

# Environmental Assessment

## DOI-BLM-NV-W030-2015-0013-EA

### Fly Canyon Exclosure

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**July 2015**

*Prepared by:*

U.S. Bureau of Land Management  
Winnemucca District Office  
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BLM/NV/WN/EA/15-12+1792

DOI-BLM-NV-W030-2015-0013-EA

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## **1.0 INTRODUCTION**

### **1.1 Identifying Information**

#### **1.1.1. Title, EA number, and type of project**

Title: Fly Canyon Exclosure

EA Number: DOI-BLM-NV-W030-2015-0013-EA

BLM Publication Number: BLM/NV/WN/EA/15-12+1792

Type of project: Wildlife management; protective exclosure

#### **1.1.2. Location of Proposed Action**

The proposed project, located in Township 40 North, Range 24 East, section 35, Mud Meadows, is located on public lands administered by the BLM Winnemucca District, Black Rock Field Office (see Map 1). The project is located approximately 48 miles north-northeast of Gerlach, and approximately 1 mile south of Soldier Meadows Area of Critical Environmental Concern (ACEC) in Humboldt County, Nevada. The proposed project is also located within the High Rock Lake Wilderness (HRLW), designated with the passage of the Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area Act in 2000, and amended 2001.

#### **1.1.3. Name and Location of Preparing Office**

This Environmental Assessment (EA) is being prepared by the following BLM office:

Winnemucca District, Black Rock Field Office  
5100 E. Winnemucca Boulevard  
Winnemucca, Nevada 89445

#### **1.1.4. Identify the subject function code, lease, serial number, or case file number**

Subject Function Code: 6840

#### **1.1.5. Applicant Name**

The proposal is from the Nevada Department of Wildlife (NDOW).

### **1.2 Introduction**

In 1985 the U.S. Fish and Wildlife Service listed the Desert Dace (*Eremichthys acros*) as a federally listed threatened species under the Endangered Species Act (ESA) (see 50 Federal Register 50304). At the time of listing, critical habitat was also listed, that encompasses 50 feet on each side of designated thermal springs and their outflow streams in the area of Soldier Meadows (USFWS 1997).

In 2004, with the issuance of the decision on the *Resource Management Plan for Black Rock Desert-High Rock Canyon Emigrants Trails National Conservation Area and Associated Wilderness, and other Contiguous Lands in Nevada* (BRRMP), the Soldier Meadows Area of Critical Environmental Concern (ACEC) was designated. The designation was based on the presence of the Desert Dace and other sensitive species (BRRMP 2-18).

In 2010, NDOW discovered a separate population of Desert Dace in a geothermal spring in Fly Canyon, located in the HRLW (See Figure 1). This population was unknown at the time the Critical Habitat was designated by the USFWS.<sup>1</sup>



**Figure 1:** Project Area in July 2011



**Figure 2:** Project Area in February 2015

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<sup>1</sup> The USFWS designates Critical Habitat, and is responsible for modifying Critical Habitat designations.

Although the location of the spring is outside of a wild horse and burro Herd Management Area (HMA) or Herd Area (HA), evidence of heavy wild horse use is noted at this location (see Figures 2 - 3). Damage to the spring has become particularly evident over the last year. As this year's precipitation season is coming to an end, and the western United States moves on to the 5<sup>th</sup> year of unprecedented drought, wild horses and burro use of the spring is expected to increase.



**Figure 3:** Horse Use in Project Area February 2015

Cattle also pose a threat to the dace habitat, but are not within the area year-round. Cattle only graze this pasture during specified timeframes, in even years from April 15 to July 15, and in odd years from April 1 to April 30. A permanent enclosure to protect the spring is needed otherwise the population may not survive beyond the summer of 2015, particularly under the current drought conditions.

The population of Desert Dace in Fly Canyon was seen at immediate risk of harm from wild horse and burro use of the spring. NDOW submitted a letter telling the BLM it was an emergency situation on February 25, 2015. On February 27, 2015, the USFWS wrote the BLM also stating the situation constituted an emergency. The WD BLM granted permission for NDOW to construct a fence on March 24, 2015. In conformance with BLM Manual 6340, the BLM completed a Minimum Requirements Decision Guide (MRDG) worksheet (Appendix B). It was determined the proposed action was a necessary action for administration of the wilderness area in order to protect the population of the threatened species. Through the MRDG process, it was determined the proposed methodology of implementation met the minimum necessary to meet the objectives of the proposed action.

The NDOW constructed a pipe-rail fence approximately 75' x 150' around the spring on March

26<sup>th</sup>, 2015, see Figures 4 - 5. This type of enclosure is favored by NDOW because it is more durable than other fence materials, is low maintenance, and would better withstand damage from wild horses. NDOW has used these types of fences for nearly 15 years to exclude wild horses and burros from areas, and the fences were specifically designed to exclude burros, cattle, and horses while leaving the spring accessible to other wildlife.



**Figure 4:** Project Area in May 2015

NDOW used a crew of up to 8 people who walked approximately 1.5 miles to the spring located in the HRLW. This hike included traversing a slope of approximately 19% grade at one point and through approximately .25 miles of riparian meadow.

Based on the MRDG, the use of a helicopter was approved to drop enclosure materials and equipment needed to construct the enclosure. Four helicopter trips were required to drop the materials and equipment. The helicopter did not land in wilderness but delivered materials and equipment through sling loads. NDOW cut posts and rails to the appropriate lengths before delivering them to the project site.

The crew assembled a pipe-rail fence consisting of 24 foot long 1 ½ " galvanized metal pipe on-site. The line and corner posts are made of 1 ½ " galvanized metal. Approximately 150 self-tapping screws were affixed rails to the posts with the use of a cordless drill. Holes for the posts were dug using a manual post-hole digger. The corner posts were buried and cemented in place, with all cement being covered by soil. The crew ensured that no concrete entered the spring system and that all the concrete was contained in the holes it was intended for. The fence was painted an earth-toned color using brushes and rollers. Total construction time was 1 day.



**Figure 5:** Pipe Rail Fence and Desert Dace Habitat May 2015

Environmental protection measures that were used during construction of the fence were:

- 1) A migratory bird nest survey was done before construction of the fence.
- 2) A Class III cultural survey was conducted to insure there were no archaeological sites in the area where the fence was to be built. An archaeological monitor was present when the postholes were being dug.
- 3) After construction the fence was painted in earth-tone colors.
- 4) The number of helicopter flights into wilderness was kept to a minimum.

### **1.3 Purpose and Need for Action**

The purpose of the proposed Fly Canyon exclosure is to authorize a permanent physical barrier to block the Desert Dace habitat in Fly Canyon from use by wild horses and burros, and cattle. As an emergency measure, a pipe and rail fence was placed around the spring on March 27, 2015. The need for the action is established by BLM's responsibility under the Endangered Species Act listing; to support desert dace population management objectives as described in *Recovery Plan for the Rare Species of Soldier Meadows* (USFWS 1997); and under Section 302 of the Federal Land Policy and Management Act of 1976 (FLPMA). Under FLPMA, RMPs direct and guide management of the federally owned lands administered by the BLM. All projects and activities must be consistent with the applicable RMP. The BRRMP contains management objective FW-7 which allows the construction of protective fencing for riparian systems (2-34), and SSS-2, which states: "Actions and stipulations necessary to protect special

status species and their habitats will be made in authorizations and actions that occur during RMP implementation” (2-35).

### 1.3.1 Decision to be Made

The decision BLM would make based on this EA includes the following: 1) whether or not to approve the proposed action to authorize a permanent enclosure within Fly Canyon without modifications 2) approval of the proposed action with additional mitigation measures that are deemed necessary by the BLM; or 3) deny approval of the proposed action if it is not in conformance with the BRRMP and the 2012 Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area Wilderness Management Plan (BRWMP).

### 1.4 Scoping, Public Involvement, Issues

Scoping letters were sent out to wilderness groups, environmental groups, wild horse and burro activists, and the interested public on February 25, 2015 with a 15 day scoping period. The Notice of Proposed Action (NOPA) was sent out to wilderness groups and interested public on March 6, 2015. Consultation with the Summit Lake Paiute Tribe occurred on February 21, 2015. Table 1.1 summarizes the results from internal and external scoping.

**Table 1-1 Scoping, Public Involvement and Issues**

<b>Scoping Topic</b>	<b>Section Addressed</b>
<b>Cultural Resources</b>	
What potential effects does the Proposed Action Have on Cultural Resources?	Table 3-1
<b>Range</b>	
What potential effects does the Proposed Action have on Rangeland Management?	Table 3-2
<b>Wild Horse and Burro</b>	
What potential effects does the Proposed Action have on Wild Horse and Burros?	Table 3-2
Why can't the wild horses and burros be removed from the area?	2.3.6
<b>Wilderness</b>	
What potential effects does the Proposed Action have on Wilderness values?	3.2, 4.1.2, 4.2.4.2
Why does the proposed action require the use of mechanized hand tools?	3.2, 4.1.2, 4.2.4.2
Why is a metal pipe rail fence being used instead of a wood buck and rail type fence?	2.3.1

## **2.0 PROPOSED ACTION AND ALTERNATIVES**

### **2.1 Description of the Proposed Action**

#### **2.1.1. Proposed Action including Location and Access**

The enclosure, as built, would remain in place permanently in order to protect Desert Dace habitat. The enclosure would be accessed by 1-2 people by foot or horseback once to several times per year for effectiveness monitoring and for minor maintenance activities. Minor maintenance activities would be any repair that can be completed with the use of non-mechanized equipment. Major maintenance, removal or replacement of the enclosure would be analyzed under a separate project proposal.

#### **2.1.2. Environmental Protection Measures**

The following environmental protection measures (EPM) are proposed:

1. Access to the enclosure will be on foot, or horseback.
2. NDOW will examine the fence once a year to examine its condition. Any repairs and painting will be performed by NDOW after notifying the BLM.

### **2.2 Description of Alternatives Analyzed in Detail**

#### **2.2.1 No Action Alternative**

Under the No Action Alternative the current fence would not remain there permanently and be removed once the Desert Dace habitat is restored.

### **2.3 Alternatives Considered but not Analyzed in Detail**

#### **2.3.1 Wooden Buck and Rail Fence**

A permanent wooden buck and rail fence was considered but not analyzed in detail. This type of fence would be comprised of natural materials, instead of metal. This type of fence was not considered because it was not considered to be as durable as the pipe rail fence; it was not considered to be as effective at allowing other wildlife access to the spring; and it would require a longer period of time to build. The last factor is normally not a consideration for selecting which tool is the minimum necessary in a wilderness area. In this instance though, the size of the crew and the amount of time work crews would be in the area would impact local wildlife and deter their use of the spring.

#### **2.3.2 Barb wire Fence**

A permanent barb wire fence was considered but not analyzed in detail. Barb wire fences have only limited effectiveness in keeping wild horses out of areas. A barb wire fence would require a high level of maintenance to effectively enclose the Desert Dace habitat.

### **2.3.3 Using Stone for the Enclosure**

A scoping comment suggested using stones to permanently enclose the spring. Using stones large enough to keep wild horse and burros out would require the use of heavy, mechanized equipment. This equipment would damage the riparian area and require reclamation. Building a stone fence would require stone to be hauled into the area, and would also keep most other forms of wildlife from using the spring.

### **2.3.4 Spring Monitor**

A scoping comment suggested having a monitor/range rider to keep the wild horses and burros away from the spring. To be effective, this would require a person to be out in the vicinity of the spring 24 hours a day, seven days a week. This alternative was considered but eliminated since it has no possibility of being a permanent solution.

### **2.3.5 Removal of the Wild Horses and Burros**

Gathering the wild horse and burros in the vicinity of the spring was considered but eliminated. The spring is just south of the Calico HMA. Gathers were previously held in the Calico HMA in 2010 and 2012 to bring the numbers of horses and burros to AML. The HMA is unfenced; there is nothing to prevent wild horses and burros from roaming outside the HMA.

## **2.4 Conformance**

The proposed action described in this Environmental Assessment (EA) is in conformance with the BRRMP. Management Objective FW-7 allows for protective fencing of riparian areas (2-34) and Management Objective SSS-2 states: “Actions and stipulations necessary to protect special status species and their habitats will be made in authorizations and actions that occur during RMP implementation” (2-35).

The BRRMP does not directly address Desert Dace, but does address management objectives for Lahontan Cut-throat trout. Objective 2.2.8H does strive to restore wetland vegetation communities to Properly Functioning Condition (14). Objective GRAZ-6 also allows for rangeland projects “when consistent with achieving Land Health Standards” (36).

The objective for wildlife in the Wilderness Management Plan (WMP) (2012) is to manage wildlife habitat to provide for healthy, viable and naturally distributed wildlife populations with the least amount of environmental disturbance necessary.

## **2.5 Relationship to Laws, Regulations, and Other Plans**

The proposed action in this EA is consistent with the following laws, regulations, and plans:

- The Wilderness Act of 1964 (16 U.S.C. §§ 1131-1136, September 3, 1964, as amended 1978);
- The Federal Land Policy and Management Act of 1976 (43 U.S.C. §§ 1701-1782, October 21, 1976, as amended 1978, 1984, 1986, 1988, 1990-1992, 1994 and 1996);
- The National Environmental Policy Act of 1969 (42 U.S.C. §§4321-4347, January 1, 1970, as amended 1975 and 1994);

- Migratory Bird Treaty Act (U.S.C. §§ 703-712, July 3 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989);
- The Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area Act of 2000 (Public Law 106-554), as amended;
- Management of Designated Wilderness Areas (43 CFR Part 6300); and
- The Endangered Species Act of 1973 (16 U.S.C. § 1531 et seq.)

### 3.0 THE AFFECTED ENVIRONMENT

The BLM is required to consider specific elements of the human environment that are subject to requirements specified in statute or regulation or by executive order. Tables 3-1 and 3-2 outline the elements that must be considered in all environmental analyses, as well as additional resources deemed necessary for evaluation by the BLM. In these tables, marking a resource as “Present/Not Affected” does not necessarily mean that no impacts would occur to that resource, but rather, that impacts to the resource are not expected to be substantial enough to require detailed analysis.

**Table 3-1 List of Supplemental Authorities**

<b>Supplemental Authorities</b>	<b>Not Present</b>	<b>Present Not Affected</b>	<b>Present Affected</b>	<b>Rationale/Comments</b>
Air Quality		X		Although very small quantities of fugitive dust may be produced during construction, dust levels would be similar to those found normally in the area.
Areas of Critical Environmental Concern (ACECs)	X			Resource is not present. Project area is approximately 1 mile south of Soldier Meadows ACEC.
Cultural Resources	X			Resource is not present. A Class III survey was done in proposed project area; no sites were found. The results are documented in Winnemucca District Cultural Report CR 2-3302.
Environmental Justice	X			Resource is not present.
Floodplains	X			Resource is not present.
Historic Trails (Including visual setting)	X			Resource is not present.
Invasive, Nonnative Species	X			Resource is not present.
Migratory Birds		X		The proposed project is located within potential habitat for migratory birds; however, the potential impacts are too small to

<b>Supplemental Authorities</b>	<b>Not Present</b>	<b>Present Not Affected</b>	<b>Present Affected</b>	<b>Rationale/Comments</b>
				measure. Due to the proposed project potentially being installed during migratory bird breeding season, a migratory bird survey was performed before the fence was installed.
Native American Religious Concerns		X		See chapter 6.2 for details regarding Native American consultation. While springs, particular hot springs, are considered sacred to the Northern Paiutes, the proposed action will not directly impact the spring, nor prevent the Northern Paiutes from accessing the spring.
Prime or Unique Farmlands	X			Resource is not present.
Threatened & Endangered Species			X	See chapters 3.1, 4.1.1, and 4.2.4.1
Wastes, Hazardous or Solid	X			Resource is not present.
Water Quality (Surface and Ground)		X		The presence of the fence will not affect the water quality since is being done several feet away from the springhead and bank. The postholes are fairly shallow and would not produce any effect on the groundwater.
Wetlands and Riparian Zones		X		The presence of the fence will not affect the water quality since is being done several feet away from the springhead and bank. The postholes are fairly shallow and would not produce any effect on the groundwater.

<b>Supplemental Authorities</b>	<b>Not Present</b>	<b>Present Not Affected</b>	<b>Present Affected</b>	<b>Rationale/Comments</b>
Wild and Scenic Rivers	X			Resource is not present.
Wilderness			X	See chapters 3.2, 4.1.2, and 4.2.4.2

**Table 3-2 Additional Affected Resources**

<b>Additional Affected Resources</b>	<b>Not Present</b>	<b>Present Not Affected</b>	<b>Present Affected</b>	<b>Rationale/Comments</b>
Fisheries			X	Issues covered under Threatened & Endangered since the fish are a threatened species.
		X		There are multiple (at least 3 springs of similar size, and several smaller seeps) predominately cold water, located in Fly Canyon above the proposed project. Livestock would be able to use the water downstream from the springhead.
Range				Livestock utilize the area on odd years for one month (April) before moving to the next use area. Even years the livestock utilize the area for three months (mid-April to mid-July) before moving to the next use area. For the past two years the livestock operator has been running reduced numbers in this area.

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X

Per the U.S. Geological Survey (USGS) (Coates et al. 2014) Greater Sage-Grouse habitat suitability modeling map, the project area is within Non-Habitat for Greater Sage-Grouse. There are no leks within a minimum of 4 miles of the proposed project. Due to the fact that there is no Greater Sage-Grouse habitat within the project area, Greater Sage-Grouse are being dismissed from further analysis in this EA.

Special Status Species

The proposed project is located within potential habitat for special status species, including year round big horn sheep habitat. The proposed project is short in duration and impacts to special status species are expected to be minimal. There are also at least 3 additional water sources within Fly Canyon that would be available for special status species; therefore special status species (with the exception of Threatened and Endangered species) are dismissed from further analysis in this EA.

Threatened & Endangered Species are analyzed within chapters 3.1, 4.1.1, and 4.2.4.1.

Wild Horse & Burro	X	The proposed project is located about one mile outside of an HMA or HA. Wild horses and burros could still use water downstream from the springhead. There are at least 3 additional water sources (seeps, springs) further up the canyon from the proposed project.
Wildlife	X	The proposed project is located within crucial winter habitat for mule deer and pronghorn antelope. The proposed project is short in duration and impacts to general wildlife are expected to be minimal. There are also at least 3 additional water sources (seeps, springs) further up the canyon from the proposed project that would be available as water sources for general wildlife. General wildlife, including mule deer and pronghorn antelope are not affected by the proposed action and are dismissed from further analysis.
Visual Resource Management	X	See chapters 3.3, 4.1.3, and 4.2.4.3

### Supplemental Authorities

#### 3.1 Threatened & Endangered Species

BLM is required by the Endangered Species Act of 1973, as amended to ensure that no federal action jeopardizes a threatened, endangered, or proposed species. A species list was requested from the United States Fish and Wildlife Service (USFWS) for the proposed project area, per their online version (2-19-2015; <http://ecos.fws.gov/ipac/>).

The Nevada USFWS responded on February 19, 2015 with an electronic version of an official species list. The species list showed the following listed species which may occur within the project area:

**Lahontan cutthroat trout** (*Oncorhynchus clarkii henshawi*) a threatened species,  
**Desert dace** (*Eremichthys acros*) a threatened species and critical habitat designated,  
**Greater sage-grouse** (*Centrocercus urophasianus*) a candidate species, and  
**Whitebark pine** (*Pinus albicaulis*) a candidate species.

Using information provided on the USFWS website, from the Nevada Natural Heritage Program (NNHP), and the U.S. Geological Survey (USGS) 2014 Greater Sage-Grouse habitat suitability modeling map, only desert dace occur within the project area, while the Lahontan cutthroat trout, Greater sage-grouse, and Whitebark pine are not within the project area and will be dismissed from further analysis.

**Assessment area:**

The Assessment Area for Threatened & Endangered Species includes the spring in fly canyon and 50 feet on each side of the spring and outflow streams. The 50 foot buffer is what was used in defining critical habitat at the time of listing for desert dace. The Assessment Area encompasses approximately 4.85 acres.

**Desert dace (Threatened)**

Desert dace, (*Eremichthys acros*), a federally listed threatened fish species since 1985 (50 Federal Register 50304), is the only member of the *Eremichthys* genus and, at the time of listing, was considered to be endemic to the Soldier Meadows area. Desert dace occupy a variety of habitats in Soldier Meadows, including spring pools, spring outflow streams, alkali marsh areas, and earthen irrigation ditches. They have the highest temperature tolerance of any minnow in western North America (Nyquist 1963) and occupy habitats that vary in temperature from 64 °F to 104 °F. Water temperature is a determining factor in desert dace distribution within a spring system. Cooler habitats (73 °F to 84 °F) downstream of springheads generally have the highest fish densities. At the time of listing in 1985, critical habitat was also listed, that encompasses 50 feet on each side of designated thermal springs and their outflow streams (USFWS 1997).

In 2010 Nevada Department of Wildlife (NDOW) discovered a separate population of Desert Dace in a geothermal spring in Fly Canyon, located in the High Rock Lake Wilderness. This population of Desert Dace is believed to be a separate genetic population than those found in the Soldier Meadows ACEC. The population in Fly Canyon is at immediate risk of harm from wild horse and burro use of the spring (see Figures 2-3) This is in part due to continuing drought conditions which are impacting water sources for wild horses and burros. Moving the dace population to another spring out of the wilderness would not be possible. An enclosure to protect the spring was needed to protect the population which may not have survived this year, particularly under the current drought conditions.

### **3.2 Wilderness**

The Wilderness Act of 1964 (Wilderness Act) defines wilderness as an area of undeveloped Federal land retaining its primeval character and influence without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable. The Wilderness Act mandates that wilderness areas be administered for the use and enjoyment of the American people in such a manner as will leave them unimpaired for future use and enjoyment as wilderness. The BLM is to provide for the protection of wilderness character while administering these areas for other purposes for which the area was designated as a wilderness, including for the purposes of conservation.

Management of activities within wilderness areas is guided by designating legislation, regulations, policies, and local plans. The HRLW was designated with the passage of the Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area Act (2000) (Amended 2001) (NCA Act). The recommendation for wilderness was, in part, due to exceptional naturalness and a complex of important wildlife values.

The NCA Act provides that nothing in the Act diminishes the jurisdiction of the State of Nevada with respect to fish and wildlife management (Sec. 8(c)). The BLM may authorize use of wilderness areas to carry out the purposes of the Wilderness Act or other Federal statutes. (43 CFR6303.1). Actions that impair one or more qualities of wilderness character may be allowed under certain limited circumstances. (BLM Manual 6340 Sec. 1.6 A.6.a.iii.). To protect threatened species, necessary actions, including habitat manipulation and special protection measures, may be implemented in wilderness to a degree greater than for unlisted species. Wilderness impairing actions must be necessary for the protection or recovery of the species. (BLM Manual 6340 Sec. 1.6 C.21.c.iv.)

Plan conformance with the BR RMP and WMP is addressed in section 2.4 above. One of the assumptions described in the WMP is that an aspect of preserving the wilderness areas' natural primeval character involves the maintenance of healthy, viable and naturally distributed wildlife populations. Over the life of this plan it may be necessary to implement wildlife management activities to prevent degradation to and enhancement of threatened and endangered species.

The HRLW is approximately 59,107 acres. The southern boundary is located about 35 miles north of Gerlach, Nevada. The area is bounded by Soldier Meadows Road to the east and private property to the north. Two-track roads separate this unit from the Little High Rock Canyon Wilderness on the west and the Calico Mountains Wilderness on the south. In 1987 "several range improvements, including fencelines, developed springs and a small reservoir, are located near the edge of the unit." (BLM 1987). At the time the WMP was completed, approximately 11 miles of range improvement fences, two developed springs, and an approximately 3 mile pipeline were located within the HRLW. In 2003 approximately .75 miles of fence was installed in the HRLW to protect the Soldier Meadows Area of Critical Environmental Concern (ACEC) located just to the north of the wilderness unit (BLM 2003). NDOW has installed 5 water developments in this wilderness area. Of these developments, only the Soldier Meadows ACEC fence is located in the immediate vicinity of Fly Canyon.

The HRLW contains bighorn sheep, pronghorn antelope and mule deer habitat. Supplemental features of this wilderness unit include visible remnants of the Applegate-Lassen Trail, paleontological sites, wild horses, and the Fly Canyon potholes (large holes in bedrock carved by whirlpools). Fly Canyon is one of two large canyons in the northern tip of the wilderness unit. A detailed description of the HRLW can be found in the Winnemucca Wilderness Recommendations Final Environmental Impact Statement (1987), the Nevada Statewide Wilderness Report (1991), the EIS associated with the BR RMP (2003), and the EA associated with the Wilderness Management Plan (WMP) (DOI-BLM-NV-W030-2011-0001-EA).

Assessment area:

The assessment area for direct and indirect effects in this analysis is the HRLW.

#### Additional Affected Resources

### 3.3 Visual Resource Management

Scenic quality is a measure of the visual appeal of a parcel of land. Section 102(a)(8) of FLPMA placed an emphasis on the protection of the quality of scenic resources on public lands. Section 101(b) of the NEPA of 1969 required that measures be taken to ensure that aesthetically pleasing surroundings be retained for all Americans. To ensure that these objectives are met, the BLM devised the Visual Resource Management (VRM) System. The VRM system provides a means to identify visual values, establish objectives for managing these values, and provide information to evaluate the visual effects of proposed projects. The inventory of visual values combines evaluations of scenic quality, sensitivity levels, and distance zones to establish visual resource inventory classes, which are “informational in nature and provide the basis for considering visual values in the land use planning process. They do not establish management direction and should not be used as a basis for constraining or limiting surface disturbing activities” (BLM 1986). VRM classes are typically assigned to public land units through the use of the visual resource inventory classes in the BLM’s land use planning process. One of four VRM classes is assigned to each unit of public lands. The specific objectives of each VRM class are presented in Table 3.171.

Table 3.3: BLM Visual Resource Management Classes Class Description

Class	Description
I	The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
II	The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any change must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
III	The objective of this class is to partially retain the existing character of the landscape. The level of change to the character should be moderate. Management activities may

	attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
IV	The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. Management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.
Source: BLM 1986	

Assessment area: the assessment area for direct and indirect effects is the HRLW.

## **4.0 ENVIRONMENTAL CONSEQUENCES**

The following site-specific analysis analyzes the proposed action and no action alternative.

### **4.1 Direct and Indirect Impacts**

#### **4.1.1 Threatened & Endangered Species**

##### *Proposed Action*

A permanent pipe rail fence would protect the head of the spring which the desert dace are found in, which is approximately 0.08 acres or 1.65% of the assessment area. Installation of the pipe rail fence had discountable negative effects to desert dace due to the short term duration of the fence construction. Potential effects which could have occurred are: 1) a temporary increase in sedimentation in the spring from digging holes for the five corner posts near the spring and outflow; and 2) chemical contamination of the spring from the concrete or paint used in the installation of the fence. The possible effects to the desert dace are discountable due to the corner posts and fence being at least 30 feet from the spring and outflow.

A permanent enclosure is intended to prevent the unique population of desert dace from being extirpated in the summer 2015 and beyond. Beneficial effects from the permanent enclosure would be the reduction of livestock and wild horse and burros use of the spring, which would reduce the short and long-term effects of streambank trampling, increased sedimentation, and reduced vegetation cover around the spring.

##### *No Action*

The No Action Alternative would result in a permanent enclosure not being installed, which would allow for future use of the spring by livestock and wild horses and burros. With the lack of a physical barrier to block the spring's use, the desert dace would still be at risk of extirpation and the unique population may not survive beyond the summer of 2015.

#### **4.1.2 Wilderness**

Actions within wilderness are evaluated on the basis of their possible direct and indirect impacts on wilderness characteristics: untrammled, natural, undeveloped, opportunities for solitude or primitive and unconfined recreation. Wildernesses character may also be based on unique or supplemental features such as the presence of threatened or endangered species.

##### *Proposed Action*

Minor trammeling occurred during the installation of the enclosure in the form of directing larger wildlife and wild horses to water at different locations. This effect continues to a lesser degree due to the continued presence of the fence. Larger animals can access the water that flows from the spring outside of the fence, but are no longer able to access the spring itself. Smaller wildlife (rabbits, coyotes, pronghorn) would continue to have access to the spring by going under the enclosure. This effect is limited to the immediate area as there are several other springs in the

vicinity that are not dace habitat and that can provide water. Other than that, the permanent enclosure itself does not manipulate or control any natural feature.

The presence of the metal enclosure, whether temporary or permanent, impacts the natural setting. However, the enclosure provides protection to the Desert Dace habitat. The pipe rail fence is resistant to damage caused by wild horses, and requires a low level of maintenance. Because the pipe rail was painted to blend in with the surroundings, the visual impact to the naturalness setting is reduced. With the EPM, this situation will continue if the proposed action is permitted.

The use of the helicopter is considered a development. This impact was temporary and limited to the times of equipment drops. Use of mechanized equipment, like a cordless drill, also impacted the undeveloped character of the wilderness. This impact was of a limited time and had intermittent effects only when the equipment was used. These effects were temporary; permitting the fence to remain permanently in wilderness would not increase the duration of these effects.

Opportunities for primitive recreation would not be impacted by the proposed action. Solitude was temporarily interrupted by the sights and sounds associated with the use of the helicopter. Noise associated with the construction of the enclosure had a temporary impact on solitude during the time of construction. The permanent presence of the enclosure would have a long term impact to the sense of solitude as it would be a reminder of human presence. Painting of the enclosure in earth tones camouflages the feature from visitors and maintaining this coloring would continue this mitigation effort.

No impacts are anticipated to the HRLW's supplemental features (the Emigrant Trail and the Fly Canyon potholes). The proposed permanent enclosure is located within the canyon and would not be visible from either the Emigrant Trail or the potholes. The discovery of Desert Dace in Fly Canyon adds to the supplemental values for the HRLW. Not only due to its listing as a threatened species, but also because of the potential scientific value that may come from studying this population. The proposed action would protect and preserve this component of the HRLW.

#### *No Action*

Under the no action alternative, at some point in the future, the enclosure would be removed. This action would require a separate MRDG worksheet to be completed to determine what tools or activities would be the minimum necessary to complete the task. Solitude would be temporarily interrupted. The natural setting would be restored after the removal of the enclosure.

The Desert Dace and its habitat in Fly Canyon would no longer be protected when the enclosure is removed. This could result in the extirpation of this species at this location if wild horses and burros return to the area.

Additional Affected Resource

### **4.1.3 Visual Resource Management**

#### *Proposed Action*

The completed Contrast Rating form is in Appendix A. The project has added vertical and horizontal lines into the landscape which, because of the minimal vegetation, is noticeable to visitors in the area. Vegetation along the bounds of the project site consists of scattered low to medium height sage brush and low (minimal height) grasses which will provide little to no screening to break up the overall shape of the project. This will last for however long the fence is in place.

However, there are some extenuating circumstances with this project. The location of the project is approximately 0.5 miles from the boundary of the wilderness. The site itself cannot be seen from the boundary of the wilderness so it will not attract undue attention. It is only when visitors are traversing into the wilderness along the old two track in the canyon that the project is seen.

Keeping the fence painted in earth tone colors would also help reduce its visibility on the landscape.

#### *Recommended Mitigation*

There is no BLM recommended mitigation.

#### *No Action*

Under the No Action alternative, after an unspecified number of years, the fence would be removed. The undeveloped nature of Fly Canyon would be restored, but the Desert Dace habitat and population could be impacted by wild horse and burros, and cattle.

## **4.2 Cumulative Impacts**

The Council on Environmental Quality (CEQ) regulations that implement NEPA define a cumulative impact as: “The impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions.” Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

### **4.2.1 Assumptions for Cumulative Analysis**

The cumulative effects analysis included in this section is based on the Proposed Action which would result in an enclosure within Fly Canyon. The enclosure would remain in place for perpetuity (see Chapter 2.1).

The cumulative assessment area for Threatened & Endangered species is the Fly Creek sub-watershed. The area consists of approximately 13,622 acres of which 12,699 acres are public lands and 923 acres are private lands. The cumulative assessment area for Wilderness and VRM is the HRLW.

#### **4.2.2 Past and Present Actions**

On the basis of aerial photographic data, BLM Legacy Rehost 2000 database (which records lands and mineral actions) reports ran in March 2015, agency records and current agency GIS records and analysis, the following past and present actions, which have impacted the assessment area to varying degrees, have been identified:

General past and present actions in the CESA boundaries include livestock grazing, wildlife management, rangeland fences, and recreation. Fire history show there has not been wildfire documented within the CESA boundaries from 1900 to present. The WMP was implemented in 2012.

#### **4.2.3 Reasonably Foreseeable Future Actions**

Livestock grazing, wildlife management activities, and recreation in the CESA boundaries are anticipated to continue at levels equivalent to recent history. Although fire history shows there has not been wildfire documented within the CESA boundaries, there is still the likelihood wildfire could occur within these areas. Wilderness management is expected to continue under the guidance of the WMP into the foreseeable future.

#### **4.2.4 Cumulative Impacts to Affected Resources**

Impacts associated with past, present, and reasonably foreseeable future actions are generally created by ground or vegetation-disturbing activities that effect natural and cultural resources in various ways. Of particular concern is the *accumulation* of these impacts over time. This section of the EA considers the nature of the cumulative effect and analyzes the degree to which the proposed action and alternatives contribute to the collective impact.

##### **4.2.4.1 Threatened & Endangered Species**

###### Relevant CESA:

The cumulative assessment area for Threatened & Endangered species is the Fly Creek sub-watershed. The area consists of approximately 13,622 acres of which 12,699 acres are public lands and 923 acres are private lands. There is approximately 18.8 acres of desert dace habitat within the CESA, due to a portion of the Soldier Meadows Area of Critical Environmental Concern (ACEC) being in part of the CESA.

###### Impacts from Past and Present Actions:

Past and present actions have impacted desert dace habitat in different ways. Designation of the Soldier Meadows ACEC, development of the Recovery Plan for the Rare Species of Soldier Meadows (FWS 1997), implementation of the Soldier Meadows Recreation Management Plan (BLM 2004), and installation of fish barriers and instream structures within the ACEC (BLM 2009) has helped protect desert dace habitat from grazing, predatory fish, and mismanaged recreation. Other past actions that have impacted desert dace habitat include cattle and perissodactyl use around desert dace critical habitat not protected within the ACEC and the

diversion of water from the desert dace habitat for other uses has degraded the desert dace habitat.

Impacts from RFFAs:

The amount of land that could be subject to wildfire within the reasonably foreseeable future within the CESA cannot be quantified. Recreation is expected to continue in the CESA, with recreationists using the hot springs which contain desert dace habitat. Continued cattle and perissodactyl use of desert dace habitat not protected by the ACEC is expected to continue in the future.

Cumulative Impacts:

*Proposed Action*

The Proposed Action would protect approximately 0.08 acres of desert dace habitat within the CESA. The Proposed Action would protect the desert dace habitat by preventing livestock and wild horse and burro use of the exclosed area. Cumulatively, the Proposed Action would be an additional protection measure for the desert dace habitat to the existing measures already in place (as described above in the “Impacts from Past and Present Actions”). The proposed action would circumvent past actions that have degraded the desert dace habitat within Fly Canyon and would result in protection of the desert dace habitat for the foreseeable future.

*No Action Alternative*

The No Action Alternative would only allow for temporary protection from continued cattle and perissodactyl use of the spring and desert dace habitat within Fly Canyon. Removal of the fence would not provide permanent protection to the desert dace.

**4.2.4.2 Wilderness**

Relevant CESA:

The cumulative assessment area for wilderness would be the entire HRLW (59,107 acres). There are no private in-holdings and the entire wilderness unit is comprised of public lands. However, there are several edge-holdings along the wilderness border.

Impacts from Past and Present Actions:

Rangeland management and wildlife management developments were in place prior to the area being designated as wilderness. Approximately .75 miles of fence were installed in 2004. This equates to approximately 11 miles of linear developments and 8 non-linear features that have impacted, and continue to impact, the untrammled, undeveloped, natural, and opportunities for solitude characteristics of the HRLW.

Impacts to wilderness areas from recreational activities are normally trespasses due to visitors traveling off designated routes with motorized vehicles. To date, monitoring records indicate this has not occurred in the HRLW unit.

Impacts from RFFAs:

Rangeland management and wildlife management developments and the Soldier Meadows ACEC fence are anticipated to remain in the area for the foreseeable future. No new developments, other than the proposed action, are anticipated. Existing developments are anticipated to continue impacting the untrammeled, undeveloped, natural, and opportunities for solitude characteristics of the HRLW at current levels.

Cumulative Impacts:

*Proposed Action*

Leaving the enclosure in the HRLW would incrementally add approximately .06 miles of development to the impacts associated with past, present and RFFAs. Cumulative impacts to the untrammeled, undeveloped, natural, and opportunities for solitude characteristics of the HRLW would increase accordingly.

*No Action Alternative*

The No Action Alternative of removing the enclosure would result in no permanent cumulative impacts to the untrammeled, undeveloped, natural, and opportunities for solitude characteristics. However, the supplemental value added by the presence of the Desert Dace would be eliminated due to habitat damage that would result if the spring were not protected.

**4.2.4.3 Visual Resource Management**

Relevant CESA:

The cumulative assessment area for VRM would be the entire HRLW (59,107 acres). This area includes the NHT view-shed and is managed as VRM Class I.

Impacts from Past and Present Actions:

Constructed features associated with rangeland, wildlife and ACEC management have impacts to the visual setting of the assessment area. These impacts are minor and do not exceed the Class I criteria.

Impacts from RFFAs:

Impacts associated with past and present actions are anticipated to persist into the future.

Cumulative Impacts:

*Proposed Action*

Few, if any, foreseeable cumulative actions within assessment area are anticipated. The addition of the fence to existing structures in the assessment area would not exceed the VRM I criteria.

*No Action Alternative*

Future removal of the fence would not add to impacts caused by past, present or RFFAs. No cumulative impacts would be anticipated.

## **5.0 RECOMMENDED MITIGATION and MONITORING**

No BLM recommended mitigations are proposed.

## **6.0 TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED**

### **6.1 Native American Consultation**

On February 21, 2015, the BLM consulted with Summit Lake Tribe regarding the Fly Canyon Exclosure project, including details of the Proposed Action, the location of the project in wilderness, and the use of a helicopter to deliver the materials to the project site. The Summit Lake Tribe voiced no opposition to the project and thought it was exciting that a new population of dace was discovered. The Proposed Action would not affect any NRHP eligible prehistoric cultural sites. Based on consultation and lack of NRHP eligible prehistoric sites, no Native American religious concerns are expected.

### **6.2 Coordination and/or Consultation (Agencies)**

Agency consultation was used for the preparation of this EA. Agency consultation response references are listed below.

On January 29, 2015 NDOW met with BLM regarding the status of the Desert Dace habitat within Fly Canyon.

On February 25, 2015, NDOW sent BLM a letter explaining the NDOW believes that this population will be extirpated within the next few months which would represent the loss of a unique population of desert dace within Soldier Meadows.

On February 27, 2015, USFWS sent BLM a letter of support for the exclosure project by explaining the population of desert dace is in immediate risk of being extirpated due to trampling of the spring and spring habitat and that they believe that constructing the exclosure fence is needed as soon as possible and constitutes an emergency situation.

On March 12, 2015 there was a field trip with the NDOW, USFWS, and BLM to Fly Canyon to discuss the details of the proposed exclosure.

### **6.3 Individuals and/or Organizations Consulted**

See sections 6.2 and 6.4.

### **6.4 Public Outreach/Involvement**

The BLM initiated public scoping on February 25, 2015, with a release of a Dear Interested Public letter for the Fly Canyon Exclosure project. The BLM requested comments be submitted within 15 days of letter notification (March 12, 2015). The reader should refer to Section 1.4 regarding internal and external scoping.

The BLM sent out a Notice of Proposed Action (NOPA) to the Black Rock High Rock NCA's wilderness mailing list. The BLM requested comments be submitted within 30 days of letter notification (April 5, 2015). The reader should refer to Section 1.4 regarding internal and external scoping.

## **7.0 LIST OF PREPARERS**

### **7.1 BLM**

Angie Arbonies	Rangeland Management
Dave Mermejo/Joey Carmosino	Visual Resources
Greg Lynch	Fisheries, T&E Species
Garrett Swisher	Wild Horses and Burros
Kathy Cadigan	Wildlife, Special Status Species, T&E Species
Mark Hall	Native American Consultation / Cultural Resources / NEPA Compliance
Zwaantje Rorex	Wilderness

## 8.0 REFERENCES

Bureau of Land Management (BLM). 1986. Visual Resources Management, "Visual Resource Contrast Rating," BLM Manual, Section 8431:1

\_\_\_\_\_. 2003. *Environmental Assessment: The Desert Dace (Eremichthys acros) Protective Fence NV-020-03-24*. Winnemucca Field Office, Winnemucca, NV.

Coates, P.S., Casazza, M.L., Brussee, B.E., Ricca, M.A., Gustafson, K.B., Overton, C.T., Sanchez-Chopitea, E., Kroger, T., Mauch, K., Niell, L., Howe, K., Gardner, S., Espinosa, S., and Delehanty, D.J. 2014. Spatially explicit modeling of greater sage-grouse (*Centrocercus urophasianus*) habitat in Nevada and northeastern California-A decision-support tool for management. *U.S. Geological Survey Open-File Report 2014-1163*, 83 pp.; <http://dx.doi.org/10.3133/ofr20141163>.

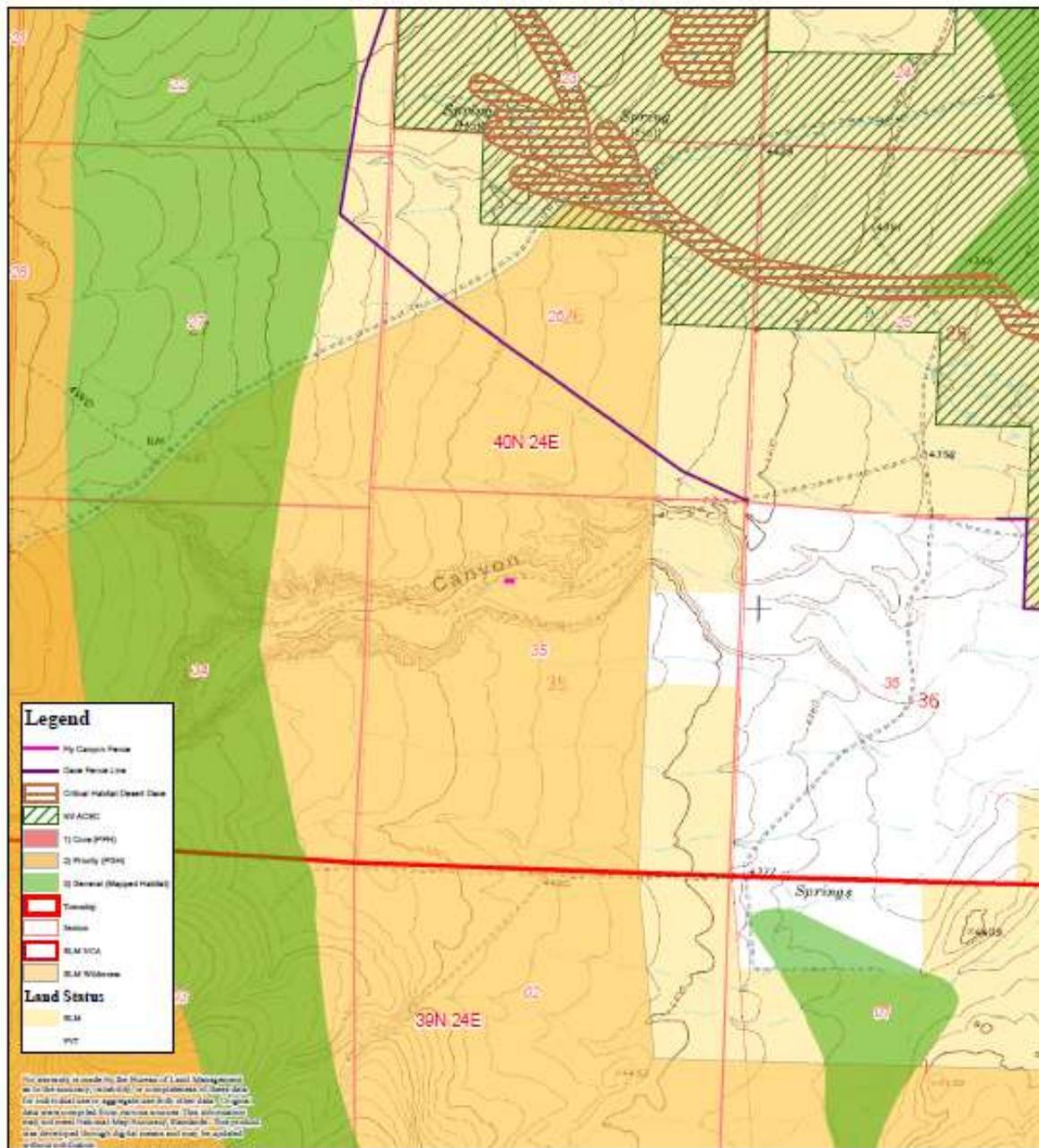
Nyquist, D. 1963. The ecology of *Eremichthys acros*, an endemic thermal species of cyprinid fish from northwestern Nevada. M.S. Thesis. University of Nevada, Reno. 247 pp.

U.S. Fish and Wildlife Service (USFWS). 1997. Recovery Plan for the Rare Species of Soldier Meadows. Region 1, Portland, Oregon. 50 pp.

## 9.0 MAPS

# Map 1 Proposed Fly Canyon Map

## Proposed Fly Canyon Fence





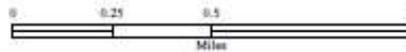
**Winnemucca District**  
Bureau of Land Management  
5100 E. Winnemucca Blvd  
Winnemucca, NV. 89445

Mud Meadows, NV  
USGS 24k Quadrangles  
T.40 N., R. 24 E., sec. 35



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Date: 6/25/2015

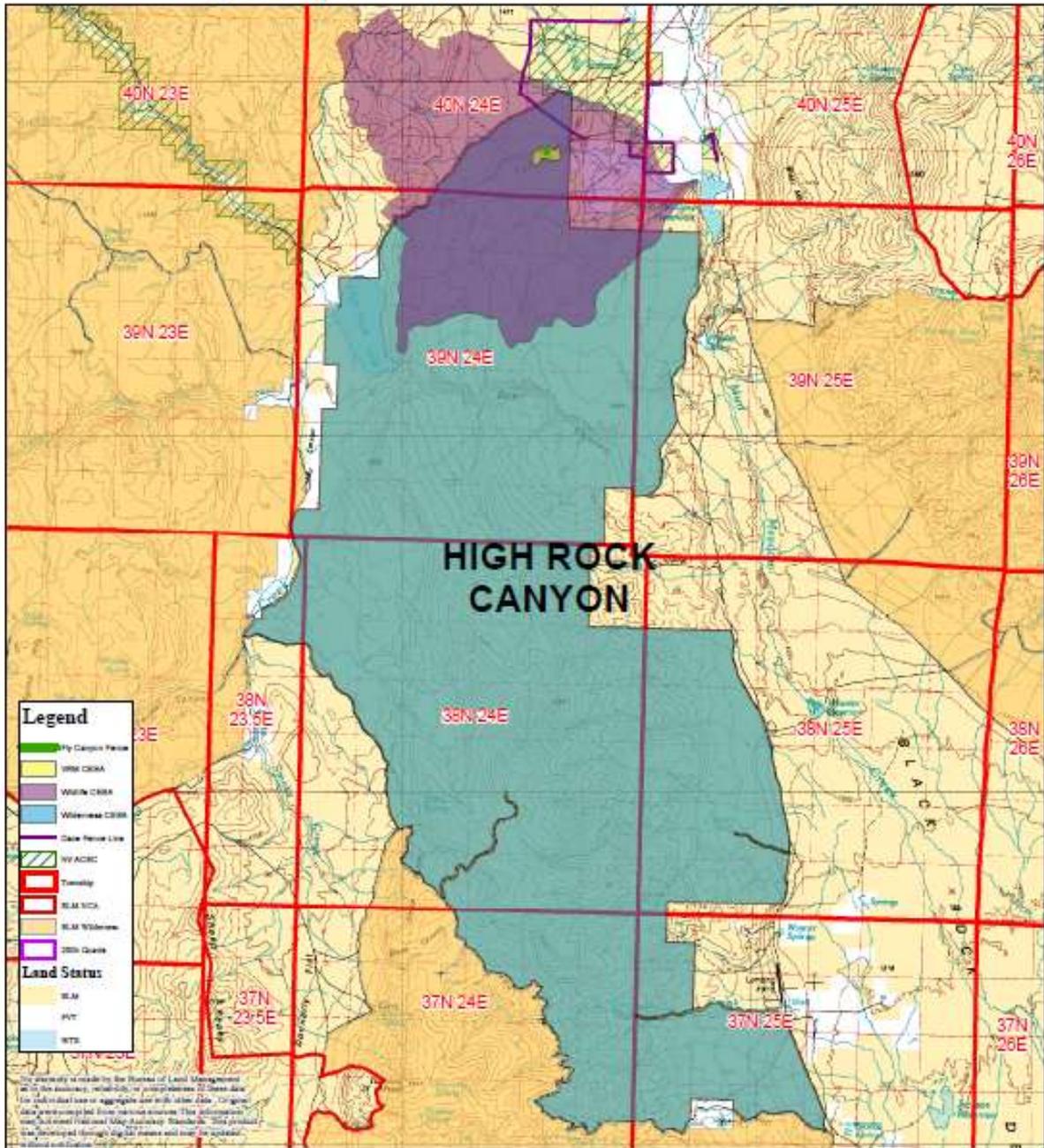




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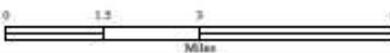
Map 2 CESA Boundaries

Fly Canyon Exclosure CESA Boundaries





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## **10.0 Appendices**

### **Appendix A**

Visual Resource Management Contrast Rating form

**Appendix B**  
Minimum Requirements Decision Guide (MRDG)