum squamatum* – Scalebroom
- Leptosyne bigelovii* – Bigelow’s coreopsis
- Leptosyne californica* – California coreopsis
- Lessingia glandulifera* – Valley vinegar weed
- Lessingia glandulifera* var. *peirsonii* – Peirson’s lessingia
- Leucosyris carnosa* – Shrubby alkali aster
- Logfia depressa* – Dwarf cottonrose
- Malacothrix coulteri* – Snake’s head
- Malacothrix glabrata* – Desert dandelion
- Malacothrix sonchoides* – Sowthistle desert dandelion
- Matricaria discoidea* – Pineapple weed
- Monolopia lanceolata* – Lance-leafed monolopia
- Monoptilon bellidiforme* – Desert star
- Monoptilon bellioides* – Mojave desert star
- Nicolletia occidentalis* – Western nicolletia
- Perityle emoryi* – Emory’s rock daisy
- Peucephyllum schottii* - Pigmycedar
- Prenanthes exiguus* – Thorny skeleton plant
- Psathyrotes annua* – Annual psathyrotes
- Rafinesquia neomexicana* - New Mexico plumeseed
- \* *Sonchus asper* – Spiny sowthistle
- Stephanomeria exiguus* – Small wirelettuce
- Stephanomeria parryi* – Parry rock pink
- Stephanomeria pauciflora* – Brownplume wirelettuce



*Stylocline psilocarphoides* – Peck’s stylocline  
*Syntrichopappus fremontii* – Fremont’s syntrichopappus  
*Tetradymia axillaris* – Catclaw horsebush  
*Tetradymia glabrata* – Little leaf horsebush  
*Tetradymia stenolepis* – Narrow scaled felt thorn  
*Uropappus lindleyi* – Lindley’s silverpuffs  
*Xylorhiza tortifolia* – Mojave woodyaster

#### BORAGINACEAE – Borage family

*Amsinckia intermedia* – common fiddleneck  
*Amsinckia tessellata* – Devil’s lettuce  
*Amsinckia vernicosa* – Green fiddleneck  
*Cryptantha circumscissa* var. *circumscissa* – Cushion cryptantha  
*Cryptantha decipiens* – Gravel cryptantha  
*Cryptantha dumetorum* – Bush loving cryptantha  
*Cryptantha micrantha* – Purple root cryptantha  
*Cryptantha mohavensis* – Mojave cryptantha  
*Cryptantha nevadensis* var. *nevadensis* – Nevada cryptantha  
*Cryptantha oxygona* – Sharp nut cryptantha  
*Cryptantha pterocarya* var. *pterocarya* – Wingednut cryptantha  
*Cryptantha similia* – Cushion cryptantha  
*Cryptantha utahensis* – Scented forget me not  
*Emmenanthe penduliflora* var. *penduliflora* – Whispering bells  
*Eucrypta chrysanthemifolia* var. *bipinnatifida* – Spotted eucrypta  
*Eucrypta micrantha* – Desert eucrypta  
*Heliotropium curassavicum* – Salt heliotrope  
*Heliotropium curassavicum* var. *oculatum* – Seaside heliotrope  
*Nama demissa* – Purplemat  
*Nama depressa* – Narrow leaved nama  
*Pectocarya heterocarpa* – Chuckwalla pectocarya  
*Pectocarya linearis* ssp. *ferocula* – slender combseed  
*Pectocarya penicillata* – Sleeping combseed  
*Pectocarya platycarpa* – Broad nutted comb bur  
*Pectocarya recurvata* – Arch nutted combseed  
*Pectocarya setosa* – Moth combseed  
*Phacelia calthifolia* – Caltha leafed phacelia  
*Phacelia distans* – Distant phacelia  
*Phacelia fremontii* – Fremont’s phacelia  
*Phacelia nashiana* – Charlott’s phacelia  
*Phacelia pachyphylla* – Thick leaved phacelia, blacktack phacelia  
*Phacelia ramosissima* – Branching phacelia  
*Phacelia rotundifolia* – Round leafed phacelia  
*Phacelia tanacetifolia* – Tansy leafed phacelia



*Phacelia vallis-mortae* – Death Valley phacelia  
*Pholisma arenarium* – Dune food  
*Pholistoma membranceum* – White fiesta flower  
*Plagiobothrys arizonicus* – Arizona popcorn flower  
*Plagiobothrys jonesii* – Jone’s popcorn flower  
*Tiquilia nuttallii* – Nuttall’s crinklemat

**BRASSICACEAE – Mustard family**

- \* *Brassica nigra* – Black mustard
- \* *Capsella bursa-pastoris* – Shepard’s purse  
*Caulanthus cooperi* – Cooper’s jewelflower  
*Caulanthus inflatus* – Desert candle  
*Caulanthus lasiophyllus* – California mustard  
*Caulanthus lemmonii* – Lemon’s jewelflower  
*Descurainia pinnata* – Yellow tansy mustard
- \* *Descurainia sophia* – Flixweed  
*Dithyrea californica* – Spectacle pod  
*Erysimum capitatum* var. *capitatum* – Sand dune wallflower  
*Hirschfeldia incana* – Shortpod mustard  
*Lepidium dictyotum* – Net pepper grass  
*Lepidium flavum* – Yellow pepper grass  
*Lepidium fremontii* – Desert pepperweed  
*Lepidium lasiocarpum* – Shaggyfruit pepperweed  
*Lepidium nitidum* – Shining pepper grass
- \* *Sisymbrium altissimum* – Tumble mustard
- \* *Sisymbrium orientale* – Oriental hedge mustard  
*Stanleya pinnata* var. *pinnata* – Desert prince’s plume  
*Streptanthella longirostris* – Long beaked twist flower  
*Thysanocarpus curvipes* – Sand fringedpod  
*Tropidocarpum gracile* – Slender keel-fruit

**CACTACEAE – Cactus family**

*Cylindropuntia echinocarpa* - Silver cholla  
*Echinocactus polycephalus* var. *polycephalus* – Cottontop cactus  
*Opuntia basilaris* var. *basilaris* – Beavertail pricklypear  
*Sclerocactus polyancistrus* – Mojave fishhook cactus

**CAMPANULACEAE – Bellflower family**

*Nemacladus gracilis* – slender nemacladus  
*Nemacladus orientalis* – Eastern glandular nemacladus  
*Nemacladus rubescens* – Desert nemacladus  
*Nemacladus sigmoideus* – Small flowered nemacladus





CARYOPHYLLACEAE – Pink family

*Loeflingia squarrosa* – Spreading loeflingia  
*Sagina decumbens* ssp. *occidentalis* – Western pearlwort  
*Spergularia Astrosperma* – Salt sand spurry  
*Spergularia marina* – Sand spurry

CHENOPODIACEAE – Goosefoot family

*Atriplex canescens* – Fourwing saltbush  
*Atriplex confertifolia* - Shadscale  
*Atriplex hymenalytra* – Desert holly  
*Atriplex parryi* – Parry’s saltbush  
*Atriplex rosea* - Redscale  
*Atriplex serenana* var. *serenana* - Saltscale  
*Atriplex polycarpa* – Allscale  
\* *Bassia hyssopifolia* – Fivehook bassia  
*Chenopodium leptophyllum* – Thin leaved goosefoot  
*Grayia spinosa* – Spiny hopsage  
*Krascheninnikovia lanata* – Winterfat  
*Monolepis nuttalliana* – Nuttall’s povertyweed  
\* *Salsola paulsenii* – Paulsen’s Russian thistle  
\* *Salsola tragus* – Russian thistle  
*Stutzia covillei* – Coville’s orach

CLEOMACEAE – Beeplant family

*Peritoma arborea* – Bladderpod

CONVOLVULACEAE – Morning-glory family

*Cuscuta denticulata* – Desert dodder

CUCURBITACEA – Gourd family

*Cucurbita palmata* – Coyote gourd

EUPHORBIACEAE - Spurge family

*Croton setiger* – Turkey mullein  
*Euphorbia albomarginata* – Whitemargin sandmat  
*Euphorbia setiloba* – Yuma sandmat  
*Euphorbia vallis-mortae* – Death Valley sandmat  
*Stillingia paucidentata* – Tooth leaf

FABACEAE – Legume family

*Acemispom brachycarpus* – Short podded lotus



*Acemispom maritimus* var. *brevivexillus* – Coastal lotus  
*Astragalus didymocarpus* var. *dispermus* – Notch leaved locoweed  
*Astragalus lentiginosus* var. *variabilis* – Freckled milkvetch  
*Astragalus pachypus* – Thick pod milkvetch  
*Lupinus albifrons* var. *albifrons* – Silver bush lupine  
*Lupinus concinnus* – Bajada lupine  
*Lupinus excubitus* var. *excubitus* – Grape lupine  
*Lupinus microcarpus* var. *horizontalis* – chick lupine  
*Lupinus odoratus* – Mojave lupine  
*Lupinus shockleyi* – Shockley lupine  
\* *Medicago sativa* – Alfalfa  
*Prosopis glandulosa* var. *torreyana* – Western honey mesquite  
*Psoralea arborescens* – Mojave indigo bush  
*Psoralea arborescens* var. *minutifolia* – Little leaved Mojave indigo bush,  
Johnson’s indigo bush  
*Psoralea fremontii* var. *fremontii* – Fremont’s indigo bush  
*Senna armata* – Desert senna

GERANIACEAE – Geranium family

- \* *Erodium cicutarium* – Redstem stork’s bill
- \* *Erodium texanum* – Desert heron’s bill

LAMIACEAE – Mint family

*Salvia carduacea* – Thistle sage  
*Salvia columbariae* – Chia  
*Salvia dorrii* var. *dorrii* – Dorr’s sage  
*Scutellaria mexicana* – Mexican bladder sage

LOASACEAE – Stickleaf family

*Eucnide urens* – Desert stingbush, desert rock nettle  
*Mentzelia affinis* – Yellow comet  
*Mentzelia albicaulis* – Whitestem blazingstar  
*Mentzelia eremophila* – Pinyon blazing star, solitary blazing star  
*Mentzelia involucrata* – Sand blazing star  
*Mentzelia nitens* – Shining blazing star  
*Mentzelia tricuspidata* – Three-pointed blazing star  
*Mentzelia tridentata* – Creamy blazing star  
*Petalonyx nitidus* – Shinyleaf sandpaper plant  
*Petalonyx thurberi* var. *thurberi* – Thurber’s sandpaper plant

MALVACEAE – Mallow family

*Eremalche exilis* – White mallow



*Eremalche rotundifolia* – Desert fivespot  
*Sphaeralcea ambigua* – Desert globemallow

**MONTIACEAE** – Montia family

*Calandrinia menziesii* – Redmaids  
*Calyptidium monandrum* – Common pussypaws  
*Claytonia parviflora* – Narrow leaved miner’s lettuce

**NYCTAGINACEAE** – Four o’clock family

*Abronia pogonantha* – Mojave sand verbena  
*Mirabilis laevis* var. *retrorsa* – Wishbone bush

**ONAGRACEAE** - Evening primrose family

*Camissonia campestris* ssp. *campestris* – Mojave suncup  
*Camissonia kernensis* ssp. *gilmanii* – Gilman’s evening primrose  
*Camissonia kernensis* ssp. *kernensis* – Kern county evening primrose  
*Chylismia claviformis* ssp. *claviformis* – Browneyes  
*Eremothera boothii* – Booth’s evening primrose  
*Eremothera boothii* ssp. *desertorum* – Booth’s desert primrose  
*Eremothera boothii* ssp. *condensata* – Shredding suncup  
*Oenothera californica* - California evening primrose  
*Oenothera cespitosa* – Fragrant evening primrose  
*Oenothera deltoides* – Desert lantern  
*Oenothera primiveris* ssp. *bufonis* – Large yellow desert primrose  
*Tetrapteron palmeri* – Palmer’s sun cup

**OROBANCHACEAE** – Broomrape family

*Castilleja chromosa* – Desert paintbrush  
*Castilleja exserta* ssp. *venusta* – Purple owl’s clover

**PAPAVERACEAE** – Poppy family

*Argemone munita* – Prickly poppy  
*Eschscholzia californica* – California poppy  
*Eschscholzia minutiflora* ssp. *minutiflora* – Pygmy poppy  
*Eschscholzia minutiflora* ssp. *covillei* – Coville’s pygmy poppy  
*Eschscholzia minutiflora* ssp. *twisselmannii* – Red rock poppy  
*Platystemon californicus* – Cream cups

**PHRYMACEAE** - Lopseed family

*Diplacus bigelovii* – Bigelow monkeyflower  
*Erythranthe guttata* – Yellow monkeyflower





*Erythranthe rhodopetra* – Red rock canyon monkeyflower  
*Erythranthe sierrae* – Sierra Nevada monkeyflower  
*Mimulus palmeri* – Palmer’s monkeyflower

**PLANTAGINACEAE** – Plantain family

*Mohavea breviflora* – Golden desert snapdragon  
*Plantago ovata* – Desert plantain

**POLEMONIACEAE** – Phlox family

*Aliciella hutchinsifolia* – Desert pale gilia  
*Aliciella latifolia* – Broad leaf gilia  
*Aliciella leptomeria* – Sand aliciella  
*Aliciella lottiae* – Lott’s gilia  
*Aliciella micromeria* – Dainty gilia  
*Allophyllum gilioides* ssp. *violaceum* – Dense false gillyflower  
*Eriastrum densifolium* ssp. *densifolium* – Giant eriastrum  
*Eriastrum densifolium* ssp. *mohavense* – Perennial wool star  
*Eriastrum diffusum* – Miniature wool star  
*Eriastrum eremicum* – Desert woolstar  
*Eriastrum pluriflorum* – Many flowered eriastrum  
*Gilia aliquanta* – Puff calyx gilia  
*Gilia brecciarum* ssp. *neglecta* – Nevada gilia  
*Gilia cana* ssp. *speciosa* – showy gilia  
*Gilia latiflora* – Broad flowered gilia  
*Gilia malior* – Scrub gilia  
*Gilia scopulorum* – Rock gilia  
*Gilia sinuata* – Cinder gilia  
*Gilia stellata* – Star gilia  
*Leptosyphon aureus* – Golden linanthus  
*Linanthus bigelovii* – Bigelow’s linanthus  
*Linanthus dichotomous* – Evening snow  
*Linanthus filiformis* – Yellow gilia  
*Linanthus parryae* – Parry’s linanthus, sandblossoms  
*Loeseliastrum matthewsii* – Desert calico  
*Loeseliastrum schottii* – Schott gilia

**POLYGONACEAE** – Buckwheat family

*Centrostegia thurberi* – Red triangles  
*Chorizanthe brevicornu* – Brittle spineflower  
*Chorizanthe rigida* – Devil’s spineflower  
*Chorizanthe spinosa* – Mojave spineflower  
*Chorizanthe watsonii* – Watson’s spineflower



*Eriogonum angulosum* – Angled stem buckwheat  
*Eriogonum brachyanthum* – Yellow buckwheat  
*Eriogonum brachypodium* - Parry's buckwheat  
*Eriogonum deflexum* var. *baratum* – Flatcrown buckwheat  
*Eriogonum fasciculatum* var. *polifolium* – California buckwheat, Eastern Mojave buckwheat  
*Eriogonum gracillimum* – Rose and white buckwheat  
*Eriogonum inflatum* – Desert trumpet  
*Eriogonum maculatum* – Angle stemmed buckwheat  
*Eriogonum mohavense* – Western Mojave buckwheat  
*Eriogonum nidularium* – Birdnest buckwheat  
*Eriogonum nudum* var. *westonii* – Weston's buckwheat  
*Eriogonum ovalifolium* – Oval leaved buckwheat  
*Eriogonum plumatella* – Flat topped buckwheat  
*Eriogonum pusillum* – Yellow turban  
*Eriogonum reniforme* – Kidney leaf buckwheat  
*Eriogonum trichopes* - Little desert buckwheat  
*Eriogonum viridescens* – Bright green buckwheat, twotooth buckwheat  
*Mucronea perfoliata* – Perfoliate spineflower  
*Oxytheca perfoliata* – Roudleaf oxytheca  
*Rumex hymenosepalus* – Wild rhubarb, canaigre

**PTERIDACEAE** – Maidenhair fern family

*Myriopteris viscida* - Viscid lace fern

**RANUNCULACEAE** – Buttercup family

*Delphinium parishii* ssp. *parishii* – Parish's larkspur, desert larkspur

**ROSACEAE** – Rose family

*Coleogyne ramosissima* – Black brush

**SALICACEAE** – Willow family

*Populus fremontii* – Fremont cottonwood

*Salix laevigata* – Red willow

*Salix lasiolepis* – Arroyo willow

**SOLANACEAE** – Nightshade family

*Datura wrightii* – Jimsonweed

*Lycium andersonii* – Anderson thornbush

*Lycium cooperi* – Cooper's box thorn, peach thorn



TAMARICACEAE – Tamarisk family

- \* *Tamarix aphylla* – Athel tamarisk
- \* *Tamarix parviflora* - Tamarisk
- \* *Tamarix ramosissima* - Tamarisk

ZYGOPHYLLACEAE – Caltrop family

*Larrea tridentata* – Creosote bush

## C.2 GYMNOSPERMS AND GNETOPHYTES - VASCULAR SPECIES

EPHEDRACEAE – Jointfir family

*Ephedra nevadensis* – Nevada ephedra

## C.3 MONOCOTS - VASCULAR SPECIES

AGAVACEAE – Agave family

*Yucca brevifolia* - Joshua tree

ALLIACEAE – Onion family

*Allium fimbriatum* var. *fimbriatum* – Fringed onion

*Allium fimbriatum* var. *mohavense* - Mojave onion

*Allium lacunosum* var. *davisiae* – Davis’ pitted onion

ARECACEAE – Palm family

*Washingtonia robusta* – Mexican fan palm

CYPERACEAE – Sedge family

*Bolboschoenus maritimus* – Alkali bulrush

*Eleocharis parishii* – Parish’s spike rush

*Schoenoplectus americanus* – Chairmaker’s bulrush

*Schoenoplectus pungens* var. *longispicatus* – Common threesquare

JUNCACEAE - Rush family

*Juncus arcticus* var. *balticus* – Baltic rush

*Juncus bufonus* var. *occidentalis* – Round fruited toad rush

JUNCAGINACEAE – Arrow grass family

*Triglochin concinna* var. *debilis* – Slender arrow grass





*LILIACEAE* – Lily family

*Calochortus kennedyi* var. *kennedyi* – Red mariposa lily

*Calochortus striatus* – Alkali mariposa lily

*MELANTHIACEAE* – Bunchflower family

*Toxicoscordion brevibracteatus* – Desert death camas

*POACEAE* – Grass family

- \* *Avena barbata* – Wild oats
- Bromus arizonicus* – Arizona brome
- \* *Bromus diandrus* – Ripgut brome
- \* *Bromus madritensis* – Compact brome, foxtail brome
- \* *Bromus rubens* - Red brome
- \* *Bromus tectorum* – Cheatgrass
- \* *Chloris virgata* – Silky grass
- \* *Cynodon dactylon* – Bermudagrass
- Deschampsia danthanioides* – Annual hairgrass
- Distichlis spicata* – Salt grass
- Elymus elymoides* var. *brevifolius* – Squirreltail
- Festuca microstachys* – Small fescue
- Festuca octoflora* – Sixweeks grass
- Hordeum depressum* – Alkali barley
- \* *Hordeum murinum* – Foxtail barley, mouse barley
- \* *Hordeum murinum* ssp. *glaucum* – Smooth barley
- Melica imperfecta* – Smallflower melicgrass
- Muhlenbergia asperifolia* – Scratch grass
- Poa bigelovii* – Bigelow’s bluegrass
- Poa fendleriana* ssp. *longiligula* – Fendler’s bluegrass
- Poa secunda* – Pine bluegrass
- Poa secunda* ssp. *secunda* – Sandberg’s bluegrass
- \* *Polypogon monspeliensis* – Annual rabbitsfoot grass
- \* *Schismus arabicus* – Arabian schismus
- \* *Schismus barbatus* – Mediterranean grass
- Sporobolus airoides* – Alkali sacaton
- Stipa hymenoides* – Indian rice grass
- Stipa speciosa* – Desert needlegrass
- \* *Triticum aestivum* – Common wheat

*THEMIDACEAE* – Brodiaea family

*Dipterosptemon capitatus* – Blue dicks

*Muilla coronata* – Crowned muilla



*TYPHACEAE* – Cattail family

*Typha domingensis* – Southern cattail

\* signifies introduced (non-native) species



# **Appendix D**

## **TRAFFIC/ NOISE MODELING**



**Traffic Noise Prediction Model, (FHWA RD-77-108)****Model Input Sheet****Project Name :** 60478927 - Red Rock State Park GP Rev**Project Number :** 60478927**Modeling Condition :** Existing Traffic**Ground Type :** Hard**Metric (L<sub>eq</sub>, L<sub>dn</sub>, CNEL) :** Ldn**K Factor :** NA**Traffic Desc. (Peak or ADT) :** ADT

| Segment | Roadway        | Segment         |                 | Traffic Vol. | Speed | Distance | % Autos | %MT | % HT | Day % | Eve % | Night % | Offset<br>(dB) |
|---------|----------------|-----------------|-----------------|--------------|-------|----------|---------|-----|------|-------|-------|---------|----------------|
|         |                | From            | To              |              | (Mph) | to CL    |         |     |      |       |       |         |                |
| 1       | State Route 14 | Brandsburg Road | Reeman Junction | 8100         | 50    | 100      | 82      | 4   | 14   | 87    | 0     | 13      |                |

0

**Traffic Noise Prediction Model, (FHWA RD-77-108)****Predicted Noise Levels****Project Name :** 60478927 - Red Rock State Park GP Rev**Project Number :** 60478927**Modeling Condition :** Existing Traffic**Metric (Leq, Ldn, CNEL) :** Ldn

| Segment | Roadway        | Segment         |                 | Noise Levels, dB Ldn |      |      |       | Distance to Traffic Noise Contours, Feet |       |       |       |       |
|---------|----------------|-----------------|-----------------|----------------------|------|------|-------|------------------------------------------|-------|-------|-------|-------|
|         |                | From            | To              | Auto                 | MT   | HT   | Total | 70 dB                                    | 65 dB | 60 dB | 55 dB | 50 dB |
| 1       | State Route 14 | Brandsburg Road | Reeman Junction | 63.5                 | 58.1 | 67.7 | 69.4  | 88                                       | 278   | 878   | 2777  | 8780  |

## Appendix E

# NOTICE OF PREPARATION AND SCOPING SUMMARY

# Notice of Preparation





# State of California – The Resources Agency

DEPARTMENT OF PARKS AND RECREATION



## Notice of Preparation of an Environmental Impact Report

### Red Rock Canyon State Park General Plan Revision

**Scoping Period: Tuesday, October 9, 2018 – Friday, November 9, 2018**

**DATE:** October 9, 2018

**TO:** Agencies, Organizations, and Interested Parties

**SUBJECT:** Notice of Preparation of an Environmental Impact Report  
Red Rock Canyon State Park General Plan Revision

**LEAD AGENCY:** California Department of Parks and Recreation

**NOTICE IS HEREBY GIVEN** that the California Department of Parks and Recreation (State Parks) intends to prepare an environmental impact report (EIR), consistent with requirements under the California Environmental Quality Act (CEQA). The purpose of the EIR is to evaluate the environmental impacts associated with the proposed Red Rock Canyon State Park General Plan Revision (Project). State Parks will serve as the lead agency under CEQA.

The purpose of this Notice of Preparation (NOP) is to notify agencies, organizations, and individuals that State Parks plans to prepare the EIR and request input on the scope of the environmental analysis. From public agencies, we are inviting comments on the scope and context of the environmental information that is relevant to each agency's statutory responsibilities with regard to the proposed Project. We are also requesting interested individuals' or organizations' views on the scope of the environmental document.

### SCOPING PERIOD

Comments on the scope of the General Plan Revision will be accepted until 5:00 PM on Friday, November 9, 2018. Please submit comments to:

**By Email:** [info@RedRockGP.com](mailto:info@RedRockGP.com)

**By Mail:** California Department of Parks and Recreation  
Attn: Katie Metraux, Acting OHMVR Planning Manager  
1725 23<sup>rd</sup> Street, Suite 200  
Sacramento, CA 95816

Written and oral comments will also be accepted at two scoping meetings, at the dates and times listed below.

## **SCOPING/PLANNING MEETINGS**

Dual-purpose public meetings for EIR scoping and General Plan Revision planning will be held at the following dates and locations:

**Date:** Tuesday, October 23, 2018

**Location:** Historical Society of the Upper Mojave Desert

**Address:** 230 W Ridgecrest Blvd, Ridgecrest, CA 93555

**Time:** 6:00 p.m. to 7:30 p.m.

**Date:** Wednesday, October 24, 2018

**Location:** University of Antelope Valley, Grand Ballroom

**Address:** 44055 N. Sierra Highway, Lancaster CA 93534

**Time:** 6:00 p.m. to 7:30 p.m.

These meetings will offer an opportunity for interested parties to meet the planning team and learn about the General Plan Revision. Attendees are encouraged to provide input about recreation opportunities and experiences, and goals and guidelines for park operations and programs. The meetings will also serve as scoping meetings for the EIR and attendees will have the opportunity to provide input on the scope and content of the EIR. The two meetings will be identical in format and content. Each meeting will begin with an open house from 6:00 p.m. to 6:30 p.m. The planning team will provide a brief presentation about the General Plan Revision and EIR at 6:30 p.m., followed by an opportunity for attendees to provide comments.

Interested parties are also encouraged to visit [www.RedRockGP.com](http://www.RedRockGP.com) to view the NOP, learn more about the Project and to sign-up for the Project email list.

## **PROJECT TITLE**

Red Rock Canyon State Park General Plan Revision

## **PROJECT LOCATION**

Red Rock Canyon State Park is an approximately 27,000-acre area within the Mojave Sector of the Tehachapi District of the California State Park System. The Park is located along State Highway 14 in Kern County, approximately 25 miles northeast of Mojave and 80 miles east of Bakersfield (see attached Project Vicinity Map).

## **PROJECT BACKGROUND**

In the late 1990s State Parks prepared an amendment to the Red Rock Canyon State Park's 1982 General Plan, due to the addition of newly-acquired lands, and especially those to be added to Red Rock Canyon State Park (RRCSP) as a result of the California Desert Protection Act of 1994. This amendment covered the Last Chance Canyon addition to the RRCSP, which was transferred from the United States Department of Interior – Bureau of Land Management (BLM) to State Parks in 1994. State Parks collected data, performed inventories and assessments, met with stakeholders, and held public meetings. However, the planning effort was suspended in 2003 due to budget constraints.

A second general plan revision was launched by State Parks in the fall of 2008. An NOP to initiate the CEQA review process was also issued at that time. The planning team held a scoping meeting and received extensive input from the public, agencies and stakeholders. This input informed and guided additional resource studies that have been conducted at the park since 2008 and was used to develop some initial planning concepts for potential park uses. This revision was suspended due to budgetary concerns.

Much has changed near Red Rock Canyon State Park since 2008, including land use designations, regional planning, and additional land acquisitions. State Parks has initiated planning for Onyx Ranch State Vehicular Recreation Area (SVRA) immediately adjacent to Red Rock Canyon State Park. There also have been several changes to the CEQA process. Therefore, State Parks has decided to issue a new NOP. The input received on the prior NOP and during prior planning meetings has been considered in the planning concepts developed to date.

## **PROJECT DESCRIPTION**

Red Rock Canyon State Park provides magnificent views of the scenic Mohave desert landscape, including the spectacular rock formations for which the Park is named. The Park includes two natural preserves, and provides many recreation opportunities, including camping, touring, sightseeing, geology and nature studies, star gazing, exploration of historic sites, equestrian activities, hiking, and opportunities for reflection and solitude.

State Parks is developing a General Plan Revision for Red Rock Canyon State Park in accordance with Public Resources Code §5002.2 referencing General Plan guidelines and §21000 et seq. concerning the California Environmental Quality Act (CEQA). The purpose of the General Plan Revision is to provide a comprehensive framework for future Park development and use, and to provide management objectives for the Park. While the current General Plan (adopted in 1982) only covers the original 8,180-acres, the Revised General Plan will include the entire area of approximately 27,000 acres currently under park ownership and management. The Revised General Plan will also provide a clear framework of consistent management goals and guidelines for the entire Park, identify formal boundaries, and make recommendations for the classification of all of the Park's acreage. Preparation of the General Plan Revision will rely on existing information, including several recent studies at the park and in the surrounding areas. Based on the broad range of information available, and the prior planning efforts, State Parks has developed a series of proposed planning concepts to explore different management scenarios for the park and to solicit input from agencies and stakeholders. These proposed planning concepts will be available for viewing at the scoping/planning meetings and will form the basis for developing a preferred planning concept.

With the General Plan Revision, State Parks proposes to take the following actions for Red Rock Canyon State Park:

- Revise the 1982 General Plan to include a Statement of Management Intent for the entire Park which is consistent with the California Desert Protection Act, redefine the existing Declaration of Purpose for Red Rock Canyon State Park, and further define an appropriate purpose and vision for the transferred and acquired lands.
- Amend the Park boundaries to reflect land transfers and acquisitions that have occurred since adoption of the 1982 General Plan.
- Identify legal precedents and rights in connection with past and present land uses.
- Identify priorities for the protection of significant physical, cultural, aesthetic and natural resources. This may include recommendations for the designation or expansion of preserves or



special districts within the Park.

- Develop comprehensive management goals and guidelines for operation and management of the Park, consistent with the new Declaration of Purpose.
- Address issues related to staff and public safety associated with the remote location of the Park, mines, roads, and trails.
- Establish “Use Zones” and appropriate/allowable facilities and activities within each zone.
- Identify interpretive opportunities/themes to set the framework for the development of Park wide interpretive programs.
- Set the planning context for the park, including its proximity to the new Onyx Ranch SVRA and other surrounding land uses, and address common issues.

## **POTENTIAL ENVIRONMENTAL EFFECTS**

State Parks has determined that the following topics will be included for evaluation in the EIR for the General Plan Revision: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation and Traffic, Tribal Cultural Resources, and Utilities and Service Systems.

By establishing “Use Zones” and classification, determining appropriate uses, and developing a comprehensive set of goals and guidelines, the Revised General Plan will identify measures to avoid and minimize potential impacts of future projects and activities that will be allowed under the Plan. Thus, the General Plan is expected to be largely self-mitigating.

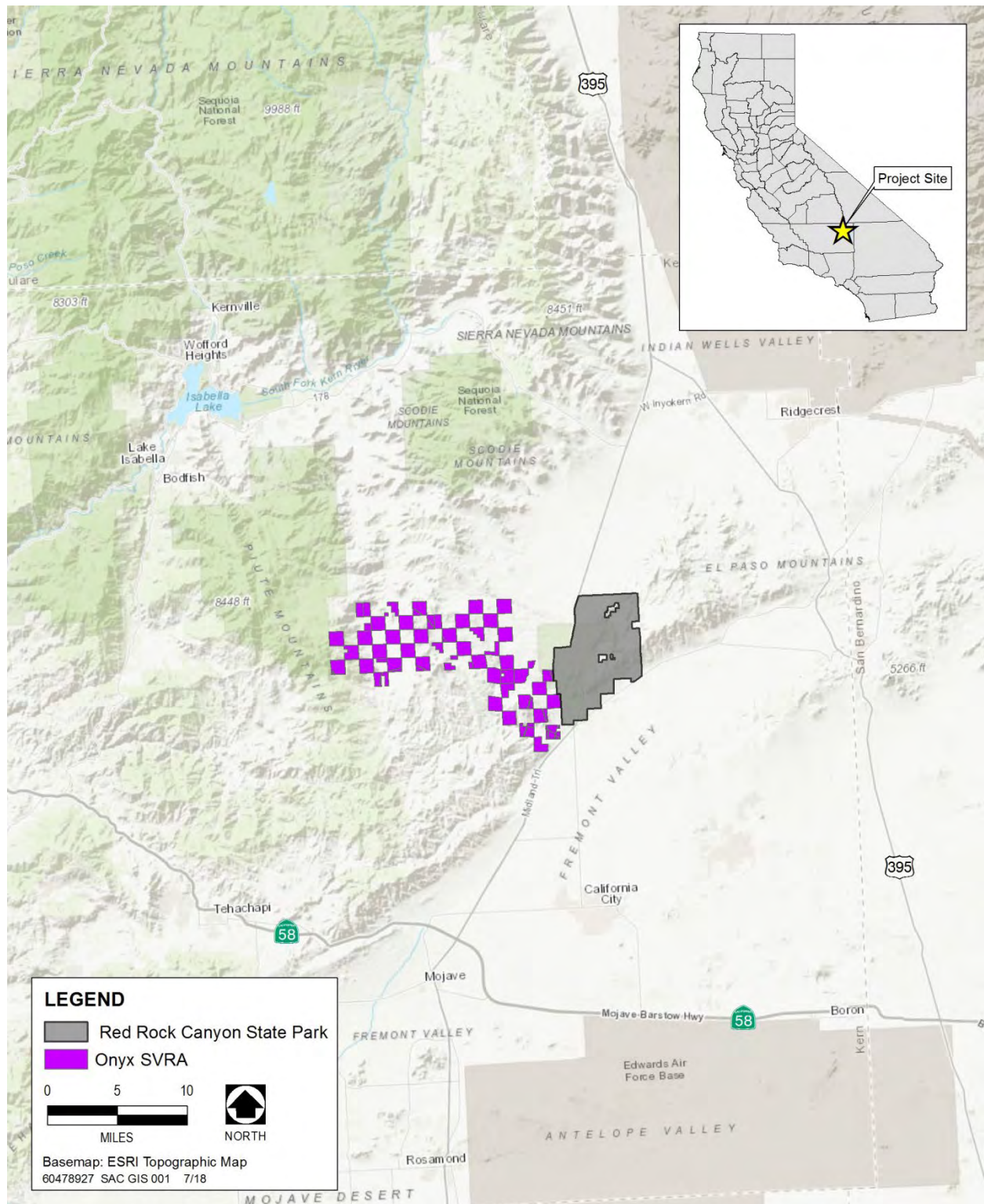
## **INTENDED USE OF THE EIR**

State Parks will use the EIR to consider the environmental effects of the General Plan Revision and if necessary, develop mitigation measures to reduce potential impacts resulting from General Plan implementation. State Parks will also consider a reasonable range of alternatives when reviewing the General Plan Revision for approval. The EIR will serve as the CEQA compliance document for adoption of the General Plan and will be certified by the lead agency (State Parks) concurrent with General Plan Revision approval.

CEQA permits the use of a tiered process for environmental review. The first tier is a program-level analysis which comprehensively reviews the environmental impacts of a program as a whole at a broad conceptual level of analysis including cumulative impacts. Once certified, the EIR will serve as the programmatic environmental document to be referenced for implementation of future actions included in the General Plan Revision. It will serve as a first-tier document for the General Plan.

Future implementation actions envisioned in the General Plan Revision that are found entirely within the scope of the EIR may not require additional environmental review. Those that do require additional review under CEQA may be able to use a streamlined or focused approach to CEQA compliance.

## PROJECT VICINITY MAP



# Scoping Summary





## **Summary of Comments Received in Response to Notice of Preparation for the Red Rock Canyon State Park General Plan Revision (October 2018)**

The California Department of Parks and Recreation (State Parks), serving as the lead agency under the California Environmental Quality Act (CEQA) for the Red Rock Canyon State Park General Plan Revision project, issued a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the project on October 9, 2018. The issuance of the NOP initiated the environmental scoping period for the project, which began on Tuesday, October 9, 2018 and ended on Friday, November 9, 2018. The NOP is included in Attachment A.

### **Scoping Outreach**

The release of the NOP was publicized in the Antelope Valley Press and Bakersfield Californian newspapers immediately following the release of the NOP. Newspaper postings included a summary of the project and the NOP, information on the two upcoming scoping meetings, and information on how to provide comments.

The NOP, scoping meetings, and instructions on how to provide comments were also posted to the project website at [www.redrockgp.com](http://www.redrockgp.com); sent out in an email blast; and mailed to relevant public agencies, nearby jurisdictions, tribes, local organizations, and other stakeholders.

### **Scoping Meetings**

Two public scoping meetings were held for the project on the evening of October 23, 2018 at the Historical Society of the Upper Mojave Desert in Ridgecrest, and on the evening of October 24, 2018 at the University of Antelope Valley in Lancaster. Approximately 24 people attended the scoping meeting in Ridgecrest and approximately 28 people attended the scoping meeting in Lancaster.

### **Scoping Comments**

Between October 9 and November 9, 2018, 50 written comments were received from public agencies, local organizations, and individuals. In addition, approximately 2,460 comments from the Center for Biological Diversity were emailed via a pre-written template to the project inbox advocating for the protection and conservation of biodiversity and natural resources in the park.

The following is a summary of the key issues raised during the scoping period intended to summarize the major concerns raised in comment in regards to the scope and content of the EIR. Copies of all written comments received at the scoping meetings, by USPS mail, and by email were reviewed by the planning team in preparation of this summary.

## Summary of Key Issues Raised

### Facilities

- Don't add additional fencing
- Consider alternatives to fencing around park boundaries for aesthetics purposes
- Concerns regarding toilets and water access not always working
- Improve existing facilities and roads in the park
- Provide improved water source on the east side of the park
- Issues regarding overcrowding and maintenance improvements needed at Ricardo campground, including repaired water spigot, bathroom facility
- Provide resources for education about falcons and falconers in the park
- Develop a water source near Red Cliff trailhead for humans and animals
- Incorporate new educational and interpretive opportunities and new technologies into the General Plan

### Camping

- Introduce more camping areas generally
- Introduce camping along Inyokern Road
- Consider the possibility of creating an equestrian campground at or near Ricardo campground
- Address the status of the equestrian campground at the Barnett Opal Mine area
- Consider opening a staging area of improved campground along the Burro Schmidt Tunnel Road

### Hiking and Equestrian

- Ensure there are sufficient trails for hiking and dark sky experiences
- Designate and provide more hiker and equestrian-only trails
- Increase non-motorized hiking trails throughout the park
- Allow hiking off defined trails
- Open Nightmare Gulch for hiking and horseback riding

### Park Purpose

- Primary purpose of the park should be for scientific study of plants and conservation of biodiversity
- Update the Declaration of Purpose of Red Rock Canyon State Park to include all resources occurring within the park
- Include a clear and detailed description of the purpose, goals, and objectives for the project in the EIR

### Off-Highway Vehicle Use

- Open more trails for OHV use
- Open OHV access to Dove Springs
- Reopen Nightmare Gulch for OHV use
- Preserve historic OHV routes for future generations of motorized users and the disabled
- Motorized vehicle use should be reduced overall
- Limit OHV use to designated routes
- OHV use should be eliminated completely
- Include an analysis in the EIR of effectiveness of administrative controls in managing OHV and OHV impacts
- Prioritize closure of OHV routes in riparian zones

- Only allow vehicles and bicycles on clearly defined trails
- Take into consideration the technical advances in OHVs, increase of OHV use, and increased popularity of extreme sports since the time that the General Plan was written in 1981

### Biological Resources

- Resource element should be the first element of the General Plan to protect biodiversity
- Prepare the Resource element of the General Plan first for public review
- Close Last Chance Canyon and Nightmare Gulch for wildlife protection
- Protect plant species unique to the Park such as Red Rock Canyon tarplant, monkeyflower
- Address climate change as an environmental impact in the General Plan Revision
- Provide a buffer to protect the park from external threats
- Address cumulative impacts to the Desert tortoise
- Provide a corridor or network to link together Desert tortoise habitat
- Particular areas in need of protection are Nightmare Gulch, Birds of Prey nesting area, Red Buttes, riparian area around Cudahy Camp
- Limit visitor use including sightseeing, nature observation, research and study, hiking, photography, and painting and sketching
- Include an inventory of natural and cultural resources in the General Plan
- Use the Desert Renewable Energy Conservation Plan to assemble the Resource element
- Include information from the 2008 paper *Status of the Desert Tortoise in Red Rock Canyon State Park* published by California Fish and Game in the Resource element
- Include analysis of direct, indirect, and cumulative impacts of the proposed project to threatened, endangered, and sensitive species and unique plant communities in the EIR
- Include a quantitative data-based analysis of direct impacts of loss of habitat from motorized vehicle use and the indirect impacts from pollution, noise, fire, and non-native species from motorized vehicles in the EIR
- Include an analysis of impacts to rare, sensitive and species of concern
- Define the environmental baseline in the EIR that accounts for recreational trends and population growth
- The EIR should analyze impacts and adopt mitigations measures related to greenhouse gas emissions and global warming
- Rare plants and sensitive natural communities should be protected as defined by the California Rare Plant Bank
- Include measures in the General Plan to address invasive plant species
- Analyze threats and effects that roads and disturbances have on the ability of the round-tailed ground squirrel to expand into Mohave ground squirrel habitat

### Cultural Resources

- Protect areas of the park with valuable archaeological resources, cultural sites for Native American tribes
- Designate Iron Canyon as a cultural preserve
- Recognize the significance of geologic and paleontological resources of the park



- Ensure compliance with AB 52 and SB 18 when consulting with Native American tribes, perform a Sacred Lands File search with the NAHC
- Designate a preserve for cultural and natural resources in the upper Last Chance Canyon area including Red Buttes

#### Land Use and Land Use Planning

- Address cattle grazing drift from adjacent lands in the park
- Coordinate with Bureau of Land Management to ensure land use compatibility and restriction of motorized vehicle use, firearm use, grazing, mining, and communication utilities within ½ mile of the RRCSP boundary

#### Recreation

- Include consideration of recreational needs and alternatives that minimize user conflicts in the EIR

#### Transportation

- Ensure Caltrans can perform essential facility maintenance such as flood control outside of SR 14 right-of-way when designating preserves or special districts
- Consult Caltrans for additional facilities and recreational activities to coordinate regarding potential changes to traffic patterns and signage needs
- Install traffic counters at the entrances of the park to be able to understand how to address issues of dust, vegetation, and noise
- Consider impacts to rail crossing safety and increases in pedestrian traffic and trespassing onto railroad right-of-way
- Ensure drainage does not shift storm water drainage toward Union Pacific property and infrastructure

#### Safety and Security

- Firearms should be prohibited
- Address illegal use of firearms in the park
- Public safety concerns regarding mapping of trails, signage
- Provide safe passing areas of fencing
- Increase Parks staff throughout the park on weekends
- Include a provision for adequate law enforcement and staff in the General Plan
- Improve maintenance of camping areas and hiking trails; increase designated camping sites

#### Rock Hounding

- Allow rock hounding in the RRCSP and provide provisions for rock hounding in the management plan for Onyx Ranch

#### Outreach

- Introduce coordination with non-profits to assist with the management of the park
- Include outreach to California City, Kern County Board of Supervisors, Kern County Planning, City of Ridgecrest, and the Bureau of Land Management during the planning process
- The OHV Commission should have an opportunity to give input to the plan and provide comments