

CHAPTER 3.7 EXCERPTED FROM:

Ely Proposed Resource Management Plan/Final Environmental Impact Statement



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COOPERATING AGENCIES:

Great Basin National Park
Humboldt-Toiyabe National Forest
Nellis Air Force Base
Nevada Department of Transportation
Nevada Division of Minerals
Nevada Department of Wildlife
Nevada State Historic Preservation Office

Lincoln County
Nye County
White Pine County
Duckwater Shoshone Tribe
Ely Shoshone Tribe
Moapa Band of Paiutes
Yomba Shoshone Tribe



BLM

Ely Field Office / Nevada

3.7 Special Status Species

Special status species are those species for which state or federal agencies afford an additional level of protection by law, regulation, or policy. Included in this category are federally listed and federally proposed species that are protected under the Endangered Species Act, species considered as candidates for such listing by the U.S. Fish and Wildlife Service, BLM sensitive species, and species that are state protected. See **Map 3.7-1** for species locations within the planning area.

In accordance with the Endangered Species Act, the lead agency in coordination with the U.S. Fish and Wildlife Service must ensure that any action they authorize, fund, or carry out would not adversely affect a federally listed threatened or endangered species. In addition, as stated in Special Status Species Management Policy 6840 (6840 Policy) (Rel. 6-121), it is BLM policy "to conserve listed species and the ecological systems on which they depend, and to insure that actions requiring authorization or approval by the BLM are consistent with the conservation needs of special status species and do not contribute to the need to list any special status species, either under the provisions of the Endangered Species Act or other provisions" identified in the 6840 Policy. It also is BLM policy to rely on the Nevada Natural Heritage Program database for current status and distribution records of special status species in the planning area. The Ely Field Office as the lead federal agency for the proposed RMP revision is preparing a Biological Assessment for submittal to the U.S. Fish and Wildlife Service in accordance with Section 7(c) of the Endangered Species Act.

3.7.1 Plant Species

Existing Conditions

A total of 34 special status plant species, including one federally listed as threatened species, are known or suspected to occur in the planning area (see **Table E-1** in Appendix E). These plant species occur in a variety of vegetation communities and in a variety of geographic habitats within the planning area. Many are found on distinctive soil types, such as badlands or gypsiferous soils, or in association with unique vegetation communities, such as riparian areas. Approximately two-thirds primarily are associated with the southern portions of the planning area within Major Land Resource Areas 29 and 30. Approximately half of the planning area's sensitive plants are found within habitat types known in the Mojave Desert and transition zone to the north, such as the salt desert shrub and creosotebush communities. Approximately 50 percent are associated with pinyon-juniper woodland or sagebrush complexes. A small number are known to occur on rock outcrops, ledges, cliffs, and other barren areas. Although a preponderance of these rare plant species are located in hot desert ecological systems, only one is a member of the cactus family.

Federally Listed Species

Ute ladies'-tresses. Ute ladies'-tresses (*Spiranthes diluvialis*) typically inhabits moist, sub-irrigated, or seasonally flooded soils at elevations between 1,800 and 6,800 feet (U.S. Fish and Wildlife Service 1995). A wide variety of soils are inhabitable by the Ute ladies'-tresses including sandy or coarse cobbly alluvium to calcareous, histic or fine-textured clays and loams. Suitable soils can be found in locations such as valley

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bottoms, gravel bars, or floodplains along springs, lakes, rivers, or perennial streams. Sites where Ute ladies'-tresses are known to occur are characterized by short vegetation cover and periodic exposure to disturbances like flooding or livestock grazing.

The Ute ladies'-tresses was listed as federally threatened in 1992. This species does not have designated critical habitat (57 Federal Register 2048). Records document a historic population of Ute ladies'-tresses within the planning area that once occupied a wet meadow adjacent to the Meadow Valley Wash just north of Panaca in Lincoln County (U.S. Fish and Wildlife Service 1995). Heritage data indicates that this population occurred on private land (Nevada Natural Heritage Program 2005a). However, the precision of the mapped coordinates is classified as reliable only to the minute level, and therefore, there is some uncertainty regarding the location record for this species. Despite searches, there were no observations of this population from 1936 (U.S. Fish and Wildlife Service 1995) until 2005 when this or a different populations was rediscovered in the same vicinity (U.S. Fish and Wildlife Service 2006; Fertig et al. 2005). This population is the westernmost known occurrence of this species. The extirpation of several populations in Utah and Colorado caused genetic losses that most likely led to the need for federal protection of this species.

It is estimated that there are approximately 20,000 acres of riparian habitat in the planning area. It is unknown how much of this area is suitable or potential habitat for the Ute ladies'-tresses.

BLM Sensitive Species

The remaining special status species include 33 BLM sensitive species (see Appendix E).

Sunnyside green gentian. The sunnyside green gentian (*frasera gypsicola*) is one of the BLM sensitive species of greatest concern to the agencies and environmental groups. It typically inhabits dry, open areas at elevations between 5,180 and 5,510 feet. A wide variety of soils are inhabitable by the sunnyside green gentian including whitish, alkaline, often salt-crusted or spongy silty-clays. Suitable soils can be found in locations such as calcareous flats and barrens, with little if any gypsum content. Sites where the sunnyside green gentian may occur would be characterized by sagebrush, greasewood, and occasionally barberry and swamp cedar vegetation (Nevada Natural Heritage Program 2005a).

There have been three locations where the sunnyside green gentian has been reported in the planning area. Observations were reported at two sites within Nye County (both in the White River Valley near the White River) and at one site in White Pine County, south-southwest of Lund, Nevada, near White River (Nevada Natural Heritage Program 2005a).

Trends

In general, special status species are those species for which population viability is of concern, based on a current or predicted downward trend in population numbers or density, or habitat capability that would limit a species' distribution. As such, special status species are afforded an additional level of protection by law, regulation, or policy from state and federal agencies.

Little information is available regarding population trends of specific rare plants in the planning area. The current trend within their associated vegetation communities is described in Section 3.5, Vegetation.

Systematic surveys for the federally listed Ute ladies'-tresses in Nevada have been conducted to monitor trends and distribution, but likely remain incomplete. Based on available sampling results from 1997, estimated individual species numbers and estimated area of occurrence is unknown. Species inventory searches were conducted until 1997; however, no populations have been identified since 1936.

Threats to the Ute ladies'-tresses were identified in the U.S. Fish and Wildlife Service's Draft Recovery Plan (U.S. Fish and Wildlife Service 1995). Factors that have affected these populations include urbanization, river or stream damming, population displacement as a result of weed expansion, heavy summer livestock grazing and hay mowing, and agricultural conversion. Threats to the sunnyside green gentian and other BLM sensitive species are considered to be similar to factors identified for federally listed species.

Distribution and occurrence information is available for BLM sensitive species within the planning area (Appendix E). The current trend within their associated vegetation communities is described in Section 3.5, Vegetation.

Current Management

The management of rare plants on BLM-administered lands occurs under existing policy. Under the Endangered Species Act, consultation with the U.S. Fish and Wildlife Service takes place if federally listed plants or their habitat may be affected by an action. The majority of rare plant management in the planning area is conducted in response to proposed disturbance activities. This entails field surveys to identify potential impacts and mitigation measures, as needed. Few, if any, general surveys are conducted for inventory or monitoring.

The Recovery Plan for the federally listed Ute ladies'-tresses orchid does not include specific guidelines for management of potential orchid populations or habitat in Nevada. It does recommend that "some type of population and habitat monitoring should be initiated in each watershed until such time as a complete monitoring plan is designed and implemented," and that "drainages, seeps and springs in ... Nevada should be inventoried" (U.S. Fish and Wildlife Service 1995). General threats to sensitive plant populations in the planning area have been reported to include; illegal collecting, habitat destruction and disturbance associated with resource extraction or utility and road construction, and livestock and wildlife trampling.

Three existing ACECs (Kane Spring, Mormon Mesa, and Beaver Dam Slope) contain sensitive plant species populations. Ten sensitive plant species listed below have been reported as potentially being present in the former Caliente planning area (BLM 1999a). Because the three ACECs encompass a large portion of the former Caliente planning area, it is likely that some of these species would occur within the ACECs. These populations are managed in accordance with the ACEC-specific management prescriptions.

Nye milkvetch (*Astragalus nyensis*)

Utah century plant agave (*Agave utahensis*)

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Cloky pincushion cactus (*Coryphantha vivipara* var. *roseus*)
Cedar Canyon phlox (*Gilia ripleyi*)
Musky phlox (*Phlox gladiiformis*)
Miners compass cactus (*Ferocactus acanthodes* var. *lecontei*)
Meadow Valley sandwort (*Arenaria stenomeris*)
White bearpoppy (*Arctomecon merriamii*)
Threecorner milkvetch (*Astragalus geyeri* var. *triquetrus*)
Sticky buckwheat (*Eriogonum viscidulum*)

3.7.2 Aquatic Wildlife Species

Existing Conditions

The general area encompassing the planning area provides habitat for seven federally listed fish species (Map 3.7-1). Habitat is present on BLM-administered land for three fish species: Big Spring spinedace (*Lepidomeda mollispinis pratensis*) in Upper Meadow Valley Wash (Condor Canyon), Pahrump poolfish (*Empetrichthys latos*) in the Shoshone Ponds Natural Area, and White River springfish (*Crenichthys baileyi baileyi*) in Ash Springs. Habitat for Hiko White River springfish (*Crenichthys baileyi grandis*), Railroad Valley springfish (*Crenichthys nevadae*), Pahrangat roundtail chub (*Gila robusta jordanii*), and White River spinedace (*Lepidomeda albivallis*) is located on private, state, or tribal land that is surrounded by or adjacent to BLM-administered land. The Ely Field Office would be responsible for any actions on public land that potentially could affect habitat for these federally listed species. The listing designation and distribution of these species are described in Appendix E. Except for Big Spring spinedace, the fish species are mainly associated with springs or pool habitats. Critical habitat has been designated for all of the fish species except Pahrangat roundtail chub and Pahrump poolfish. A summary of the occurrence and habitat information for the federally listed species is provided below.

Federally Listed Species

Big Spring Spinedace. Originally, the Big Spring spinedace was collected from the outflow stream of Panaca Spring and its adjacent wet meadow near Panaca, Nevada in Lincoln County (U.S. Fish and Wildlife Service 1993). This population was extirpated from these areas due to habitat modification and nonnative fish species introductions. The present distribution of this species is restricted to a 4-mile section of Upper Meadow Valley Wash called the Condor Canyon reach, which is located northeast of Panaca. The boundaries of the occupied habitat area are defined by perennial flow. A barrier falls at the north end of the canyon, which restricts movement. A second falls exists near the Delmue property, where the 2-foot drop represents an impediment to fish movement rather than a barrier. Previous surveys in Upper Meadow Valley Wash showed that the species occurred throughout most of the canyon. The largest numbers were collected in a plunge pool below the barrier falls near the Delmue property. Critical habitat also was designated for the species in a 4-mile section of Meadow Valley Wash (above and within Condor Canyon) in Lincoln County near Panaca, Nevada (U.S. Fish and Wildlife Service 1985).

The primary constituent elements of designated critical habitat for this species include: 1) clean, permanent-flowing, spring-fed habitat with deep pools and shallow marshy areas along the shore; and 2) the absence of nonnative fishes (U.S. Fish and Wildlife Service 1993). Habitat characteristics of occupied habitat in Meadow Valley Wash pool areas with depths of 1 to 3 feet, moderate to slow stream velocities, undercut banks, and floating aquatic vegetation (U.S. Fish and Wildlife Service 1993). Bottom substrate consisted of clay and gravel (Sigler and Sigler 1987).

Railroad Valley Springfish. This species is native to thermal spring systems in Railroad Valley, Nye County, Nevada (U.S. Fish and Wildlife Service 1996). The Railroad Valley springfish is native to only two areas (Lockes Ranch area and Duckwater areas), both of which are located in Railroad Valley, Nevada. Nine thermal springs have populations of the species, six at Lockes and three at Duckwater. In addition to these populations, there are four springs where this species has been introduced; Chimney Warm Springs (spring and outflow), Hot Creek Canyon (Dugan Ranch), and Sodaville Warm Springs. An introduction at Warm Springs failed. Critical habitat also was designated at the time of listing, which included six springs historically occupied by this species. The locations included the springs along with portions of the outflow streams and marshes, and a 15-meter (50-foot) riparian zone around each of the springs. The springs occur in three locations: 1) Big Warm Spring (T13N, R36E, NE $\frac{1}{4}$ of Section 31, SE $\frac{1}{4}$ of Section 31, and NW $\frac{1}{4}$ of Section 32); 2) Little Warm Spring (T12N, R56E, Section 5); and 3) North Spring, Hay Corral Spring, and Reynolds Springs (T8N, R55E, SW $\frac{1}{4}$ of Section 11, NW $\frac{1}{4}$ of Section 14, SW $\frac{1}{4}$ of Section 14, SE $\frac{1}{4}$ of Section 15, NE $\frac{1}{4}$ of Section 15, and SW $\frac{1}{4}$ of Section 15) (U.S. Fish and Wildlife Service 1996).

Railroad Valley springfish are adapted to survive in spring environments with relatively high water temperatures (86 to 100 degrees Fahrenheit) at the spring source and low dissolved oxygen concentrations (1.5 to 6.0 milligrams per milliliter) (U.S. Fish and Wildlife Service 1996). Constituent elements of designated critical habitat for this species include clear, unpolluted thermal spring waters ranging in temperatures from 84 to 97 degrees Fahrenheit in pools, flowing channels, and marshy areas with aquatic plants, insects, and mollusks. Discharges in occupied springs ranged from <0.6 to 13.5 cubic feet/second (U.S. Fish and Wildlife Service 1996). Most of the discharges were about 0.5 to 3 cubic feet/second. Current is negligible in the spring pools. The degradation of riparian habitats mainly caused by water diversion, overgrazing, and introduction of exotic fish has contributed to the listing status of the species (Nevada Department of Wildlife 2003f).

Hiko White River Springfish. This species occupies pools in Hiko and Crystal Springs in the Pahranaagat Valley, Lincoln County, and has been introduced into Blue Link Spring in Mineral County, Nevada (U.S. Fish and Wildlife Service 1998). This species was extirpated from Hiko Spring in 1967 but reintroduced in 1984. These springs and their associated open outflows were designated as critical habitat for this species in 1985.

Pahranaagat Roundtail Chub. Historically, Pahranaagat roundtail chub occurred in Crystal Spring, Hiko Spring, Ash Spring, and the Pahranaagat River in Lincoln County Nevada (Stein et al. 2001). The present distribution of this species is limited to a small section of Pahranaagat Creek on private land. A new refugium was established for this species in 2004 at the Key Pittman Wildlife Management Area located near Hiko, Nevada. A total of 2,400 individuals were stocked in the former irrigation reservoir that was lined and filled

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with well water. No critical habitat has been designated for this species, although this species was included in a recovery plan for aquatic and riparian species in the Pahranaagat Valley (U.S. Fish and Wildlife Service 1998).

Adult and juvenile fish typically inhabit pools below riffle areas, but adults also utilize deeper water with flow. Chub larvae occur in quiet water near the water's surface and near stream banks. Adult fish exhibit seasonal changes in habitat use, with summer habitat consisting of deeper and slower water in comparison to the spring and winter (U.S. Fish and Wildlife Service 1998).

Pahrump Poolfish. This species was originally called the Pahrump killifish, but it was assigned the common name "poolfish" in 1991. Historically, separate populations occurred in three springs in Pahrump Valley in Nye County. Two of these populations are extinct (Pahrump Ranch and Raycraft Ranch). The Manse Ranch Spring population also disappeared in 1975, but it was transplanted to other sites to provide refugia populations. Presently, introduced populations exist in Corn Creek Springs (Clark County), an irrigation reservoir fed by Sandstone Spring (Clark County), and Shoshone Springs (White Pine County). The Shoshone Ponds Native Fish Refugium in Spring Valley, White Pine County, was established in the 1970s as a cooperative effort between Nevada Department of Wildlife and the Ely Field Office to assist in the conservation and recovery of native fishes (Nevada Department of Wildlife 2003a). It consists of three small spring-fed ponds within a fenced enclosure, and a larger earthen pond (referred to as Stock Pond) located outside of the enclosure. Pahrump poolfish are present in three of the four ponds (North Shoshone, Middle Shoshone, and Stock Ponds). No critical habitat has been designated for Pahrump poolfish, but a recovery plan was prepared in 1980 (U.S. Fish and Wildlife Service 1980).

Habitat for this species consists of shallow thermal springs and their outflow areas. In native springs inhabited by this species, larger individuals also utilized deeper waters in open water areas (U.S. Fish and Wildlife Service 1980). Young fish tend to utilize shallow areas with vegetation. During the breeding period, females seek seclusion in more remote areas of the spring. Fry usually remain near the bottom or adjacent to substrates for protection from predators (U.S. Fish and Wildlife Service 1980).

White River Spinedace. Historically, the White River spinedace occurred in the White River near the confluence with Ellison Creek in White Pine County and below Adams-McGill Reservoir in Nye County (U.S. Fish and Wildlife Service 1994a). Historic distribution also included springs in White County (Preston Big, Cold, Nicholas, and Arnoldson) and Nye County (Flag). The present distribution for this species is limited to Flag Springs and the upper portion of Sunnyside Creek, which includes a series of three springs and stream segment located in the Kirch Wildlife Management Area (U.S. Fish and Wildlife Service 1994a). Critical habitat was designated for three springs and their outflows plus the surrounding land areas at a distance of 15 meters (Preston Big Spring and Lund Spring in White Pine County and Flag Springs in Nye County).

Historically, White River spinedace occupied stream and spring habitats in the northern portion of the White River. The species now persists only in spring habitat. Observations in spring habitat occupied by this species included clear, cool water temperatures; open pools with aquatic vegetation; and bottom substrates consisting of gravel, sand, and mud (U.S. Fish and Wildlife Service 1994a). No information is available concerning habitat used by White River spinedace in riverine areas of the White River.

White River Springfish. Historic and the present distribution of White River springfish are restricted to Ash Springs and its outflow in Pahranaagat Valley, Lincoln County, Nevada. The majority of the population is found in the pool; however, fish occasionally occur in the outflow stream (Tuttle et al. 1990). Designated critical habitat includes Ash Springs (Lincoln County, Nevada), its outflow, and the surrounding land for a distance of 50 feet (U.S. Fish and Wildlife Service 1998).

Constituent elements of the designated critical habitat consist of warm water springs and their outflows and the adjacent riparian area, which provides cover and invertebrate food sources. Specific habitat characteristics in Ash Springs include a relatively large pool (0.2 mile in length) with depths ranging from approximately 1.6 to 6.6 feet. The pool contains dense submergent vegetation and sand and silt bottom substrates. Water temperatures range from approximately 88 to 97 degrees Fahrenheit and the mean discharge is 0.56 cubic feet/second. Adult White River springfish occur at depths ranging from approximately 1.3 to 5.6 feet, but they prefer depths of 3.6 feet or greater. Juvenile fish tend to use shallower water (average of 2.1 feet).

Selected BLM Sensitive Species

Fish. In total, 17 additional BLM-sensitive fish species occur within the planning area (Appendix E). The state-protected and BLM-sensitive fish species lists are the same except for the addition of two BLM-sensitive species (Bonneville cutthroat trout and Meadow Valley Wash speckled dace). All of these fish species are native to Nevada. Bonneville cutthroat trout and the Meadow Valley Desert sucker and some of the dace species (e.g., White River speckled dace and Meadow Valley Wash speckled dace) are found in stream habitats. The other fish species are mainly associated with springs. These species are listed as sensitive by the BLM, meaning that the BLM is mandated to ensure actions authorized, funded, or carried out by BLM do not contribute to the need to list these species as threatened or endangered.

Bonneville Cutthroat Trout. The Bonneville cutthroat trout (*Oncorhynchus clarki utah*) was associated with Lake Bonneville, which covered parts of southern Idaho, eastern Nevada, and western Utah during the late Pliocene. Remaining populations became isolated in remaining headwaters and streams within the Bonneville drainage basin; an estimated 90 percent of these rivers in the basin once had populations of Bonneville cutthroat trout. Historic populations in Nevada were reported in rivers of the east slope of Snake and Goshute ranges, Pilot Peak Range, and Thousand Springs Creek Drainage (U.S. Department of the Interior 1998).

Bonneville cutthroat trout occupy a range of riverine habitats, from rivers in sage-steppe grasslands with herbaceous riparian zones at approximately 3,000 feet above mean sea level to streams with coniferous and deciduous trees at elevations greater than 11,000 feet above mean sea level. Lakes also currently support Bonneville cutthroat trout populations; however, conservation efforts in Nevada have focused on rivers and streams. Populations in Nevada have been observed spawning in late June to early July; spawning is earlier for populations in higher elevations (e.g., May and June in Utah). Fry generally emerge in mid to late summer; males are reproductively mature at 2 years, females at 3 years (Nevada Department of Wildlife et al. 2006).

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Amphibians. Three amphibian species (Columbia spotted frog, northern leopard frog, and southwestern toad) are present in the planning area. The Columbia spotted frog is known to occur in one location on tribal lands immediately adjacent to the planning area—the Spring Creek Flat area (approximately 1.5 miles northeast of the Town of Eightmile, Nevada, on West Deep Creek (Nevada Natural Heritage Program Database 2004). This species utilizes wetland habitats in low elevation shrublands and grasslands within the study area. This population is considered part of the west desert population, which is not a federal candidate at this time. There is a conservation agreement for this species. Records for the northern leopard frog include the Lake Valley and South Spring Valley watersheds in Lincoln County and the Spring Valley watershed in White Pine County (Nevada Natural Heritage Program Database 2004).

Arizona Toad. The Arizona toad (*Bufo microscaphus*), also commonly referred to as the southwestern toad, is found in scattered localities throughout southeastern Utah, southern Nevada, Arizona, and western New Mexico (NatureServe 2006). In Nevada, the Arizona toad is listed as an S2 species by the Natural Heritage ranking system, meaning that its continued presence in the state is imperiled. According to natural heritage records, occurrence of this species in Nevada is primarily limited to Clark and Lincoln counties (NatureServe 2006). Within the planning area, the Arizona toad has been collected in Meadow Valley Wash in Lincoln County, Nevada.

The Arizona toad is primarily nocturnal, preferring to remain underground or under fallen logs and debris in the daytime. The Arizona toad inhabits riparian areas from lowlands near the Colorado River drainage to upland elevations ranging from 600 to 6,000 feet (190 to 1,829 meters) (CaliforniaHerps 2006). It is seen along pools, creeks, and streams bordered by willow and cottonwoods, in low to moderate gradient riverine habitats, and it also is found in cropland/ hedgerow, desert, shrubland/chaparral, conifer woodland, and mixed woodland terrestrial habitats (NatureServe 2006). In the drier portions of its range, it prefers loose gravelly areas of streams and arroyos, and often is seen on the sandy banks of quiet water in other areas (eNature 2006). This toad has been increasingly identified along irrigated cropland and reservoirs. Its breeding season occurs primarily during March to July, and does not seem to be dependent on rainfall; although, at higher elevations, breeding may continue into July or even August (eNature 2006). Its eggs are laid among gravel, leaves, or sticks, on mud or clean sand in shallow ponds, or at the bottom of flowing or shallow, quiet waters of perennial or semi-permanent streams (NatureServe 2006).

Aquatic Invertebrates. In addition, 13 BLM sensitive aquatic invertebrates (i.e., proposed species of concern) are present in the planning area. The invertebrates include the Pahranaagat nauconid bug and 12 springsnails or snails (see Appendix E). The Pahranaagat nauconid lives among aquatic plants in pools and stream reaches in the White River drainage (U.S. Fish and Wildlife Service 1998). Springsnails, a group of mollusks found in perennial springs and seeps, are considered important indicators of spring health and usually are confined to the spring source and a wetted area immediately downstream from the spring. Although systematic surveys and other extensive surveys have not been undertaken, springsnails have been collected during select surveys in springs and seeps at scattered locations throughout the planning area (Table 3.7.1). While springsnails as a whole can exist in a range of extreme habitats, individual populations have been isolated by the distances between springs and seeps, and have become highly specialized to their habitats. Many species exist only in one or two springs, and can tolerate only slight changes in current velocity, substrate size, water temperature, water depth, and temperature (Sada 2005).

Habitat conditions in springs supporting springsnails generally have shown habitat stability, as well as low to moderate discharges (5 to over 30 gallons per minute), stable substrates, and dense growth of aquatic vegetation. Springsnails in the genus *Pyrgulopsis* generally are associated with gravel substrate and flowing water. Species in the genus *Tryonia* occur less frequently in Nevada, and are found along banks in areas with slow current and sand substrate (Hershler 1998; Hershler and Sada 1987; Sada and Herbst 1999).

**Table 3.7-1
Known Springsnail Occurrences in the Planning Area**

County	Watersheds
Nye	Duck Water, Railroad Valley, White River Central
White Pine	Huntington, Steptoe B, Steptoe C, Snake Valley South, Spring Valley, Spring Valley South, White River Central, White River North
Lincoln	Cave Valley, Clover Creek South, Dry Valley Lake, Lake Valley, Meadow Valley Wash North, Patterson Wash, Spring Valley Wash East, Spring Valley Wash West, White River South

Source: Nevada Natural Heritage Database 2004.

Trends

Standardized sampling for federally listed fish species in Nevada has been conducted by the Nevada Department of Wildlife to monitor population trends and distribution (Hobbs et al. 2005, 2004, and 2003; Stein et al. 2001; Stein et al. 2000). Based on available sampling results, population trends are noted in **Table 3.7-2**. Sampling would continue for most of these species where access is available.

Threats to federally listed fish species were identified in the recovery plans (U.S. Fish and Wildlife Service 1980, 1993, 1994a,b, 1996, 1998). Factors that have affected these populations include habitat alterations, water depletions, hybridization, disease, predation, and competition. Habitat alterations have resulted from stream channel changes, overly intense, prolonged, or poorly timed grazing, crop production in adjacent land, and water withdrawals for irrigation and domestic purposes. Introduced nonnative fish species have adversely affected populations of listed fish species due to competition for food and available habitat, transfer of parasites and diseases, and predation. Threats to state-listed and BLM sensitive species are considered to be similar to factors identified for federally listed species. No trend data on these species currently are available.

Habitat conditions in Condor Canyon were adversely affected by a major rangeland fire in 1999. Effects of the fire included loss of riparian vegetation, increased sedimentation from surrounding upland areas, and expansion of emergent vegetation (mostly cattails) into the channel. Tamarisk is expanding in the riparian area but it is not considered severe and could likely be controlled with short-term measures (Hobbs et al. 2003). A Habitat Restoration Plan is being implemented to improve habitat conditions.

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**Table 3.7-2
Summary of Population Sampling for Federally Listed Fish Species**

Species	Years	Sampling Results
Big Spring spinedace	1999-2004	Species is present in the upper portion of Condor Canyon, with the highest densities occurring above Condor Canyon near Delmue Bridge. Population estimates have ranged from 8,984 in 2003 to 2,267 in 2004.
Pahrump poolfish	1989, 1997-2004	Species is present in four ponds in the Shoshone Ponds Native Fish Refugium. Population estimates (without variance statistics) in North Shoshone Pond have ranged from approximately 89 in 2003 to 496 in 2004.
		Population estimates (without variance statistics) in Middle Shoshone Pond have ranged from 1,714 in 1997 to 115 in 2003.
		Population estimates (without variance statistics) in Shoshone Stock Pond have ranged from approximately 6,572 in 2002 to 718 in 2003.
White River springfish	2001 and 2003	Snorkel survey indicated 600 fish present in 2001. Minnow traps captured 10 springfish in 2003. No sampling was conducted in 2002 or 2004.
Hiko White River springfish	1985-2004	Population numbers (without variance statistics) have ranged from approximately 1,000 in 1985 to 6,000 fish in 2000 and then decreased to 853 in 2004.
White River spinedace	1991-2004	Population estimates increased from a low of 40 fish in 1991 to 1,573 fish in 1999. Recent estimates in 2002 were 914 (March) and 1,264 fish (September).
Pahranaagat roundtail chub	1997-2001	Trend in population numbers has declined from 568 fish in 1997 to less than 10 fish in 2002 in a 0.25-mile section downstream of Ash Springs. No recent sampling has been done because of access restriction.
Railroad Valley springfish	1996-2004	Population estimates (without variance statistics) have shown the following ranges in the Lockes Ranch area: North Spring (2,634 in 2000 to 587 in 2004); Hay Corral (5,776 in 1999 to 346 in 2002); Reynolds Spring (983 in 1999 to 2,079 in 2001); Big Spring (500 in 1998 to 4,982 in 2002); and Chimney Spring (1,030 in 1997 to 3,356 in 2002).

Bonneville Cutthroat Trout. Current populations of Bonneville cutthroat trout occupy only a fraction of historic ranges; however, recent conservation efforts are helping to increase population numbers. In the late 1880s through 1920s, Bonneville cutthroat trout were plentiful, occupying an estimated 90 percent of streams within the Bonneville drainage basin. By 1987, populations had declined due to many factors, including alteration of stream channel and riparian habitats, impaired water quality, and competition from introduced species (Nevada Department of Conservation and Natural Resources 2002), and occupied only 12.5 stream miles in Nevada, including Goshute, Hendry's, Hampton, and Pine-Ridge creeks (Haskins 1987). By 1998, distribution had expanded to include Deadman Creek (U.S. Department of the Interior 1998). As of 2006, 13 conservation populations are confirmed in Nevada, inhabiting over 32 miles of riverine habitat (Nevada Department of Wildlife et al. 2006). This represents an increase in occupied habitat of approximately 250 percent over 20 years.

Arizona Toad. The Arizona toad is estimated to be absent from 75 percent of its historic range (NatureServe 2006). This decline is thought to be due to dramatic alterations in riparian corridors throughout the west. These alterations are the results of impoundments, which restrict the flow of stream water, creating quiet waters more favored for breeding by a competing toad species, *Bufo woodhousei*, with which it hybridizes (CaliforniaHerps 2006). A recent survey in Arizona indicated local declines but no obvious major trend. It is estimated that the overall short-term population trend for the species is slightly declining or stable, with an approximate 10 percent fluctuation in the population size and up to a 30 percent decline in the overall species population (NatureServe 2006).

Aquatic Invertebrates. Distribution and occurrence information is available for known populations of BLM-sensitive springsnails within the planning area (Appendix E). However, no systematic or frequent sampling has been conducted for invertebrate species to provide information on trends (Sjöberg 2004). Currently, no springsnails have state protection; however, 58 springsnail species are on the list of Nevada Species of Conservation Priority based on prioritization developed by the Nevada Department of Wildlife (Wildlife Action Plan Team 2006). Maintenance of habitat through protection of springs and their associated stream segments currently are part of management for native spring-dependant species.

Current Management

Management of sensitive aquatic species depends on their listing status. Federally listed species are regulated by the U.S. Fish and Wildlife Service under the Endangered Species Act and managed by the Nevada Department of Wildlife. The Ely Field Office must follow the requirements of the Endangered Species Act to protect the listed species and their habitat. The Ely Field Office also manages their lands to protect Nevada BLM sensitive and State of Nevada listed species as described in BLM Manual 6840. Management guidance for the sensitive fish species is provided in recovery plans and habitat management plans (Table 3.7-3). In addition, the Ely Field Office is involved with Recovery Implementation Teams for the federally listed Pahrnagat Valley fish species, Big Spring spinedace, White River spinedace, and Railroad Valley springfish.

**Table 3.7-3
Management Guidance for Special Status Fish Species**

Species	Plan/Citation
Big Spring spinedace	Big Spring Spinedace Recovery Plan (U.S. Fish and Wildlife Service 1993); Big Spring Spinedace Monitoring and Nonnative Species Control Plan (Nevada Department of Wildlife 1999a); Big Spring Spinedace Recovery Implementation Plan (Draft) (Nevada Department of Wildlife 1999b); Condor Canyon Habitat Management Plan (Guerrero et al. 1989)
Hiko White River springfish, White River springfish, Pahrnagat roundtail chub, White River speckled dace, White River desert sucker	Recovery Plan for the Aquatic and Riparian Species of Pahrnagat Valley (U.S. Fish and Wildlife Service 1998); White River Valley Native Fishes Management Plan (Nevada Department of Wildlife 2000a), Pahrnagat Valley Native Fishes Management Plan (Nevada Department of Wildlife 1999c)
Pahrump poolfish	Recovery Plan Pahrump Killifish (U.S. Fish and Wildlife Service 1980)
Railroad Valley springfish	Railroad Valley Springfish Recovery Plan (U.S. Fish and Wildlife Service 1996); Railroad Valley Springfish Species Monitoring Plan (Nevada Department of Wildlife 2000b)
White River spinedace	White River Spinedace Recovery Plan (U.S. Fish and Wildlife Service 1994a)
Bonneville cutthroat trout	Conservation Agreement and Conservation Strategy for Bonneville Cutthroat Trout in the State of Nevada (Nevada Department of Wildlife 2006)

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3.7.3 Terrestrial Wildlife Species

Existing Conditions

A total of 60 special status terrestrial species (18 mammals, 31 birds, 5 reptiles, and 6 invertebrates) potentially could occur within the planning area. These species and their associated habitats are summarized in Appendix E.

Federally Listed Species

Southwestern Willow Flycatcher. The southwestern willow flycatcher (*Empidonax traillii extimus*) was listed as federally endangered in 1995 (60 Federal Register 10694). The range of this subspecies in Nevada is confined primarily to the southern portion of the state. No designated critical habitat for this subspecies occurs within or near the planning area (62 Federal Register 39129). The final recovery plan for the southwestern willow flycatcher was published in 2002 (U.S. Fish and Wildlife Service 2002b).

Data obtained from the Nevada Department of Wildlife indicate that the southwestern willow flycatcher has been documented at eight known locations in the planning area in Lincoln County. One location occurs at the Pahranaagat National Wildlife Refuge where this subspecies was recorded in 1976, 1979, 1986, 1989, 1990, 1991, 1994, 2004, and 2005. This subspecies also was recorded at Key Pittman Wildlife Management Area where breeding pairs were detected in consecutive years from 1999 through 2005. Breeding pairs also were detected at Crystal Springs in 2002 and near the town of Ash Springs in 1999, 2000, and 2001. Southwestern willow flycatchers were recorded in 1998 at three sites including a site just southwest of the Delamar Mountains in southern Lincoln County, a site south of the East Mormon Mountains in southern Lincoln County, and a site east of the Fortification Range in northern Lincoln County. A southwestern willow flycatcher also was detected at Lower Meadow Valley Wash in southern Lincoln County in 2002 (Nevada Department of Wildlife 2001b, 2002, 2005b, 2006a; SWCA 2005, 2006).

Relative to the planning area, potentially suitable breeding habitat for the willow flycatcher would be limited to riparian shrub and wetland habitat in Lincoln County.

Bald Eagle. The bald eagle (*Haliaeetus leucocephalus*) was downlisted to federally threatened on July 12, 1995, and on August 8, 2007, the bald eagle was delisted by the U.S. Fish and Wildlife Service in the lower 48 states (72 Federal Register 37346-37372). Bald eagles also are protected under the Bald and Golden Eagle Protection Act of June 8, 1940, as amended, and the Migratory Bird Treaty Act of July 3, 1918, as amended June 20, 1936, in all states. The Pacific Bald Eagle Recovery Plan, which includes management guidelines for bald eagles in Nevada, was prepared in 1986 (U.S. Fish and Wildlife Service 1986). No critical habitat for bald eagles has been designated.

No bald eagle nest sites are known to occur within the planning area. The closest nest site to the planning area was documented in 2005, in Ruby Valley, Elko County. As a result, potential occurrence by this species would be limited to migrating and wintering individuals. The robust branches of cottonwoods are preferred habitat for winter roosts although coniferous trees also are used (Herron et al. 1985). Therefore,

potentially suitable roosting habitat for the bald eagle would be limited to approximately 20,000 acres of riparian habitat present on public and private land in the planning area. Cedar Mountain in Newark Valley has been utilized as winter roosting habitat for the eagle in the past; however, there has been no eagle activity at the site for approximately 3 years. Eagles also were observed in 1982 roosting in a stand of large cottonwoods at Bull Creek Ranch in northern Nye County. However, no birds have been observed at these sites within the last few years. Bald eagles are known to roost in the large cottonwoods and willows at the Pahranaagat National Wildlife Refuge during winter months.

Desert Tortoise. The desert tortoise (*Gopherus agassizii*) was listed as federally threatened in 1990 (55 Federal Register 12178). A recovery plan for this species was prepared in 1994 (U.S. Fish and Wildlife Service 1994b). Critical habitat for the Mojave Desert population of the desert tortoise was designated in 1994 (59 Federal Register 5820). Two designated critical habitat units (Mormon Mesa Unit and Beaver Dam Slope Unit) occur within the planning area in southern Lincoln County.

Since the 1994 Desert Tortoise Recovery Plan was approved by the U.S. Fish and Wildlife Service, much new information is available and will likely result in changes to the recovery strategy for the desert tortoise adopted at that time. In 2003, the Desert Tortoise Recovery Plan Assessment Committee was appointed by the U.S. Fish and Wildlife Service to conduct a comprehensive assessment of the Recovery plan. The Desert Tortoise Recovery Plan Assessment Committee consists of a team of scientists with diverse expertise in fields relative to the desert tortoise and its recovery. In 2004, the Desert Tortoise Recovery Plan Assessment Committee completed their assessment and prepared a report of their findings and recommendations. The U.S. Fish and Wildlife Service considers the information in this report relevant in land use planning as well as desert tortoise conservation planning. Currently, efforts are underway to update the Desert Tortoise Recovery Plan as the next step, which is anticipated to be completed in 2007. The Ely RMP must include sufficient flexibility to implement management actions for the desert tortoise and its habitat that will become available in the updated Desert Tortoise Recovery Plan.

The Nevada Department of Wildlife and the Nevada Natural Heritage Program have documented numerous desert tortoise sightings within the planning area. There have been several reports of desert tortoise burrows in the lowlands near the mountains from Ash Springs southward along Pahranaagat Wash to the Lincoln County line. Sites occupied by desert tortoise are scattered throughout southeastern Lincoln County, with areas of concentration occurring along Kane Springs Wash, Meadow Valley Wash, and the region just south of the Tule Springs Hills.

There are approximately 726,000 acres of potentially suitable desert tortoise habitat in the planning area, of which approximately 245,012 acres have been designated as critical habitat for this species in southern Lincoln County. Subsequently, three ACECs (Kane Springs, Mormon Mesa, and Beaver Dam Slope) were designated by the Ely Field Office to assist in the recovery of the desert tortoise within the planning area. These ACECs encompass 203,670 acres or approximately 83 percent of the designated critical habitat for the desert tortoise in the planning area (BLM 2000a) (see **Map 2.4.7-1**).

Major wildland fires occurred across the southern end of the planning area in 2005. The South Desert Complex Fires of 2005 affected approximately 15 percent of the desert tortoise designated critical habitat

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within the planning area, primarily in the southeast corner of the planning area within and north of the Beaver Dam Slope ACEC. A small portion of the burned designated critical habitat occurs in the northeast corner of the Kane Springs ACEC.

Federal Candidate Species

Yellow-billed Cuckoo. The yellow-billed cuckoo (*Coccyzus americanus*) is a federal candidate species that formerly ranged throughout much of North America from southern Canada to northern Mexico (66 Federal Register 38611). However, the yellow-billed cuckoo has suffered population declines primarily due to the loss of streamside habitat and is declining west of the Continental Divide (Biota Information System of New Mexico 2002).

There have been six locations where the yellow-billed cuckoo has been reported in the planning area in Lincoln County. Observations of yellow-billed cuckoo were reported at two sites along Meadow Valley Wash; a breeding pair at one site in 2001 and a single bird at another site in 2002. At Crystal Springs, two breeding pairs were reported in 2001. South of Crystal Springs, individual birds were observed at a fourth site in 2000 and 2002. At another site at Ash Springs, four breeding pairs and additional single birds were reported in both 2000 and 2001 (Nevada Department of Wildlife 2002). In 1979, a single cuckoo was reported by the Nevada Department of Wildlife just south of Beaver Dam State Park in extreme eastern Lincoln County.

Potentially suitable habitat for the yellow-billed cuckoo in the planning area would be limited to approximately 3,100 acres of riparian and wetland.

Selected BLM Sensitive Species

The remaining special status species include 54 BLM sensitive species (18 mammals, 26 birds, 4 reptiles, and 6 invertebrates) (see Appendix E).

Greater Sage-grouse. The greater sage-grouse (*Centrocercus urophasianus*) had been petitioned to be federally listed under the Endangered Species Act as a result of the downward trend of local populations and a reduction of habitat (Conservation Planning Team 2001; U.S. Fish and Wildlife Service 2006). However, the U.S. Fish and Wildlife Service has subsequently determined that protection under the Endangered Species Act is not warranted (70 Federal Register 2244). Greater sage-grouse typically occupy sagebrush communities, breeding in relatively open lek sites (or strutting grounds). Leks are established in open areas, 0.2 to 12 acres in size (Conservation Planning Team 2001). Nesting habitat is characterized primarily by Wyoming big sagebrush communities with a 15 to 38 percent canopy cover and a grass-forb understory (Conservation Planning Team 2001). On average, most nests occur within 4 miles of a lek site; however, nesting habitat may occur at greater distances from a lek site for migratory populations (Connelly et al. 2000). Early brood rearing generally occurs close to nest sites. Optimum brood rearing habitat consists of sagebrush stands that are 16 to 32 inches tall with a canopy cover of 10 to 25 percent and a herbaceous understory consisting of grass and forb species (BLM 2000c).

Summer habitat consists of sagebrush mixed with areas of wet meadows, riparian habitat, or irrigated agriculture fields. As habitat begins to dry up, greater sage-grouse broods move to more mesic habitat such as wet meadows where succulent grasses and insects are still available. In Nevada, greater sage-grouse greatly rely on wet areas for their survival since Nevada normally receives less precipitation than other states (Conservation Planning Team 2001). Fall habitat in northeastern Nevada consists of a mosaic of low-growing sagebrush and Wyoming big sagebrush (see **Map 3.5-4**). It is crucial that sagebrush be exposed at least 10 to 12 inches above snow level for wintering greater sage-grouse (Conservation Planning Team 2001). Sagebrush is the primary food source of adult greater sage-grouse; however, forb species are an important food source in spring and early summer and improve successful reproduction in females. Numerous forb species also enhance nest concealment and relative nest success (Policy Analysis Center for Western Public Lands 2002).

Seasonal habitat for greater sage-grouse is shown on **Map 2.4.7-2** along with the 293 known lek sites within the planning area. Winter habitat for greater sage-grouse, which is considered a priority habitat, occupies approximately 3.8 million acres within the planning area.

Pygmy Rabbit. The pygmy rabbit (*Brachylagus idahoensis*) is a BLM Sensitive Species which occurs throughout most of the Great Basin. However, the distribution and population trends of this species are largely unknown. Although the pygmy rabbit was petitioned for listing under the Endangered Species Act, the U.S. Fish and Wildlife Service determined that the petition did not provide substantial information indicating that listing was warranted (70 Federal Register 29253). In Nevada, the pygmy rabbit is found in alluvial fans, swales in a rolling landscape, large flat valleys, at the foot of mountains, along creek and drainage bottoms, in basins in the mountains, or in other landscape features where soil may have accumulated to greater depths. They are generally found on flatter ground with deep friable soils. These areas generally are associated with vegetation consisting of sagebrush and rabbitbrush (Ulmscheider 2004; Etzelmiller 2003).

Generally, pygmy rabbits burrow in loamy soils deeper than 20 inches. In Nevada, soils are light-colored and friable (Ulmscheider 2004). Burrows are usually found in relatively tall and dense big sagebrush areas where the sagebrush height can vary from approximately 1.5 to 7 feet tall. Sagebrush density also can vary with canopy cover ranging from approximately 15 to 30 percent (Heady et al. [no date]; Roberts 2001). Various subspecies of sagebrush used by pygmy rabbit include Wyoming (*Artemisia tridentata wyomingensis*), mountain (*A. t. vaseyana*), and Great Basin (*A. t. tridentata*). However, pygmy rabbits also may occupy habitat other than that described above (e.g., short sagebrush or lack of sagebrush, and areas with shallow and less friable soils).

Relative to the planning area, 23 pygmy rabbit observations were recorded – 20 in White Pine County and 3 in Nye County (Nevada Natural Heritage Program 2005b). Eighteen of these observations were recorded between 1980 and 2003 and the five remaining records were from pre-1946 observations. The observation locations are irregularly distributed within the planning area.

Raptors. The planning area is home to many types of raptors including hawks, owls, eagles, accipiters, and falcons (Appendix E). Population information for many of the resident species in Nevada is not available,

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and where there is species-specific information, general trends in raptor populations are not consistent. Densities of some raptors such as the short-eared owl fluctuate based on prey availability, but are considered to be adequate for healthy populations. Populations of some species such as the Swainson's hawk have been increasing in Nevada, although surveys indicate they have not reached historic densities. Surveys also indicate populations of other species such as the prairie falcon have continued to decline (Nevada Partners in Flight 1999).

The planning area offers significant habitat for species dependant on sagebrush, salt desert scrub, and pinyon-juniper habitats. The highest densities of ferruginous hawks in Nevada occur within the planning area. Nevada represents a large portion of the basin and range province, which supports 28 percent of the world population of prairie falcons (Nevada Partners in Flight 1999). Prairie falcons nest in cliffs and rock outcrops; other raptors within the planning area may use rock outcrops, trees, or burrows as nesting sites.

Western Burrowing Owl. The western burrowing owl (*Athene cunicularia hypugaea*) is a grassland specialist distributed throughout western North America. The western burrowing owl is protected by the Migratory Bird Treaty Act and is protected under Nevada Revised Statutes 501 and the Nevada Administrative Code 503. The Nevada Natural Heritage Program ranks the species as an S3B, meaning that it has rare and uncommon breeding populations in the state (Klute et al. 2003). Data from the Natural Heritage Program shows no occurrences of the western burrowing owl in the planning area, but confirmed sightings have been documented in the Nevada Breeding Bird Atlas project (Klute et al. 2003)

Western burrowing owl nesting habitat is distinguished by large open areas containing mammal burrows. They use a wide variety of arid and semi-arid environments, with well-drained, level to gently sloping areas characterized by sparse vegetation and bare ground. Little is known about the birds' winter habitat requirements; however, in Nevada, it was observed that burrows used by the birds in the winter were the same as those used during the breeding season (Klute et al. 2003). Throughout its North American range, breeding habitats include native prairie, tame pasture, hayland, fallow fields, road and railway rights-of-ways, and urban habitats. They are dependent on the presence of burrowing mammals, whose burrows are used for nesting and roosting. Western burrowing owls rarely excavate their own burrows, preferring to enlarge or modify existing burrows (NatureServe 2006). Burrowing owls have been sighted throughout the entire state of Nevada, primarily breeding in salt desert scrub, Mojave shrub, and in some sagebrush habitat. They also are known to breed around the fringes of agricultural lands, using crop and pasture lands for foraging during the breeding season. Burrowing owls winter most frequently in the southern half of Nevada but have been recorded throughout the state during all months (Klute et al. 2003).

Bats. The majority of the 23 bat species in Nevada could occur throughout the planning area; 15 of these species currently are identified as BLM Sensitive Species (Appendix E). Of these, the spotted bat is the only state-protected bat species known to occur within the planning area (Altenbach et al. 2002). This species is ranked as S2/S1 within the planning area, indicating continued presence in the state is imperiled (Nevada Natural Heritage Program Database 2006). The spotted bat is designated as BLM and U.S. Forest Service sensitive, and is protected by Nevada State Law.

Most bat species are insectivores; foraging habitat includes areas with supporting insect populations, usually with some association to water. Roost sites vary by season and gender, and commonly are close to foraging habitat. Summer roosts are primarily inhabited by females and their young until the young are independent, approximately 1.5 months after birth. Most bats return to their maternal roost each year. During the period of maternal care, males are thought to have widely-spaced, individual roost sites. Once the young are independent, both sexes generally disperse across the habitat, utilizing individual roost sites in the tree crevices, cavities and cracks in rocks, and crevices in cliffs. In the fall, both males and females begin to congregate at winter roost sites that allow more protection during the cold periods. Mating occurs during the fall, just before hibernation, and fertilization occurs in the spring when the female ovulates. One, and occasionally more, young are born per female, 2 to 3 months later in the maternal roost (Bogan 2000).

Gila Monster. The Gila monster (*Hieloderma suspectum*) is a state protected species in Nevada, but is not federally listed as threatened and endangered. The Nevada Natural Heritage Program also lists this species as an S2, meaning that its continued presence in the state is imperiled. The Gila monster is a large venomous, slow-moving lizard, with a thick body and colorfully beaded skin. The Gila monster ranges from extreme southwestern Utah, southern Nevada, and adjacent southeastern California south through southern Arizona, southwestern New Mexico, and much of Sonora to Sinaloa, Mexico (NatureServe 2006). In Nevada, the Gila monster is found across Clark, southeastern Lincoln, and extreme southern Nye counties (Heindl 2006). According to the most recent Natural Heritage database records, twelve occurrences of the Gila monster have been documented within the planning area, mainly in southeastern Lincoln County.

The Gila monster is found in most habitats throughout its range. It is common in areas with Saguaro cactus and along washes at elevations from near sea level to 4,100 feet. It is limited in its range to regions that receive very little rain during the summer months and that also have mild winters and hot summers (Nevada Department of Wildlife 2006b). The Gila monster inhabits vegetation types that include desert grassland, Mohave and Sonoran desert scrub, and thorn scrub (Sonora). They are less often found in oak or pine-oak woodland habitats (NatureServe 2006). Refuges include spaces under rock, dense shrubs, burrows, or woodrat nests. These sub-surface shelters are important components of their habitat, and certain sanctuaries, particularly in winter, are used with a high degree recurrence, sometimes by multiple individuals simultaneously. Gila monsters are active primarily during the daytime; however, the majority of their life is spent underground. Eggs are laid primarily in July and August. In Arizona, eggs reportedly overwinter underground and, after an incubation period of about 10 months, hatch the following year in late April to early June (NatureServe 2006).

Trends

In general, special status species are those species for which population viability is of concern, based on current or predicted downward trends in population numbers or density, or habitat capability that would limit a species' distribution. As such, special status species are afforded an additional level of protection by law, regulation, or policy from state and federal agencies.

Specific threats to federally listed wildlife species are identified in U.S. Fish and Wildlife recovery plans (U.S. Fish and Wildlife Service 1982, 1986, 1994a,b, 2002b). Factors that have affected these species and their

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habitat include habitat loss or modification, water diversion or depletions, livestock grazing, establishment of invasive nonnative plants, and human disturbance. Threats to state protected species, BLM sensitive species, and U.S. Fish and Wildlife Service species of concern are considered to be similar to those identified for federally listed species.

Greater Sage-grouse. A reduction of overall habitat quality in the sagebrush communities in the planning area is discussed under Habitat Trends in Section 3.6, Fish and Wildlife. Greater sage-grouse populations in Nevada and throughout their range have displayed a substantial downward trend in both numbers and distribution and the greater sage-grouse habitat losses have paralleled the trends in populations (Nevada Department of Wildlife 2003b). Due to population declines throughout their range in the western U.S., including Nevada, the 2001 Nevada Sage Grouse Conservation Strategy was developed to achieve two major goals: 1) create healthy, self sustaining greater sage-grouse populations that are well distributed throughout the species' historic range by maintaining and restoring ecologically diverse, sustainable, and contiguous sagebrush ecological systems and by implementing scientifically sound management practices; and 2) have locally functional, well-informed groups to actively contribute to greater sage-grouse conservation while balancing habitat, bird, and economic considerations (Conservation Planning Team 2001). A total of 293 leks have been identified in the planning area, and based on a 0.25-mile radius for each lek, these total approximately 35,700 acres.

Relative to the planning area, greater sage-grouse currently occur in all of White Pine County, northern Lincoln County, and eastern Nye County. In White Pine County, short-term data from 22 leks indicate an overall downward trend of 8 percent in 2003 following decreases of 26 percent in 2002 and 8 percent in 2001 (Nevada Department of Wildlife 2003b). Harvest questionnaire data for White Pine County showed that the 2005 harvest was slightly below (5 percent) the previous 10-year average and 16 percent below the 2004 level with no recent change in bag limits or season. The Nevada Department of Wildlife estimated the 2006 minimum spring breeding population for the entire White Pine planning area at 8,142 sage grouse, up 13 percent from the 2005 estimate (Mortimore et al. 2006). Survey data from 12 leks counted in 2002 and 2003 in Lincoln County reflect a 5 percent increase in overall attendance over the short term. Although long-term data still are being analyzed, short-term data indicate that breeding populations of greater sage-grouse in the Lincoln County area are stable (Nevada Department of Wildlife 2003b), but are at very low densities. There are no known active leks in that portion of Nye County within the planning area. Many of the historic leks in the planning area are no longer active because of a reduction in the quality of habitat and habitat fragmentation. This has contributed to population declines.

Pygmy Rabbit. The short-term population trends for the pygmy rabbit exhibit declining to rapidly declining populations, with an overall decline of 10 to 50 percent from historic levels. Little information is available on pygmy rabbit population trends; however, the trend for Great Basin shrub steppe habitat is generally downward due to fire, grazing, invasion of exotic annuals, and agricultural conversion, which likely correlates with downward trends for other sagebrush obligate species. Sagebrush cover is critical to pygmy rabbits and sagebrush eradication is detrimental. The overall decline in sagebrush habitat throughout the Great Basin is probably the most significant factor contributing to pygmy rabbit population declines (NatureServe 2006).

Raptors. Population data is available for only a few raptor species within the survey area, exhibiting different trends. Of the species known to nest in Nevada, the Swainson's hawk population decreased by approximately 18 percent between 1966 and 1979, but has shown some recovery; the population recovered 8.5 percent between 1980 and 1996. However, prairie falcon populations consistently declined, losing 11 percent between 1966 and 1996 (Nevada Partners in Flight 1999). Migration surveys in the Goshute Range in eastern White Pine and Elko counties from 1977 to 2001 indicate an overall increase in the number of migrating raptors, although this does not necessarily translate to numbers of nesting birds within the planning area. Of the raptors within the planning area, only ferruginous hawks showed a decline in migration rates from the mid-1990s to 2001 (Hoffman and Smith 2003).

Western Burrowing Owl. Short term population trends of the western burrowing owl exhibit declining populations in Arizona, California, Colorado, Kansas, Nebraska, Nevada, Utah, and Washington. No western states or provinces report increasing burrowing owl populations, and these short term population trends mark a declining to rapidly declining population estimated to be 10 to 50 percent below historic levels (NatureServe 2006). Long term trend analysis predicts a large to substantial decline in the population of up to 50 to 90 percent. The decline in the western burrowing owl population throughout its range is due primarily to threats such as habitat loss and fragmentation as a result of intensive agriculture and urban land development and to habitat degradation resulting from control and extermination of colonial burrowing prairie mammals (NatureServe 2006). In Nevada, local declines are noted where habitat is lost to development at the suburban fringe (Klute et al. 2003).

Bats. While conclusive data indicating bat population declines is not available, it generally is accepted that such declines have occurred. Reproduction is slow, and because many bat species return to historical roost and forage sites every year, conservation for bat populations primarily is associated with protection of foraging habitat and roost sites. Foraging habitat protection includes maintenance of native vegetation and restoration of or mitigation for riparian habitat. Roost sites associated with caves and mines are protected through bat-friendly closure techniques such as gates and fences rather than hard closure techniques such as blasting. Individual roost sites in trees can be maintained through fire and timber management, and sites in cliffs can be protected through management of recreations such as rock climbing (Altenbach et al. 2002).

Gila Monster. Short term trends for the Gila monster exhibit declining populations over most of its range; however, the rate of decline is unknown. The total adult population size is unknown, but is estimated to be at least several thousand, with the Gila monster being fairly common in at least some parts of its range (NatureServe 2006). Population decline in Nevada and elsewhere is mainly due to habitat loss created by urbanization and agricultural uses. In Nevada, illegal collection, restricted range, and limited knowledge and information also have contributed to the population decline (Nevada Department of Wildlife 2006b). Continued road construction and the building of concrete-lined canals have created barriers to the movement of this species, and mortality on roads has increased proportional to the increase in traffic volume (NatureServe 2006).

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Current Management

Management of special status species depends on their listing status. Federally listed species are regulated by the U.S. Fish and Wildlife Service and managed by the Ely Field Office under the Endangered Species Act. The Ely Field Office must follow the requirements of the Endangered Species Act to protect the listed species and their habitat. The Ely Field Office also manages their lands to protect U.S. Fish and Wildlife Service candidate species, Nevada BLM sensitive species, and state listed species as described in BLM Manual 6840. Other management guidance for special status species includes the implementation of recovery plans, biological opinions, plan amendments, and interagency recovery implementation teams. Those recovery plans for terrestrial wildlife species that are applicable to the planning area are the Desert Tortoise Recovery Plan (U.S. Fish and Wildlife Service 1994b), the Pacific States Bald Eagle Recovery Plan (U.S. Fish and Wildlife Service 1986), and the Southwestern Willow Flycatcher Recovery Plan (U.S. Fish and Wildlife Service 2002b).

All special status species are being managed to prevent future listing under the Endangered Species Act. Three ACECs (Mormon Mesa, Kane Spring, and Beaver Dam Slope) encompassing 203,670 acres have been designated in the southern end of the planning area for the protection of desert tortoise. Management prescriptions for the protection of desert tortoise and their habitat within these ACECs include such actions as closure or major restrictions on mineral development over much of the area, removal of livestock grazing, limiting off highway vehicle use to designated roads and trails, limiting authorization of new rights-of-way, limitation of fire management activities, and prohibition of land disposals.

As part of Nevada's conservation strategy, two conservation plans (one for White Pine County and one for Lincoln County) were developed by the local greater sage-grouse planning teams. The goal of these county conservation plans is to develop and implement local monitoring strategies to promote greater sage-grouse conservation.