

State of California  
California Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE

**FINAL LAND MANAGEMENT PLAN**

for

**RIVER SPRING LAKES ECOLOGICAL RESERVE  
Mono County, California**



Photo by Art Lawrence, CDFW

March, 2016

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# **I. INTRODUCTION**

## **A. Purpose of Acquisition**

The property that is today referred to as the River Spring Lakes Ecological Reserve (RSLER) was acquired primarily to maintain and enhance wetland habitat values, provide a potential refuge for endangered Owens pupfish, maintain quality habitat for waterfowl and shorebirds, and provide public access for hunting and nature study.

## **B. Acquisition History**

In 1986, 637.65 acres surrounding and including River Spring Lakes were acquired by the California Department of Fish and Wildlife, formerly the Department of Fish and Game, (Department) using Environmental License Plate Funds. In 1994 the property was formally designated as the River Spring Lakes Ecological Reserve by the California Fish and Game Commission.

## **C. Purposes of This Management Plan**

Overall, the goal for management of Department lands is to optimize the ecological integrity of habitats in balance with the needs for public use. To accomplish this, the Department strives to protect and maintain the biological and physical processes that contribute to this integrity, with an emphasis on adaptive management of habitats, and public uses that are compatible with these efforts. Toward these goals this management plan serves the following purposes:

- ❖ The plan guides the adaptive management of habitats, species, and programs described herein to achieve the department's mission to protect and enhance wildlife values.
- ❖ The plan serves as a guide for appropriate public uses of the property.
- ❖ The plan serves as a descriptive inventory of fish, wildlife and native plant habitats which occur on or use this property.
- ❖ The plan provides an overview of the property's operation and maintenance, and personnel requirements to implement management goals. It serves as a budget planning aid for annual regional budget preparation.
- ❖ The plan provides a description of potential and actual environmental impacts and subsequent mitigation which may occur during management, and contains environmental documentation to comply with state and federal statutes and regulations.



## **II. PROPERTY DESCRIPTION**

### **A. Geographic Setting**

The River Spring Lakes Ecological Reserve appears on the River Spring 7.5 minute U.S.G.S. quadrangle map. It comprises 637.65 acres at an elevation of 6,480 feet within the Great Basin Physiographic Province (Figure I). It is located in Adobe Valley, Mono County, approximately 10 miles northwest of the town of Benton, and 3.5 miles northeast of State Highway 120. Access to the reserve is via the River Spring Lakes Road.

### **B. Property Boundaries and Adjacent Land Use**

RSLER is bordered by Bureau of Land Management (BLM) property on all but the northeast side where it is bordered by the Inyo National Forest (INF). The property's legal boundaries are illustrated in Figures II and III, and its infrastructure in Figure IV. The legal description of the property is included as Appendix A. Because the Department, the BLM, and the INF all have land management stewardship responsibilities at RSLER, the three agencies may pursue joint projects at RSLER where feasible. See Section D below for descriptions of these land uses.

### **C. Geology, Soils, Climate, and Hydrology**

#### **1. Geology and Soils**

RSLER is situated in the Adobe Valley between the Benton Mountain Range to the east and the Granite and Glass Mountain Ranges to the North and West at a mean elevation of 6,480 ft. Evidence of the geologic history of the region spans as far back as the Triassic Period some 200 million years ago (mya), when the granodiorite of the Benton Range was intruded. Some time after that earlier intrusion (during the Jurassic Period, approximately 160 mya) a second pulse of magma intruded to form the granite of the Casa Diablo and Granite Mountains. The period following these two episodes of igneous activity represents a long interval of erosion during which the older crust, into which the granodioritic material had intruded, was entirely removed.

Volcanic history of the region spans the period 28 – 3 mya during which at least four major events occurred. This is evidenced by sequential layers of material beginning with rhyolitic ash flow deposits that hardened into welded tuff, much of which has since been eroded. Subsequent layers include andesite overlaying the rhyolite, a second layer of welded tuff, and finally a widespread layer of olivine basalt.

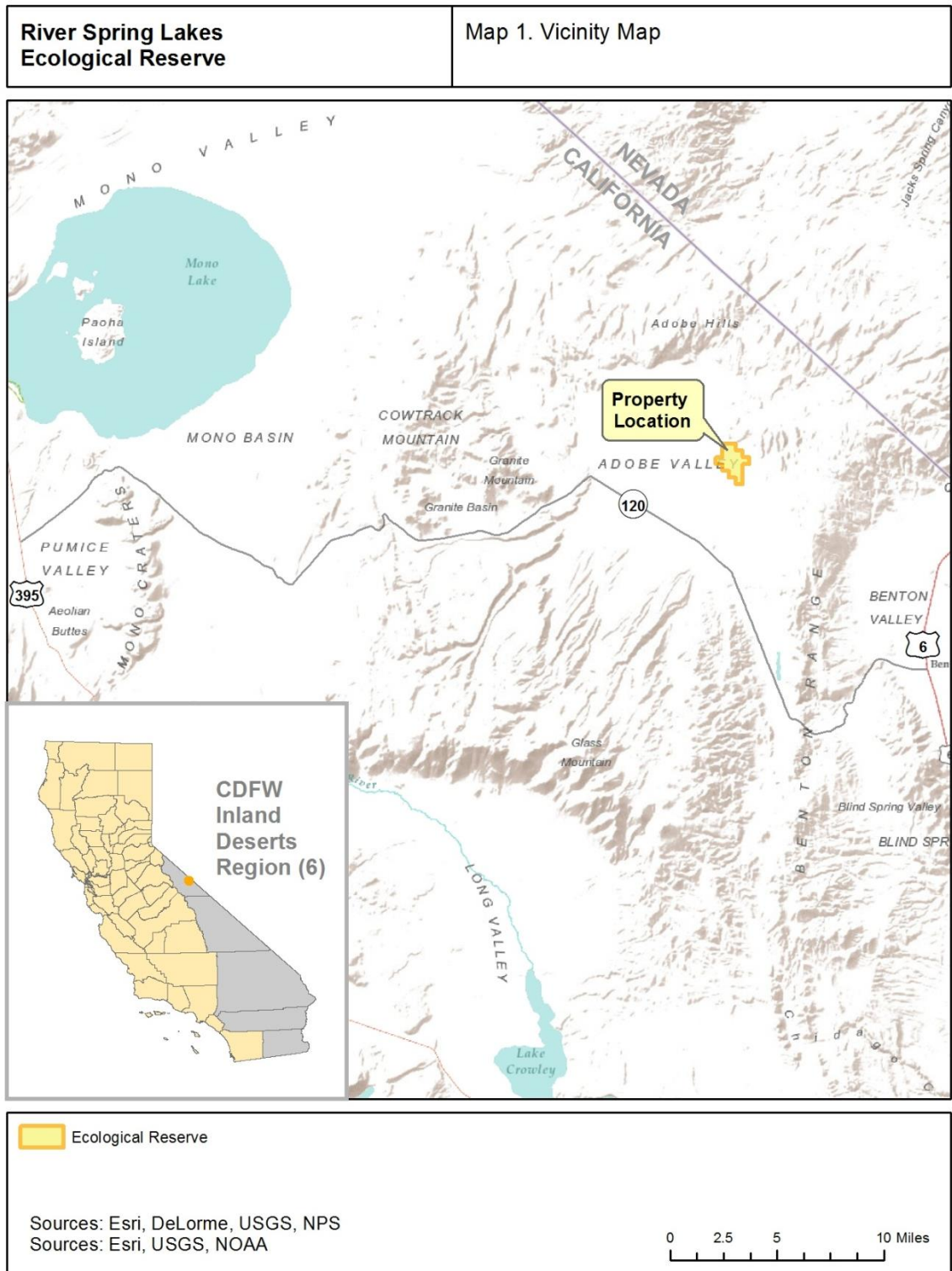


Figure I. RSLER vicinity map.

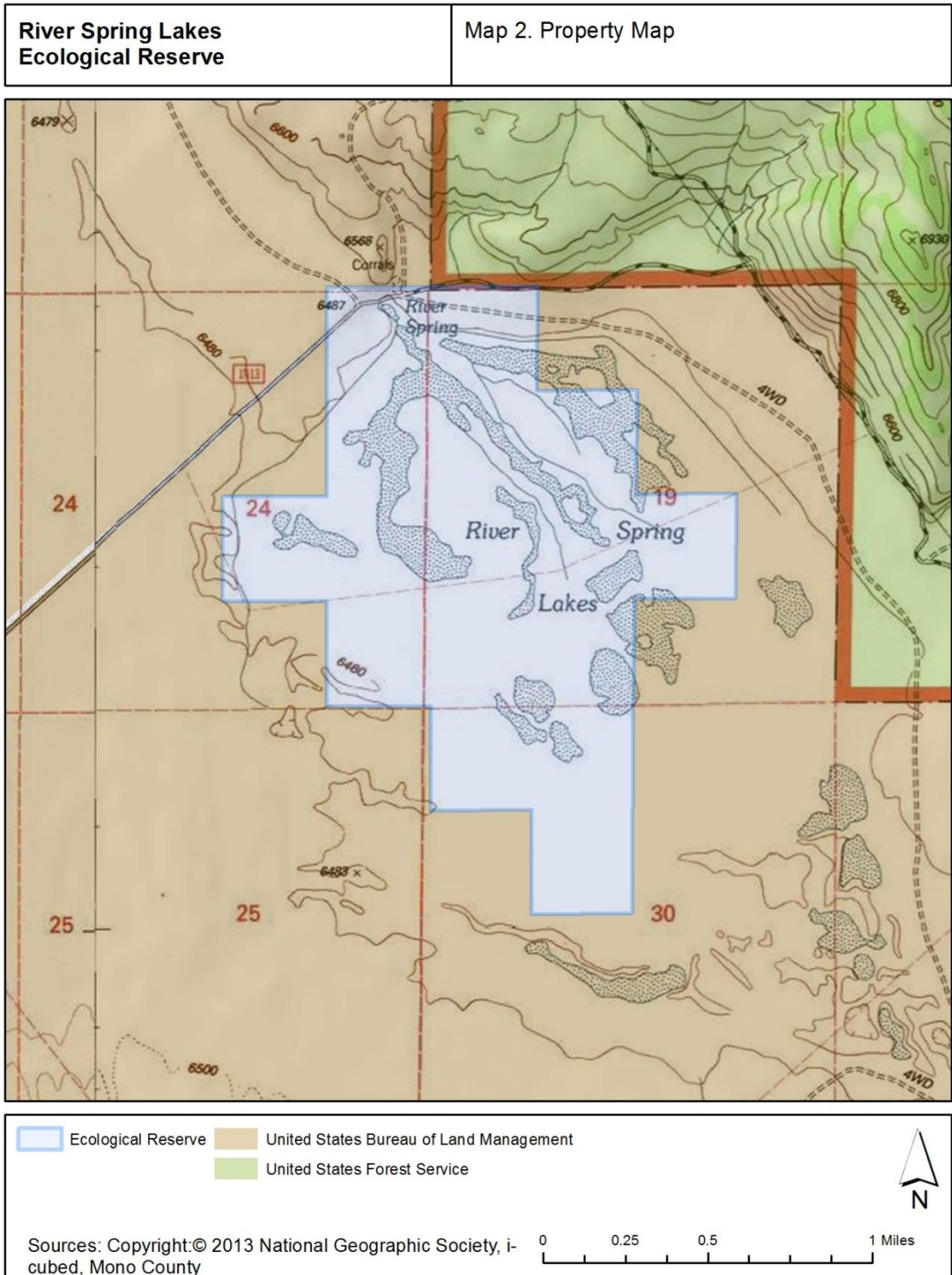


Figure II. RSLER property map.

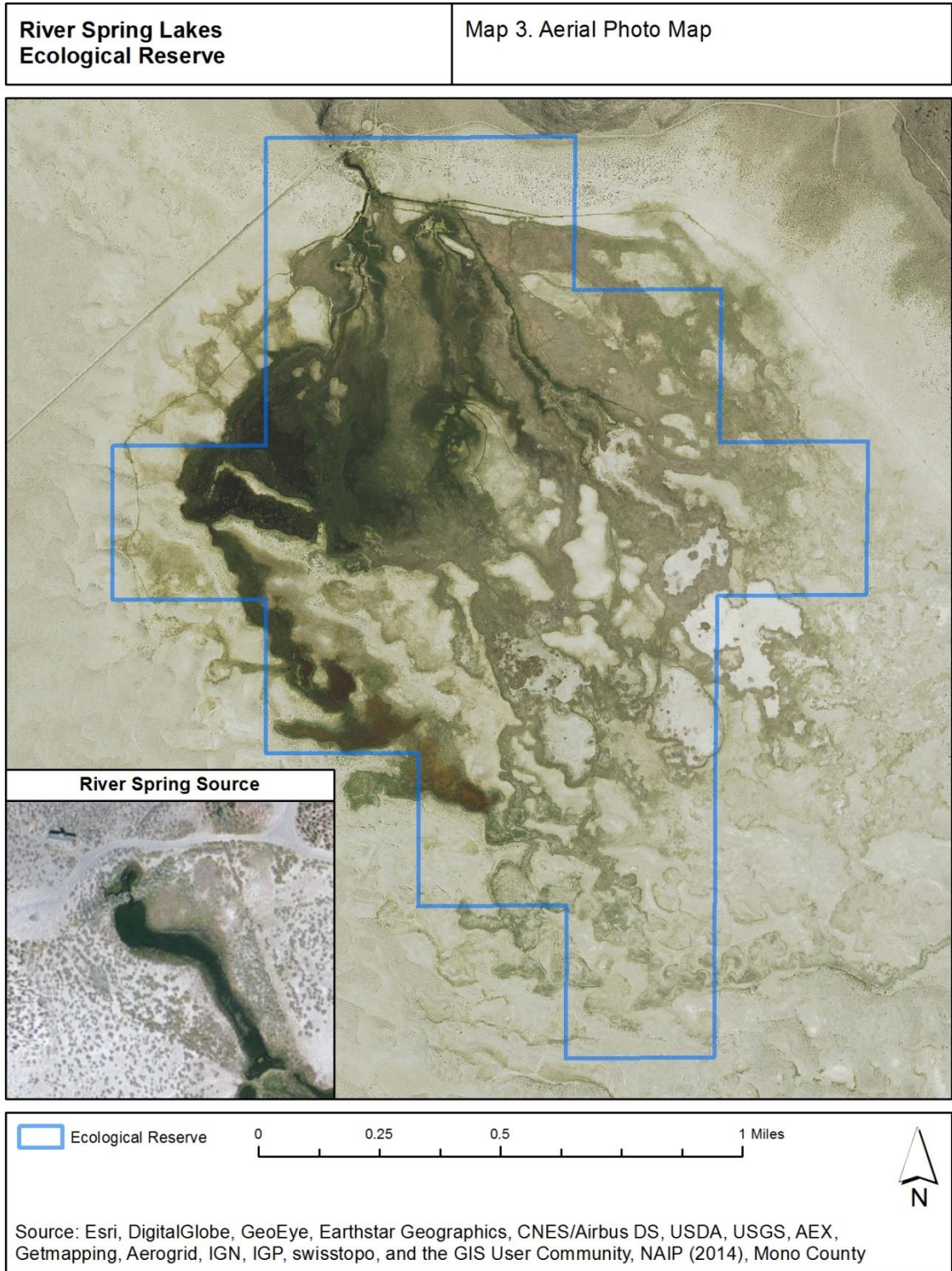


Figure III. RSLER aerial photograph.

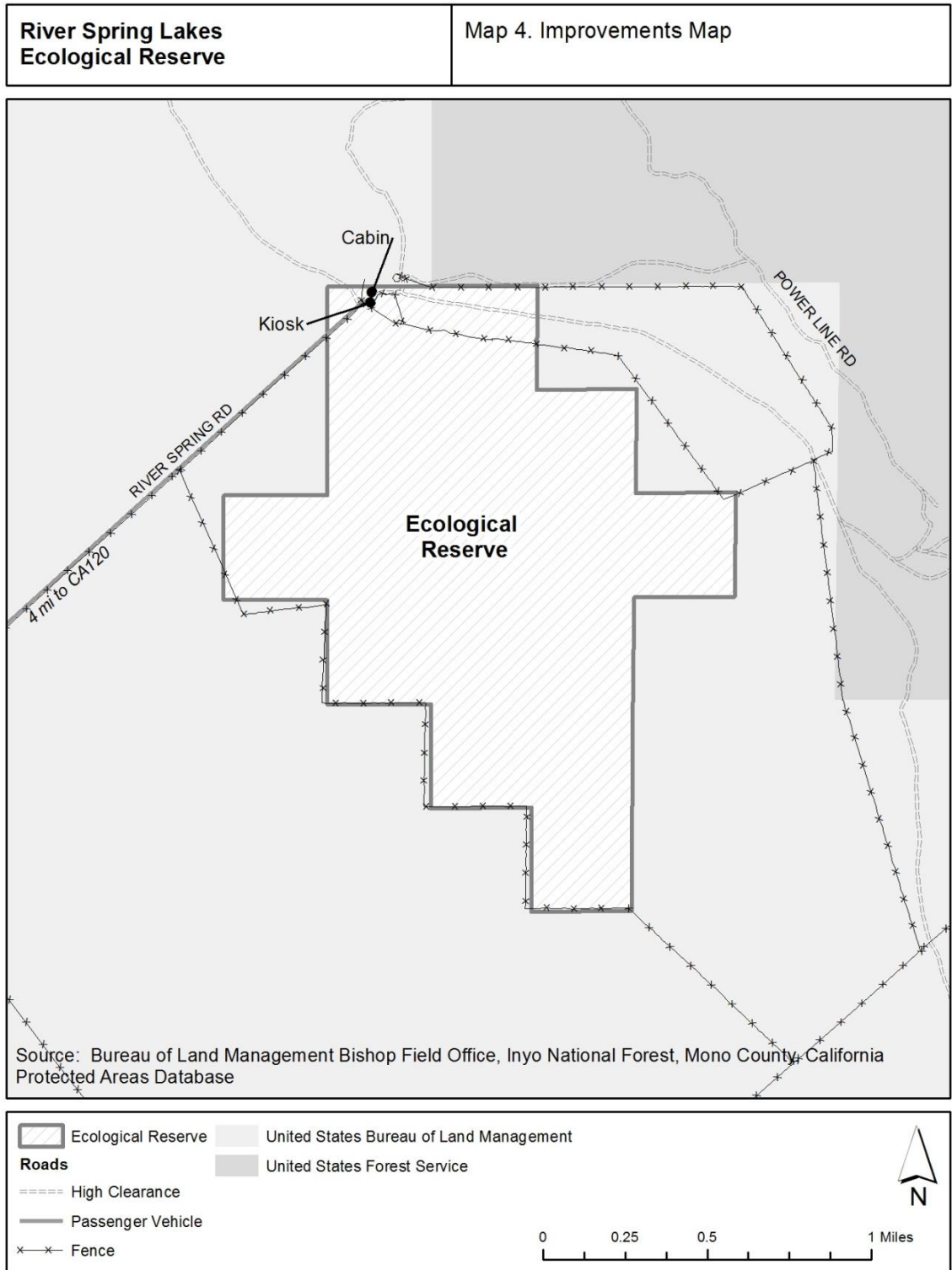


Figure IV. RSLER improvements map.

Following another period of quiet lasting at least a million years, Glass Mountain was formed during the Pleistocene by a succession of rhyolite and obsidian domes accompanied by short lava flows. During this time a series of explosions spread a thick sheet of pumice over the area north and east of the mountain. This material, designated the Tuff of Taylor Canyon, forms the prominent apron extending into Adobe Valley, and large areas on the east slope of the Benton Range. The last major volcanic episode of the region was the formation of the Long Valley caldera and the accompanying outpouring of the Bishop Tuff. One tongue of this ash flow came over the ridge north of Glass Mountain, and extended into Adobe Valley. The layer is now dissected to form the prominent pinkish cliffs that overlook Adobe Creek and form the promontories between Taylor and McGee Canyons.

Active faulting has continued in the area since before the basalt eruptions, until geologically recent times. Major faults occur on the west base of the Benton Range as evidenced by the straight, deep fronts of the ranges. The faults themselves are hidden by alluvium and the Tuff of Taylor Canyon. In addition to faulting, the region has undergone broad general warping. Dips as great as 20° in the basalt flows, as well as a difference in elevation between Adobe Valley and the hills to the north and east, suggest broad uplift of the hills, and subsidence of the valley. Adobe Valley is a broad sag in the lava surface, filled with alluvium and the aforementioned airfall ash deposits. It is so flat in parts that shallow ponds collect during wet periods, later drying out to form salt crusts. The northeast lobe of the valley into which winds from the west are funneled, is covered by low dunes of sand and pumice fragments (Krauskopf and Bateman 1977).

The Benton-Owens Valley Soil Survey (2008) shows that the soil mapping unit Aquic Torriorthents-Aquents Complex 0 to 2 percent slopes, makes up most of the site, with Aquic torriorthents-Aquents-Deepwell Complex 0 to 15 percent slopes, found on the western, northern and eastern peripheries of the property.

RSLER encompasses uplands and ephemeral and perennial pool habitats that are interspersed by sand dune formations comprised of Xeric Torripsamment soils. Quaternary alluvium comprises the valley's dominant soil complex. This Aquic Torriorthent Complex is deep, poorly drained and has surface textures that are of a fine sandy loam with a thin, white salt crust (alkali evaporites) especially in summer and fall.

## **2. Climate**

Climate in Adobe Valley is characterized by hot, dry summers, and cold, moist winters. It is influenced by the Sierra Nevada Mountains to the west, which contribute to an orographic effect leading to a rain shadow east of the crest. As a result, the area's average annual precipitation falls within the range of 6 to 12 inches. The mean annual air temperature is 43°F to 57°F. The frost-free period is between 115 and 150 days in length (NRCS 2008).

### 3. Hydrology

Flow from the spring is unmeasured, but has been estimated at approximately two cubic feet per second. The flow likely varies with season and water year. Water temperature at the source is fairly constant at 60° F to 63° F throughout the year. Water quality is good with total dissolved solids ranging from 110 to 115 ppm and a pH of 6.5 (BLM pers. comm.).



River Spring source.  
Photo by Art Lawrence, CDFW

## D. Cultural Features

Much of the following information was taken from the BLM cultural resources publication *A Culture Resource Overview of the Bureau of Land Management Coleville, Bodie, Benton, and Owens Valley Planning Units, California* (Busby et al. 1980).

### 1. Archaeology

Archaeological investigations of the Benton and Owens Valley region indicate that human occupation began 10,000 or more years ago. Paleo-Indian sites have been found in the Mono Basin, in Long Valley, and in Owens Valley. Beginning about 2,500 years ago the area was probably used more heavily with a shift to sedentary villages that intensified about 1,000 years before present (G. Haverstock pers. com.). During this time, piñon was used extensively and territorial boundaries were developed (NRCS 2008). Most recent native occupation of Adobe Valley has been by the Owens Valley Tribe of Northern Paiute (Busby et al. 1980).

### 2. Historic Land Use

In 1864, the State of Nevada granted E. Dexter and J. M. Baldwin a franchise for a road from Aurora to Adobe Meadows, Adobe Valley. The first documented occurrence of white settlement in Adobe Valley took place in 1860 when George W. Parker began a homestead at an unspecified spot on the commonly traveled path between southern California and the Aurora gold strike.

In the late 1860's and 1870's Adobe Valley, along with Mono Lake's irrigated shore, Bridgeport Valley, Antelope Valley, and Long Valley, provided the bulk of farm and pasture lands on the eastern Sierra. To support eastern Sierra industries, transportation lines were established. Stage lines and roads soon connected Adobe Meadows, Bridgeport, Sonora Pass, Bodie, Aurora, Benton, Antelope Valley and Mono Lake with each other and with points to the west.

Historic land use of Adobe Valley includes homesteading, farming, mining, and intensive sheep grazing activities. Recent land uses have consisted of cattle and sheep grazing, cattle/horse drives, and pack station operations. Other activities include hunting, wildlife viewing, and environmental education classes. Livestock use has been administered under the provisions of the BLM Adobe Valley Allotment Management Plan. RSLER is bordered by Pastures II, III, and VI of that allotment (Figure V).

### 3. Existing Structures

Historical structures present at the RSLER include a cabin that once served as a historic stagecoach stop, and associated corrals nearby that are located primarily on adjacent federal land. The cabin is located approximately 100 feet northwest of River Spring in the northeast quarter of the northeast quarter of Section 24, Township 1 North, Range 30 East, M.D.B.M. The remains of irrigation ditches can be seen in the adjacent meadows. The cabin and corrals have been recorded with the Office of Historic Preservation's Eastern Information Center located in the Department of Anthropology at the University of California, Riverside.





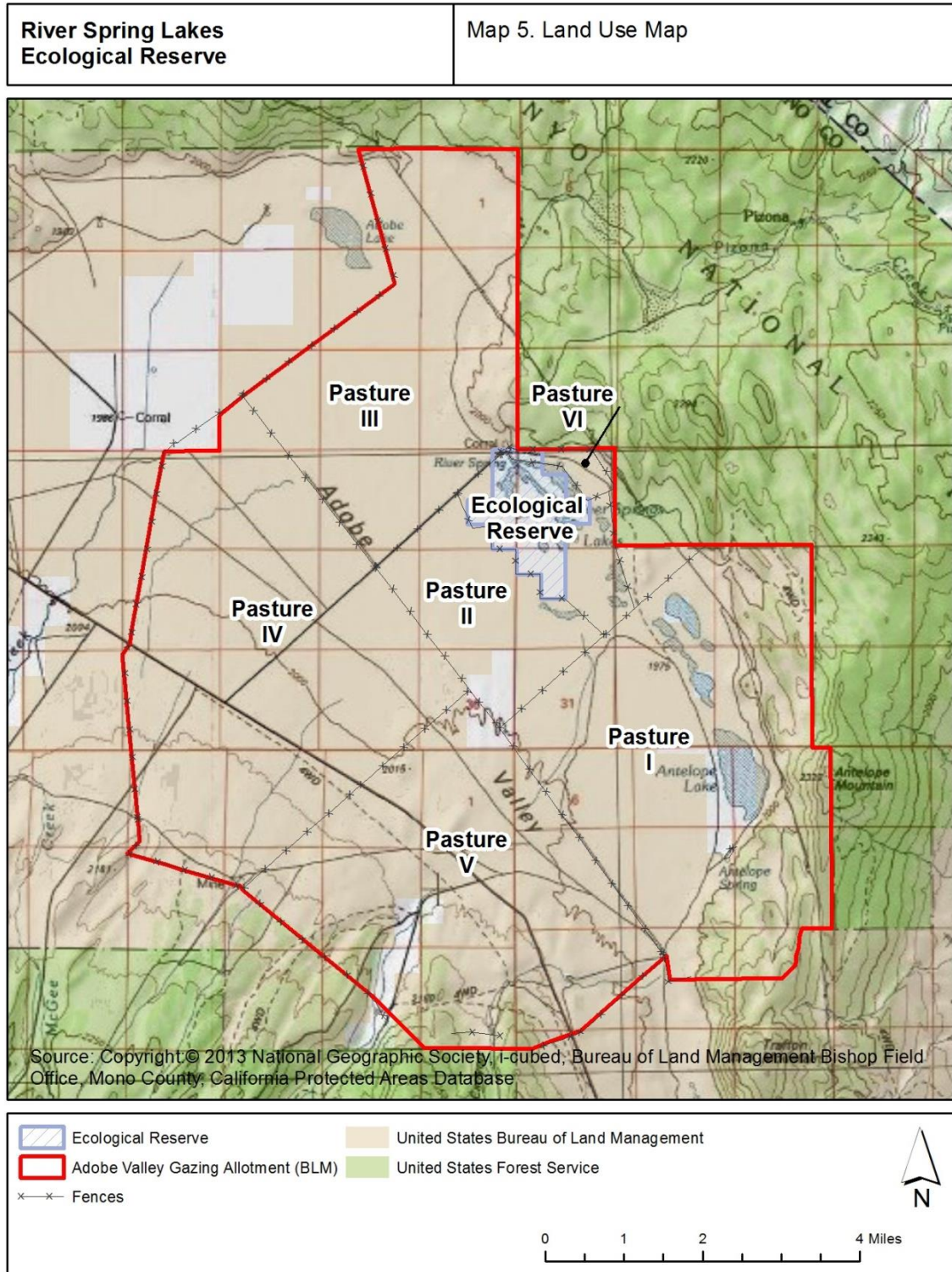


Figure V. RSLER land use map.

### III. HABITAT AND SPECIES DESCRIPTIONS

#### A. Habitats and Natural Communities

RSLER is an important part of the Adobe Valley wetland complex. The valley is a closed basin and runoff from surrounding hills remains within the valley. The amount of open water and saturated soils, representing many of the wetlands in the valley bottom, fluctuates during cycles of wet weather and drought (NRCS 2008).

The reserve itself supports a unique array of habitats which have developed due to the presence of a perennial freshwater spring within the context of the arid Great Basin Province. According to preliminary calculations, there are approximately 430 acres of wetlands and 200 acres of uplands on RSLER (USFWS, 2010). The wetlands are fed by a source spring with multiple vents clustered near the north-central boundary of the ecological reserve. The spring emerges from fine bottom sands and bedrock into a small pool with a single outflow. The spring and pool system was historically modified with a rock masonry dam to create a small impoundment. The rock dam was subsequently breached, resulting in a pool which is presently approximately thirty feet in diameter and two to three feet deep.

Below the breached rock dam the spring brook flows into a slow channel approximately 35 feet wide and about 365 feet long. This shallow slough supports stands of marsh vegetation dominated by hardstem bulrush with little open water. The spring brook ends at an earthen berm at which point the flow is wholly diverted via headgates into two lateral ditches. The diverted waters supply an extensive system of shallow wetlands. Some wetlands remain in their natural configuration while others have been irrigated with a series of ditches and small dikes. These modifications were probably intended to divert water away from the natural drainage's path in order to irrigate uplands for growing livestock forage, and to provide stock water. The ditch system may have reduced the amount of deeper freshwater marsh habitat and increased alkali meadow vegetation for the benefit of livestock grazing.

Three basic habitat types and their corresponding plant associations occur in the RSLER: 1) uplands, 2) seasonally or permanently saturated alkali wetlands, and 3) seasonally or permanently flooded freshwater wetlands. As a spring-fed desert wetland system, RSLER supports an array of freshwater marsh plant associations. The habitat types typically intergrade following a gradient of moisture and alkalinity. The poorly drained, alkali-covered alluvial flats adjacent to inundated areas support a rich and narrowly restricted flora, the alkali meadow. The surrounding uplands support Great Basin scrublands dominated by sagebrush and rabbitbrush.

Natural communities occurring at RSLER are classified according to the *List of*

*California Natural Communities Recognized by the California Natural Diversity Database* (CDFG 2003). This list is based on the *Preliminary Descriptions of the Terrestrial Natural Communities of California* by Holland (1986). It is important to note here that the Department's Vegetation Classification and Mapping Program (VegCAMP) has undertaken the classification and mapping of vegetation throughout the state, and is standardizing vegetation nomenclature for California to comply with the National Vegetation Classification System (NVCS). The NVCS system is superseding older classification systems, including the Holland (1986) Natural Communities system. Many vegetation types included in the current NVCS list match well with existing Natural Community elements. However, in many cases there is no direct correlation. As a consequence, the older Natural Community types will be used to describe habitats at RSLER until such time that VegCAMP develops a classification specific to the area. Further, the California Natural Diversity Database (CNDDDB) will continue to include occurrences of rare Natural Communities.

Preliminary field reconnaissance suggests the presence of the following Natural Communities: Transmontane Freshwater Marsh, Freshwater Seep, Transmontane Alkali Marsh, Alkali Seep, Alkali Meadow, and Big Sagebrush Scrub. Additional study is needed to better understand alkalinity, vegetation associations, and species richness in these areas. The Natural Community types are described below.

#### ❖ **Transmontane Freshwater Marsh and Freshwater Seep**

Both of these natural communities are classified as rare by the CNDDDB. Transmontane Freshwater Marsh is state-ranked S2.2 (imperiled and threatened), and Freshwater Seep is ranked 3.2 (vulnerable and threatened).

The freshwater marsh and seep habitats are associated with the primary source spring, secondary ponds, and downstream ponds and diversions found in the northern and central portions of the RSLER. The primary spring is largely dominated by open fresh water surrounded by a narrow, three foot band of Freshwater Seep vegetation, immediately grading into upland sagebrush scrub. In the area between the rock dam and the earthen dam, emergent freshwater marsh vegetation such as hardstem bulrush (*Schoenoplectus acutus*) has invaded and eliminated most of the open water habitat.

Freshwater seep vegetation surrounds the perimeter of the ponds and includes various species of rush (*Juncus* spp.), Nebraska sedge (*Carex nebrascensis*) spikerush (*Eleocharis* spp.), and a variety of grasses. Common forbs include marsh speedwell (*Veronica scutellata*), monkeyflower (*Mimulus guttatus*), and arrow grass (*Triglochin concinna*).

#### ❖ **Transmontane Alkali Marsh and Alkali Seep**

Both of these natural communities are classified as rare by the CNDDDB. Both are state-ranked S2.1 (imperiled and very threatened). As the wetland system moves further away from its freshwater source, both the marsh and the seep vegetation shift to more alkaline

community types dominated by inland salt grass (*Distichlis spicata*). Management issues are similar to those discussed above for Freshwater Marsh/Seep.

#### ❖ **Alkali Meadow**

Alkali Meadow is classified as a rare natural community by the CNDDDB, state-ranked S2.1 (imperiled and very threatened), and it is the most extensive habitat type at RSLER. It occurs over large areas of relatively flat topography in the bottomlands, and is found on moist soils. This habitat is concentrated around the perimeter of wetlands/seeps, and over much of the central and eastern portion of the property. Alkali Meadow appears as rather sparsely vegetated expanses with white deposits of exposed surface alkali. This habitat intergrades with upland Rabbitbrush Scrub and Sagebrush Scrub types.

Typical species include a variety of perennial grasses such as salt grass (*Distichlis spicata*), alkali cord grass (*Spartina gracilis*), Great Basin wild rye (*Leymus cinereus*), alkali sacaton (*Sporobolus airoides*), bluegrass (*Poa secunda*), and meadow brome (*Hordeum brachyantherum*). Common rushes include wiregrass (*Juncus balticus*). Forbs include alkali pepper grass (*Lepidium montanum* var. *nevadense*), wand aster (*Pyrracoma racemosa* var. *sessilifolia*), blue-eyed grass (*Sisyrinchium halophyllum*), and the rare King's ivesia (*Ivesia kingii* var. *kingii*). Scattered shrubs include greasewood (*Sarcobatus vermiculatus*), yellow rabbitbrush (*Chrysothamnus viscidiflorus*), and rubber rabbitbrush (*C. nauseosus*).

#### ❖ **Big Sagebrush Scrub**

Big Sagebrush forms the most extensive type of upland habitat at RSLER, and is most abundant in the northwestern portion of the reserve. Dominant species include Great Basin big sagebrush (*Artemisia tridentata*), rubber rabbitbrush (*Ericameria nauseosa*), and spiny hopsage (*Grayia spinosa*). The understory herbaceous component is comprised of Indian Rice Grass (*Achnatherum hymenoides*), Thurber's needle grass (*A. thurberianum*), Western needle grass (*A. occidentalis*), and needle and thread grass (*Hesperostipa comata*). A variety of forbs occur throughout this habitat. Yellow rabbitbrush (*Chrysothamnus viscidiflorus*) becomes more common in areas where Alkali Meadow intergrades into Big Sagebrush communities.

## **B. Plant Species**

A comprehensive inventory of plant species has not been conducted at RSLER. Developing a baseline inventory of plant species and conducting regular, periodic monitoring for special status species will be incorporated into this management plan within the Management Goals chapter. For the purposes of this management plan, a list of potential plant species that may occur at RSLER or the Adobe Valley area was developed by way of a query of the CalFlora database. Query elements included Freshwater Wetland, Sagebrush Scrub, and Alkali Sink habitats in Mono County at 6,000 to 6,500 feet elevation. Additional plant species attributed to the vicinity were derived

from the *Dominant Plants of Black Lake/Adobe Valley* list compiled by the BLM (1994). The resulting species list can be found in Appendix B of this document.

## C. Animal Species

Comprehensive surveys have not been conducted for animal species at RSLER. Developing a baseline inventory of animal species and conducting regular, periodic monitoring for special status species will be incorporated into this management plan within the Management Goals chapter. For the purposes of this management plan, a list of potential animal species that may occur at RSLER and the Adobe Valley area was developed by way of a query of the California Wildlife Habitat Relationship (CWHR) database. The query was designed to capture those species utilizing Sagebrush, Bitterbrush, Fresh Emergent Wetland, and Alkali Scrub habitats in Mono County. These are the CWHR habitats equivalent to the CNDDDB natural communities described above. Additional animal species attributed to RSLER and Adobe Valley were derived from Appendix C of the 1997 Draft Land Management Plan, from the Point Reyes Bird Observatory's *All-bird Monitoring of the Adobe Valley, LLC Properties in Adobe Valley, and Environs* (2005), and from direct observation by regional CDFW and BLM staff. The resulting species list can be found in Appendix C of this document. Historical information about known animal species occurring at RSLER and the Adobe Valley is discussed below.

### *Fishes*

The aquatic habitat at RSLER was historically fishless. In August, 1940 several fish species were introduced by an academic ichthyologist. These species were Salt Creek pupfish (*Cyprinodon salinus*) and Amargosa pupfish (*Cyprinodon nevadensis amargosae*) from Death Valley; and Santa Ana speckled dace (*Rhinichthys osculus* ssp) and Santa Ana sucker (*Catostomus santaanae*) from the San Gabriel River (Miller, 1968). Speckled dace were considered common at RSLER in 1965, but have not been reported since. All that currently persist from the transplants are Amargosa pupfish, which are abundant throughout the aquatic habitat.

### *Invertebrates*

The spring outlet at RSLER is home to the native gastropod Wong's springsnail (*Pyrgulopsis wongi*). While members of the genus *Pyrgulopsis* occur widely from the Columbia River Basin south to Mexico, the species *P. wongi* is endemic to springs in the Death Valley hydrographic system, of which Adobe Valley is a part. Like other members of the genus, Wong's springsnails are tiny gill-breathers. Springsnails are limited to perennial waters and do not tolerate desiccation; they are thus considered poor dispersers (Hershler and Liu 2008).

### ***Deer***

RSLER receives little deer use due to the low quality deer habitat available. The herd that would most likely use RSLER is the Casa Diablo Herd of Rocky Mountain mule deer, (*Odocoileus hemionus*). The Casa Diablo Herd's winter range is in the Pizona Hills and south to Casa Diablo Mountain. The herd summers (some year-long) primarily on the east slope of the Sierra from Mammoth Lakes north to Lundy Canyon and Conway Summit. RSLER may also be used by the Mono Lake Herd and possibly a resident population southeast of Mono Lake in the Granite Mountains.

### ***Pronghorn***

The pronghorn (*Antilocapra americana*) is a fairly common resident of northeastern California, however, is an uncommon resident in Mono County. The 2012 Draft California Pronghorn Antelope Status Report and Management Plan Update estimates that the northeastern California population of pronghorn is 4,100 and that the Bodie Hills population is 150 animals. The Department has conducted three pronghorn releases in Adobe Valley. In 1982, 43 animals were released. Two additional releases were made near Benton in 1984 and 1985. RSLER is utilized by pronghorn on an annual basis. Department personnel documented at least 14 pronghorn using the meadow during the summer and fall months of 2008.

Pronghorn rely on forbs for summer forage. Browse is important year-round but is critical in winter. Sagebrush provides the most important forage, followed by bitterbrush and other shrubs. Grasses may only be important to pronghorn in spring. Optimal habitat is 40 – 60% grass, 10 – 30% forb, and 5 – 20% shrub cover. Excessive grazing by domestic ungulates and wild horses has had negative effects on suitability of habitat for pronghorn. Water is an important element of pronghorn habitat. Studies have shown that, even with high quality forage with above average succulence, pronghorn need supplemental water (Tsukamoto 1982). This makes RSLER an important destination for local herds. It is therefore important to provide appropriate fencing that will accommodate their movements. Pronghorn typically pass under fences rather than jump them, so appropriate fences will have a smooth bottom wire that is at least 16 inches above the ground.

### ***Wild Horses***

Adobe Valley is within the Montgomery Pass Wild Horse Territory (MPWHT) as designated by the INF. The INF is the lead agency for management of the MPWHT. In the mid to late 1970s the wild horses occupying portions of Adobe Valley were considered a peripheral group of a larger herd proposed for management as part of the Montgomery Pass Wild Horse Management Area (draft plan, May 20, 1979). At that time, Adobe Valley was not considered key habitat for the horses. The INF's 1988 Land and Resource Management Plan included direction to "seek opportunities to recognize and coordinate wild horse (*Equus caballus*) use on lands adjacent to the herd's territory". Today, wild horses use Adobe Valley regularly throughout the year and are frequently seen at RSLER.

A BLM Coordinated Resource Management (CRM) Plan was approved in June 1988 that documented actual and potential issues, identified management objectives (wild horses and habitat), and determined monitoring needs. Rather extensive censuses that document use areas and population dynamics (adults, yearlings, and foals), have been conducted annually since the approval of the CRM. John W. Turner, PhD, has been the principal investigator of these censuses. The 2001 Census and Comments Report by Mr. Turner identified several important changes in wild horse numbers, distribution and use that have occurred since 1988. Important excerpts from this report are presented below:

“Since 1992, horse numbers have steadily increased in non-lion use areas and have gradually decreased in lion-use areas. This redistribution may also have been influenced by other factors, including changes in availability of water and preferred feed, climatic changes, and intensive outfitter presence in the summer range area in May/June (foaling/breeding period) since 1986. The latter may be of little current consequence since the horse bands intolerant of human presence vacated these areas years ago. A potential benefit of these changes is the habitat/feed recovery in the key summer range area, which has historically experienced some overgrazing. A potential disadvantage is that some recently established areas of at least seasonal (spring/summer) horse use lie outside of the designated MPWHT”.

“In summary, changes in MPWHT horse distribution have occurred during the past 9 years, and assessment of how this will influence the future of horse numbers, distribution, range utilization, and the predator-prey relationship is warranted. The ratio of summertime horse numbers in historic summer range vs. other range areas has shifted from approximately 1.5 to 0.8 across the past 9 years. This is a very large shift.”

This shift in spring/summer use areas refers to the increase of use in Adobe Valley. In recent years there has been a shift of wild horse use into parts of Adobe Valley, Big Sand Flat, Sagehen Meadow and the Granite Mountains which are not recognized as part of the MPWHT. The acknowledged shift in use areas, period of use, and number of wild horses observed by Turner, as well as BLM’s Bishop Field Office staff, poses a clear potential for overgrazing and reduced ecological condition in Adobe Valley. In fall of 2007, 102 wild horses, including both adults and foals, were counted by BLM biologists within the Adobe Valley area. In June 2015, that number increased to 316 total horses (adults, yearlings and foals) according to annual count data for the west side count zone which includes the Adobe, River Springs, and Antelope Springs areas. Of these horses, 44 were foals, highlighting the marked increase in foal survival in this area where lion activity is absent (Dr. John Turner, pers. comm.).

## D. Endangered, Threatened, and Rare Species

Tables IIIA and IIIB below list sensitive species with some potential to occur at RSLER and its vicinity. Table IIIA lists those plant species given status under the Federal Endangered Species Act (FESA), the California Endangered Species Act (CESA), or otherwise determined to be sensitive by the California Native Plant Society in the California Rare Plant Ranking System (CRPR). Table IIIB lists those animal species given status under FESA, CESA, or considered sensitive by a variety of other state or federal agencies as indicated.

**Table IIIA. Sensitive Plant Species Potentially Occurring at or in Vicinity of RSLER**

Species	Status	Ecology	Presence at/in vicinity of RSLER
<i>Arabis bodiensis</i> (aka <i>Boechnera bodiensis</i> ) Bodie Hills rock cress	FESA None CESA None CRPR 1B.3	Perennial herb; blooms June-August; occurs in alpine boulder fields, Great Basin scrub, Piñon-Juniper forests, and Sub-alpine coniferous forests	Nearest CNDDDB occurrence (06/2001) is approximately 5 miles southeast of RSLER near Black Lake
<i>Arnica fulgens</i> Hillside arnica	FESA None CESA None CRPR 2B.2	Perennial, rhizomatous herb; blooms May-August; occurs in mesic soils in Great Basin scrub, and lower montane coniferous forests; threatened by grazing and hydrological modifications	Nearest specimen record (07/1998) is approximately 20 miles southeast of RSLER west of Lake Crowley (CCH 2011)
<i>Astragalus lemmonii</i> Lemmon's milkvetch	FESA None CESA None CRPR 1B.2	Perennial herb; blooms May-August; occurs in meadows and seeps in Great Basin scrub; threatened by land conversion and pipeline construction	Nearest CNDDDB occurrence (05/2002) approximately 15 miles southwest of RSLER near Benton Crossing
<i>Atriplex pusilla</i> Smooth saltbush	FESA None CESA None CRPR 2B.1	Annual herb; blooms June-September; occurs in alkali meadows and seeps in Great Basin scrub	Nearest specimen record (08/2007) is approximately 20 miles southwest of RSLER and 2 miles north of Whitmore Hot Springs
<i>Calochortus excavatus</i> Inyo County star tulip	FESA None CESA None CRPR 1B.1	Perennial, bulbiferous herb; blooms April-July; occurs in alkaline and mesic conditions in chenopod scrub; threatened by groundwater development, non-native plants, road maintenance, development, and grazing	This species observed approx. 2 miles north of Black Lake in Adobe Valley (BLM 1994); multiple targeted surveys at RSLER failed to detect the species
<i>Crepis runcinata</i> ssp. <i>hallii</i> Hall's meadow hawkbeard	FESA None CESA None CRPR None	Perennial herb; blooms May-July; occurs in alkaline mesic conditions in Mojavean desert scrub and Piñon juniper woodlands; threatened by grazing, vehicles, and groundwater draw-down	This species observed approx. 1.4 miles ESE of RSLER (CNDDDB 2004)
<i>Cymopterus globosus</i> Globe spring parsley	FESA None CESA None CRPR 2B.2	A perennial herb that occurs on sandy, open flats in Great Basin Scrub habitat. Flowers Mar-Jun. Threatened by grazing.	Nearest CNDDDB occurrence (07/1998) is approximately 4 miles northwest of RSLER near Adobe lake
<i>Dodecatheon pulchellum</i> Dark-throated shooting star	FESA None CESA None CRPR 4.2	Perennial herb; flowers April-June; occurs in mesic conditions in Great Basin scrub, meadows, and Piñon-Juniper woodlands; threatened by grazing, trampling.	Nearest reported occurrence (07/1998) is approximately 2 miles east of RSLER near Upper Pizona Spring
<i>Erigeron eatonii</i> var <i>nevadincola</i> Nevada daisy	FESA None CESA None CRPR 2B.3	Perennial herb; flowers May-July; occurs in rocky conditions in Great Basin scrub, upper montane coniferous forests, and Piñon-Juniper woodlands.	Nearest specimen record (07/1975) is approximately 20 miles southwest of RSLER in the vicinity of Little Antelope Valley



Species	Status	Ecology	Presence at/in vicinity of RSLER
<i>Eriogonum nutans</i> var <i>nutans</i> Dugway wild buckwheat	FESA None CESA None CRPR 2B.3	Annual herb; blooms May-October; occurs in sandy or gravelly conditions in Great Basin and Chenopod scrub habitats	Nearest CNDDDB occurrence is approximately 15 miles northwest of RSLER near the town of Bodie
<i>Eriogonum alexanderae</i> Alexander's buckwheat	FESA None CESA None CRPR 1B.1	Perennial herb; blooms May-July; occurs in shale or gravel in Great Basin scrub and Piñon-Juniper woodland habitats	Nearest CNDDDB occurrence (07/1967) is approximately 15 miles northwest of RSLER near the town of Bodie
<i>Iva nevadensis</i> Nevada wormwood	FESA None CESA None CRPR 4.3	Annual herb; blooms May-Oct; occurs in sandy or alkaline soils in chenopod scrub, Great Basin scrub, and Piñon-Juniper habitats	Nearest CNDDDB record is approximately 2 miles northwest of RSLER off Power Line Rd.
<i>Ivesia kingii</i> var <i>kingii</i> alkali ivesia	FESA None CESA None CRPR 2B.2	Perennial herb; blooms May-Aug; occurs in mesic, alkaline, and clay soils in Great Basin scrub, meadows, seeps, and playas; threatened by vehicles and grazing	This species documented at RSLER
<i>Lupinus lepidus</i> var <i>utahensis</i> stemless lupine	FESA None CESA None CRPR 4.3	Perennial herb; blooms June-July; occurs in Great Basin scrub and Sub-alpine coniferous forest habitats	Nearest specimen record is approximately 20 miles southwest of RSLER in the vicinity of Lake Crowley
<i>Lupinus nevadensis</i> Nevada lupine	FESA None CESA None CRPR 4.3	Perennial herb; blooms April-June; occurs in Great Basin scrub and Piñon-Juniper woodland habitats	Specific occurrence information on this species in California is unavailable.
<i>Nemophila breviflora</i> Great Basin nemophila	FESA None CESA None CRPR 2B.3	Annual herb; blooms May-July; occurs in mesic conditions in meadows and seeps, Great Basin scrub and Upper Montane Coniferous forests	Nearest specimen record is in the vicinity of Mammoth Lakes at the Valentine Ecological Study Area
<i>Orobanche ludoviciana</i> var. <i>arenosa</i> Suskdorf's broomrape	FESA None CESA None CRPR 2B.3	Perennial herb; blooms Jun-Sep; does not tolerate water	Historic record of occurrence contained in CNDDDB at/in vicinity of RSLER
<i>Psoralidium lanceolatum</i> lance-leaved scurf pea	FESA None CESA None CRPR 2B.3	Perennial, rhizomatous herb; blooms April-August; occurs in sandy conditions in Great Basin scrub habitat	Nearest CNDDDB specimen occurrence is approximately 20 miles northwest of RSLER in the Mono Basin, north of Mono Lake
<i>Silene oregana</i> Oregon campion	FESA None CESA None CRPR 2B.2	Perennial herb; blooms July-September; occurs in Great Basin scrub and sub-alpine coniferous forest habitats	Nearest observation is approximately 30 miles northwest of RSLER along Tioga Pass Rd. west of Lee Vining
<i>Spartina gracilis</i> Alkali cordgrass	FESA None CESA None CRPR 4.2	Perennial, rhizomatous herb; flowers June-August; occurs in mesic, alkaline conditions in Great Basin scrub and meadow habitats; threatened by grazing	This species observed at Black Lake in Adobe Valley
<i>Sphaeromeria potentilloides</i> var. <i>nitrophila</i> Alkali tansy-sage	FESA None CESA None CRPR 2B.2	Perennial herb; blooms Jun-Jul; alkaline conditions	Historic record of occurrence contained in CNDDDB at/in vicinity of RSLER
<i>Stuckenia filiformis</i> Fine-leaf pondweed	FESA None CESA None CRPR 2B.2	Perennial, rhizomatous herb; flowers May-July; occurs in freshwater wetlands	Nearest CNDDDB occurrence is at Larkin Lake, approximately 20 miles northwest of RSLER
<i>Thelypodium integrifolium</i> ssp <i>complanatum</i>	FESA None CESA None CRPR 2B.2	Annual or perennial herb; flowers June-October; occurs in alkaline to sub-alkaline mesic meadows and seeps in Great Basin	This species observed at Black Lake in Adobe Valley

Species	Status	Ecology	Presence at/in vicinity of RSLER
Foxtail thelypodium		scrub habitats; threatened by grazing and hydrologic alterations	
<i>Viola purpurea aurea</i> Golden violet	FESA None CESA None CRPR 2B.2	Perennial herb; flowers April-June; occurs in sandy conditions in Great Basin scrub and Piñon-Juniper woodland habitats; threatened by grazing, development, and vehicles	Nearest CNDDDB occurrence is approximately 15 miles south of RSLER off Benton Crossing Rd.

### King's ivesia (*Ivesia kingii* var. *kingii*)

**Status: Rare Plant Rank 2B.2** (rare, threatened, or endangered in California, common elsewhere)



Photo courtesy Larry Blakely



Photo courtesy Larry Blakely

The only rare plant currently known to occur at the RSLER is King's ivesia. This species is restricted to less than ten occurrences in Inyo and Mono Counties, but is more common in Nevada and Utah. King's ivesia, a member of the Rose family, is a perennial herb with erect to sprawling stems of 6 to 20 inches in length. The leaves are pinnately complex and glandular with a resinous odor. The star-shaped flowers have white petals with numerous stamens, and occur in clusters of typically fewer than 10 per cluster. Plants prefer moist alkaline soils at elevations of 4,000 to 6,500 feet.

**Table IIIB. Sensitive Animal Species Potentially Occurring at or in Vicinity of RSLER**

Species	Status	Ecology	Presence at/in vicinity of RSLER
Invertebrates			
Wong's springsnail <i>Pyrgulopsis wongi</i>	FESA None CESA None USFS: S	Seeps and small to moderate sized spring-fed streams. Common in watercress and/or on small pieces of travertine and stone.	This species known by CDFW staff to occur at RSLER; no CNDDDB occurrences
Fishes			
Owens pupfish <i>Cyprinodon radiosus</i>	FESA Endangered CESA Endangered AFS: EN CDFW: FP IUCN: EN	Shallow, clear spring pools, sloughs, and ditches with emergent and aquatic vegetation.	This species does not occur at RSLER.
Herpetiles			
Northern leopard frog (Native populations) <i>Lithobates pipiens</i>	FESA None CESA None CDFW: SSC IUCN: LC USFS: S	Occurs in permanent to near permanent water in a variety of habitats. Shoreline cover, submerged and emergent vegetation are important habitat characteristics.	Nearest CNDDDB occurrence is in the Round Valley area north of Bishop; suitable habitat exists at RSLER.
Northern sagebrush lizard <i>Sceloporus graciosus graciosus</i>	FESA None CESA None BLM:S	Lives in sagebrush and other types of shrublands, mainly at higher elevations. Prefers open areas with scattered low bushes and lots of sun.	Only CNDDDB occurrence is in Inyo County approx. 3 miles south of Olancha. Suitable habitat exists at RSLER and this location is well within the species' range.
Sierra Nevada Yellow-legged frog <i>Rana sierrae</i>	FESA Candidate CESA Candidate Endangered CDFW: SSC IUCN: EN USFS: S	Lakes, ponds, meadow streams, isolated pools, and sunny riverbanks. Waters that do not freeze to the bottom and which do not dry up are required. Chiefly diurnal, usually found near water.	Nearest CNDDDB occurrence is southeast of Mono Mills, at Hwy 120, approx. 7 miles southeast of Mono Lake. Observed by CDFW staff in Dexter Creek approx. 2-3 miles from RSLER. This species has never been documented at RSLER.
Birds			
American bittern <i>Botaurus lentiginosus</i>	FESA None CESA None IUCN:LC	Eats mainly invertebrates, amphibians, fish, crayfish, snakes, and small mammals. Feeds in tall, fresh or saline, emergent wetlands. Nest is a platform of matted, emergent aquatics, sticks, leaves.	Adobe Valley is within known breeding range of this species. Suitable habitat occurs at RSLER, hence bitterns are potential nesters.
Bank swallow (Nesting) <i>Riparia riparia</i>	FESA None CESA Threatened BLM: S IUCN:LC	Feeds primarily over open riparian areas, but also over water, brushland, crops, grassland, and wetlands. Nests colonially.	CNDDDB reports nesting colony at Mono and Crowley Lakes. RSLER lacks the tall sandy banks required to support a colony, however bank swallows may occur in the vicinity for foraging and during migration.

Black tern (Nesting colony) <i>Chlidonias niger</i>	FESA None CESA None CDFW:SSC IUCN:LC	Uses fresh emergent wetlands, lakes, ponds, moist grasslands, and agricultural fields. Nest is a loose mass of dead plant stems, anchored to standing vegetation or floating on the water surface. May also takes over abandoned muskrat, coot, and grebe nests.	RSLER and Adobe Valley are outside the known nesting range of black terns. Sightings reported are likely migrants.
Black-chinned sparrow (Nesting) <i>Spizella atrogularis</i>	FESA None CESA None ABC:WL BCC IUCN:LC USFWS:BCC	Occurs mostly on sloping ground in chaparral, sagebrush, and similar brushy habitats, including the understory of sparse pinyon-juniper habitats.	RSLER and Adobe Valley outside recorded range of this species, but suitable habitat does occur in the vicinity.
Black-crowned night heron (Nesting colony) <i>Nycticorax nycticorax</i>	FESA None CESA None IUCN:LC	Nests in dense-foliaged trees, dense, fresh or brackish emergent wetlands, or dense shrubbery or vine tangles, usually near aquatic or emergent feeding areas.	Species may find suitable forage at RSLER but nesting colony not likely to occur. Nearest CNDDDB occurrence of a BCNH nesting colony is in the town of Bridgeport.
Brewer's sparrow (Nesting) <i>Spizella breweri</i>	FESA None CESA None IUCN:LC USFWS:BCC	Breeds in treeless shrub habitats with moderate canopy, especially in sagebrush. Nest usually located in center of sagebrush or other shrub up to 1.2 m (3.9 ft) above ground, but usually less than 0.3 m (1 ft).	Presence of this species at RSLER documented previously by CDFW staff. Nesting status not recorded, but potential is high.
Burrowing owl (Burrow sites and some wintering sites) <i>Athene cucularia</i>	FESA None CESA None BLM:S CDFW:SSC IUCN:LC USFWS:BCC	A yearlong resident of open, dry grassland and desert habitats and in grass, forb, and open shrub stages of piñon-juniper and ponderosa pine habitats. Usually nests in old burrow of ground squirrel, or other small mammal. May dig own burrow in soft soil.	Adobe Valley falls well within the wintering range of the burrowing owl. Nearest CNDDDB occurrence in Inyo County near Bishop.
California gull (Nesting colony) <i>Larus californicus</i>	FESA None CESA None CDFW:WL IUCN:LC	Nests on islands in alkali or freshwater lakes and salt ponds in California. Usually nests in colonies, often in association with other water birds.	CNDDDB occurrences at Mono Lake; little suitable habitat at RSLER for large nesting colony, but may support a small group.
California horned lark <i>Eremophila alpestris actia</i>	FESA None CESA None CDFW:WL IUCN:LC	A common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. Found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above treeline.	Presence of this species at RSLER documented previously by CDFW staff.
Canvasback (Nesting) <i>Aythya valisineria</i>	FESA None CESA None IUCN:LC	Breeds in fresh emergent wetlands bordering open, shallow water in northeastern California.	RSLER and Adobe Valley are well outside the nesting range for this species. Nesting canvasbacks very unlikely to occur at RSLER.
Caspian tern (Nesting colony) <i>Hydroprogne caspia</i>	FESA None CESA None IUCN: LC USFWS: BCC	Nests in dense colonies on sandy estuarine shores, on levees in salt ponds, and on islands in alkali and freshwater lakes. Breeding adult often flies substantial distances to forage in lacustrine, riverine, and fresh and saline emergent wetland habitats.	Potential for large, dense nesting colony unlikely at RSLER, but the area may support foraging.

Chipping sparrow (Nesting) <i>Spizella passerina</i>	FESA None CESA None IUCN:LC	Prefers open wooded habitats with sparse or low herbaceous layer, few shrubs if any. Requires trees for resting, singing, and nesting, but often forages in nearby herbaceous and open shrub habitats, including dry margins of wet meadows.	Presence of this species at RSLER documented previously by CDFW staff. Nesting status not recorded. RSLER a likely forage territory.
Ferruginous hawk (Wintering) <i>Buteo regalis</i>	FESA None CESA None CDFW: WL IUCN: LC USFWS: BCC	Frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of piñon-juniper habitats.	Adobe Valley and RSLER fall well within the winter range of this species and provide suitable habitat. Potential for occurrence is high.
Golden eagle (Nesting and wintering) <i>Aquila chrysaetos</i>	FESA None CESA None BLM: S CDF:S CDFW:FP CDFW:WL IUCN:LC USFWS:BCC	Needs open terrain for hunting. Habitat typically rolling foothills, mountain areas, sage-juniper flats, desert. Eats mostly lagomorphs and rodents.	Presence of this species at RSLER documented previously by CDFW staff.
Great blue heron (Nesting colony) <i>Ardea herodias</i>	FESA None CESA None CDF:S IUCN:LC	Usually nests in colonies in tops of secluded large snags or live trees, usually among the tallest available.	Nesting colony not likely to occur at RSLER. No CNDDDB occurrences in Mono County.
Greater sage-grouse (Nesting and leks) <i>Centrocercus urophasianus</i>	FESA None CESA None BLM:S CDFW:SSC USFS:S IUCN:NT	Open areas within sagebrush communities are needed for courtship displays. Continuous sagebrush stands are required throughout the year.	Species known to occur in Adobe Valley. Use of RSLER by this species is likely.
Lark sparrow (Nesting) <i>Chondestes grammacus</i>	FESA None CESA None IUCN: LC	Frequents sparse valley foothill hardwood, valley foothill hardwood-conifer, open mixed chaparral and similar brushy habitats, and grasslands with scattered trees or shrubs. Nest usually built on ground in herbage shaded by a tussock or small shrub	RSLER and Adobe Valley slightly north of species' recorded range. Little suitable nesting habitat makes occurrence unlikely.
Le Conte's thrasher <i>Toxostoma lecontei</i>	FESA None CESA None CDFW:SSC IUCN:LC USFWS:BCC	Occurs primarily in open desert wash, desert scrub, alkali desert scrub, and desert succulent shrub habitats.	RSLER north of recorded range for species and lacks desert scrub species comprising this species' typical habitat so presence considered unlikely.
Loggerhead shrike (Nesting) <i>Lanius ludovicianus</i>	FESA None CESA None CDFW:SSC IUCN:LC USFWS:BCC	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches.	Presence of this species at RSLER documented previously by CDFW staff. Nesting status not recorded, but potential is high.
Long-eared owl (Nesting) <i>Asio otus</i>	FESA None CESA None CDFW:SCC IUCN:LC	Riparian habitat required. Uses old crow, magpie, hawk, heron, or squirrel nests in a variety of trees with dense canopy.	Nearest CNDDDB occurrence in Inyo County, near Independence. Species may occasion RSLER in winter. Nesting unlikely due to lack of necessary riparian trees.

Merlin (Wintering) <i>Falco columbarius</i>	FESA None CESA None CDFW: WL IUCN: LC	Seldom found in heavily wooded areas or open deserts. Frequents coastlines, open grasslands, savannahs, woodlands, lakes, wetlands. Dense tree stands close to bodies of water are needed for cover.	This species probably uncommon in Adobe Valley. Little suitable habitat at RSLER due to absence of dense tree stands in vicinity.
Northern harrier <i>Circus cyaneus</i>	FESA None CESA None CDFW:SSC IUCN:LC	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands. Mostly nests near emergent wetland or along rivers or lakes, but may nest in grasslands, grain fields, or on sagebrush flats several miles from water.	Presence of this species at RSLER documented previously by CDFW staff.
Osprey (Nesting) <i>Pandion haliaetus</i>	FESA None CESA None CDF:S CDFW:WL IUCN:LC	Associated strictly with large, fish-bearing waters, primarily in ponderosa pine through mixed conifer habitats.	Multiple CNDDDB occurrences in vicinity of Mono Lake; no suitable nesting habitat at RSLER
Peregrine falcon (Nesting) <i>Falco peregrinus anatum</i>	FESA Delisted CESA Delisted CDF: S CDFW: FP USFWS: BCC	Riparian areas and coastal and inland wetlands are important habitats yearlong, especially in non-breeding seasons. Breeds near wetlands, lakes, rivers, or other water on high cliffs, banks, dunes, mounds. Nest is a scrape on a depression or ledge in an open site.	RSLER and Adobe Valley likely provide winter forage habitat for this species. The area is outside the known breeding range for peregrines, but there is potential for suitable nest sites in the vicinity.
Prairie falcon (Nesting) <i>Falco mexicanus</i>	FESA None CESA None CDFW:WL IUCN:LC USFWS:BCC	Associated primarily with perennial grasslands, savannahs, rangeland, some agricultural fields, and desert scrub areas. Usually nests in a scrape on a sheltered ledge of a cliff overlooking a large, open area.	Presence of this species at RSLER documented previously by CDFW staff. Potential for nesting in Adobe Valley is high.
Redhead (Nesting) <i>Aythya americana</i>	FESA None CESA None CDFW:SSC IUCN:LC	For nesting, prefers large lakes with extensive areas of emergent vegetation. Nest is built of marsh plants amidst emergent vegetation with open water nearby. Usually over shallow water, but occasionally on dry ground.	Adobe Valley is within known breeding range of this species. Redheads are potential nesters at RSLER.
Sharp-shinned hawk (Nesting) <i>Accipiter striatus</i>	FESA None CESA None CDFW: WL	Nest sites are usually located in small but dense stands of conifers that are cool, moist, well-shaded, with little ground cover, and near water.	Lack of suitable nesting habitat in vicinity of RSLER makes potential for occurrence of this species unlikely.
Short-eared owl (Nesting) <i>Asio flammeus</i>	FESA None CESA None CDFW:SSC IUCN:LC	Usually found in open areas with few trees, such as annual and perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands.	Presence of this species at RSLER documented previously by CDFW staff. Nesting status not recorded, but potential is high.
Snowy egret (Nesting colony) <i>Egretta thula</i>	FESA None CESA None IUCN:LC	In some area, dense marshes required for nesting. May also nest in shrubs. Presumably roosts in dense, emergent vegetation and in trees near water.	No CNDDDB occurrences in Mono County; potential for small nesting colony exists at RSLER.

Swainson's hawk (Nesting) <i>Buteo swainsonii</i>	FESA None CESA Threatened BLM: S ABC: WLBCC IUCN: LC USFS: S USFWS: BCC	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable other habitats that support rodents.	Some potential for occurrence of nesters in Adobe Valley. There is no adequate nesting habitat at RSLER. Nearest CNDDDB occurrence is west of Bishop in Fish Lake Valley.
Yellow-headed blackbird (Nesting) <i>Xanthocephalus xanthocephalus</i>	FESA None CESA None CDFW:SSC IUCN:LC	Nesting colony located in dense emergent wetland of cattails, tules, other plants, often along border of lake or pond. Breeds only where large insects such as Odonates are abundant; nesting timed to coincide with maximum emergence of aquatic insects.	Presence of this species at RSLER documented previously by CDFW staff. Nesting status not recorded but the potential is high.
<b>Mammals</b>			
American badger <i>Taxidea taxus</i>	FESA None CESA None CDFW:SSC IUCN:LC	Uncommon, permanent resident found throughout most of the state, except in the northern North Coast area. Most abundant in drier open stages habitats with friable soils.	RSLER and Adobe Valley are well within known range of the species. Suitable habitat makes occurrence very likely.
Fringed myotis <i>Myotis thysanodes</i>	FESA None CESA None BLM: S IUCN: LC WBWG: H	Optimal habitats are piñon-juniper, valley foothill hardwood and hardwood-conifer, generally at 4000-7000 ft. Feeds over water, over open habitats, and by gleaning from foliage.	RSLER and Adobe Valley are well within known range of the species. Nearby suitable habitat makes occurrence very likely, at least for foraging.
Long-legged myotis <i>Myotis volans</i>	FESA None CESA None IUCN:LC WBWG:H	This species is most common in woodland and forest habitats above 4000 ft. Also forages in chaparral, coastal scrub, Great Basin shrub habitats, and in early successional stages of woodlands and forests.	RSLER and Adobe Valley are well within known range of the species. Suitable habitat makes occurrence very likely.
Pallid bat <i>Antrozous pallida</i>	FESA None CESA None BLM:S CDFW:SSC IUCN:LC USFS:S WBWG:H	A wide variety of habitats is occupied, including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. The species is most common in open, dry habitats with rocky areas for roosting.	RSLER and Adobe Valley are well within known range of the species. Suitable habitat makes occurrence very likely.
Panamint kangaroo rat <i>Dipodomys panamintinus panamintinus</i>	FESA None CESA None None	Occurs on sandy-gravelly soils, usually with an overstory of big sagebrush, piñon pine, juniper, or yucca.	RSLER and Adobe Valley are well within known range of the species. Suitable habitat makes occurrence very likely.
Pygmy rabbit <i>Brachylagus idahoensis</i>	FESA None CESA None BLM:S CDFW:SSC IUCN:LC	This species is found in sagebrush, bitterbrush, and piñon-juniper habitats. Big sagebrush is highly preferred, providing up to 99% of the diet in winter.	RSLER and Adobe Valley are well within known range of the species. Suitable habitat makes occurrence very likely.
Ringtail <i>Bassariscus astutus</i>	FESA None CESA None CDFW:FP	Suitable habitat for ringtails consists of a mixture of forest and shrubland in close association with rocky areas or riparian habitats. Nests in rock recesses, hollow trees, logs, snags, abandoned burrows, or woodrat nests.	RSLER and Adobe Valley are well within known range of the species. Suitable habitat makes occurrence very likely. Species not tracked in CNDDDB.

<p>Spotted bat <i>Euderma maculatum</i></p>	<p>FESA None CESA None BLM:S CDFW:SSC IUCN:LC WBWG:H</p>	<p>Habitats occupied include arid deserts, grasslands and mixed conifer forests. Prefers to roost in rock crevices. Moths are the principal food.</p>	<p>RSLER and Adobe Valley are well within known range of the species. Suitable habitat makes occurrence very likely.</p>
<p>Townsend's big-eared bat <i>Corynorhinus townsendi</i></p>	<p>FESA None CESA None BLM:S CDFW:SSC IUCN:LC USFS:S WBWG:H</p>	<p>This species is found in all but sub-alpine and alpine habitats, and may be found at any season throughout its range. It is most abundant in mesic habitats.</p>	<p>RSLER and Adobe Valley are well within known range of the species. Suitable habitat makes occurrence very likely.</p>
<p>Western small-footed myotis <i>Myotis ciliolabrum</i></p>	<p>FESA None CESA None BLM:S IUCN:LC WBWG:M</p>	<p>Occurs in a wide variety of habitats, primarily in relatively arid wooded and brushy uplands near water. Prey includes moths, flies, beetles, and bugs. Often seen foraging among trees and over water.</p>	<p>RSLER and Adobe Valley are well within known range of the species. Suitable habitat makes occurrence very likely.</p>
<p>Western white-tailed jackrabbit <i>Lepus townsendii townsendii</i></p>	<p>FESA None CESA None CDFW:SSC</p>	<p>Preferred habitats are sagebrush, sub-alpine conifer, juniper, alpine dwarf-shrub, and perennial grassland. Also uses low sagebrush, wet meadow, and early successional stages of various conifer habitats.</p>	<p>RSLER and Adobe Valley are well within known range of the species. Suitable habitat makes occurrence very likely.</p>
<p>Yuma myotis <i>Myotis yumanensis</i></p>	<p>FESA None CESA None BLM: S IUCN: LC WBWG: MH</p>	<p>Distribution is closely tied to bodies of water, which it uses as foraging sites and sources of drinking water. Open forests and woodlands are optimal habitat.</p>	<p>RSLER and Adobe Valley are well within known range of the species. Nearby suitable habitat makes occurrence very likely, at least for foraging.</p>



## Bi-State Greater Sage-grouse (*Centrocercus urophasianus*)

**Status: FESA None, BLM Sensitive, USFS Sensitive, CDFW Species of Special Concern**

The population of greater sage-grouse that occurs in Mono County has been identified as distinct from the broader population and is referred to as the Bi-State Distinct Population Segment (DPS). The DPS distinction is based on genetic evidence of long-term isolation from other sage-grouse populations, likely since the Pleistocene (Oyler-McCance, et al. 2005) and has resulted in the Bi-State DPS being considered separately under the Federal Endangered Species Act (FESA). The Bi-State DPS was recently determined (April 2015) by the U.S. Fish and Wildlife Service not to require federal protection. This decision was made after a 2013 proposed rule for threatened status with special rule and designation of critical habitat. The greater sage-grouse across the larger range remains a candidate species for listing under FESA. The Service's decision not to list the DPS was based on population modeling and surveys, as well as implementation of



Strutting male greater sage-grouse.  
Photo courtesy USFWS

the *Bi-State Action Plan for Conservation of the Greater Sage-Grouse Bi-State Distinct Population Segment* (2012). In California, the greater sage-grouse is a California Species of Special Concern and is hunted in portions of the species' range.

The Department, BLM, and other resource agencies annually assess the status of sage-grouse breeding populations in Mono County by way of lek surveys and male lek attendance. RSLER is located within the South Mono Population Management Unit (PMU) for the Bi-State DPS. Within the PMU the Reserve is considered part of the Granite Mountain breeding complex containing two trend leks that have been monitored since 1984. Since that time, these leks have comprised between 0% and 3% of all strutting males counted in the South Mono PMU. Between 1984 and 1994, the Adobe lek averaged 11 males; however, in 1995 the number of males at this lek began to steadily decline until it became inactive in 2001. In 1990, the Gaspipie lek was discovered; however, no strutting males were observed on this lek from 2008 to 2012. In October 2010 a group of 16 grouse was observed in close proximity to the lek, and in fall 2011 fresh grouse sign was noted in the field. During the 2013 survey, four males were observed. In 2014 six males were seen but were not strutting. In 2015 no males were observed. From 2001-2015, the average male attendance at the Gaspipie lek was just 5.6 birds. The only active breeding location identified in 2015 was Sagehen Meadow with six males consistently observed strutting. Overall, the average number of males counted in the Granite Mountain breeding complex from 1984 to 2011 was 10 males.

These data indicate that at least some seasonal grouse use of the area is occurring and that birds from the Gaspipie lek may have changed their strutting location. A 2010 helicopter survey of the Bi-State area did not identify any new leks in the Granite Mountain breeding complex. A radio-telemetry study is ongoing in order to gather baseline data on seasonal population ranges, habitat use and migration patterns and to ascertain the overall importance of this breeding complex to

the South Mono PMU.

Count data indicate that the population in the Grouse Mountain breeding complex has always been small (T. Taylor, pers. comm.), suggesting that inbreeding depression may occur; however recent telemetry data do indicate some amount of mixing with the larger population in Long Valley. A male captured in Granite Mountain breeding complex traveled to Long Valley for the summer and fall. The small Adobe Valley breeding population is at risk of extirpation. The area around RSLER is not part of the open hunt zones for sage-grouse (S. Gardner, pers. comm.).

Guidelines have been established by the Western Association of Fish and Wildlife Agencies (WAFWA) for the management of greater sage-grouse populations and habitat. The following information is derived primarily from those guidelines.

Greater sage-grouse display three types of annual migratory patterns: 1) non-migratory in which birds make no long-distance movements among their seasonal ranges; 2) one-stage migratory in which they move between two distinct seasonal ranges, either distinct summer and integrated winter/breeding, or distinct winter and integrated breeding/summer; or 3) two-stage migratory in which the birds move among three distinct seasonal ranges (breeding, summering, and wintering). Within a geographic area there may be a mix of birds belonging to more than one of these patterns. Because habitat use varies among the different seasons, it is essential to determine which patterns are utilized by local populations in order to best meet management objectives for them.

Greater sage-grouse is a sagebrush obligate species, depending on sagebrush for all stages of its life cycle. The condition of the sagebrush habitat may greatly affect the rate of nest initiation, clutch size, and ultimately, reproductive success, as well as adult survival. Suitable sagebrush habitat for nesting and brood-rearing consists of shrubs of 40cm to 80cm (15 – 32 inches) in height, with canopy cover of 42% (Kolada 2009b). Increased cover of shrubs other than sagebrush has also been found to increase nest survival, indicating the importance of managing for a greater diversity of shrubs (Kolada 2009a). A healthy herbaceous understory is critical for sage-grouse survival by providing cover for predator evasion and diversity of diet. Grasses and forbs over 18cm (7 inches) in height, with over 15% cover are optimal. A diversity of forbs high in calcium, phosphorus, and protein is essential to supply necessary nutrients for pre-laying hens and young grouse. Such forb species may include hawksbeards (*Lomatium* spp.), clovers (*Trifolium* spp.), buckwheats (*Eriogonum* spp.), and milkvetches (*Astragalus* spp.) among others. Sage-grouse broods occupy a variety of habitats in summer, but generally tend to move to more forb-rich mesic areas in June and July as the sagebrush habitat dries. During winter sage-grouse feed almost exclusively on sagebrush leaves. In most portions of the species' range big sagebrush (*Artemisia tridentata*) constitutes the majority of the winter diet. Sagebrush habitat for wintering greater sage-grouse consists of shrubs with heights between 25cm and 35cm (10 – 14 inches) and 10% to 30% cover.

The Bi-State Action Plan identifies risk factors for sage-grouse in the South Mono PMU, a number of which are applicable to the RSLER. The highest risk factor has been assigned to the threat of uncontrolled wildfire due to the potential for loss of sagebrush habitat, habitat fragmentation, and change in quality. Moderate risk factors include fences and transmission lines

that provide perches for predatory birds and sage-grouse mortality caused by direct impact to fences; and surface water management. Additionally, livestock grazing may impact habitat through introduction of invasive plant species and degradation of sagebrush and its understory. Wild horses are a particular threat to sage-grouse at RSLER. The meadows and springs of RSLER are preferred areas for foraging by the wild horses, areas which are also likely to be used by nesting and brood-rearing grouse. The horses likely cause sagebrush and understory degradation as well as direct disturbance to the grouse which have not been observed on the property in recent years. The Bi-State Action Plan suggests that benefits could be realized by conserving and improving native and irrigated meadow habitats, improving grazing management, maintaining wild horse numbers at appropriate management levels and within designated territory boundaries, minimizing the spread of cheatgrass, and minimizing potential sources of direct mortality.

### **Owens pupfish (*Cyprinodon radiosus*)**

**Status: FESA Endangered, CESA Endangered**

The Owens pupfish is a small, deep-bodied member of the killifish family (Cyprinodontidae), reaching lengths up to 65mm (2.6 in.). It has large eyes, a terminal mouth, and protrusible lips. The species is sexually dimorphic, with males having larger, deeper bodies. Breeding males are bright blue with purple lateral bars and orange edges to the dorsal and anal fins, while females are olive brown with a purple sheen and with lateral blotches and bars present. This species can be distinguished from other pupfish by its relatively anterior dorsal fin placement, absence of spine-like projections on the scale annual rings, and the absence of a black band on the terminus of the caudal fin. Owens pupfish occupy waters with plentiful foods. They congregate in small schools, feeding on aquatic insects and larvae, crustaceans, and snails. Males defend territories from other males, and females occupy the margins of these territories. Spawning occurs in spring and summer and females will oviposit on a variety of substrates including silt or gravel. Eggs incubate for about 6 days, and will hatch in water temperatures of 75° to 81° F. Juveniles reach sexual maturity in 3 to 4 months, and are observed to spawn in their first year (California Fish Website 2011, USFWS 2009).



Owens pupfish, male at Fish Slough.  
Photo by Joe Ferreira, CDFW

This species was once fairly common in its range in the Owens Valley. Beginning in the early 1900s, a series of surface and ground water diversion projects eliminated most of the habitat of the Owens pupfish. It was thought to be extinct by 1942 until its rediscovery in Fish Slough in 1964. The species was listed as endangered under FESA in 1967, and under CESA in 1971. The 1988 federal recovery plan lists non-native predatory fish, and water diversions that decreased Owens River flows as primary threats to the species (USFWS 2009).

There are presently four extant populations of Owens pupfish, the result of reintroduction efforts by the Department. All four are faced with a number of threats. Encroachment by cattails leads to shallower, warmer water, and detritus accumulation that covers spawning substrate and leads to anoxia. An additional threat to these populations is the fact that they are completely isolated from one another. Small, isolated populations are more vulnerable to stochastic events and loss of genetic diversity than are larger populations. Predatory fish present further threats in spite of ongoing removal efforts by CDFW staff. It is likely that the predators are reintroduced periodically by anglers wishing to stock the waters for bait and sport fish (USFWS 2009)

## IV. MANAGEMENT GOALS AND ENVIRONMENTAL IMPACTS

### A. Definitions of Terms Used in This Plan

**Element:** An element refers to any biological unit, public use activity, or facility maintenance program as defined below for which goals have been prepared and presented within this plan.

**Biological Element:** These elements consist of species, habitats, or communities for which specific management goals have been developed within the plan.

**Public Use Elements:** Public use elements are any recreational, scientific, or other use activity appropriate to and compatible with the purposes for which this property was acquired.

**Facility Maintenance Element:** This is a general purpose element describing the maintenance and administrative program which helps maintain orderly and beneficial management of the area.

**Biological Goal:** A biological goal is the statement of intended long-range results of management based upon the feasibility of maintaining, enhancing or restoring species populations and/or habitat.

**Public Use Goal:** A public use goal is the statement of the desired type and level of public use compatible with the biological element goals previously specified within the plan.

**Tasks:** Tasks are the individual projects or work elements which implement the goal and are useful in planning operation and maintenance budgets.

### B. Biological Elements: Goals, Constraints, & Impacts

The vegetation at RSLER has been strongly influenced by a history of intensive livestock grazing. Prolonged use by horse, cattle, and sheep has likely had a profound effect on the species composition, distribution, and vegetative structure within these habitats. Prior to domestic grazing, more extensive stands of bulrush may have occurred. The diversity of species found around the pond margins appears low for wetlands of this type. Soils are compacted due to prolonged trampling by livestock and human activity. This compaction has reduced the water-holding capabilities of marginal areas, and probably reduced the extent of seep vegetation as a result. Additional field reconnaissance is needed to better evaluate the site's hydrology, alkalinity, vegetation associations, and plant and wildlife species composition and distribution.

#### **Biological Element 1: Marsh and Seep Habitats**

The spring has been substantially altered by at least two historic dams and an irrigation system of

ditches and diversions. The native fauna has been modified by the addition of introduced fishes, of which only the Amargosa pupfish remains. Appropriate management of this element will benefit waterfowl and aquatic species. Threats to this element are groundwater pumping, surface diversions, water quality deterioration resulting from surface ground disturbance activities (trails, roads), livestock and wild horse grazing/watering, and exotic species introductions.

**Goal 1:** Improve hydrological conditions necessary to sustain marsh and seep habitats by emphasizing restoration of the natural hydrological regime.

**Task 1:** Monitor spring flow volumes to establish a baseline, and map both the historical and existing hydrological system.

**Task 2:** Mitigate or eliminate adverse impacts from any past or future improvements or activities.

**Task 3:** Oppose groundwater extraction proposals in the vicinity that may adversely impact the springs.

**Task 4:** Coordinate with BLM and Mono County to develop and adopt ordinances protecting groundwater resources.

**Task 5:** Restore and enhance habitat by eliminating surface diversions that are not consistent with the goals for the reserve.

**Goal 2:** Improve habitat integrity of the spring brook environment, a 425 foot long reach beginning at the springheads and extending downstream to the earthen diversion dam.

**Task 1:** Protect banks and channel from potential impact from trespass OHV, livestock, and other incompatible human uses by monitoring and maintaining exclusion fences

**Task 2:** Use mechanical removal methods to thin emergent plants that colonize open water habitats and grasses occurring at water's edge.

**Goal 3:** Restore the site's potential to serve as a refuge for endemic fauna. This may include Owens pupfish, and/or other Owens Valley endemic species.

**Task 1:** Create a baseline inventory of aquatic faunal diversity and abundance.

**Task 2:** Remove existing Amargosa pupfish population from the entire spring/wetland complex using mechanical removal from the spring brook, placing temporary fish barriers at the diversion dam, and using rotational drying to eliminate undesirable fishes from the wetlands and seeps downstream of the diversion dam.

**Task 3:** Re-inventory aquatic faunal community to determine responses to fish removal.

**Task 4:** Explore options for establishing refuge population(s) of Owens pupfish and/or

additional Owens Valley endemic biota (for example, native fishes, mussels and plants). Consideration of the success of mechanical fish removal, and potential long-term influences on spring biota are critical in determining feasibility of this management step.

**4a.** Determine the need for consultation with the U.S. Fish and Wildlife Service for designation of a potentially introduced population of Owens pupfish as an “Experimental Population” under section 10(j) of the FESA Amendments of 1982.

**Goal 4:** Maintain marsh and seep habitats to maximize benefits to aquatic and riparian dependent wildlife and plant species.

**Task 1:** Maintain an appropriate balance of emergent vegetation and open water habitat.

**1a:** Monitor the aerial extent of emergent vegetation over time.

**1b:** Evaluate treatment options including hand clearing, burning, diversion management, and diversion elimination to maintain a mix of emergent stands and open water habitat. Treat periodically as per evaluation.

**Task 2:** Encourage waterfowl use by minimizing human activity near marsh and wetland areas, except for legal waterfowl hunting during waterfowl season.

**Task 3:** Identify and monitor invasive exotic pest plants and control as needed.

The restoration and enhancement of marsh and seep habitats, including the elimination of surface diversions, thinning of emergent vegetation, and invasive pest control, have the potential for temporary impacts to biological resources and water quality, however it is anticipated that these impacts would not be substantial and that these projects would have a net benefit to wildlife and habitat. Ground disturbance, if necessary to remove or alter diversions, would be implemented in conformance with regulatory requirements such as CDFW regulations, U.S. Fish and Wildlife Service regulations, State Water Quality Control board regulations, Section 404 of the Clean Water Act. Thinning of emergent vegetation would be performed primarily during the dormant season and outside the season of use by nesting and migratory birds in order to minimize disturbance to wildlife. Herbicide or pesticide treatments, if needed to control invasive species, would be targeted to avoid unnecessary impacts to sensitive biological resources and conducted by a certified applicator using appropriate safety precautions.

## **Biological Element 2: Alkali Meadow Habitat**

This management element consists of the moist/saturated soil areas surrounding the wetlands at RSLER. Wildlife utilizing these habitats could include sage-grouse and other upland game species, migratory waterfowl, and shorebirds. Threats are similar to those for the Marsh/Seep habitat.

**Goal 1:** Restore as needed and maintain the vigor and diversity of alkali meadow habitat.

**Task 1:** Quantitatively assess plant species richness and cover to determine the age and structural character of the habitat

**Task 2:** Conduct baseline inventories for breeding birds, waterfowl, and other wildlife taxa

**Task 3:** Evaluate the need for enhancement/restoration based on assessments in Tasks 1 and 2

**Task 4:** Develop an enhancement/restoration program as determined by needs assessment in Task 3

**4a.** Evaluate the benefits of various enhancement/restoration techniques, including prescribed fire, seasonally managed grazing, mechanical removal, and reseeded. Consideration of plant and wildlife species composition across seasons, sensitivity to disturbance or chemicals, fire characteristics of vegetation and wildlife, and long-term cost-benefit value of chosen management strategy is critical to the decision-making process for implementation of this management step.

The restoration and enhancement of alkali meadow habitat, such as prescribed fire and mechanical removal, have the potential for impacts to air quality, soils, and biological resources. However, it is anticipated that these impacts would be temporary and that these projects would have a net benefit to wildlife and sensitive habitats. If prescribed fire is identified as a desirable management technique, it would be carefully coordinated with the appropriate agencies and implemented using best management practices to minimize impacts on air quality, soils, and biological resources.

### **Biological Element 3: Sagebrush Habitat**

This management element represents the more xeric uplands containing sagebrush. Wildlife utilizing these habitats includes upland game species, lagomorphs, mule deer, and pronghorn. Greater sage-grouse are closely allied with sagebrush habitat throughout their life histories and the quality of this habitat can affect the success of the species. Before any enhancement efforts are undertaken, the status of this habitat should be assessed, and any decisions should be based on quantitative knowledge of the condition of the vegetation. Sagebrush habitats meeting the cover and height requirements for sagebrush overstory and herbaceous understory should not be considered for a sagebrush control program. Where an enhancement program is deemed necessary to restore the vigor of the habitat, mechanical and chemical methods are preferred where sagebrush cover is overly dense (Connelly, et al.2000). Big sagebrush does not sprout after fire, and seeds establish new shrubs after burns. The species is inhibited by fires of short return interval (< 30 years), but intervals of 30 – 70 years help maintain perennial grasses and nonsprouting shrubs. Prescribed fire should not be used in areas prone to invasion by cheatgrass (*Bromus tectorum*) (Sawyer, et al. 2009). Degraded sagebrush habitat can be restored through a reseeded program for sagebrush, native forbs, and native grasses, as necessary to achieve the



desired proportions of each plant group (Connelly, et al.2000).

**Goal 1:** Restore as needed and maintain the vigor and diversity of sagebrush habitat.

**Task 1:** Quantitatively assess plant species richness and cover of dominant shrub and understory herbaceous plants to determine the age and structural character of the habitat

**Task 2:** Conduct baseline inventories for breeding birds, mammals, herpetiles, and other wildlife taxa

**Task 3:** Evaluate the need for enhancement/restoration based on assessments in Tasks 1 and 2

**Task 4:** Develop an enhancement/restoration program as determined by needs assessment in Task 3

**4a.** Evaluate the benefits of various enhancement/restoration techniques, including prescribed fire, mechanical removal, and reseeding. Consideration of plant and wildlife species composition across seasons, sensitivity to disturbance or chemicals, fire characteristics of vegetation and wildlife, and long-term cost-benefit value of chosen management strategy is critical to the decision-making process for implementation of this management step.

The restoration and enhancement of sagebrush habitat, such as prescribed fire and mechanical removal, have the potential for impacts to air quality, soils, and biological resources. However, it is anticipated that these impacts would be temporary and that these projects would have a net benefit to wildlife and sensitive habitats. If prescribed fire is identified as a desirable management technique, it would be carefully coordinated with the appropriate agencies and implemented using best management practices to minimize impacts on air quality, soils, and biological resources.

#### **Biological Element 4: Greater sage-grouse**

The *Bi-state Area Greater Sage-grouse Conservation Plan* reports on the conservation strategies developed for Nevada and Eastern California populations of greater sage-grouse. The following goals for sage-grouse population management are derived from that document and the Connelly, et al. (2000) guidelines accepted by the WAFWA.

**Goal 1:** Determine the migratory pattern(s) utilized by sage-grouse in the vicinity of RSLER to obtain information regarding habitat needs, and for timing of potential enhancement efforts

**Task 1:** Obtain historic and current records of ongoing lek/breeding male surveys

**Task 2:** In collaboration with BLM and INF, conduct radio telemetry monitoring of sage-grouse to determine lekking sites, seasonal movement patterns as well as to identify

causes of mortality to grouse

**Task 3:** Evaluate need for closure to public access during sage-grouse strutting and nesting season, February through June

**Goal 2:** Mitigate potential direct causes of mortality for sage-grouse

**Task 1:** Map the extent of fences and transmission lines at and in the vicinity of RSLER

**Task 2:** Identify potential high conflict areas such as specific transmission line perches for raptors, and fences bisecting grouse movement corridors

**Task 3:** Install let-down or other alternative fencing to facilitate easier movement for grouse in corridors

**Task 4:** Modify aerial structures, including flat-topped fence posts, to prevent avian predator perching or nesting

**Goal 3:** Provide optimal sagebrush and alkali meadow habitat for sage-grouse nesting, brood-rearing, wintering, and predator evasion needs

**Tasks:** as described in Biological Elements 2 and 3 above

The modification of existing fences to a more wildlife friendly design constitutes a minor modification to the existing landscape. This may represent a degree of degradation to the area's aesthetic value. However it is anticipated that these impacts would not be substantial and that these projects would have a net benefit to wildlife and sensitive habitats.

## **Constraints on Biological Elements**

The primary constraint on achieving goals for biological elements is limited Department funding and staff time. The increasing population of wild horses and shift towards year round use poses a potential for overgrazing and reduced ecological conditions, however the Department has limited control over the management of these animals. Under the Wild Free-Roaming Horses and Burros Act of 1971 wild horses are managed and protected by the Forest Service and BLM with State wildlife agencies having a consultation role regarding management activities. Furthermore, large scale events such as wildfire and climate change are beyond the control of the Department.

## **C. Biological Monitoring Elements: Goals, Constraints, & Impacts**

The Department's Wildlife Action Plan states that "all aspects of wildlife management, particularly efforts to restore species at risk, depend on biological information. The increasing stresses on wildlife resources, including the loss, degradation, and fragmentation of habitats, effects of water diversions, and proliferation of invasive species, have further increased the need to assess the status and trends of wildlife species and ecosystems in California."

## **Biological Monitoring Element 1: Species and habitat monitoring**

**Goal 1:** Establish a thorough baseline inventory of wildlife and plant species which use the reserve across seasons and habitats

**Task 1:** Conduct baseline surveys during each season for plants, birds, mammals, herpetiles, and invertebrates

**Goal 2:** Monitor trends in use of RSLER by plant and wildlife species

**Task 1:** Establish permanent plots for annual monitoring of vegetation, and permanent survey points and/or transects for annual monitoring of plants and various wildlife taxa

**Task 2:** Conduct annual surveys of plants and wildlife during key periods

**Goal 3:** Monitor trends in structure of sagebrush, marsh/seep, and alkali meadow habitats over time, particularly with respect to potential overgrazing by wild horses

**Task 1:** Conduct periodic quantitative assessments of plant species richness and cover to determine the age and structural character of the habitat across time

**Task 2:** Work cooperatively with BLM and INF to share results of habitat monitoring and participate in related wild horse management planning efforts

**Goal 4:** Monitor rare plant populations

**Task 1:** Conduct semi-annual surveys for all sensitive plant species known or with potential to occur at RSLER

**Goal 5:** Monitor rare animal populations

**Task 1:** Conduct semi-annual surveys for all sensitive animal species known or with high potential to occur at RSLER

Plant and wildlife assessments such as small mammal trapping and mist netting birds can at times negatively impact the individuals under study. However, the resulting benefits of study outweigh these potential impacts by better informing management decisions. All assessment and monitoring will be conducted according to established protocols and extreme care will be taken to minimize and prevent injury to wildlife.

## **Constraints on Biological Monitoring Elements**

The primary constraint on achieving goals for biological monitoring elements is limited Department funding and staff time. Environmental conditions at RSLER vary year to year and may influence management's ability to implement aspects of this plan. Access for performing biological monitoring is also limited seasonally due to the winter closure of State Route 120 due

to snow and unimproved roads which occasionally become impassible due to snow and mud.

## **D. Public Use Elements: Goals, Constraints, & Impacts**

It is a policy of the Fish and Game Commission that:

Lands under the administration of the Department be made available to the public for fishing, hunting or other forms of compatible wildlife-dependent recreational use, and for scientific studies whenever such use or uses will not unduly interfere with the primary purpose for which such lands were acquired (California Fish and Game Commission 2002).

The primary purposes for the acquisition of the River Spring Lakes Ecological Reserve are to maintain and enhance wetland habitat values, provide a potential refuge for endangered Owens pupfish, and maintain quality habitat for waterfowl and shorebirds. In keeping with Commission policy, the overall public use goal for RSLER is to provide opportunities for recreational activities and scientific studies that do not have significant adverse impacts on those biological resources. Compatible activities are those that are either wildlife-dependent or related, and that have low potential to negatively impact the habitats and wildlife of the reserve. These may include waterfowl and upland game hunting, bird watching, and nature study.

### **Public Use Element 1: Parking and Access**

To access RSLER, visitors must drive approximately 4 miles along the dirt track River Spring Road from State Route 120. There is no designated parking area, but visitors can park along a wide area in the road just before the reserve proper.

**Goal 1:** Facilitate safe and authorized access

**Task 1:** Designate parking area

**Task 2:** Post information in the parking area about boundaries, access, use designations and restrictions, and emergency contacts

**Goal 2:** Minimize impacts by visitors to the sagebrush, alkali meadow, and marsh/seeep habitats, and to sensitive wildlife

**Task 1:** Investigate the feasibility of closure periods during critical periods for sensitive species

### **Public Use Element 2: Interpretation, Education, Wildlife Viewing, and Research**

Informing and educating the public about the reserve and its authorized and compatible uses, including the fragile nature of its ecosystems, is key to the successful management of RSLER's public use elements. The unique wetland system at RSLER, situated as it is within the arid Great

Basin Province, offers opportunities for interesting research opportunities to high school and college students as well as professional biologists. This research may provide scientific and management data necessary to promote the adaptive management of the reserve.

**Goal 1:** Provide visitors with information on the various physical, cultural, and biological resources present at RSLER

**Task 1:** Install and maintain interpretive signs or kiosk in high use areas

**1a:** Provide interpretive information describing the physical, cultural, and biological resources of the reserve, including the need for closures (if needed)

**1b:** Provide interpretive information regarding the wild horse herd and related management considerations

**Goal 2:** Provide opportunities for scientific research that will support adaptive management of RSLER

**Task 1:** Establish working relationships with UC White Mountain Research Station, University of Nevada Reno, University of California, California State University, and other research institutions for engaging in on-site data collection and information sharing

**Task 2:** Explore options for using RSLER for research efforts related to protecting and enhancing sagebrush, alkali meadow, and marsh/seep habitats

**Task 3:** Identify and assess experimental design opportunities that can be incorporated into habitat and species management, and restoration/enhancement efforts at RSLER

The installation of interpretive signs constitutes a minor modification to the existing landscape. This may represent a degree of degradation to the area's aesthetic value. However LMP adoption and the implementation of its various tasks would improve the overall aesthetic conditions of the RSLER by incorporating protection, management, and enhancement strategies for its natural habitats.

### **Public Use Element 3: Hunting**

Hunting is an allowed activity at RSLER, and is consistent with the purposes for acquisition of the property. Species permitted for hunting at the reserve during open seasons include waterfowl, rabbit, California quail, dove, and deer. The Regional Manager has the authority to restrict access for hunting purposes should sensitive species determinations be made as a result of biological resource assessment and monitoring tasks as listed above.

**Goal 1:** Continue to provide public hunting opportunities in accordance with the general regulations and as compatible with the goals for biological elements of this plan

**Task 1:** Post regulations and closed/safety areas as necessary

**Task 2:** Provide a wing barrel so the Department can monitor hunter use and annual harvest of waterfowl on the RSLER

#### **Public Use Element 4: Camping**

Camping has not been a high use activity at RSLER. Camping (car, horse, etc.) is inconsistent with the biological goals for RSLER and is prohibited as stated in the Title 14 Code of Regulations. Ample camping opportunities exist throughout the eastern Sierra which should accommodate any dislocated campers from RSLER.

**Goal 1:** Prevent unauthorized camping

**Task 1:** Post regulations

**Task 2:** Monitor the site 1 – 4 times a month

**Task 3:** Ask the local game warden to frequently patrol the site

#### **Public Use Element 5: Pack Station Staging Operations**

The Department will permit pack trains to pass through RSLER on existing County and Forest Service roads that traverse the property. Department staff has determined that pack station staging operations, overnight use, and related commercial operations are incompatible with the biological goals for RSLER, and that pack station operations can be adequately supported and staged from adjacent public lands where improved facilities currently exist. Therefore, neither overnight use nor pack station staging will be authorized. The Bureau of Land Management's livestock staging facility adjacent to RSLER may be available to provide accommodations for the pack station outfitters. These accommodations are northwest of RSLER and accessed from River Spring Road. Water for pack animals can be obtained at the existing ditch located east of the spring proper.

**Goal 1:** Prevent unauthorized concessionaires from using RSLER for staging and overnight use

**Task 1:** Post regulations

**Goal 2:** Provide through-access for horses/pack operations on road, and inform operators of location of watering ditch east of the spring

**Task 1:** Post map of authorized use area and location of permitted watering area

#### **Public Use Element 6: Domestic Grazing (Cattle/Sheep/Horse)**

The RSLER fencing includes both Department and BLM lands, and was completed in 1994 following a BLM Record of Decision EA# CA-017-94-34. The fence was designed to control

livestock and to protect the spring and surrounding alkali meadow habitat. Domestic livestock grazing and wild horse grazing are compatible with the long-term biological goals for RSLER. Carefully managed cattle and/or sheep grazing can be beneficial to manage vegetation. Domestic livestock grazing operations may be allowed on a case-by-case basis after careful annual evaluations, if vegetation production and conditions allow. The Department will work cooperatively with BLM and INF to implement domestic grazing within the RSLER.

**Goal 1:** Prevent unauthorized and unmanaged grazing

**Task 1:** Post regulations

**Task 2:** Survey boundaries and install/maintain fencing to prevent unmanaged grazing. Coordinate with INF and BLM to ensure that shared boundary fences are surveyed and maintained.

**Task 3:** Survey boundary and install/maintain cattle guards to prevent trespass grazing and maintain continued vehicular access on the road

**Task 4:** Coordinate with INF and BLM to monitor wild horse use and minimize adverse impacts of unmanaged use by recommending horse removal, translocation, or other appropriate management actions as necessary

**Task 5:** Patrol and monitor regularly

**Goal 2:** Allow managed grazing as appropriate and compatible with the goals of RSLER and in accordance with CDFW's current policies

**Task 1:** Assess RSLER for habitat that would benefit from managed grazing.

**Task 2:** Develop a grazing plan as needed

**Task 3:** Remove any unnecessary fencing from within the RSLER to improve habitat.

## **Constraints on Goals for Public Use Elements**

The primary constraint on achieving goals for public use elements is limited Department funding and staff time. Volunteer work by local groups, schools, or organizations may provide opportunities for community involvement in some public use elements, such as creating resource interpretation materials. However, it is important to note that coordinating volunteer survey efforts still requires significant time and effort on the part of CDFW staff. Further, many of the goals within the Public Use Elements do not lend themselves to volunteer efforts and require the ability to establish contracts (e.g. surveying boundaries) or provide CDFW staff (e.g. coordination with BLM, INF, monitoring human activities and livestock trespass).

## **E. Facility Maintenance Elements: Goals, Constraints, & Impacts**

Effective management of CDFW lands requires a regular facility maintenance program to meet the goals of biological, cultural, and public use elements, including public and occupational health and safety. Existing and potential facilities at RSLER that require periodic maintenance include the parking area, fencing, access gates, and interpretive and regulatory signage.

### **Facility Maintenance Element 1: Boundary fences, gates, parking area**

**Goal 1:** Maintain parking area, boundary fences, and gates in good working order

**Task 1:** Provide appropriate staff and resources necessary to install, maintain, and repair fences and gates as needed

**Task 2:** Remove existing non-historic corrals located on Department land.

### **Facility Maintenance Element 2: Signage**

**Goal 1:** Maintain interpretive and regulatory signage in good, readable condition

**Task 1:** Replace faded, damaged signage as needed

The installation and maintenance of fences, gates, and signs constitutes a minor modification to the existing landscape. This may represent a degree of degradation to the area's aesthetic value and may result in minimal ground disturbance. These activities would be implemented using best management practices designed to minimize soil erosion and topsoil loss. LMP adoption and the implementation of its various tasks would improve the overall aesthetic and biological conditions of the RSLER by incorporating protection, management, and enhancement strategies for its natural habitats.

### **Constraints on Goals for Facility Maintenance Elements**

The primary constraint on achieving goals for facility maintenance elements is limited Department funding and staff time. Maintenance requirements will depend largely on the severity of weather conditions. For example, heavy snowload or high wind events may result in damage to the historic cabin, fences, and signage. Additionally, some improvements such as signs may attract vandalism. The frequency and severity of vandalism may impact the department's ability to maintain the improvements or to continue to provide them over the long term. Access for performing property inspections and maintenance is also limited seasonally due to the winter closure of State Route 120 due to snow and unimproved roads which occasionally become impassible due to snow and mud.



## **F. Cultural Resource Elements: Goals, Constraints, & Impacts**

### **Cultural Resource Element 1: Historic cabin**

**Goal 1:** Maintain historic cabin as necessary to preserve its historic value

**Task 1:** Conduct necessary maintenance of the historic cabin in compliance with the National Historic Preservation and California Environmental Quality Acts

**Task 2:** Include educational sign describing the history of the cabin on parking area kiosk

The installation of educational signs constitutes a minor modification to the existing landscape. This may represent a degree of degradation to the area's aesthetic value. However LMP adoption and the implementation of its various tasks would improve the overall aesthetic conditions of the RSLER by incorporating protection, management, and enhancement strategies for its natural habitats and cultural resources.

### **Constraints on Goals for Cultural Resource Elements**

The primary constraint on achieving goals for cultural resource elements is limited Department funding and staff time. Maintenance of the historic cabin will require the services of a qualified archeologist. The cultural resource goals and tasks will require obtaining funding to undertake these tasks.

## **G. Administrative Elements: Goals, Constraints, & Impacts**

Administrative records for the River Spring Ecological Reserve are housed at the Department's Inland Deserts (Region 6) Regional Field Office in Bishop, with copies maintained in the Lands Program Inventory files in Sacramento. These records may consist of title and easement reports, legal descriptions of the property, cooperative agreements with other agencies, research permits and reports, and operations and maintenance records.

### **Administrative Element 1: Recordkeeping**

**Goal 1:** Thoroughly document data concerning management and resources of the reserve

**Task 1:** Maintain accurate financial records regarding expenditures, staff, maintenance, funding, and other administrative duties

**Task 2:** Document facility needs in a CDFW maintenance and capital outlay database

**Task 3:** Actively pursue funding to facilitate implementation of the management plan

**Task 4:** Store any sensitive cultural resource data in a secure area and restrict public access

**Task 5:** Prepare annual monitoring and status reports as described in the biological monitoring section

## **Administrative Element 2: Resource Coordination**

**Goal 1:** Establish and maintain positive relationships with neighbors and user groups to address management issues

**Task 1:** Meet or correspond with local landowners and user groups as needed to maintain communication about management activities at the reserve

**Task 2:** Develop regular communication procedures with local BLM and INF staff to address plans and projects that may affect habitats and species at RSLER, including wild horse management and listed species consultations

**Task 2:** Post contact information for agencies with locally available and suitable facilities on adjacent lands (BLM, INF), especially with respect to coordination over pack station staging operations

## **Constraints on Administrative Elements**

The primary constraint on achieving goals for administrative elements is limited Department funding and staff time.

## **H. Prioritized Management Goals**

Because management of Department lands is perpetually subject to budget shortfalls, it is of great importance to prioritize management goals. Thus, the above listed goals are reorganized in the table below into tiered priorities. Tier one priorities are those that address critical needs for occupational and public health and safety, basic maintenance for regular operations, and habitat management efforts that support the purpose of acquisition and those mandated to address listed species requirements. Tier two priorities are those that are less than critical needs, but that can be implemented utilizing existing staff and funding. Tier three goals include non-critical restoration efforts, new facilities construction, interpretive programs, and other goals that would depend upon acquiring additional staffing and funding.

<b>Tier 1 Management Goals</b>	
<b>Element</b>	<b>Goal</b>
<b>Biological Element 1:</b> Marsh and Seep Habitats	<b>4.</b> Maintain marsh and seep habitats to maximize benefits to aquatic and riparian dependent wildlife and plant species.
<b>Biological Element 2:</b> Alkali Meadow Habitat	<b>1.</b> Restore as needed and maintain the vigor and diversity of alkali meadow habitat.
<b>Biological Element 3:</b> Sagebrush Habitat	<b>1.</b> Restore as needed and maintain the vigor and diversity of sagebrush habitat.
<b>Biological Element 4:</b> Greater sage-grouse	<b>1.</b> Determine the migratory pattern(s) utilized by sage-grouse in the vicinity of RSLER to obtain information regarding habitat needs, and for timing of potential enhancement efforts
	<b>2.</b> Mitigate potential direct causes of mortality for sage-grouse
	<b>3.</b> Provide optimal sagebrush and alkali meadow habitat for sage-grouse nesting, brood-rearing, wintering, and predator evasion needs
<b>Biological Monitoring Element 1:</b> Species and habitat monitoring	<b>1.</b> Establish a thorough baseline inventory of wildlife and plant species which use the reserve across seasons and habitats
<b>Biological Monitoring Element 1:</b> Species and habitat monitoring	<b>4.</b> Monitor rare plant populations
	<b>5.</b> Monitor rare animal populations
<b>Public Use Element 1:</b> Parking and Access	<b>1.</b> Facilitate safe and authorized access
	<b>2.</b> Minimize impacts by visitors to the sagebrush, alkali meadow, and marsh/seep habitats, and to sensitive wildlife
<b>Public Use Element 3:</b> Hunting	<b>1.</b> Continue to provide public hunting opportunities in accordance with the general regulations and as compatible with the goals for biological elements of this plan
<b>Public Use Element 4:</b> Camping	<b>1.</b> Prevent unauthorized camping
<b>Public Use Element 5:</b> Pack Station Staging Operations	<b>1.</b> Prevent unauthorized concessionaires from using RSLER for staging and overnight use
	<b>2.</b> Provide through-access for horses/pack operations on road, and inform operators of location of watering ditch east of the spring
<b>Public Use Element 6:</b> Domestic Grazing (Cattle/Sheep/Horse)	<b>1.</b> Prevent unauthorized and unmanaged grazing
	<b>2.</b> Allow managed grazing as appropriate and compatible with the goals of RSLER and in accordance with CDFW's current policies
<b>Facility Maintenance Element 1:</b> Boundary fences, gates, parking area	<b>1.</b> Maintain parking area, boundary fences, and gates in good working order
<b>Facility Maintenance Element 2:</b> Signage	<b>1.</b> Maintain interpretive and regulatory signage in good, readable condition

<b>Cultural Resource Element 1:</b> Historic cabin	1. Maintain historic cabin as necessary to preserve its historic value
<b>Administrative Element 1:</b> Recordkeeping	1. Thoroughly document data concerning management and resources of the reserve
<b>Administrative Element 2:</b> Resource Coordination	1. Establish and maintain positive relationships with neighbors and user groups to address management issues
<b>Tier 2 Management Goals</b>	
<b>Biological Element 1:</b> Marsh and Seep Habitats	1. Improve hydrological conditions necessary to sustain Marsh and Seep habitat by emphasizing restoration of the natural hydrological regime.
	2. Improve habitat integrity of the spring brook environment, a 425 foot long reach beginning at the springheads and extending downstream to the earthen diversion dam.
<b>Biological Monitoring Element 1:</b> Species and habitat monitoring	2. Monitor trends in use of RSLER by plant and wildlife species
	3. Monitor trends in structure of sagebrush, marsh/seep, and alkali meadow habitats over time, particularly with respect to potential overgrazing by wild horses
<b>Public Use Element 2:</b> Interpretation, Education, Wildlife Viewing, and Research	1. Provide visitors with information on the various physical, cultural, and biological resources present at RSLER
	2. Provide opportunities for scientific research that will support adaptive management of RSLER
<b>Tier 3 Management Goals</b>	
<b>Biological Element 1:</b> Marsh and Seep Habitats	3. Restore the site's potential to serve as a refuge for endemic fauna. This may include Owens pupfish, and/or other Owens Valley endemic species.

## V. OPERATIONS AND MAINTENANCE SUMMARY

### A. Personnel Needs Summary

The area manager for RSLER is the Lands North Senior Environmental Scientist. This position has management responsibility for Mono, Inyo and Northern San Bernardino Counties.

1. Resource Protection: Protection and enhancement of the communities and ecosystems together with the species present were the primary reasons for acquiring RSLER. The principle that drives all Department acquisition and management programs is that the species and communities that constitute the State's remaining natural biological diversity cannot survive if habitat is not protected. The purpose of the resource management objectives are to protect, restore and enhance wildlife values. Activities that are directed toward the protection and maintenance of an area's biotic, cultural and historic resources will receive higher priority than other activities.

These tasks include resource management, research, monitoring the responses of featured biological elements, and exotic species control. The Department will work cooperatively with BLM and INF to the maximum extent feasible in its management of RSLER. The resource management objectives for RSLER include, but are not limited to:

- a. Conduct a population census of birds, mammals, reptiles and plant species to establish comprehensive species lists and periods of use.
- b. Trail closures and either seasonal or permanent prevention of wild horse trespass through and within sensitive areas (i.e. nesting areas, springs, etc.).
- c. Maintain the RSLER perimeter fence and cattle guard to protect its habitats and preserve the existing plant cover.
- d. Prohibiting activities detrimental to the soil, such as off-road vehicle use and staging operations and unauthorized grazing and pack stock use, to maintain soil depth and reduce the risk of both soil erosion and compaction which inhibits water infiltration and plant root development.
- e. Protection of archeological and historical resources.

2. Site Security: Immediate site security is a high priority management goal at RSLER in order to prevent and minimize damage and degradation from unauthorized uses. Any effort to protect and restore sensitive biological resources or provide for compatible human uses will be precluded if this site is not adequately secured thereby jeopardizing the purpose for which the property was acquired. Consequently, site security will be

achieved before restoration and public use programs can be initiated.

Site security tasks include boundary surveys, fence and cattle guard maintenance, sign installation and replacement, inspection, trespass monitoring and patrol to detect problems such as unauthorized public use, vandalism, and illegal dumping. The site security objectives for RSLER include, but are not limited to:

- a. Installation and replacement of Ecological Reserve boundary signs with joint CDFW and BLM signs.
  - b. Provide patrol by Department and/or other personnel (i.e. establish cooperative agreements with BLM, INF, and County...) to detect and curtail illegal activities.
  - c. Frequent monitoring to determine operation and maintenance needs.
3. Public Health and Safety: The Department has a responsibility as a steward of State lands to be a good neighbor and comply with State and local statutes and regulations intended to safeguard public and private property. Without public support, resource management and visitor use programs cannot effectively be carried out at this non-staffed site.

These tasks include nuisance abatement and waste/hazard removal (periodic removal of garbage and trash, toxic or hazardous materials). It may also include any other actions deemed necessary to minimize or eliminate threats to human health or safety.

4. Public Use Management: Although the public can already visit RSLER, public use will only be promoted after the area has been secured, the resources protected and access facilities provided for. All public uses will reflect the general and specific rules for the reserve.

The public use objectives for RSLER may include but are not limited to:

- a. Installation and replacement of rules and regulation signs.
5. Infrastructure: In order for the public to use RSLER it will be necessary to provide access. The infrastructure objectives include but are not limited to:
- a. Designation of roadside parking.
  - b. The Department will continue to allow through access over the existing road and a cowboy gate will be installed adjacent to the cattle guard.
  - c. Appropriate measures will be taken to preserve and safeguard historical and/or cultural resources.

## **B. Existing Staff and Additional Personnel Needs Summary**

Currently this property is largely managed by the Lands North Senior Environmental Scientist and Lands North Environmental Scientist. One scientific aide is available to make monthly monitoring visits. CDFW and BLM Biologists are available to fulfill plant, wildlife and bird monitoring requirements.

## **VI. CLIMATE CHANGE STRATEGIES**

According to the California State Wildlife Action Plan (SWAP 2015), global climate change is a major challenge to the conservation of California's natural resources. The condition of many natural communities is already impaired due to a variety of pressures, many of which are interrelated, and these pressures are likely to be exacerbated by climate change. The effects of climate change are typically described in terms of physical changes such as altered temperature and precipitation, as well as the resultant effects such as altered freshwater hydrologic regime, sea level rise, increased wildfire risk, habitat fragmentation, and increased prevalence of invasive species. These effects will vary considerably from region to region in California, and will be affected by which emission scenario<sup>1</sup> is actually realized (SWAP 2015).

In California's deserts, January average temperatures are projected to increase 2° F to 4° F by 2050, and July average temperatures are projected to increase 3° F to 5° F by 2050. Mean annual precipitation projections for the region vary, with some models predicting increases up to 0.47 in., and others predicting decreases of 0.28 to 2.6 in. (SWAP 2015). Findings cited in the Desert Renewable Energy Conservation Plan (DRECP 2015) predict that increased evaporation from warmer temperatures may have a greater drying effect on soils and streamflow than precipitation changes, and overall drier conditions are projected in the Desert Province, with less soil moisture and less groundwater recharge. Projected changes in vegetation patterns also vary, depending on the precipitation model used. Where increased rainfall may occur, woody vegetation is predicted to expand, and barren areas to decline, whereas drier conditions may lead to increased barrenness and herbaceous vegetation, with declines in woody lifeforms (DRECP 2015). Wildfire risk is projected to increase substantially over current levels in the northern part of Mono County (CalEMA 2012).

In the SWAP, RSLER occurs within the Mono ecoregion, one of five ecoregions comprising the Deserts Province in California, and the Northern Mojave-Mono Lake hydrologic unit. Within the Deserts Province, the SWAP has identified 13 conservation targets, of which two occur on RSLER: big sagebrush scrub, and spring/spring brook. Conservation targets are elements of biodiversity at a site for which specific conservation strategies are outlined in the SWAP. Both of RSLER's conservation targets are identified within the SWAP as vulnerable to climate change

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<sup>1</sup> Climate models predict future climate conditions based on different emission scenarios. These scenarios predict concentrations of greenhouse gases and other pollutants in the atmosphere from both natural and man-made sources, and take into consideration land use, land cover, economics, human population trends, and technological advances over time (DRECP 2014; WMO 2016).

pressures. Further, Species of Greatest Conservation Need<sup>2</sup> (SGCN) associated with these conservation targets, and which are also identified as susceptible to climate change pressures, are bi-state greater sage grouse, northern leopard frog, Sierra Nevada yellow-legged frog, (inland) snowy plover, Swainson's hawk, and Owens pupfish.

Conservation strategies developed in the SWAP for big sagebrush scrub and spring/spring brook conservation targets relevant to RSLER are listed below, with the corresponding management goals as listed in Chapter 4 of this plan following in parentheses. While these strategies are not intended to specifically address climate change pressures, they are intended to relieve pressures from various sources, thereby conferring greater resiliency to climate change pressures.

### Conservation Target: Big Sagebrush Scrub

Strategies:

1. Prioritize and coordinate sage-grouse research efforts with landowners and land managers, and monitor pinyon-juniper and cheatgrass invasions per the 2012 Bi-State Sage Grouse Action Plan. (Biological Element 4, Goal 1).
2. Implement resource management to promote healthy sagebrush ecosystems through controlled burns (where appropriate and not in conflict with sage-grouse conservation), control of invasive species, and removal of pinyon-juniper. (Biological Element 3, Goal 1).
3. Establish partnerships, coordinate efforts, and identify and combine funding sources with other agency funding, for protecting, restoring, and enhancing sagebrush habitat. (Biological Element 4, Goal 1).

### Conservation Target: Springs and Spring Brooks

1. Provide outreach and education, with emphasis on improving public awareness, concern, and participation in resource conservation that leads to improved conditions for native fish. (Public Use Element 2, Goals 1 and 2).
2. Translocate or reintroduce native aquatic SGCN and establish genetically viable populations. (Biological Element 1, Goal 3).
3. Manage invasive species to expand range of native fishes. (Biological Element 1, Goal 3).
4. Provide input on local planning decisions. (Biological Element 1, Goal 1).

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<sup>2</sup> Species of Greatest Conservation Need are those species identified in the SWAP as indicative of California's biodiversity, and having the greatest need for conservation based on their state or federal listing status and other state designations, and/or their vulnerability to climate change.



5. Establish and develop co-management partnerships. (Biological Element 1, Goals 1 and 3).

## **VII. Future Revisions to Land Management Plans**

All planning documents eventually become dated and require revision so they can continue to provide practical direction for operational and maintenance activities associated with the property. A common and unfortunate situation is that the revision of planning documents is often neglected for budgetary or staff constraints, or other priorities. To address this challenge, this brief guide incorporates a suggested hierarchy of revision procedures in which the level of process and required involvement is proportionate to the level of change that is proposed. The LMP reflects the best information available during the planning process, but it is understood that new information or circumstances will arise over time and adjustments will be required to keep the LMP current. Such new information or circumstances may include:

- feedback generated by adaptive management of the site
- scientific research that directs improved techniques of habitat management
- research that directs improved management of agricultural resources
- documented threats to fish and wildlife species and their habitats
- new legislative or policy direction
- new acquisitions

When new information dictates a change to the LMP, it is important that there is an appropriate process established to facilitate this change. Public outreach and public input will be necessary in proportion to the proposed policy change established by the LMP. Unless a reasonable and clear revision process exists, the LMP could become outdated and irrelevant. If the appropriate procedure for a particular proposed revision is not apparent, the determination of which of the following procedures to use shall be made by the regional manager in consultation with the Lands Program/Wildlife Branch.

### **A. Minor Revisions**

Minor revisions may include the addition of new property to an existing ecological reserve or wildlife area or the adoption of limited changes to the goals and tasks through adaptive management, based on other scientific information or policy direction. This procedure will be applicable to revisions that meet the following criteria:

- No change is proposed to the overall purposes of this LMP
- CEQA documentation (if required) is completed and approved
- Appropriate consultation occurs within the region and with other appropriate branches in the Department
- Appropriate consultation with other agencies occurs
- Adjoining neighbors are consulted regarding the revision, if the revision is related to a specific location or the acquisition of additional area

Minor revisions may be prepared by the staff members or with other CDFW resources, and require approval by the regional manager. If additional acquisitions require no changes in

existing management, the parcels may be integrated within the current plan via a memo from the regional manager to the Director. The documentation is attached to the management plan and provided to the Lands Program/Wildlife Branch for their files.

## **B. Major Revisions**

Major revisions or a new LMP, require a procedure comparable to the initial LMP planning process, but also proportionate to the level of policy change that is proposed. This procedure is applicable to revisions that meet the following criteria:

- Substantial revision and/or a new policy direction is proposed to the LMP, or the adoption of a completely new plan is proposed
- Appropriate CEQA documentation is completed and approved
- Appropriate consultation occurs throughout CDFW
- Appropriate coordination and consultation with other agencies occurs
- A public outreach program is conducted that is proportional to the level of the proposed revision

Major revisions or a new plan may be prepared using available CDFW resources. Any major revisions or new plan development require prior approval by the regional manager. If the appropriate procedure for a particular, proposed revision is not apparent, the determination of which of these procedures to use shall be made by the region in consultation with the Lands Program. The revised plan may need additional CEQA analysis if the revisions present substantive changes. A new plan and or new CEQA analysis for a revised plan would require the review and approval of the Deputy Director.

## **C. Plan Status Reports**

Periodic evaluation is important to help ensure that the purposes and goals of the LMP are being met. The chapter or section that includes, “Management Goals,” may contain many specific tasks that involve monitoring of the site and evaluation of the adequacy of management activities. Cumulatively, these efforts will provide feedback regarding the success of the overall management effort. Periodic and detailed analysis of this feedback data will be necessary to assess the status of this LMP.

A review of the achievement of the goals of the LMP should be prepared every 5-10 years following the date of adoption of the LMP or subsequent revisions.

A status report documenting this review should, at minimum, include:

- An evaluation of the achievement of the purposes and goals of the LMP
- An evaluation of the completion or annual completion, as appropriate, of each task contained in this LMP
- Monitoring required as a result of a mitigated negative declaration
- A fiscal evaluation of the program

- An evaluation of the effectiveness of CDFW's coordination efforts with local governments, and other property management and regulatory agencies involved with the site
- A notation of important new scientific information that has bearing on management
- A recommendation and schedule for revisions to the LMP to incorporate new information and improve its effectiveness

The status report should be prepared or coordinated by the site manager or other regional representative. It should be reviewed by appropriate Regional functions, then submitted to the Regional Manager and forwarded to the Lands Program, Wildlife Branch to be submitted to the Deputy Director. This report should serve as a basis for revision of the LMP and appropriate adjustment to ongoing management practices. Approved copies of the report are included in the management plan files in the region and Lands Program.

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## APPENDIX A

### Legal Description of Property

#### PARCEL 1:

THE EAST HALF OF THE NORTHEAST QUARTER; THE EAST HALF OF THE SOUTHEAST QUARTER AND THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 1 NORTH, RANGE 30 EAST, M.D.B&M., IN THE COUNTY OF MONO, STATE OF CALIFORNIA.

#### PARCEL 2:

LOT 2 (THE WEST HALF OF THE NORWEST QUARTER); LOT 2 (THE WEST HALF OF THE SOUTHWEST QUARTER); THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF FRACTIONAL SECTION 19, TOWNSHIP 1 NORTH, RANGE 31 EAST, M.D.M.

THE SOUTH HALF OF LOT 1 OF THE NORTHWEST QUARTER.

THE NORTH HALF OF LOT 1 OF THE SOUTHWEST QUARTER AND THE NORWEST QUARTER OF THE SOUTHEAST QUARTER OF FRACTIONAL SECTION 19 IN TOWNSHIP 1 NORTH, RANGE 31 EAST, M.D.M. IN THE COUNTY OF MONO, STATE OF CALIFORNIA.



**APPENDIX B**

**Plants with Potential to Occur in Vicinity of River Spring Lakes Ecological Reserve**

Scientific Name	Common Name	Habitat/Community	Observed at/in Vicinity of RSLER	Source
‡ Indicates sensitive species !! Indicates invasive species * Indicates non-native species				
<b>PTERIDOPHYTES</b>				
<b>EQUISETACEAE – Horsetail Family</b>				
<i>Equisetum laevigatum</i>	Horsetail	Alkali Meadow	X	LMP
<b>CONIFERS</b>				
<b>PINACEAE – Pine Family</b>				
<i>Juniperus occidentalis</i>	Western juniper	Uplands	X	LMP
<i>Pinus monophylla</i>	Single leaf piñon pine	Uplands	X	LMP
<b>DICOTS</b>				
<b>APIACEAE – Carrot Family</b>				
<i>Angelica lineariloba</i>	Poison angelica	Sagebrush scrub		CalFlora
<i>Cymopterus globosus</i> ‡	Globe spring parsley	Sagebrush scrub		CalFlora
<i>Lomatium nevadense</i>	Nevada biscuitroot	Sagebrush scrub		CalFlora
<i>Perideridia bolanderi</i> ssp. <i>bolanderi</i>	Bolander’s yampah	Sagebrush scrub		CalFlora
<b>ASTERACEAE – Sunflower Family</b>				
<i>Agoseris glauca</i>	Pale dandelion	Sagebrush scrub		CalFlora
<i>Antennaria dimorpha</i>	Gray cushion pussytoes	Sagebrush scrub		CalFlora
<i>Arnica fulgens</i> ‡	Foothill arnica	Sagebrush scrub		CalFlora
<i>Arnica sororia</i>	Twin arnica	Sagebrush scrub		CalFlora
<i>Artemisia arbuscula</i>	Low sagebrush	Sagebrush scrub		CalFlora
<i>Artemisia cana</i> ssp. <i>bolanderi</i>	Bolander’s silver sagebrush	Sagebrush scrub		CalFlora

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<i>Artemisia ludoviciana</i>	Silver wormwood	Sagebrush scrub		CalFlora
<i>Artemisia tridentata</i> ssp. <i>tridentata</i>	Great Basin big sage	Sagebrush scrub	X	LMP
<i>Artemisia tridentata</i> ssp. <i>vaseyana</i>	Mt. big sage	Sagebrush scrub	X	LMP
<i>Balsamorhiza sagittata</i>	Arrow-leaved balsam root	Sagebrush scrub		CalFlora
<i>Bidens cernua</i> var. <i>cernua</i>	Nodding beggartick	Wetlands		CalFlora
<i>Chaenactis douglasii</i>	Douglas's dustymaiden	Sagebrush scrub		CalFlora
<i>Chaenactis macrantha</i>	Mohave pincushion	Sagebrush scrub		CalFlora
<i>Chaenactis xantiana</i>	Fleshcolor pincushion	Sagebrush scrub		CalFlora
<i>Chorisiva nevadensis</i>	Nevada sumpweed	Sagebrush scrub		CalFlora
<i>Chrysothamnus nauseosus</i>	Rubber rabbitbrush	Uplands	X	LMP
<i>Chrysothamnus viscidiflorus</i>	Yellow rabbitbrush	Sagebrush scrub	X	LMP
<i>Cirsium mohavense</i>	Mohave thistle	Alkali meadow		CalFlora
<i>Cirsium scariosum</i>	Elk thistle	Alkali meadow	X	LMP
<i>Crepis acuminata</i>	Tall hawksbeard	Sagebrush scrub		CalFlora
<i>Crepis bakeri</i>	Baker's hawksbeard	Sagebrush scrub		CalFlora
<i>Crepis intermedia</i>	Limestone hawksbeard	Sagebrush scrub		CalFlora
<i>Crepis modocensis</i>	Modoc hawksbeard	Sagebrush scrub		CalFlora
<i>Crepis occidentalis</i>	Western hawksbeard	Sagebrush scrub		CalFlora
<i>Crepis runcinata</i> ssp. <i>hallii</i> ‡	Hall's meadow hawksbeard	Alkali meadow	X	LMP
<i>Eatonella nivea</i>	White false tickhead	Sagebrush scrub		CalFlora

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<i>Enceliopsis nudicaulis</i>	Naked-stem daisy	Sagebrush scrub		CalFlora
<i>Ericameria teretifolia</i>	Green rabbitbrush	Sagebrush scrub		CalFlora
<i>Erigeron aphanactis</i>	Rayless fleabane	Sagebrush scrub		CalFlora
<i>Erigeron bloomeri</i>	Scabland fleabane	Sagebrush scrub		CalFlora
<i>Erigeron eatonii</i> <i>var. nevadincola</i> ‡	Nevada daisy	Sagebrush scrub		CalFlora
<i>Erigeron eatonii</i> <i>var. plantagineus</i>	Eaton's fleabane	Sagebrush scrub		CalFlora
<i>Erigeron linearis</i>	Desert yellow fleabane	Sagebrush scrub		CalFlora
<i>Erigeron lonchophyllus</i>	Shortray fleabane	Sagebrush scrub		CalFlora
<i>Erigeron pumilus</i> <i>var. intermedius</i>	Shaggy fleabane	Sagebrush scrub		CalFlora
<i>Eriophyllum lanatum</i>	Woolly sunflower	Sagebrush scrub		CalFlora
<i>Eriophyllum pringlei</i>	Pringle's woolly sunflower	Sagebrush scrub		CalFlora
<i>Gutierrezia sarothrae</i>	Common snakeweed	Sagebrush scrub		CalFlora
<i>Heliomeris multiflora</i>	Showy goldeneye	Sagebrush scrub		CalFlora
<i>Hulsea vestita</i>	Pumice alpinegold	Sagebrush scrub		CalFlora
<i>Ionactis alpina</i>	Lava aster	Sagebrush scrub		CalFlora
<i>Iva nevadensis</i> ‡	Nevada sumpweed	Sagebrush scrub		CalFlora
<i>Lactuca tatarica</i> <i>var. pulchella</i>	Blue lettuce	Sagebrush scrub, Wetlands		CalFlora
<i>Machaeranthera canescens</i>	Hoary aster	Sagebrush scrub		CalFlora
<i>Malacothrix glabrata</i>	Desert dandelion	Uplands	X	LMP
<i>Pleiocanthus spinosus</i>	Thorn skeletonweed	Sagebrush scrub		CalFlora

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<i>Psathyrotes annua</i>	Annual psathyrotes	Sagebrush scrub		CalFlora
<i>Pyrrocoma lanceolata</i>	Lanceleaf goldenweed	Sagebrush scrub		CalFlora
<i>Pyrrocoma racemosa</i> var. <i>sessilifolia</i>	Wand aster	Alkali meadow	X	LMP
<i>Pyrrocoma uniflora</i>	Plantain goldenweed	Sagebrush scrub, Wetlands		CalFlora
<i>Senecio aronicoides</i>	California groundsel	Sagebrush scrub		CalFlora
<i>Senecio hydrophyllus</i>	Alkali marsh butterweed	Alkali meadow	X	LMP
<i>Solidago spectabilis</i>	Goldenrod	Alkali meadow	X	LMP
<i>Sphaeromeria potentilloides</i> var. <i>nitrophila</i> ‡	Alkali tansy-sage	Sagebrush scrub, Wetlands		CalFlora
<i>Stenotus acaulis</i>	Stemless mock goldenweed	Sagebrush scrub		CalFlora
<i>Stephanomeria tenuifolia</i>	Wire lettuce	Sagebrush scrub		CalFlora
<i>Symphyotrichum eatonii</i>	Eaton's aster	Sagebrush scrub, Wetlands		CalFlora
<i>Symphyotrichum frondosum</i>	Short-rayed alkali aster	Sagebrush scrub, Wetlands		CalFlora
<i>Tetradymia canescens</i>	Gray horsebrush	Sagebrush scrub		CalFlora
<i>Tetradymia glabrata</i>	Littleleaf horsebrush	Sagebrush scrub		CalFlora
<i>Townsendia scapigera</i>	Tufted Townsend daisy	Sagebrush scrub		CalFlora
<b>BORAGINACEAE – Borage Family</b>				
<i>Amsinckia tessellata</i> var. <i>tessellata</i>	Bristly fiddleneck	Sagebrush scrub		CalFlora
<i>Cryptantha cinerea</i> var. <i>abortiva</i>	Bownut cryptantha	Sagebrush scrub		CalFlora
<i>Cryptantha circumscissa</i>	Capped cryptantha	Uplands	X	LMP

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<i>Cryptantha confertiflora</i>	Yellow cryptantha	Sagebrush scrub		CalFlora
<i>Cryptantha flavoculata</i>	Roughseed cryptantha	Sagebrush scrub		CalFlora
<i>Cryptantha virginensis</i>	Virgin river cryptantha	Sagebrush scrub		CalFlora
<i>Hackelia floribunda</i>	Many-flowered stickseed	Sagebrush scrub, Wetlands		CalFlora
<i>Hackelia micrantha</i>	Small-flowered stickseed	Sagebrush scrub		CalFlora
<i>Lappula redowskii</i>	Redowski's stickseed	Sagebrush scrub		CalFlora
<i>Mertensia oblongifolia</i>	Sagebrush bluebells	Sagebrush scrub		CalFlora
<i>Pectocarya setosa</i>	Moth combseed	Sagebrush scrub		CalFlora
<i>Plagiobothrys kingii</i> var. <i>harknessii</i>	Slender Great Basin popcorn flower	Alkali meadow	X	LMP
<i>Tiquilia nuttalli</i>	String plant	Uplands	X	LMP
<b>BRASSICACEAE – Mustard Family</b>				
<i>Arabis bodiensis</i> ‡	Bodie Hills rock cress	Sagebrush scrub	X	LMP
<i>Arabis puberula</i>	Hoary rockcress	Sagebrush scrub		CalFlora
<i>Arabis sparsiflora</i>	Sicklepod rockcress	Sagebrush scrub		CalFlora
<i>Arabis suffrutescens</i>	Woody rockcress	Sagebrush scrub		CalFlora
<i>Descurainia pinnata</i>	Western tansy mustard	Sagebrush scrub		CalFlora
<i>Erysimum capitatum</i> ssp. <i>capitatum</i>	Western wallflower	Sagebrush scrub		CalFlora
<i>Halimolobos jaegeri</i>	Rock mustard	Sagebrush scrub		CalFlora
<i>Lepidium montanum</i>	Mountain pepper grass	Alkali meadow	X	LMP

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<i>Phoenicaulis cheiranthoides</i>	Dagger pod	Sagebrush scrub		CalFlora
<i>Polycytenium fremontii</i> var. <i>confertum</i>	Desert combleaf	Sagebrush scrub, Wetlands		CalFlora
<i>Streptanthella longirostris</i>	Long-beaked twistflower	Sagebrush scrub		CalFlora
<i>Thelypodium crispum</i>	Wavy-leaved thelypodium	Sagebrush scrub		CalFlora
<i>Thelypodium integrifolium</i> ssp. <i>complanatum</i> ‡	Alkali crucifer	Alkali meadow	X	LMP
<b>CAPPARACEAE – Caper Family</b>				
<i>Cleome lutea</i>	Yellow spiderwort	Sagebrush scrub, Wetlands		CalFlora
<i>Cleomella parviflora</i>	Slender cleomella	Sagebrush scrub, Wetlands		CalFlora
<b>CARYOPHYLLACEAE – Carnation Family</b>				
<i>Arenaria aculeata</i>	Prickly sandwort	Sagebrush scrub		CalFlora
<i>Arenaria congesta</i>	Capitate sandwort	Sagebrush scrub		CalFlora
<i>Arenaria macradenia</i>	Desert sandwort	Sagebrush scrub		CalFlora
<i>Minuartia nuttallii</i>	Nuttall's sandwort	Sagebrush scrub		CalFlora
<i>Silene bernardina</i>	Palmer's catchfly	Sagebrush scrub		CalFlora
<i>Silene oregana</i> ‡	Oregon silene	Sagebrush scrub		CalFlora
<b>CHENOPODIACEAE – Goosefoot Family</b>				
<i>Atriplex confertifolia</i>	Spiny saltbush	Sagebrush scrub		CalFlora
<i>Atriplex phyllostegia</i>	Leafcover saltweed	Alkali meadow	X	LMP
<i>Atriplex pusilla</i> ‡	Smaller saltweed	Sagebrush scrub, Wetlands		CalFlora
<i>Grayia spinosa</i>	Spiny hopsage	Uplands	X	LMP
<i>Monolepis pusilla</i>	Dwarf povertyweed	Sagebrush scrub		CalFlora

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<i>Nitrophila occidentalis</i>	Boraxweed	Alkali meadow	X	LMP
<i>Sarcobatus vermiculatus</i>	Greasewood	Alkali meadow, Sagebrush scrub	X	LMP
<i>Suaeda calceoliformis</i>	Horned sea blite	Sagebrush scrub, Wetlands		CalFlora
<b>FABACEAE – Pea Family</b>				
<i>Astragalus andersonii</i>	Anderson's milkvetch	Sagebrush scrub		CalFlora
<i>Astragalus canadensis</i> var. <i>brevidentis</i>	Short-toothed milkvetch	Sagebrush scrub, Wetlands		CalFlora
<i>Astragalus casei</i>	Case's milkvetch	Sagebrush scrub		CalFlora
<i>Astragalus curvicaupus</i> var. <i>curvicaupus</i>	Coiled locoweed	Sagebrush scrub		CalFlora
<i>Astragalus iodanthus</i> var. <i>iodanthus</i>	Humboldt River milkvetch	Sagebrush scrub		CalFlora
<i>Astragalus lemmonii</i> ‡	Lemmon's milkvetch	Sagebrush scrub, Wetlands		CalFlora
<i>Astragalus lentiginosus</i>	Rattle pod	Sagebrush scrub		CalFlora
<i>Astragalus malacus</i>	Shaggy milkvetch	Sagebrush scrub		CalFlora
<i>Astragalus newberryi</i> var. <i>castoreus</i>	Newberry's milkvetch	Sagebrush scrub		CalFlora
<i>Astragalus newberryi</i> var. <i>newberryi</i>	Newberry's milkvetch	Sagebrush scrub		CalFlora
<i>Astragalus oophorus</i>	Egg milkvetch	Sagebrush scrub		CalFlora
<i>Astragalus purshii</i>	Pursh's milkvetch	Sagebrush scrub		CalFlora
<i>Astragalus whitneyi</i>	Whitney's milkvetch	Sagebrush scrub		CalFlora
<i>Lupinus argenteus</i> var. <i>heteranthus</i>	Silvery lupine	Sagebrush scrub		CalFlora

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<i>Lupinus argenteus</i> <i>var. meionanthus</i>	Lake Tahoe lupine	Sagebrush scrub		CalFlora
<i>Lupinus lepidus</i> <i>var. sellulus</i>	Dwarf tidy lupine	Sagebrush scrub		CalFlora
<i>Lupinus lepidus</i> <i>var. utahensis</i> ‡	Utah tidy lupine	Sagebrush scrub		CalFlora
<i>Lupinus nevadensis</i> ‡	Nevada lupine	Sagebrush scrub		CalFlora
<i>Psoraleidium lanceolatum</i> ‡	Scurf pea	Sagebrush scrub		CalFlora
<i>Trifolium andersonii</i> var. <i>andersonii</i> ‡	Anderson's clover	Sagebrush scrub		CalFlora
<i>Trifolium andersonii</i> var. <i>beatleyae</i>	Beatley's five-leaved clover	Sagebrush scrub		CalFlora
<i>Trifolium wormskioldii</i>	Cow's clover	Alkali meadow	X	LMP
<b>GROSSULARIACEAE – Gooseberry Family</b>				
<i>Ribes velutinum</i>	Desert gooseberry	Sagebrush scrub		CalFlora
<i>Ribes viscosissimum</i>	Sticky currant	Sagebrush scrub, Wetlands		CalFlora
<b>HYDROPHYLLACEAE – Waterleaf Family</b>				
<i>Hesperochiron pumilus</i>	Dwarf hesperochiron	Sagebrush scrub, Wetlands		CalFlora
<i>Hydrophyllum capitatum</i> var. <i>alpinum</i>	Alpine waterleaf	Sagebrush scrub		CalFlora
<i>Nama aretioides</i>	Purple nama	Sagebrush scrub		CalFlora
<i>Nama densum</i>	Purple mat	Sagebrush scrub		CalFlora
<i>Nemophila breviflora</i> ‡	Great basin nemophila	Sagebrush scrub		CalFlora
<i>Phacelia bicolor</i> var. <i>bicolor</i>	Two-color phacelia	Sagebrush scrub		CalFlora
<i>Phacelia glandulifera</i>	Sticky phacelia	Sagebrush scrub		CalFlora
<i>Phacelia hastata</i>	Silverleaf phacelia	Sagebrush scrub		CalFlora
<i>Phacelia humilis</i>	Low phacelia	Sagebrush scrub		CalFlora



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<i>Phacelia ramosissima</i>	Branching phacelia	Sagebrush scrub, Wetlands		CalFlora
<i>Phacelia tetramera</i>	Four-parted phacelia	Sagebrush scrub, Wetland		CalFlora
<b>LAMIACEAE – Mint Family</b>				
<i>Monardella odoratissima</i>	Desert mint	Sagebrush scrub		CalFlora
<b>LIMNANTHACEAE – Meadowfoam Family</b>				
<i>Floerkea proserpinacoides</i>	False mermaidweed	Sagebrush scrub, Wetlands		CalFlora
<b>LOASACEAE – Evening Star Family</b>				
<i>Mentzelia congesta</i>	Clustered blazingstar	Sagebrush scrub		CalFlora
<b>MALVACEAE – Mallow Family</b>				
<i>Sidalcea oregana</i>	Oregon checkermallow	Sagebrush scrub, Wetlands		CalFlora
<b>NYCTAGINACEAE – Four O’Clock Family</b>				
<i>Abronia turbinata</i>	Transmontane sand verbena	Sagebrush scrub		CalFlora
<i>Mirabilis alipes</i>	Winged four-o’clock	Sagebrush scrub		CalFlora
<b>ONAGRACEAE – Evening Primrose Family</b>				
<i>Camissonia heterochroma</i>	Schockley’s evening primrose	Sagebrush scrub		CalFlora
<i>Camissonia tanacetifolia</i>	Tansyleaf evening primrose	Sagebrush scrub		CalFlora
<i>Epilobium ciliatum</i>	Northern willow-herb	Sagebrush scrub, Wetlands		CalFlora
<i>Gayophytum decipiens</i>	Deceptive groundsmoke	Sagebrush scrub		CalFlora
<b>OROBANCHACEAE – Broomrape Family</b>				
<i>Orobanche californica</i>	California broomrape	Sagebrush scrub		CalFlora
<i>Orobanche fasciculata</i>	Piñon broomrape	Sagebrush scrub		CalFlora
<i>Orobanche ludoviciana</i> var. <i>arenosa</i> ‡	Suskdorf’s broomrape	Sagebrush scrub	X	CNDDDB

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<b>PAEONIACEAE – Peony Family</b>				
<i>Paeonia brownii</i>	Brown's peony	Sagebrush scrub		CalFlora
<b>PAPAVERACEAE – Poppy Family</b>				
<i>Argemone munita</i>	Prickly poppy	Sagebrush scrub		CalFlora
<i>Corydalis aurea</i>	Golden corydalis	Sagebrush scrub		CalFlora
<b>POLEMONIACEAE – Phlox Family</b>				
<i>Eriastrum sparsiflorum</i>	Great Basin woollystar	Sagebrush scrub		CalFlora
<i>Eriastrum wilcoxii</i>	Wilcox's woolly star	Uplands	X	LMP
<i>Gilia brecciarum</i>	Nevada gilia	Sagebrush scrub		CalFlora
<i>Gilia modocensis</i>	Modoc gilia	Sagebrush scrub		CalFlora
<i>Ipomopsis congesta</i>	Many-flowered gilia	Sagebrush scrub		CalFlora
<i>Leptosiphon septentrionalis</i>	Northern linanthus	Sagebrush scrub		CalFlora
<i>Linanthus campanulatus</i>	Bell-shaped gilia	Sagebrush scrub		CalFlora
<i>Linanthus (Leptodactylon) pungens</i>	Granite prickly phlox	Uplands	X	LMP
<i>Navarretia leucocephala ssp. minima</i>	Least navarretia	Sagebrush scrub, Wetlands		CalFlora
<i>Phlox caespitosa</i>	Tufted phlox	Sagebrush scrub		CalFlora
<i>Phlox hoodii ssp. canescens</i>	Gray phlox	Sagebrush scrub		CalFlora
<i>Phlox longifolia ssp. brevifolia</i>	Longleaf phlox	Sagebrush scrub		CalFlora
<i>Phlox stansburyi</i>	Cold desert phlox	Sagebrush scrub		CalFlora
<b>POLYGONACEAE – Buckwheat Family</b>				
<i>Chorizanthe brevicornu</i>	Brittle spineflower	Sagebrush scrub		CalFlora
<i>Chorizanthe watsonii</i>	Watson's spineflower	Sagebrush scrub		CalFlora
<i>Eriogonum ampullaceum</i>	Mono buckwheat	Sagebrush scrub / ashy sites	X	LMP

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<i>Eriogonum caespitosum</i>	Clumping buckwheat	Sagebrush scrub		CalFlora
<i>Eriogonum crosbyae</i>	Crosby's buckwheat	Sagebrush scrub		CalFlora
<i>Eriogonum elatum</i>	Tall woolly buckwheat	Sagebrush scrub		CalFlora
<i>Eriogonum fasciculatum</i>	East Mojave buckwheat	Sagebrush scrub		CalFlora
<i>Eriogonum inflatum</i>	Desert trumpet	Sagebrush scrub		CalFlora
<i>Eriogonum kennedyi</i>	Kennedy's buckwheat	Sagebrush scrub		CalFlora
<i>Eriogonum maculatum</i>	Spotted buckwheat	Sagebrush scrub		CalFlora
<i>Eriogonum nummulare</i>	Money buckwheat	Sagebrush scrub		CalFlora
<i>Eriogonum nutans</i> var. <i>nutans</i> ‡	Nodding buckwheat	Sagebrush scrub		CalFlora
<i>Eriogonum ochrocephalum</i> var. <i>alexanderae</i> ‡	Alexander's buckwheat	Sagebrush scrub		CalFlora
<i>Eriogonum ovalifolium</i>	Oval-leaved erigonum	Sagebrush scrub		CalFlora
<i>Eriogonum strictum</i>	Blue mountain buckwheat	Sagebrush scrub		CalFlora
<i>Eriogonum umbellatum</i>	Sulphur buckwheat	Sagebrush scrub		CalFlora
<i>Oxytheca dendroidea</i> ssp. <i>dendroidea</i>	Tall oxytheca	Sagebrush scrub		CalFlora
<i>Polygonum douglasii</i>	Douglas's knotweed	Sagebrush scrub		CalFlora
<i>Polygonum polygaloides</i> ssp. <i>kelloggii</i>	Kellogg's knotweed	Sagebrush scrub, Wetlands		CalFlora
<i>Rumex salicifolius</i> var. <i>lacustris</i>	Lake dock	Sagebrush scrub, Wetlands		CalFlora
<b>PORTULACACEAE – Purslane Family</b>				
<i>Calyptridium roseum</i>	Rosy pussypaws	Sagebrush scrub		CalFlora
<b>POTAMOGETONACEAE – Pondweed Family</b>				

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<i>Potamogeton filiformis</i> ‡	Slender-leaved pondweed	Wetlands		CalFlora
<i>Ruppia cirrhosa</i>	Ditch grass	Wetlands		CalFlora
<i>Stuckenia filiformis</i> ‡	Fine-leaf pondweed	Wetland		CalFlora
<b>PRIMULACEAE – Primrose Family</b>				
<i>Dodecatheon pulchellum</i> ‡	Dark-throated shooting star	Sagebrush scrub, Wetlands		CalFlora
<b>RANUNCULACEAE – Buttercup Family</b>				
<i>Delphinium andersonii</i>	Anderson's larkspur	Sagebrush scrub		CalFlora
<i>Delphinium depauperatum</i>	Dwarf larkspur	Sagebrush scrub		CalFlora
<i>Delphinium nuttallianum</i>	Nuttall's larkspur	Sagebrush scrub		CalFlora
<i>Myosurus apetalus</i>	Bristly mousetail	Sagebrush scrub		CalFlora
<i>Myosurus minimus</i>	Common mousetail	Wetlands		CalFlora
<i>Ranunculus alismifolius</i>	Alisma-leaved buttercup	Sagebrush scrub, Wetlands		CalFlora
<i>Ranunculus andersonii</i>	Anderson's buttercup	Sagebrush scrub		CalFlora
<i>Ranunculus glaberrimus</i>	Sagebrush buttercup	Sagebrush scrub, Wetlands		CalFlora
<b>RHAMNACEAE – Buckthorn Family</b>				
<i>Ceanothus greggii</i>	Desert ceanothus	Sagebrush scrub		CalFlora
<b>ROSACEAE – Rose Family</b>				
<i>Cercocarpus ledifolius</i>	Desert mountain mahogany	Sagebrush scrub		CalFlora
<i>Chamaebatiaria millefolium</i>	Desert sweet	Sagebrush scrub		CalFlora
<i>Ivesia kingii</i> var. <i>kingii</i> ‡	King's ivesia	Alkali meadow	X	LMP
<i>Potentilla biennis</i>	Biennial cinquefoil	Sagebrush scrub, Wetlands		CalFlora
<i>Potentilla gracilis</i> var. <i>elmeri</i>	Elmer's cinquefoil	Alkali meadow	X	LMP

Scientific Name	Common Name	Habitat/Community	Observed at/in Vicinity of RSLER	Source
<b>‡ Indicates sensitive species !! Indicates invasive species * Indicates non-native species</b>				
<i>Potentilla rivalis</i>	Brook cinquefoil	Wetlands		CalFlora
<i>Purshia tridentata</i>	Bitterbrush	Uplands	X	LMP
<i>Purshia tridentata</i> <i>var. tridentata</i>	Antelope bitterbrush	Sagebrush scrub		CalFlora
<b>RUBIACEAE – Bedstraw Family</b>				
<i>Galium multiflorum</i>	Kellogg's bedstraw	Sagebrush scrub		CalFlora
<b>SAXIFRAGACEAE – Saxifrage Family</b>				
<i>Lithophragma glabrum</i>	Bulbous woodland star	Sagebrush scrub		CalFlora
<b>SCROPHULARIACEAE – Figwort Family</b>				
<i>Castilleja angustifolia</i>	Desert paintbrush	Sagebrush scrub		CalFlora
<i>Castilleja lacera</i>	Cut-leaved owl's clover	Sagebrush scrub		CalFlora
<i>Castilleja linariifolia</i>	Wyoming paintbrush	Sagebrush scrub		CalFlora
<i>Castilleja minor</i> <i>ssp. minor</i>	Lesser Indian paintbrush	Sagebrush scrub, Wetlands		CalFlora
<i>Castilleja pilosa</i>	Parrothead Indian paintbrush	Sagebrush scrub		CalFlora
<i>Castilleja tenuis</i>	Hairy Indian paintbrush	Sagebrush scrub, Wetlands		CalFlora
<i>Collinsia parviflora</i>	Blue-eyed Mary	Sagebrush scrub		CalFlora
<i>Cordylanthus kingii</i> <i>ssp. helleri</i>	Heller's bird beak	Sagebrush scrub		CalFlora
<i>Limosella acaulis</i>	Broad-leaved mudwort	Wetlands		CalFlora
<i>Limosella aquatica</i>	Northern mudwort	Wetlands		CalFlora
<i>Mimulus bigelovii</i>	Bigelow's monkey flower	Pumice flats/Uplands	X	LMP
<i>Mimulus guttatus</i>	Seep monkey flower	Alkali meadow	X	LMP
<i>Mimulus mephiticus</i>	Foul-odor monkeyflower	Sagebrush scrub		CalFlora

Scientific Name	Common Name	Habitat/Community	Observed at/in Vicinity of RSLER	Source
<b>‡ Indicates sensitive species !! Indicates invasive species * Indicates non-native species</b>				
<i>Orthocarpus luteus</i>	Yellow owl's clover	Sagebrush scrub		CalFlora
<i>Penstemon deustus</i>	Rock penstemon	Sagebrush scrub		CalFlora
<i>Penstemon patens</i>	Lone Pine beardtongue	Sagebrush scrub		CalFlora
<i>Penstemon rydbergii</i>	Rydberg's penstemon	Meadow	X	LMP
<i>Penstemon speciosus</i>	Royal beardtongue	Sagebrush scrub		CalFlora
<i>Veronica scutellata</i>	Marsh speedwell	Alkali meadow	X	LMP
<b>SOLANACEAE – Nightshade Family</b>				
<i>Solanum triflorum</i> *	Cutleaf nightshade	Sagebrush scrub		CalFlora
<b>VIOLACEAE – Violet Family</b>				
<i>Viola aurea</i> ‡	Golden violet	Sagebrush scrub		CalFlora
<i>Viola purpurea</i>	Mountain violet	Sagebrush scrub		CalFlora

MONOCOTS				
<b>CYPERACEAE Sedge Family</b>				
<i>Carex douglasii</i>	Douglas's sedge	Uplands	X	LMP
<i>Carex nebrascensis</i>	Nebraska sedge	Alkali meadow	X	LMP
<i>Carex praegracilis</i>	Clustered field sedge	Alkali meadow	X	LMP
<i>Eleocharis acicularis</i>	Needle spikerush	Alkali meadow, Sagebrush scrub		CalFlora
<i>Eleocharis rostellata</i>	Beaked spikerush	Alkali meadow, Wetlands		CalFlora
<i>Schoenoplectus acutus</i> var. <i>occidentalis</i>	Hardstem bulrush	Emergent Wetlands		CalFlora
<i>Scirpus acutus</i> ( <i>americanus</i> )	Olney's threesquare sedge	Emergent wetlands	X	LMP
<i>Scirpus nevadensis</i>	Nevada bulrush	Emergent wetlands		CalFlora
<b>IRIDACEAE – Iris Family</b>				
<i>Sisyrinchium halophilum</i>	Blue-eyed grass	Alkali meadow	X	LMP
<i>Iris missouriensis</i>	Blue flag	Alkali meadow	X	LMP
<b>JUNCACEAE – Rush Family</b>				
<i>Juncus balticus</i>	Wire rush	Alkali meadow	X	LMP
<i>Juncus ensifolius</i>	Three-stamened rush	Alkali meadow	X	LMP
<b>JUNCAGINACEAE – Arrow Grass Family</b>				
<i>Triglochin concinna</i>	Arrow grass	Alkali meadow	X	LMP
<b>LILIACEAE – Lily Family</b>				
<i>Calochortus excavatus</i> ‡	Alkali mariposa lily	Alkali meadow	X	LMP
<i>Maianthemum (Smilacina) stellata</i>	Starry false lily of the valley	Alkali meadow	X	LMP
<i>Muilla transmontana</i>	Great Basin muilla	Sagebrush scrub		CalFlora
<i>Zigadenus paniculatus</i>	Sand corn	Sagebrush scrub		CalFlora
<b>POACEAE – Grass Family</b>				
<i>Achnatherum hymenoides</i>	Indian rice grass	Uplands	X	LMP

<i>Achnatherum nelsonii ssp. dorei</i>	Dore's needlegrass	Sagebrush scrub		CalFlora
<i>Achnatherum occidentale</i>	Western needle grass	Uplands	X	LMP
<i>Achnatherum occidentale ssp. californicum</i>	California needlegrass	Sagebrush scrub		CalFlora
<i>Achnatherum thurberianum</i>	Thurber's needle grass	Uplands	X	LMP
<i>Achnatherum webberi</i>	Webber's needlegrass	Sagebrush scrub		CalFlora
<i>Agrostis stolonifera !!</i>	Creeping bentgrass	Alkali meadow	X	LMP
<i>Alopecurus aequalis</i>	Shortawn foxtail	Freshwater wetlands		CalFlora
<i>Calamagrostis stricta ssp. inexpansa</i>	Narrow-spiked reedgrass	Freshwater wetlands		CalFlora
<i>Danthonia unispicata</i>	One-spiked oatgrass	Sagebrush scrub		CalFlora
<i>Deschampsia cespitosa</i>	Tufted hairgrass	Wetlands		CalFlora
<i>Distichlis spicata</i>	Inland saltgrass	Alkali meadow	X	LMP
<i>Elymus elymoides</i>	Squirrel tail	Uplands	X	LMP
<i>Elymus trachycaulus</i>	Thin-stemmed wheatgrass	Alkali meadow	X	LMP
<i>Hesperostipa comata</i>	Needle-and-thread grass	Uplands	X	LMP
<i>Hordeum brachyantherum</i>	Meadow brome	Alkali meadow	X	LMP
<i>Muhlenbergia richardsonis</i>	Mat muhly	Meadow	X	LMP
<i>Leymus cinereus</i>	Great basin wild rye	Alkali meadow	X	LMP
<i>Melica stricta var. stricta</i>	Nodding melica	Sagebrush scrub		CalFlora
<i>Muhlenbergia asperifolia</i>	Scratch grass	Sagebrush scrub, Wetlands		CalFlora
<i>Muhlenbergia minutissima</i>	Annual muhly	Sagebrush scrub		CalFlora
<i>Pascopyrum smithii</i>	Western wheatgrass	Sagebrush scrub, Wetlands		CalFlora
<i>Poa cusickii ssp. cusickii</i>	Cusick's bluegrass	Sagebrush scrub		CalFlora



<i>Poa pratensis</i> !!	Kentucky blue grass	Alkali meadow	X	LMP
<i>Poa secunda</i>	Bluegrass	Alkali meadow	X	LMP
<i>Poa secunda</i> ssp. <i>juncifolia</i>	Rush bluegrass	Sagebrush scrub		CalFlora
<i>Poa secunda</i> ssp. <i>secunda</i>	One-sided blue grass	Sagebrush scrub		CalFlora
<i>Puccinellia lemmonii</i>	Lemmon's alkali grass	Sagebrush scrub, Wetlands		CalFlora
<i>Spartina gracilis</i> ‡	Alkali cordgrass	Alkali meadow	X	LMP
<i>Sporobolus airoides</i>	Alkali sacaton	Alkali meadow, Wetlands	X	LMP

## APPENDIX C

## Animals with Potential to Occur in Vicinity of River Spring Lakes Ecological Reserve

Common Name	Scientific Name	CWHR Habitat	Observed at/in vicinity of RSLER	Source
‡ Indicates sensitive species !! Indicates invasive species * Indicates non-native species				
<b>INVERTEBRATES</b>				
Wong's springsnail ‡	<i>Pyrgulopsis wongi</i>	Fresh emergent wetland	X	LMP
<b>FISH</b>				
Hybrid pupfish	<i>Cyprinodon</i> sp.	Fresh emergent wetland	X	LMP
<b>HERPETILES</b>				
<b>Amphibians</b>				
Great Basin spadefoot	<i>Spea intermontana</i>	Sagebrush, Bitterbrush, Fresh emergent wetland		CalHerps
Northern leopard frog ‡	<i>Lithobates pipiens</i>	Fresh emergent wetland		CalHerps
Sierra Nevada Yellow-legged frog ‡	<i>Rana sierrae</i>	Fresh emergent wetland		CWHR
Sierran tree frog	<i>Pseudacris sierra</i>	Fresh emergent wetland		CalHerps
Western toad	<i>Anaxyrus boreas halophilus</i>	Sagebrush, Alkali scrub, Fresh emergent wetland		CalHerps
<b>Reptiles (Snakes)</b>				
California kingsnake	<i>Lampropeltis getula californiae</i>	Sagebrush, Bitterbrush, Fresh emergent wetland		CalHerps
Desert nightsnake	<i>Hypsiglena chlorophaea deserticola</i>	Sagebrush		CalHerps
Desert striped whipsnake	<i>Coluber taeniatus taeniatus</i>	Sagebrush, Bitterbrush		CalHerps
Great Basin gopher snake	<i>Pituophis catenifer deserticola</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Long-nosed snake	<i>Rheinocheilus lecontei</i>	Sagebrush, Bitterbrush, Alkali scrub		CalHerps

Common Name	Scientific Name	CWHR Habitat	Observed at/in vicinity of RSLER	Source
<b>‡ Indicates sensitive species !! Indicates invasive species * Indicates non-native species</b>				
Mojave patch-nose snake	<i>Salvadora hexalepis mojavensis</i>	Sagebrush		CalHerps
Northern desert nightsnake	<i>Hypsiglena chlorophaea deserticola</i>	Sagebrush		CalHerps
Red coachwhip	<i>Masticophis flagellum piceus</i>	Sagebrush, Alkali scrub		CalHerps
Variable groundsnake	<i>Sonora semiannulata semiannulata</i>	Fresh emergent wetland, Alkali scrub		CalHerps
Wandering or Western terrestrial gartersnake	<i>Thamnophis elegans vagrans</i>	Fresh emergent wetland		CalHerps
Western or Great Basin rattlesnake	<i>Crotalus oreganos lutosus</i>	Sagebrush, Bitterbrush		CalHerps
<b>Reptiles (Lizards)</b>				
Desert banded gecko	<i>Coleonyx variegatus variegatus</i>	Sagebrush, Alkali scrub		CalHerps
Great Basin collared lizard	<i>Crotaphytus bicinctores</i>	Sagebrush, Bitterbrush, Alkali scrub		CalHerps
Great Basin fence lizard	<i>Sceloporus occidentalis longipes</i>	Sagebrush, Bitterbrush		CalHerps
Great Basin whiptail	<i>Aspidoscelis tigris tigris</i>	Sagebrush, Bitterbrush, Alkali scrub		CalHerps
Long-nosed leopard lizard	<i>Gambelia wislizenii</i>	Sagebrush		CalHerps
Nevada side-blotched lizard	<i>Uta stansburiana nevadensis</i>	Sagebrush, Bitterbrush, Alkali scrub		CalHerps
Northern sagebrush lizard ‡	<i>Sceloporus graciosus graciosus</i>	Sagebrush, Bitterbrush		CalHerps
Southern desert horned lizard	<i>Phrynosoma platyrhinos calidiarum</i>	Sagebrush, Bitterbrush, Alkali scrub		CalHerps
Western zebra-tailed lizard	<i>Callisaurus draconoides rhodostictus</i>	Alkali scrub		CWHR

Common Name	Scientific Name	CWHR Habitat	Observed at/in vicinity of RSLER	Source
‡ Indicates sensitive species !! Indicates invasive species * Indicates non-native species				
Yellow-backed spiny lizard	<i>Sceloporus uniformis</i>	Sagebrush		CalHerps
<b>BIRDS</b>				
<b>Order Anseriformes - Waterfowl</b>				
American wigeon	<i>Anas americana</i>	Fresh emergent wetland	X	LMP
Blue-winged teal	<i>Anas discors</i>	Fresh emergent wetland	X	LMP
Bufflehead	<i>Bucephala albeola</i>	Fresh emergent wetland	X	LMP
Canada goose	<i>Branta canadensis</i>	Fresh emergent wetland		CWHR
Canvasback ‡	<i>Aythya valisineria</i>	Fresh emergent wetland	X	LMP
Cinnamon teal	<i>Anas cyanoptera</i>	Fresh emergent wetland	X	LMP
Common goldeneye	<i>Bucephala clangula</i>	Fresh emergent wetland		CWHR
Common merganser	<i>Mergus merganser</i>	Fresh emergent wetland	X	LMP
Gadwall	<i>Anas strepera</i>	Fresh emergent wetland	X	LMP
Green-winged teal	<i>Anas crecca</i>	Fresh emergent wetland	X	LMP
Hooded merganser	<i>Lophodytes cucullatus</i>	Fresh emergent wetland		CWHR
Lesser scaup	<i>Aythya affinis</i>	Fresh emergent wetland	X	LMP
Mallard	<i>Anas platyrhynchos</i>	Fresh emergent wetland	X	LMP
Northern pintail	<i>Anas acuta</i>	Fresh emergent wetland	X	LMP
Northern shoveler	<i>Anas clypeata</i>	Fresh emergent wetland	X	LMP
Redhead ‡	<i>Aythya americana</i>	Fresh emergent wetland	X	LMP
Ring-necked duck	<i>Aythya collaris</i>	Fresh emergent wetland	X	LMP
Ruddy duck	<i>Oxyura jamaicensis</i>	Fresh emergent wetland	X	LMP

Common Name	Scientific Name	CWHR Habitat	Observed at/in vicinity of RSLER	Source
<b>‡ Indicates sensitive species !! Indicates invasive species * Indicates non-native species</b>				
Snow goose	<i>Chen caerulescens</i>	Fresh emergent wetland		CWHR
Tundra swan	<i>Cygnus columbianus</i>	Fresh emergent wetland	X	LMP
Wood duck	<i>Aix sponsa</i>	Fresh emergent wetland	X	LMP

<b>Order Galliformes - Fowl</b>				
California quail	<i>Callipepla californica</i>	Sagebrush, Bitterbrush	X	LMP
Chukar	<i>Alectoris chukar</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Greater sage-grouse ‡	<i>Centrocercus urophasianus</i>	Sagebrush, Bitterbrush		CWHR
Mountain quail	<i>Oreortyx pictus</i>	Sagebrush, Bitterbrush		CWHR
Ring-necked pheasant	<i>Phasianus colchicus</i>	Fresh emergent wetland		CWHR
<b>Order Podicipediformes - Grebes</b>				
Clark's grebe	<i>Aechmophorus clarkia</i>	Fresh emergent wetland		CWHR
Eared grebe	<i>Podiceps nigricollis</i>	Fresh emergent wetland	X	LMP
Pied-billed grebe	<i>Podilymbus podiceps</i>	Fresh emergent wetland		CWHR
Western grebe	<i>Aechmophorus occidentalis</i>	Fresh emergent wetland	X	LMP
<b>Order Ciconiiformes - Waders</b>				
American bittern ‡	<i>Botaurus lentiginosus</i>	Fresh emergent wetland		CWHR
Black-crowned night heron ‡	<i>Nycticorax nycticorax</i>	Fresh emergent wetland	X	LMP
Great blue heron ‡	<i>Ardea herodias</i>	Fresh emergent wetland		CWHR
Snowy egret ‡	<i>Egretta thula</i>	Fresh emergent wetland	X	LMP
<b>Order Falconiformes - Raptors</b>				
American kestrel	<i>Falco sparverius</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Ferruginous hawk ‡	<i>Buteo regalis</i>	Sagebrush, Bitterbrush		CWHR
Golden eagle ‡	<i>Aquila chrysaetos</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
Merlin ‡	<i>Falco columbarius</i>	Sagebrush, Bitterbrush, Fresh emergent wetland		CWHR
Northern harrier ‡	<i>Circus cyaneus</i>	Sagebrush, Bitterbrush, Fresh emergent wetland	X	LMP
Osprey ‡	<i>Pandion haliaetus</i>	Fresh emergent wetland		CWHR
Peregrine falcon ‡	<i>Falco peregrinus</i>	Sagebrush, Bitterbrush, Fresh emergent wetland		CWHR
Prairie falcon ‡	<i>Falco mexicanus</i>	Sagebrush, Bitterbrush	X	LMP

Red-shouldered hawk	<i>Buteo lineatus</i>	Fresh emergent wetland		CWHR
Red-tailed hawk	<i>Buteo jamaicensis</i>	Sagebrush, Bitterbrush, Alkali scrub, Fresh emergent wetland	X	LMP
Rough-legged hawk	<i>Buteo lagopus</i>	Sagebrush, Bitterbrush, Fresh emergent wetland		CWHR
Sharp-shinned hawk ‡	<i>Accipiter striatus</i>	Sagebrush		CWHR
Turkey vulture	<i>Cathartes aura</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
<b>Order Gruiformes - Gallinule Relatives</b>				
American coot	<i>Fulica americana</i>	Fresh emergent wetland	X	LMP
Common moorhen	<i>Gallinula chloropus</i>	Fresh emergent wetland		CWHR
Sora	<i>Porzana carolina</i>	Fresh emergent wetland	X	LMP
Virginia rail	<i>Rallus limicola</i>	Fresh emergent wetland		CWHR
<b>Order Charadriiformes - Gulls, Terns, Plovers and Sandpipers</b>				
American avocet	<i>Recurvirostra americana</i>	Fresh emergent wetland	X	LMP
Black-bellied plover	<i>Pluvialis squatarola</i>	Fresh emergent wetland		CWHR
Black-necked stilt	<i>Himantopus mexicanus</i>	Fresh emergent wetland	X	LMP
Black tern ‡	<i>Chlidonias niger</i>	Fresh emergent wetland	X	LMP
California gull ‡	<i>Larus californicus</i>	Fresh emergent wetland	X	LMP
Caspian tern ‡	<i>Hydroprogne caspia</i>	Fresh emergent wetland		CWHR
Dunlin	<i>Calidris alpina</i>	Fresh emergent wetland		CWHR
Greater yellowlegs	<i>Tringa melanoleuca</i>	Fresh emergent wetland	X	LMP
Killdeer	<i>Charadrius vociferus</i>	Alkali scrub, Fresh emergent wetland	X	LMP
Least sandpiper	<i>Calidris minutilla</i>	Fresh emergent wetland	X	LMP
Lesser yellowlegs	<i>Tringa flavipes</i>	Fresh emergent wetland	X	LMP
Long-billed dowitcher	<i>Limnodromus scolopaceus</i>	Fresh emergent wetland	X	LMP

Pectoral sandpiper	<i>Calidris melanotos</i>	Fresh emergent wetland	X	LMP
Red phalarope	<i>Phalaropus fulicarius</i>	Fresh emergent wetland		CWHR
Red-necked phalarope	<i>Phalaropus lobatus</i>	Fresh emergent wetland	X	LMP
Ring-billed gull	<i>Larus delawarensis</i>	Fresh emergent wetland	X	LMP
Ruddy turnstone	<i>Arenaria interpres</i>	Fresh emergent wetland	X	LMP
Spotted sandpiper	<i>Actitis macularia</i>	Fresh emergent wetland	X	LMP
Western sandpiper	<i>Calidris mauri</i>	Fresh emergent wetland	X	LMP
Western snowy plover (‡ applies to coastal population only)	<i>Charadrius alexandrinus nivosus</i>	Fresh emergent wetland		CWHR
Willet	<i>Catoptrophorus semipalmatus</i>	Fresh emergent wetland	X	LMP
Wilson's phalarope	<i>Phalaropus tricolor</i>	Fresh emergent wetland	X	LMP
Wilson's snipe	<i>Gallinago delicata</i>	Fresh emergent wetland		CWHR
<b>Order Columbiformes - Pigeons and Doves</b>				
Mourning dove	<i>Zenaida macroura</i>	Sagebrush	X	LMP
<b>Order Cuculiformes - Cuckoos</b>				
Greater roadrunner	<i>Geococcyx californianus</i>	Sagebrush, Alkali scrub		CWHR
<b>Order Strigiformes - Owls</b>				
Barn owl	<i>Tyto alba</i>	Sagebrush, Fresh emergent wetland, Bitterbrush		CWHR
Burrowing owl ‡	<i>Athene cunicularia</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Great horned owl	<i>Bubo virginianus</i>	Fresh emergent wetland		CWHR
Long-eared owl ‡	<i>Asio otus</i>	Sagebrush, Bitterbrush		CWHR
Short-eared owl ‡	<i>Asio flammeus</i>	Sagebrush, Bitterbrush, Fresh emergent wetland	X	LMP
Western screech owl	<i>Otus kennicottii</i>	Fresh emergent wetland, Alkali scrub	X	LMP



<b>Order Caprimulgiformes - Goatsuckers</b>				
Common nighthawk	<i>Chordeiles minor</i>	Sagebrush, Bitterbrush, Fresh emergent wetland	X	LMP
Common poorwill	<i>Phalaenoptilus nuttallii</i>	Sagebrush, Bitterbrush		CWHR
Lesser nighthawk	<i>Chordeiles acutipennis</i>	Sagebrush, Bitterbrush, Alkali scrub, Fresh emergent wetland		CWHR
<b>Order Apodiformes - Swifts and Hummingbirds</b>				
White-throated swift	<i>Aeronautes saxatalis</i>	Sagebrush, Bitterbrush	X	LMP
Chimney swift	<i>Chaetura pelagica</i>	Sagebrush, Bitterbrush		CWHR
<b>Order Coraciiformes - Kingfishers</b>				
Belted kingfisher	<i>Megaceryle alcyon</i>	Fresh emergent wetland		CWHR
<b>Order Piciformes - Woodpeckers</b>				
Northern flicker	<i>Colaptes auratus</i>	Sagebrush, Bitterbrush	X	LMP
<b>Order Passeriformes – Perching birds</b>				
<b>Family Tyrannidae (Tyrant Flycatchers)</b>				
Ash-throated flycatcher	<i>Myiarchus cinerascens</i>	Fresh emergent wetland	X	LMP
Black phoebe	<i>Sayornis nigricans</i>	Fresh emergent wetland		CWHR
Cassin’s kingbird	<i>Tyrannus vociferans</i>	Sagebrush		CWHR
Gray flycatcher	<i>Empidonax wrightii</i>	Sagebrush, Bitterbrush	X	LMP
Say’s phoebe	<i>Sayornis saya</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
Western kingbird	<i>Tyrannus verticalis</i>	Sagebrush, Bitterbrush		CWHR
<b>Family Laniidae (Shrikes)</b>				
Loggerhead shrike ‡	<i>Lanius ludovicianus</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
Northern shrike	<i>Lanius excubitor</i>	Sagebrush, Bitterbrush		CWHR
<b>Family Vireonidae (Vireos)</b>				
Vireo	<i>Vireo</i> sp.		X	LMP
<b>Family Corvidae (Corvids)</b>				
Black-billed magpie	<i>Pica hudsonia</i>	Sagebrush, Bitterbrush	X	LMP
Clark’s nutcracker	<i>Nucifraga columbiana</i>	Sagebrush, Bitterbrush	X	LMP
Common raven	<i>Corvus corax</i>	Sagebrush, Bitterbrush,	X	LMP

		Alkali scrub, Fresh emergent wetland		
Piñon jay	<i>Gymnorhinus cyanocephalus</i>	Sagebrush, Bitterbrush	X	LMP
Scrub jay	<i>Aphelocoma californica</i>	Sagebrush	X	LMP
<b>Family Alaudidae (Larks)</b>				
California horned lark ‡	<i>Eremophila alpestris actia</i>	Sagebrush, Bitterbrush	X	LMP
<b>Family Hirundidae (Swallows)</b>				
Bank swallow ‡	<i>Riparia riparia</i>	Sagebrush, Bitterbrush, Fresh emergent wetland		CWHR
Barn swallow	<i>Hirundo rustica</i>	Sagebrush, Bitterbrush, Fresh emergent wetland		CWHR
Cliff swallow	<i>Petrochelidon pyrrhonota</i>	Sagebrush, Bitterbrush, Fresh emergent wetland		CWHR
Northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>	Sagebrush, Bitterbrush, Fresh emergent wetland		CWHR
Tree swallow	<i>Tachycineta bicolor</i>	Sagebrush, Bitterbrush	X	LMP
Violet-green swallow	<i>Tachycineta thalassina</i>	Fresh emergent wetland	X	LMP
<b>Family Paridae ( Tits and Chickadees)</b>				
Juniper titmouse	<i>Baeolophus griseus</i>	Sagebrush	X	LMP
Mountain chickadee	<i>Poecile gambeli</i>	Sagebrush	X	LMP
<b>Family Aegithalidae (Long-tailed tits)</b>				
Bushtit	<i>Psaltriparus minimus</i>	Sagebrush, Bitterbrush	X	LMP
<b>Family Troglodytidae (Wrens)</b>				
Bewick's wren	<i>Thryomanes bewickii</i>	Sagebrush	X	LMP
Marsh wren	<i>Cistothorus palustris</i>	Fresh emergent wetland	X	LMP
Rock wren	<i>Salpinctes obsoletus</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
<b>Family Polioptilidae (Gnatcatchers)</b>				
Blue-gray gnatcatcher	<i>Polioptila caerulea</i>	Sagebrush	X	LMP
<b>Family Turdidae (Thrushes)</b>				
Mountain bluebird	<i>Sialia currucoides</i>	Fresh emergent wetland	X	LMP

<b>Family Mimidae (Thrashers)</b>				
Le Conte's thrasher ‡	<i>Toxostoma lecontei</i>	Sagebrush, Alkali scrub		CWHR
Sage thrasher	<i>Oreoscoptes montanus</i>	Sagebrush, Bitterbrush, alkali scrub	X	LMP
<b>Family Sturnidae (Old World Starlings)</b>				
European starling	<i>Sturnus vulgaris</i>	Fresh emergent wetland	X	LMP
<b>Family Parulidae (Wood Warblers)</b>				
Black-throated gray warbler	<i>Dendroica nigrescens</i>	Sagebrush	X	LMP
Common yellowthroat	<i>Geothlypis trichas</i>	Fresh emergent wetland	X	LMP
<b>Family Thraupidae (Tanagers)</b>				
Western tanager	<i>Piranga ludoviciana</i>	Fresh emergent wetland	X	LMP
<b>Family Emberizidae (Sparrows and Relatives)</b>				
Black-chinned sparrow ‡	<i>Spizella atrogularis</i>	Sagebrush, Bitterbrush		CWHR
Black-throated sparrow	<i>Amphispiza bilineata</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
Brewer's sparrow ‡	<i>Spizella breweri</i>	Sagebrush, Bitterbrush	X	LMP
Chipping sparrow ‡	<i>Spizella passerina</i>	Fresh emergent wetland	X	LMP
Fox sparrow	<i>Passerella iliaca</i>	Sagebrush, Bitterbrush		CWHR
Green-tailed towhee	<i>Pipilo chlorurus</i>	Sagebrush, Bitterbrush		CWHR
Lark sparrow ‡	<i>Chondestes grammacus</i>	Sagebrush, Bitterbrush		CWHR
Lincoln's sparrow	<i>Melospiza lincolnii</i>	Fresh emergent wetland	X	LMP
Sage sparrow	<i>Amphispiza belli</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
Savannah sparrow	<i>Passerculus sandwichensis</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
Song sparrow	<i>Melospiza melodia</i>	Fresh emergent wetland	X	LMP
Spotted towhee	<i>Pipilo maculatus</i>	Sagebrush	X	LMP
Vesper sparrow	<i>Poocetes gramineus</i>	Sagebrush, Bitterbrush	X	LMP
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
<b>Family Cardinalidae (Cardinal Relatives)</b>				
Black-headed grosbeak	<i>Pheucticus melanocephalus</i>	Fresh emergent wetland	X	LMP

<b>Family Icteridae (Blackbirds and Relatives)</b>				
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	Fresh emergent wetland	X	LMP
Brown-headed cowbird	<i>Molothrus ater</i>	Sagebrush, Bitterbrush, Fresh emergent wetland	X	LMP
Red-winged blackbird	<i>Agelaius phoeniceus</i>	Fresh Emergent Wetland	X	LMP
Western meadowlark	<i>Sturnella neglecta</i>	Alkali scrub, sagebrush, bitterbrush	X	LMP
Yellow-headed blackbird ‡	<i>Xanthocephalus xanthocephalus</i>	Fresh emergent wetland	X	LMP
<b>MAMMALS</b>				
<b>Order Soricomorpha – Moles and Shrews</b>				
American water shrew	<i>Sorex palustris</i>	Fresh emergent wetland		CWHR
Dusky shrew	<i>Sorex monticolus</i>	Fresh emergent wetland		CWHR
Inyo shrew	<i>Sorex tenellus</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Merriam's shrew	<i>Sorex merriami</i>	Sagebrush, Bitterbrush		CWHR
Vagrant shrew	<i>Sorex vagrans</i>	Fresh emergent wetland		CWHR
<b>Order Rodentia – Rodents</b>				
Allen's chipmunk	<i>Neotamias senex</i>	Sagebrush, Bitterbrush		CWHR
Belding's ground squirrel	<i>Urocitellus beldingi</i>	Sagebrush, Bitterbrush		CWHR
Botta's pocket gopher	<i>Thomomys bottae</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Brush mouse	<i>Peromyscus boylii</i>	Sagebrush, Bitterbrush		CWHR
California vole	<i>Microtus californicus</i>	Sagebrush, Alkali scrub, Fresh emergent wetland		CWHR
Canyon mouse	<i>Peromyscus crinitus</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Chisel-toothed kangaroo rat	<i>Dipodomys microps</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Common muskrat	<i>Ondatra zibethicus</i>	Fresh emergent wetland		CWHR
Common porcupine	<i>Erethizon dorsatum</i>	Sagebrush, Bitterbrush, Fresh emergent wetland		CWHR
Dark kangaroo mouse	<i>Microdipodops megacephalus</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP

Deer mouse	<i>Peromyscus maniculatus</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
Desert woodrat	<i>Neotoma lepida</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Great basin pocket mouse	<i>Perognathus parvus</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
House mouse	<i>Mus musculus</i>	Fresh emergent wetland		CWHR
Least chipmunk	<i>Eutamias minimus</i>	Sagebrush, Bitterbrush	X	LMP
Little pocket mouse	<i>Perognathus longimembris</i>	Sagebrush, Bitterbrush		CWHR
Long-tailed pocket mouse	<i>Chaetodipus formosus</i>	Sagebrush		CWHR
Long-tailed vole	<i>Microtus longicaudus</i>	Fresh emergent wetland		CWHR
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	Sagebrush, Alkali scrub		CWHR
Montane vole	<i>Microtus montanus</i>	Sagebrush, Bitterbrush		CWHR
Mountain pocket gopher	<i>Thomomys monticola</i>	Sagebrush, Bitterbrush		CWHR
Northern grasshopper mouse	<i>Onychomys leucogaster</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Northern pocket gopher	<i>Thomomys talpoides</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Ord's kangaroo rat	<i>Dipodomys ordii</i>	Sagebrush, Alkali scrub		CWHR
Panamint kangaroo rat ‡	<i>Dipodomys panamintinus panamintinus</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
Piñon mouse	<i>Peromyscus truei</i>	Sagebrush, Bitterbrush	X	LMP
Sagebrush vole	<i>Lemmiscus curtatus</i>	Sagebrush, Bitterbrush		CWHR
Southern grasshopper mouse	<i>Onychomys torridus longicaudus</i>	Sagebrush, Alkali scrub		CWHR
Townsend's ground squirrel	<i>Spermophilus townsendii</i>	Sagebrush, Alkali scrub		CWHR
Western harvest mouse	<i>Reithrodontomys megalotis</i>	Sagebrush, Bitterbrush, Alkali scrub, Fresh emergent wetland		CWHR
White-tailed antelope squirrel	<i>Ammospermophilus leucurus</i>	Sagebrush, Bitterbrush		CWHR
Yellow-bellied marmot	<i>Marmota flaviventris</i>	Sagebrush		CWHR

Yellow-pine chipmunk	<i>Neotamias amoenus</i>	Sagebrush, Bitterbrush		CWHR
<b>Order Chiroptera – Bats</b>				
Big brown bat	<i>Eptesicus fuscus</i>	Sagebrush, Fresh emergent wetland		BCI
California myotis	<i>Myotis californicus</i>	Sagebrush, Bitterbrush, Alkali scrub		BCI
Canyon bat	<i>Parastrellus hesperus</i>	Sagebrush		BCI
Fringed myotis ‡	<i>Myotis thysanodes</i>	Sagebrush, Bitterbrush		CWHR
Little brown bat	<i>Myotis lucifugus</i>	Sagebrush		CWHR
Long-legged myotis ‡	<i>Myotis volans</i>	Sagebrush, Bitterbrush		BCI
Mexican free-tailed bat	<i>Tadarida brasiliensis</i>	Sagebrush, Bitterbrush		BCI
Pallid bat ‡	<i>Antrozous pallida</i>	Sagebrush, Bitterbrush		BCI
Spotted bat ‡	<i>Euderma maculatum</i>	Fresh emergent wetland		BCI
Townsend's big-eared bat ‡	<i>Corynorhinus townsendi</i>	Sagebrush		BCI
Western pipistrelle	<i>Pipistrellus hesperus</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Western small-footed myotis ‡	<i>Myotis ciliolabrum</i>	Sagebrush		BCI
Yuma myotis ‡	<i>Myotis yumanensis</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
<b>Order Lagomorpha – Rabbits and Hares</b>				
Black-tailed jackrabbit	<i>Lepus californicus</i>	Sagebrush, Bitterbrush		CWHR
Desert cottontail	<i>Sylvilagus audubonii</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
Mountain cottontail	<i>Sylvilagus nuttallii</i>	Sagebrush		CWHR
Pygmy rabbit ‡	<i>Brachylagus idahensis</i>	Sagebrush		CWHR
Western white-tailed jackrabbit ‡	<i>Lepus townsendii townsendii</i>	Sagebrush		CWHR
<b>Order Carnivora – Carnivores</b>				
Bobcat	<i>Lynx rufus</i>	Sagebrush, Bitterbrush, Alkali scrub, Fresh emergent wetland		CWHR
American badger ‡	<i>Taxidea taxus</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR

American mink	<i>Mustela vison</i>	Fresh emergent wetland		CWHR
Coyote	<i>Canis latrans</i>	Sagebrush, Bitterbrush, Alkali scrub, Fresh emergent wetland		CWHR
Gray fox	<i>Urocyon cinereoargenteus</i>	Sagebrush, Bitterbrush, Alkali scrub, Fresh emergent wetland		CWHR
Kit fox	<i>Vulpes macrotis</i>	Sagebrush		CWHR
Long-tailed weasel	<i>Mustela frenata</i>	Sagebrush, Bitterbrush		CWHR
Mountain lion	<i>Puma concolor</i>	Bitterbrush		
Raccoon	<i>Procyon lotor</i>	Fresh emergent wetland		CWHR
Ringtail ‡	<i>Bassariscus astutus</i>	Sagebrush, Bitterbrush		CWHR
Striped skunk	<i>Mephitis mephitis</i>	Sagebrush, Bitterbrush, Alkali scrub, Fresh emergent wetland		CWHR
Western spotted skunk	<i>Spilogale gracilis</i>	Sagebrush, Bitterbrush, Alkali scrub		CWHR
<b>Order Artiodactyla – Even-toed Ungulates</b>				
Mule deer	<i>Odocoileus hemionus</i>	Sagebrush, Bitterbrush	X	LMP
Pronghorn	<i>Antilocapra americana</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP
<b>Order Perissodactyla – Odd-toed Ungulates</b>				
Wild Horse	<i>Equus ferus caballus</i>	Sagebrush, Bitterbrush, Alkali scrub	X	LMP

APPENDIX D  
ENVIRONMENTAL REVIEW



Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Land Management Plan for River Spring Lakes Ecological Reserve

Lead Agency: California Department of Fish and Wildlife, Bishop Field Office Contact Person: Alisa Ellsworth
Mailing Address: 787 N. Main Street, Suite 220 Phone: (760) 872-1171
City: Bishop Zip: CA County: Inyo

Project Location: County: Mono City/Nearest Community: Benton, CA
Cross Streets: Highway 120/ River Springs Road (nearest intersection) Zip Code: 93512
Longitude/Latitude (degrees, minutes and seconds): 37 ° 56 ' 1.68 " N / 118 ° 36 ' 37.1 " W Total Acres: 638
Assessor's Parcel No.: 18-260-001, 18-320-006 Section: 24 Twp.: 1N Range: 30E Base: MDBM
Within 2 Miles: State Hwy #: None Waterways: None
Airports: None Railways: None Schools: None

Document Type:

CEQA: [ ] NOP [ ] Draft EIR [ ] Early Cons [ ] Neg Dec [ ] Mit Neg Dec
[ ] Supplemental/Subsequent EIR (Prior SCH No.) Other:
NEPA: [ ] NOI [ ] EA [ ] Draft EIS [ ] FONSI
Other: [ ] Joint Document [ ] Final Document [ ] Other:

STATE CLEARINGHOUSE
Governor's Office of Planning & Research
MAY 11 2016

Local Action Type:

[ ] General Plan Update [ ] Specific Plan [ ] Rezone [ ] Annexation
[ ] General Plan Amendment [ ] Master Plan [ ] Prezone [ ] Redevelopment
[ ] General Plan Element [ ] Planned Unit Development [ ] Use Permit [ ] Coastal Permit
[ ] Community Plan [ ] Site Plan [ ] Land Division (Subdivision, etc.) [X] Other: Mngmt Plan

Development Type:

[ ] Residential: Units \_\_\_\_\_ Acres \_\_\_\_\_
[ ] Office: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_
[ ] Commercial: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_
[ ] Industrial: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_
[ ] Educational: \_\_\_\_\_
[ ] Recreational: \_\_\_\_\_
[ ] Water Facilities: Type \_\_\_\_\_ MGD \_\_\_\_\_
[ ] Transportation: Type \_\_\_\_\_
[ ] Mining: Mineral \_\_\_\_\_
[ ] Power: Type \_\_\_\_\_ MW \_\_\_\_\_
[ ] Waste Treatment: Type \_\_\_\_\_ MGD \_\_\_\_\_
[ ] Hazardous Waste: Type \_\_\_\_\_
[X] Other: Resources Management/ non-development

Project Issues Discussed in Document:

[X] Aesthetic/Visual [ ] Fiscal [X] Recreation/Parks [X] Vegetation
[X] Agricultural Land [X] Flood Plain/Flooding [ ] Schools/Universities [X] Water Quality
[X] Air Quality [X] Forest Land/Fire Hazard [ ] Septic Systems [X] Water Supply/Groundwater
[X] Archeological/Historical [X] Geologic/Seismic [ ] Sewer Capacity [X] Wetland/Riparian
[X] Biological Resources [X] Minerals [X] Soil Erosion/Compaction/Grading [ ] Growth Inducement
[ ] Coastal Zone [X] Noise [X] Solid Waste [X] Land Use
[ ] Drainage/Absorption [X] Population/Housing Balance [X] Toxic/Hazardous [X] Cumulative Effects
[ ] Economic/Jobs [X] Public Services/Facilities [X] Traffic/Circulation [ ] Other:

Present Land Use/Zoning/General Plan Designation:

Resource Management

Project Description: (please use a separate page if necessary)

The River Spring Lakes Ecological Reserve (RSLER) Land Management Plan (LMP) will guide the adaptive management of habitats, species, and programs on the 638-acre property and intends to protect and enhance fish and wildlife values; serve as a guide for appropriate public uses of RSLER; serve as a descriptive inventory of fish, wildlife, and native and nonnative plants and vegetation communities that occur within RSLER; and provide an overview of the property's planned operation and maintenance activities and of the personnel requirements to implement management goals.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

**Reviewing Agencies Checklist**

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".  
If you have already sent your document to the agency please denote that with an "S".

- |  |  |
|--|--|
| <input type="checkbox"/> Air Resources Board                         | <input type="checkbox"/> Office of Historic Preservation                     |
| <input type="checkbox"/> Boating & Waterways, Department of          | <input type="checkbox"/> Office of Public School Construction                |
| <input type="checkbox"/> California Emergency Management Agency      | <input type="checkbox"/> Parks & Recreation, Department of                   |
| <input type="checkbox"/> California Highway Patrol                   | <input type="checkbox"/> Pesticide Regulation, Department of                 |
| <input type="checkbox"/> Caltrans District # _____                   | <input type="checkbox"/> Public Utilities Commission                         |
| <input type="checkbox"/> Caltrans Division of Aeronautics            | <input type="checkbox"/> Regional WQCB # _____                               |
| <input type="checkbox"/> Caltrans Planning                           | <input type="checkbox"/> Resources Agency                                    |
| <input type="checkbox"/> Central Valley Flood Protection Board       | <input type="checkbox"/> Resources Recycling and Recovery, Department of     |
| <input type="checkbox"/> Coachella Valley Mtns. Conservancy          | <input type="checkbox"/> S.F. Bay Conservation & Development Comm.           |
| <input type="checkbox"/> Coastal Commission                          | <input type="checkbox"/> San Gabriel & Lower L.A. Rivers & Mtns. Conservancy |
| <input type="checkbox"/> Colorado River Board                        | <input type="checkbox"/> San Joaquin River Conservancy                       |
| <input type="checkbox"/> Conservation, Department of                 | <input type="checkbox"/> Santa Monica Mtns. Conservancy                      |
| <input type="checkbox"/> Corrections, Department of                  | <input type="checkbox"/> State Lands Commission                              |
| <input type="checkbox"/> Delta Protection Commission                 | <input type="checkbox"/> SWRCB: Clean Water Grants                           |
| <input type="checkbox"/> Education, Department of                    | <input type="checkbox"/> SWRCB: Water Quality                                |
| <input type="checkbox"/> Energy Commission                           | <input type="checkbox"/> SWRCB: Water Rights                                 |
| <input type="checkbox"/> Fish & Game Region # _____                  | <input type="checkbox"/> Tahoe Regional Planning Agency                      |
| <input type="checkbox"/> Food & Agriculture, Department of           | <input type="checkbox"/> Toxic Substances Control, Department of             |
| <input type="checkbox"/> Forestry and Fire Protection, Department of | <input type="checkbox"/> Water Resources, Department of                      |
| <input type="checkbox"/> General Services, Department of             |  |
| <input type="checkbox"/> Health Services, Department of              | Other: _____   |
| <input type="checkbox"/> Housing & Community Development             | Other: _____   |
| <input type="checkbox"/> Native American Heritage Commission         |  |

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**Local Public Review Period (to be filled in by lead agency)**

Starting Date May 12, 2016 Ending Date June 16, 2016

-----  
**Lead Agency (Complete if applicable):**

Consulting Firm: _____	Applicant: _____
Address: _____	Address: _____
City/State/Zip: _____	City/State/Zip: _____
Contact: _____	Phone: _____
Phone: _____	

-----  
**Signature of Lead Agency Representative:** Shirley Tunney, EPM **Date:** 4/19/16

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Notice of Determination

Appendix D

To:
[ ] Office of Planning and Research
U.S. Mail: P.O. Box 3044 Sacramento, CA 95812-3044
Street Address: 1400 Tenth St., Rm 113 Sacramento, CA 95814

[ ] County Clerk
County of:
Address:

From:
Public Agency: California Dept. of Fish and Wildlife
Address: 787 N. Main Street, Suite 220 Bishop, CA 93514
Contact: Alisa Ellsworth
Phone: (760) 872-1171

Lead Agency (if different from above):
Address:
Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2016052030

Project Title: Land Management Plan for River Spring Lakes Ecological Reserve

Project Applicant: California Department of Fish and Wildlife, Region 6

Project Location (include county): 3.5 miles northeast of State Highway 120 in Adobe Valley, Mono County

Project Description:

The River Spring Lakes Ecological Reserve (RSLER) Land Management Plan (LMP) will guide the adaptive management of habitats, species, and programs on the 638-acre property and intends to protect and enhance fish and wildlife values; serve as a guide for appropriate public uses of RSLER; serve as a descriptive inventory of fish, wildlife, and native and nonnative plants and vegetation communities that occur within RSLER; and provide an overview of the property's planned operation and maintenance activities and of the personnel requirements to implement management goals.

This is to advise that the California Department of Fish and Wildlife has approved the above ( [ ] Lead Agency or [ ] Responsible Agency )

described project on 07/18/2016 and has made the following determinations regarding the above (date) described project.

- 1. The project [ ] will [ ] will not] have a significant effect on the environment.
2. [ ] An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA. [ ] A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [ ] were [ ] were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [ ] was [ ] was not] adopted for this project.
5. A statement of Overriding Considerations [ ] was [ ] was not] adopted for this project.
6. Findings [ ] were [ ] were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at: the office location listed above for the lead agency.

Signature (Public Agency): [Signature] Title: Environmental Program Manager

Date: 07/18/2016 Date Received for filing at Governor's Office of Planning & Research

## ENVIRONMENTAL CHECKLIST FORM

### PROJECT INFORMATION

1. Project title: River Spring Lakes Ecological Reserve, Land Management Plan
2. Lead agency name and address: California Department of Fish and Wildlife  
Region 6- Inland Deserts  
3602 Inland Empire Blvd. Suite C-220  
Ontario, CA 91764
3. Contact person and phone number: Alisa Ellsworth, Senior Environmental Scientist  
(760) 872-1173
4. Project location: Mono County
5. Project sponsor's name and address: Same as above
6. General plan designation: Resource Management
7. Zoning: N/A
8. Description of project:

The project is the Land Management Plan (LMP) for the River Spring Lakes Ecological Reserve (RSLER). The purpose of the RSLER is to maintain and enhance wetland habitat values, provide a potential refuge for endangered Owens pupfish, maintain quality habitat for waterfowl and shorebirds, and provide public access for hunting and nature study. The purposes of the LMP are:

  - To guide the adaptive management of habitats, species, and programs described herein to achieve the Department's mission to protect and enhance wildlife values
  - To guide compatible public uses of the property
  - To serve as a descriptive inventory of fish, wildlife, plants, and habitats that occur on or use this property
  - To provide an overview of the property's operations, maintenance, and personnel needed to implement management goals and serve as an aid for annual regional budget preparation and work planning
  - To provide a description of potential and actual environmental impacts and subsequent mitigation that may occur during management
  - To provide the environmental documentation necessary to comply with state and federal statutes and regulation

The LMP consists of the following chapters:

  - I. Introduction
  - II. Property Description
  - III. Habitat and Species Descriptions
  - IV. Management Goals and Environmental Impacts
  - V. Operations and Maintenance Summary
  - VI. Climate Change Strategies
  - VII. Future Revisions to Land Management Plans
  - VIII. References

9. Surrounding land uses and setting (Briefly describe the project's surroundings):  
The River Spring Lakes Ecological Reserve appears on the River Spring 7.5 minute U.S.G.S. quadrangle map. It comprises 637.65 acres at an elevation of 6,480 ft. The area occurs within the Great Basin Physiographic Province and is surrounded by arid brushlands. It is located in Adobe Valley, Mono County, approximately 10 miles northwest of the town of Benton, and 3.5 miles northeast of State Highway 120. Access to the reserve is via the River Spring Lakes Road. RSLER is bordered by Bureau of Land Management (BLM) property on all but the northeast side where it is bordered by the Inyo National Forest (INF). The legal description of the property boundaries are housed at the Department's Inland Deserts Region (Region 6), Bishop Field Office, and in the Lands Inventory files in Sacramento.
  
10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)  
None

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Aesthetics               | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                        |
| <input type="checkbox"/> Biological Resources     | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology /Soils                     |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials      | <input type="checkbox"/> Hydrology / Water Quality          |
| <input type="checkbox"/> Land Use / Planning      | <input type="checkbox"/> Mineral Resources                  | <input type="checkbox"/> Noise                              |
| <input type="checkbox"/> Population / Housing     | <input type="checkbox"/> Public Services                    | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Transportation/Traffic   | <input type="checkbox"/> Utilities / Service Systems        | <input type="checkbox"/> Mandatory Findings of Significance |
| <input checked="" type="checkbox"/> None          |   |   |

**DETERMINATION (To be completed by the Lead Agency)**

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

*Bruce Kinney, EPM*  
Signature

4/19/16  
Date

Bruce Kinney  
Printed Name

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Agency

Inland Deserts - 6  
Region

## EVALUATION OF ENVIRONMENTAL IMPACTS

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significance

<b>I. AESTHETICS</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X
<b>DISCUSSION</b>				
<p><b>a), b), d) No Impact.</b> Adoption and implementation of the proposed LMP would preserve existing native vegetation and natural visual resources, and would not involve the construction of any new buildings or outdoor lighting. Therefore, adoption of the LMP would not adversely affect scenic vistas, views, visual character, or scenic resources, nor would it create light or glare effects.</p> <p><b>c) Less than Significant Impact.</b> Some LMP management tasks would involve minor modifications to the existing landscape (e.g., signage and fencing maintenance and repair). However, LMP adoption and task implementation would improve the overall aesthetic conditions of the RSLER by incorporating protection, management, and enhancement strategies for its natural habitats.</p>				



**II. AGRICULTURE AND FORESTRY RESOURCES.**

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

**DISCUSSION**

**a), b), c), d), and e) No Impact.** The RSLER does not contain lands designated as Prime Farmland or Unique Farmland. None of the RSLER contains Williamson Act contracts. The adoption of the proposed LMP does not prohibit managed grazing for ecological benefit.

### III. AIR QUALITY.

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?				X
e) Create objectionable odors affecting a substantial number of people?				X

#### DISCUSSION

**a), d), e) No Impact.** The project site is located in a remote area far from substantial populations or potentially sensitive receptors. No long term operational emissions are anticipated, no net increase in automobile trips to and from RSLER are expected, nor are objectionable odors expected to affect a substantial number of people as a result of implementing the proposed LMP. Some of the proposed LMP management tasks may involve the temporary use of construction equipment (e.g., installation of signs, habitat revegetation/restoration projects), and therefore may result in the temporary increase of equipment emissions. These would be short-term impacts involving a limited number of construction machines and would not contribute to a cumulative net increase in any pollutants.

**b), c) Less Than Significant Impact.** The LMP suggests evaluating the benefits of prescribed fire as an enhancement/restoration technique. If prescribed burns are implemented, registering with the statewide Prescribed Fire Information Reporting System, coordinating burns with the Great Basin Unified Air Pollution Control District, and preparing and implementing an associated Local Smoke Management Plan would be sufficient to prevent air pollutant emissions from contributing to an air quality violation. As a result, this potential impact of the proposed LMP on air quality would be less than significant.

In addition, prior to implementation of any projects that are consistent with the LMP, CDFW would subject them to CEQA review according to CEQA Guidelines Section 15168, in light of the information contained in this document, to determine if additional CEQA documentation is necessary. The type of CEQA review completed would be determined based on CEQA Guidelines Sections 15162-15164.

<b>IV. BIOLOGICAL RESOURCES</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X
<b>DISCUSSION</b>				
<p><b>a), b), c), d) Less Than Significant Impact.</b> Although implementation of some of the management tasks described in the proposed LMP would have the potential for temporary construction impacts to wildlife and sensitive habitats such as wetlands (e.g., restoration or enhancement activities), it is anticipated that these impacts would not be substantial and that these projects would have a net benefit to wildlife and habitat. Any of these types of activities would be implemented in conformance with regulatory requirements such as CDFW regulations, U.S. Fish and Wildlife Service regulations, State Water Quality Control board regulations, Section 404 of the Clean Water Act, and any applicable plans or ordinances protecting biological resources.</p> <p>The LMP includes habitat preservation and enhancement as primary goals for the protection of both wildlife and their habitat. It also ensures that all actions comply with federal and state Endangered Species Acts (ESA and CESA).</p> <p>In addition, prior to implementation of any projects that are consistent with the LMP, CDFW would subject them to further CEQA review according to CEQA Guidelines Section 15168, in light of the information contained in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA review completed would be determined based on CEQA Guidelines Sections 15162-15164.</p> <p><b>e), f) No Impact.</b> There are no Habitat Conservation Plans, Natural Community Conservation Plans or other local policies that conflict with the adoption and implementation of the plan.</p>				

<b>V. CULTURAL RESOURCES</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?				X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
<b>DISCUSSION</b>				
<p><b>a) Less Than Significant Impact.</b> Although implementation of some of the management tasks described in the proposed LMP would involve minimal land disturbance (e.g., installation of signs, restoration activities), the goals and tasks in the LMP include maintaining the historic cabin onsite to preserve its historic value.</p> <p><b>b), c), d) No Impact.</b> Implementing the LMP will not adversely affect archaeological or paleontological resources, or disturb any human remains.</p> <p>On September 30, 2015, in compliance with PRC § 21080.3.1 and the CDFW Tribal Communication and Consultation Policy, the Department requested a list of Tribes potentially affected by the LMP from the Native American Heritage Commission. Upon receipt of the listed Tribes and their contacts, the Department provided official notification of the LMP to those Tribal contacts, which resulted in no requests for formal consultation on the LMP.</p> <p>In addition, prior to implementation of any projects that are consistent with the LMP, CDFW would subject them to further CEQA review according to CEQA Guidelines Section 15168, in light of the information contained in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA review completed would be determined based on CEQA Guidelines Sections 15162-15164.</p>				

**VI. GEOLOGY AND SOILS**

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				X
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

**DISCUSSION**

**a), c), d), e) No Impact.** LMP implementation will not change the current exposure risk to geologic hazards or expansive soils nor create a substantial risk to lives or property. The LMP does not specifically authorize or make a precommitment to any substantive changes to the Ecological Reserve. With the exception of ongoing restoration and enhancement, and operations and maintenance activities, any substantive physical changes that are not currently approved will require subsequent authorizations.

The LMP does not include construction of septic tanks or alternative waste water disposal systems nor would any be required as a result of the implementation of any of the LMP goals or tasks; therefore, implementation of the LMP would result in no impact.

**b) Less Than Significant Impact.** Implementation of some of the management tasks described in the proposed LMP could involve minimal ground disturbance (e.g., habitat restoration, enhancement or maintenance activities). These activities would be implemented using best management practices designed to minimize soil erosion and/or topsoil loss, and would be conducted in conformance with regulatory requirements regarding soil erosion.

**VII. GREENHOUSE GAS EMISSIONS**

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

**DISCUSSION**

**a), b) Less Than Significant Impact.** The RSLER is located in the Great Basin Unified Air Pollution Control District. The LMP suggests evaluating the benefits of prescribed fire as an enhancement/restoration technique. If prescribed burns are implemented, they will generate greenhouse gas emissions, but the duration and extent of the burns would be limited and localized, and would be implemented in compliance with conditions enforced by the Great Basin Unified Air Pollution Control District. Therefore, implementing the LMP would not generate greenhouse gas emissions that would have a significant impact on the environment or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Further, implementing the goals and tasks of the LMP will most likely lead to an overall reduction in greenhouse gases through habitat preservation, wetland restoration, and subsequent carbon sequestration.

<b>VIII. HAZARDS AND HAZARDOUS MATERIALS</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	
<b>DISCUSSION</b>				
<p><b>a), b), c), d), e), f), g) No Impact.</b> The LMP does not require the routine use, transport or disposal of hazardous materials. Herbicide or pesticide treatments, if needed to control invasive species, would be targeted to avoid unnecessary impacts to sensitive biological resources and conducted by a certified applicator using appropriate safety precautions. The RSLER is not located within a quarter mile of a school; therefore, children will not be exposed to any hazardous materials. There are no public or private airports within two miles of the RSLER; therefore, LMP adoption will not pose any safety hazards to aircraft or people residing or working in the project area. The RSLER is not located on a site that is included on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5. Implementation of the LMP would not interfere with an adopted emergency response plan or emergency evacuation plan.</p> <p><b>h) Less Than Significant Impact.</b> The LMP suggests evaluating the benefits of prescribed fire as an enhancement/restoration technique; however, no specific prescribed burn project has been identified in the proposed LMP. Such a plan that would be consistent with the LMP would be subject to CEQA review in light of the information in this document. The type of additional CEQA review completed would be determined based on CEQA Guidelines Sections 15162-15164.</p>				

**IX. HYDROLOGY AND WATER QUALITY**

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				X
f) Otherwise substantially degrade water quality?				X
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

**DISCUSSION**

**a), c), d) Less Than Significant Impact.** Implementation of some of the management tasks described in the proposed plan (e.g., restoration or enhancement activities) would involve a potential for the discharge of sediments or pollutants and alteration of drainage patterns. However, these projects would be conducted in conformance with regulatory requirements regarding erosion and sediment control, flooding, and water quality protection, and would be implemented with a goal of a net improvement in water quality. In addition, prior to implementation of any projects that are consistent with the LMP, CDFW would subject them to further CEQA review according to CEQA Guidelines Section 15168, in light of the information contained in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA review completed



would be determined based on CEQA Guidelines Sections 15162-15164.

**b), e), f), g), h), i), j) No Impact.** Adoption of the proposed plan would not utilize additional surface or groundwater resources, create or contribute stormwater runoff, construct new buildings or impervious surfaces, or alter existing risks of seiche, tsunami, or mudflow. In addition, prior to implementation of any projects that are consistent with the LMP, CDFW would subject them to further CEQA review according to CEQA Guidelines Section 15168, in light of the information contained in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA review completed would be determined based on CEQA Guidelines Sections 15162-15164.

**X. LAND USE AND PLANNING**

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

**DISCUSSION**

**a), b), c) No Impact.** The proposed LMP would not require any physical changes to an established community, nor would implementation of any activity following LMP adoption physically divide an established community. The goals of the LMP provide for natural resource protection and preservation and require that any projects implemented following adoption of the proposed LMP conform to any habitat conservation plans and natural community conservation plans that may be applicable at that time.

**XI. MINERAL RESOURCES**

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

**DISCUSSION**

**a), b) No Impact.** Implementation of the LMP would not result in resource extraction. The RSLER is not located within a mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan; therefore, the proposed LMP would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or conflict with mineral resource protection plans or result in the loss of a known mineral resource.

<b>XII. NOISE</b>				
<b>Would the project result in:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X
<b>DISCUSSION</b>				
<p><b>a), b), c), d), e), f) No Impact.</b> Although implementation of some of the management tasks described in the proposed LMP could involve the intermittent use of construction equipment (e.g., restoration, enhancement, or maintenance activities) thus temporarily increasing ambient noise, these activities would not result in a substantial increase in ambient noise or groundborne vibration levels above those generated by existing management practices or public uses. Since any increase in ambient noise will be temporary, and due to the isolated nature of the area, people in the vicinity will not be exposed to excessive noise levels or significantly impacted. The RSLER is not located within 2 miles of an airport land use plan or a public airport, or in the vicinity of a private airport. No impact is anticipated to occur.</p>				

**XIII. POPULATION AND HOUSING**

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

**DISCUSSION**

**a), b), c) No Impact.** The proposed LMP would not involve any change in housing nor would it induce growth by the provision of new infrastructure or by the removal of any barriers to growth. Implementation of some of the management goals and tasks may require additional staff hours, but this would not be anticipated to induce a population growth that would require additional housing.

**XIV. PUBLIC SERVICES**

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Fire protection?				X
b) Police protection?				X
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X

**DISCUSSION**

**a), b), c), d), e) No Impact.** Proposed LMP adoption would not require substantial changes to existing public service levels. Implementation of public use and facilities could require minimal increase in staff hours per year by CDFW, but these potential minimal increases do not create the need for new or altered facilities.

<b>XV. RECREATION</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment				X
<b>DISCUSSION</b>				
<p><b>a), b) No Impact.</b> Adoption and implementation of the proposed LMP would not significantly increase the levels of wildlife-dependent recreational use the RSLER area. The number of these recreational users would not exceed the carrying capacity of the natural resources or degrade existing natural features. The proposed LMP does not require construction of any recreational facilities.</p>				

<b>XVI. TRANSPORTATION/TRAFFIC</b>				
<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				X
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?				X
g) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X
<b>DISCUSSION</b>				
<p><b>a), b), c), d), e), f), g) No Impact.</b> There are no predicted increases in RSLER use levels following LMP adoption. No design changes are proposed for current road access, nor are any changes anticipated with traffic patterns; therefore, no traffic hazards are anticipated. Since changes to current traffic levels or patterns are not anticipated, no changes to emergency access or parking would result from plant adoption, and the plan would not interfere with alternative transportation.</p>				



**XVII. UTILITIES AND SERVICE SYSTEMS**

<b>Would the project:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

**DISCUSSION**

**a), b), c), d), e), f), g) No Impact.** The LMP does not include a proposal for additional storm drain facilities, additional water supplies, additional wastewater treatment, or additional solid waste disposal. Adoption of the proposed LMP and implementation of the goals and tasks contained therein would not require the construction of new residences or service-related facilities; therefore, adoption of the proposed LMP would generate no changes to storm drain facilities, additional water supplies, or additional wastewater treatment.

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X

**DISCUSSION**

**a) Less Than Significant Impact.** Adoption of the proposed LMP and implementation of the goals and tasks therein would help preserve and enhance natural resources. Some activities that could be implemented as a result of adoption of the proposed LMP would have a potential for impacts to biological and cultural resources (e.g., restoration or enhancement activities), as described in Sections IV and V above. However, because activities would be conducted following all applicable regulatory requirements, because many of the goals and tasks are designed to have a net benefit to these resources, and because no large scale projects are anticipated which could threaten entire populations or communities, adoption of the proposed LMP would not be anticipated to cause a significant impact to these biological or cultural resources. In addition, prior to implementation of any projects that are consistent with the LMP, CDFW would subject them to further CEQA review according to CEQA Guidelines Section 15168, in light of the information contained in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA review completed would be determined based on CEQA Guidelines Sections 15162-15164.

**b) No Impact.** Adoption of the proposed LMP and implementation of the goals and tasks contained therein would not require any substantial infrastructure improvements or new construction, and any implementation activities would be conducted following all applicable regulatory requirements. In addition, most of the proposed goals and tasks are designed to encourage a net benefit to environmental conditions. Therefore, although there is a potential for some temporary and less than significant impacts to the environment as described above, none of these impacts are anticipated to be cumulatively considerable. In addition, prior to implementation of any projects that are consistent with the LMP, CDFW would subject them to further CEQA review according to CEQA Guidelines Section 15168, in light of the information contained in this document, to determine if additional CEQA documentation is necessary. The type of additional CEQA review completed would be determined based on CEQA Guidelines Sections 15162-15164.

**c) No Impact.** The proposed project is a LMP, with no construction or substantive physical changes proposed. Implementation of the LMP would comply with all applicable laws and regulations. As a result, adoption of the proposed LMP and implementation of the goals and tasks contained therein is not anticipated to have any direct or indirect environmental effects which would cause substantial adverse effects on human beings.

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County of Mendocino*, (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors*, (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

APPENDIX E  
PUBLIC COMMENTS AND DEPARTMENT RESPONSES

Placeholder for public comments and department responses