

**U.S. Department of the Interior
Bureau of Land Management**

**Environmental Assessment
DOI-BLM-NV-L010-2010-0506-EA
December 15, 2010**

LITTLE SPRING RIPARIAN PROJECT
Location: Nye County, Nevada

U.S. Department of the Interior
Bureau of Land Management
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1.0 INTRODUCTION

This Environmental Assessment (EA) has been prepared to analyze the environmental effects of the proposal relative to the Little Spring riparian project. The EA is a site-specific analysis of potential effects that could result with the implementation of the proposed action or alternatives to the proposed action. The EA assists the Bureau of Land Management (BLM) in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any “significant” impacts could result from the analyzed actions. “Significance” is defined by NEPA and is found in Chapter 40 of the Code of Federal Regulations (CFR) §§1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of “Finding of No Significant Impact” (FONSI).

The proposed project area is located in the Horse Spring Hills of the Grant Range in Nye County, Nevada approximately 59 air miles southwest of Ely, Nevada. The legal description of the project is as follows: T. 06N. R. 59E., in the southeast quarter of Section 32.

1.1 Tiering

This document is tiered to the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (RMP/EIS) released in November 2007.

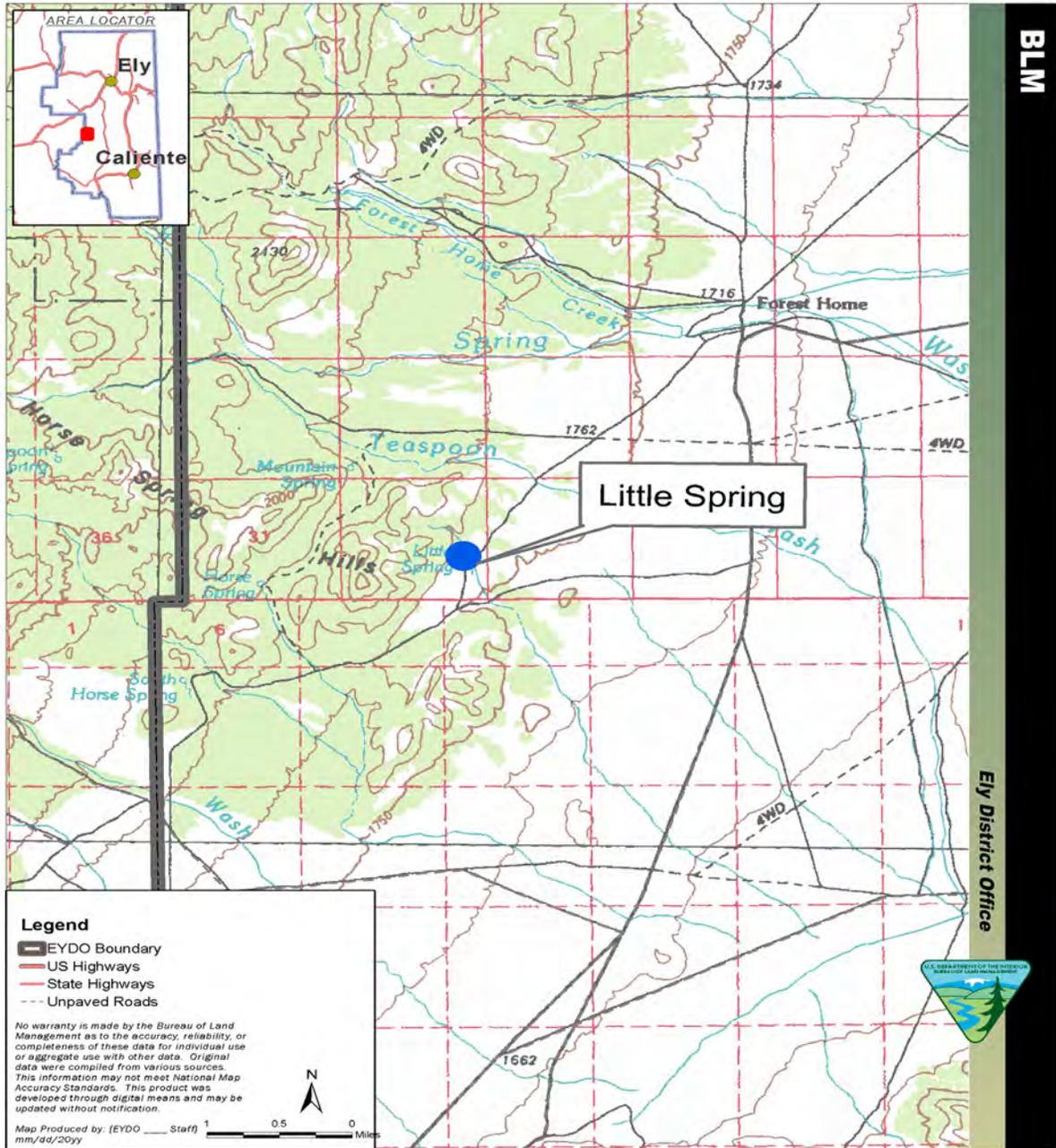
1.2 Background Information

The proposed Little Spring Riparian Project is located within the White River Central Watershed and the Forest Moon Grazing Allotment (01010) (see Map 1). The Nevada Department of Wildlife (NDOW) first identified the need for protection of the springs’ riparian area in 2008. Grazing use is currently restricted to transitional use by cattle moving to pastures on Forest Service lands in the spring. Large wildlife species use the area, as determined by observance of mule deer sign around the spring sources.

Little Spring was improved sometime between 1982 and 1995 to provide stock watering facilities for cattle grazing. Facilities include two small enclosure fences, two short pipelines, and four troughs. Currently two troughs are located immediately adjacent to each of the two water sources, making a total of four troughs. The total riparian area is less than .5 acre and the total amount of pipeline proposed is approximately 400 feet.

In 1996, the Final Multiple Use Decision (FMUD) for the Forest Moon Allotment identified long-term management actions to “*manage all wet meadows for late seral stage (80-85 percent grass and grasslike plants, 10-15 percent forbs and 5 percent shrubs).*”

Map 1: Project Area Map



1.3 Purpose and Need for the Proposed Action:

The purpose for this project proposal is to maintain and enhance riparian resilience and functionality of the Little Spring riparian system, and to maintain the availability of dependable water sources for wildlife and livestock. The proposed action would protect a larger riparian area from trampling and thus serve to progress toward achievement of the Mojave-Southern Great Basin area standards for riparian areas.

Figure 1a: Lower riparian area Little Spring, April 16, 2008



Figure 1b. Upper riparian area at Little Spring



1.4 Relationship to Planning

This EA is in conformance with the Ely District Record of Decision and Approved Resource Management Plan (RMP, 2008) which states:

- WL-18 states, “Restore natural water sources (i.e., springs and seeps) to increase water availability through restoration of riparian habitats and proper livestock and wild horse management (p.36).”
- WL-19 states “Identify areas of suitable wildlife habitat that are water limited in coordination with the Nevada Department of Wildlife and interested public.”
- VEG-23 states “Promote vegetation structure and diversity that is appropriate and effective in controlling erosion, stabilizing stream banks, healing channel incisions, shading water, filtering sediment, and dissipating energy, in order to provide for stable water flow and bank stability (page 33).”
- VEG-24 states “Focus management actions on uses and activities that allow for the protection, maintenance, and restoration of riparian habitat (page 33).”

1.5 Relationship to Other Plans

The proposed action is in compliance with the following laws, regulations, Executive Orders, and county public land plans:

- The National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321-4347, January 1, 1970, as amended 1975 and 1994)
- 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)
- Standards and Guidelines for Nevada’s Mojave-Southern Great Basin Area (September 2006)
- State Protocol Agreement between the Bureau of Land Management (BLM), Nevada and the Nevada State Historic Preservation Office (October 26, 2009)
- National Historic Preservation Act (Public Law 89-665; 16 U.S.C. 470 as amended through 2000)
- Migratory Bird Treaty Act (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989)
- The Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1544, December 28, 1973, as amended 1976-1982, 1984, and 1988)
- Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds (2001)

1.6 Scoping and Public Involvement and Issues

The Little Spring Riparian Exclusion proposal was internally scoped by the Egan Field Office interdisciplinary (ID) team on July 6, 2010 to determine preliminary issues with the proposed action. The preliminary issues identified were water resources and cultural concerns.

An external public scoping/comment period was established from September 7 to September 27, 2010. A notice of the Proposed Action was published on the Ely District website during the external public comment period. Two comments were received, one from the Nevada Department of Wildlife and one from the Duckwater Shoshone Tribe.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

The proposed action is to develop two spring sources associated with the Little Springs riparian system using leaky springboxes or other collection systems. Water from these two sources, which are approximately 25 feet apart, would then be piped together (at approximately 100 feet), down slope another 100 feet, under a road and into a trough approximately 50 feet outside of the enclosure for use by livestock, wildlife, and any wild horses in the area. The spring sources and associated riparian vegetation would be fenced to exclude large animals from disturbing the development and to protect riparian vegetation, although wildlife such as mule deer may be able to access the enclosure (see Figure 2). Existing debris from past development (fence materials, pipelines, and troughs) would be salvaged and reused or removed from the site. This area is located in east-central Nevada in Nye County within the Forest Moon Allotment in the Grant Mountain Range at T. 06N., R. 59E., S 32 SE.

The enclosure would be approximately one acre in size and enclose both spring sources. Two types of fencing are being considered, which one is used would depend on how much funding is available for the project and the kind of grazing animals using the spring source. The first type of fence would be standard BLM 4-wire fence. This would consist of three strands of barbed wire on top and one strand of smooth wire on the bottom. Wire spacing would be 16", 6", 8" and 12" from bottom to top. The fence would be 42" high from ground level to the top wire. White-topped steel posts would be spaced 16' apart with stays in between. White flagging would be attached to the top wire between posts during construction to alert wildlife, wild horses, and livestock to the existence of the new fence. Gates would be installed to allow access to the spring. The fences would be built to BLM specifications and standard operating procedures as outlined in the District Fenceline Environmental Assessment No. EA-NV-040-5-27. The second possibility for fencing would use "Liberty" steel jack fencing (<http://www.libertypipe.com/?p=products&divisionid=1&productid=3>), which has the following advantages over barbed wire:

- Very minimal ground disturbance as liberty fence rests on the surface rather than utilizing t-posts which are driven into the ground
- The ability to be removed and re-used at other sites if/when protection is no longer required at the initial site
- Less chance that wildlife would become entangled
- Better able to withstand pressure from wild horses and domestic livestock that may attempt to enter the enclosure
- Maintenance-free

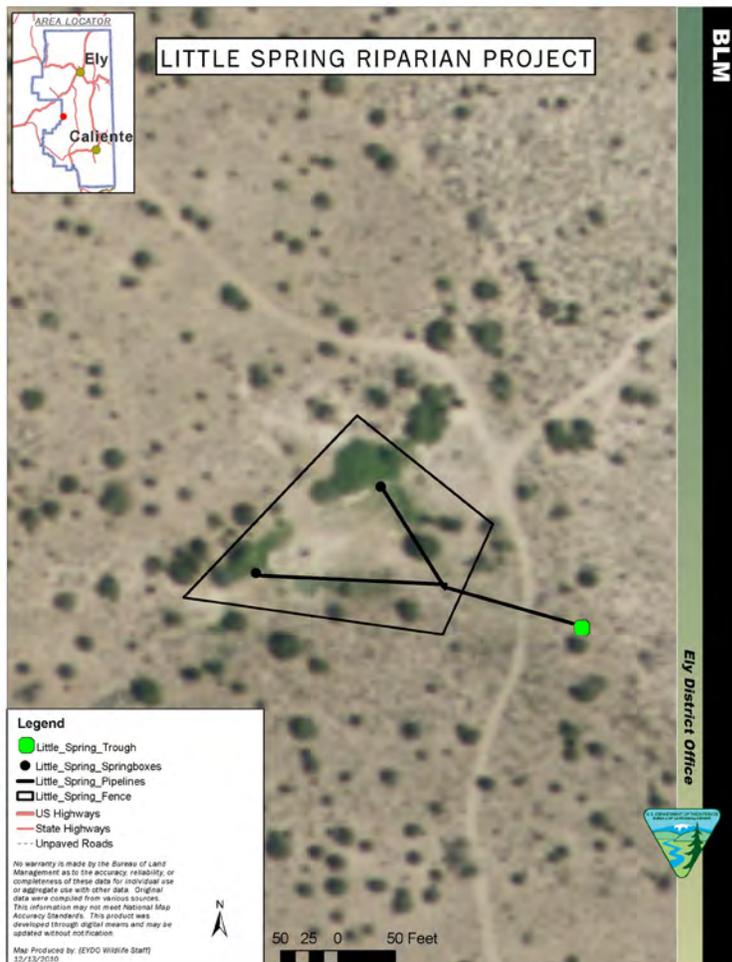
The collection systems, discharge pipes and troughs would be designed and installed to standard BLM specifications. Leaky springboxes are proposed in order to maintain existing riparian

vegetation/habitat. There would be approximately 400 feet of underground pipeline. The trough would be designed with an overflow system returning water to the natural drainage of the landscape. Spring development may involve the use of pick-up trucks, augurs attached to tractors or backhoes, and other equipment as necessary.

The project is proposed for completion prior to fall 2012. This project would be constructed and maintained in accordance with the Cooperative Range Improvement Agreement (Form 4120-6) for the Little Spring Riparian Protection Exclosure. This agreement assigns areas of responsibility and allocation of resources needed for the project including the parties to furnish labor, materials, and equipment. Cooperators include the BLM, the grazing permittee, and NDOW.

Standard Operating Procedures (SOP's) for this proposed action are listed in Appendix I and would be followed during construction.

Figure 2. Proposed riparian fence exclosure and associated pipeline to trough at Little Spring riparian complex.



2.1.1 Migratory Birds

Construction is not anticipated during the migratory bird nesting period, from April 15 to July 15. If construction is necessary during that period, a survey of the disturbance area and fence route would be completed prior to construction by a wildlife biologist in order to identify active nests so that they may be avoided.

2.1.2 Cultural Resources

A Class III inventory was completed on November 2, 2010. There were no National Register eligible sites located during this inventory. Any cultural resources noted during the inventory will be avoided by project design.

The following Best Management Practice (BMP) would apply during the construction phase:

- In the case of an unanticipated discovery, the BLM archeologist will be notified, all activities associated with the undertaking, within 100 meters of the discovery, will be halted and the discovery shall be appropriately protected, until the BLM authorized officer issues a Notice to Proceed.

2.1.3 Noxious and Invasive Weeds

The stipulations listed in the Weed Risk Assessment (See Appendix II) would be followed.

2.1.4 Monitoring

Photos and a determination of the current amount of riparian vegetation present would be documented in the project file. The project inspector (PI) or representative from the BLM would make periodic site visits to check on compliance of specifications and progress during the construction phase. Upon completion of the project, a final inspection would be made to ensure construction and installation specifications were met.

Periodic compliance checks would be made following project completion to ensure the riparian systems remain in Proper Functioning Condition (PFC). PFC would help to determine if the objectives of the project have been met.

2.2 No Action Alternative

Under the no action alternative, the proposed fence and associated water pipelines and trough would not be built and existing debris would not be removed from the site.

2.3 Alternatives Considered but Eliminated from Detailed Analysis

There are no other alternatives needed because there are no unresolved conflicts concerning alternative uses of available resources.

3.0 AFFECTED ENVIRONMENT/ENVIRONMENTAL EFFECTS

3.1 General Setting

The proposed project area is located in the Horse Spring Hills of the Grant Range in Nye County, Nevada. The Little Spring riparian system is located in the southwest portion of the Forest Moon Allotment. The Forest Moon Allotment (01010) encompasses a total of approximately 108,273 public land acres. The allotment occurs within Nye County, and is situated approximately 49

miles southwest of Ely, Nevada. Little Spring is located in the southwest portion of the allotment. The project area is also within the White River Central Watershed (#160B) which encompasses approximately 693,070 acres.

Within the project area, plant communities are dominated by big sagebrush with scattered pinyon pine and Utah juniper. Two small areas of riparian vegetation are currently supported by Little Springs and includes grasses, sedges, rushes, and willows. There is a small lentic area within one of the currently fenced spring sources. Winterfat, black sagebrush, saltbush, and other salt desert shrubs occur at lower elevations. Pinyon-Juniper Woodlands occur in the area immediately surrounding the spring complex.

3.2 Resources/Concerns Considered for Analysis

Potential effects to the following resources/concerns were evaluated in accordance with criteria listed in the BLM NEPA Handbook (2008) to determine if detailed analysis is required. Consideration of some of these items is to ensure compliance with laws, statutes or Executive Orders that impose certain requirements upon all Federal actions. Other items are relevant to the management of public lands in general, and to the Ely District BLM in particular.

Table 1. Resources/Concerns Considered and Rationale for Detailed Analysis or rationale for dismissal from further analysis.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Air Quality	No	The proposed action would not measurably affect Air Quality in the project analysis areas. Implementation and construction activities could, however unlikely, produce fugitive dust during fence post and spring box placement. Trailing along the fence by livestock could also produce some ambient dust. Any dust resultant from the proposed action would be ephemeral and expected to persist in terms of minutes before air quality levels return to pre-action levels.
Areas of Critical Environmental Concern (ACEC)	No	Resource not present in the project area.
Cultural Resources	No	Cultural resource surveys have been completed. All eligible cultural resources will be avoided by project design.
Paleontological Resources	No	At this time there are no known resources present in the project areas.
Forest Health	No	Resource is not present in project areas.
Rangeland Standards and	No	Construction of these projects will allow for the

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Health		achievement of or progress towards the Standards for Nevada's Mojave-Southern Great Basin Area in this area. Beneficial effects to rangeland standards and health are consistent with the need for the proposed action. These will be analyzed in the wetlands/riparian section of this EA.
Migratory Birds	No	Construction is not anticipated during the migratory bird nesting period, from April 15 to July 15. If construction is necessary during that period, a survey of the area would be completed prior to construction by a wildlife biologist in order to identify active nests so that they may be avoided.
Native American Religious and other Concerns	No	No concerns were identified during coordination.
FWS Listed or proposed for listing Threatened or Endangered Species.	No	Threatened, Endangered, Proposed or Candidate species are not known to be present in the project area.
Prime or Unique Farmlands	No	Resource is not present.
Wastes, Hazardous or Solid	No	The proposed action would not result in the creation of hazardous wastes or solid.
Water Quality, Drinking/Ground	No	Proposed action would not affect the water quality of surface or groundwater or drinking water sources. No CWA section 303(d) impaired water bodies are found in the project area. No surface water within the area is used for domestic drinking water. Water emanating from the Springs persists for less than 150 meters below the spring sources before becoming subsurface.
Wilderness	No	No Wilderness occurs in or near the project area.
Environmental Justice	No	No minority or low-income groups would be disproportionately affected by health or environmental effects. Resource is not present.
Floodplains	No	Resource is not present.
Watershed Management	No	This will have a beneficial effect to this riparian system within the White River Central watershed. The effects will be analyzed under the wetlands/riparian section. The proposed action would not alter physical, biological, or chemical watershed functions.
Wetlands/Riparian Areas	Yes	Effects to riparian areas is analyzed in EA.

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Noxious and Invasive Weed Management	No	No noxious weeds exist within the project area. The project implementation could spread or introduce new weeds to the riparian area, and as the riparian area improves, increased soil moisture could enhance conditions for the establishment of noxious weeds. The design features of the proposed action will help minimize the establishment and spread of weeds. No further analysis is necessary.
Special Status Animal Species	No	Special status bird species golden eagle (<i>Aquila chrysaetos</i>), ferruginous hawk (<i>Buteo regalis</i>), and loggerhead shrike (<i>Lanius ludovicianus</i>) may be present within or near the project area. Greater sage-grouse (<i>Centrocercus urophasianus</i>) may utilize the Little Spring riparian area for brood rearing. However, adherence to the minimization measure in the Migratory Bird section of the proposed action, will avoid impacts to these species.
Special Status Plant Species	No	No Special Status Plant species are known to occur within the proposed action area.
Wild Horses	No	Temporary displacement of wild horses is possible during construction but would have negligible effects in the long-term.
Fish and Wildlife	No	Little Spring is within habitat for elk (<i>Cervus canadensis</i>), mule deer (<i>Odocoileus hemionus</i>) (crucial winter and migration corridor), and desert bighorn sheep (<i>Ovis canadensis nelsonii</i>) (unoccupied). Some bird species use riparian areas with thick vegetation for nesting and small mammals may also use the vegetation for food and cover. Design features of the proposed action including attaching white flagging to the top wire (if barbed wire is used) between posts during construction to alert wildlife to the new fence, which will help prevent impacts. Some wildlife could be displaced during construction, but this would be short-term. The fence specification will allow big game access to the riparian area.
Soil Resources	No	Soil surface disturbance is expected to be limited to the minimum width needed for the equipment used to bury the proposed pipelines (about 400 feet total,

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		including excavation and backfilling the trench for the pipes. Pipeline construction and installation of the water troughs would disturb approximately 0.1 acres of land surface (100 feet long X 10feet wide). Some soil loss may occur as a result of erosion by wind but is expected to be minor in extent Soil surface disturbance would be limited to vehicle travel necessary for construction of the proposed fenceline (about 1 acre depending on the length of the fence). Soils are analyzed with wetlands/riparian areas below.
VRM	No	The proposed project is within VRM Class III, as stated in the Ely RMP, and is consistent with the class objectives. The VRM Class III objectives are to provide for management activities which require minor modification of the existing character of the landscape. The level of change to the characteristic landscape can be moderate. These management activities may be visible to the casual observer. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.
Livestock Grazing	No	Cattle, sheep, and goats are permitted to graze in the project area. Due to the small size of the enclosure, the proposed action will not affect forage availability in the Forest Moon Allotment. The proposed action will also help to ensure dependable stockwater is available and improve livestock distribution across the allotment.
Land Uses	No	There would be no modifications to land use authorizations by the proposed actions. Detailed analysis is not required.
Recreation Uses	No	Recreation uses in the proposed project areas are low and dispersed. The nature of the proposed actions will not cause any long term impacts to the recreation uses that currently take place in the area.
Water Resources	No	The Proposed Action and would not affect pending or existing water rights within the project analysis area. The Proposed Action and would not affect water flow from two the riparian systems since

Resource/Concern Considered	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
		water collection devices would be placed relatively low in the riparian system. No other water sources near the project analysis area would be affected by the proposed action.
Mineral Resources	No	There would be no modifications to mineral resources due to the proposed actions, therefore no direct, or indirect effects would occur to minerals.
Vegetative Resources	N	Direct impacts to vegetation would be related to any removal and disturbance during construction. Over time riparian vegetation should spread with increased recruitment and root densities. No further analysis is necessary.
Wild and Scenic Rivers	No	Resource is not present.

3.3 No Action Alternative

The No Action Alternative will not allow for improvement of this riparian area, therefore this alternative could limit progress towards the achievement of the Soils and Ecosystem Components Standards in this area.

3.4 Wetlands/Riparian Areas and Soil Resources

3.4.1 Affected Environment

Less than one acre of riparian vegetation occurs around Little Spring on public lands in the area of the proposed action. The vegetation primarily consists of sedges, rushes and grasses with woody riparian vegetation (willow) also present.

3.4.2 Environmental Effects

3.4.2.1 Proposed Action

The enclosure fence would prevent livestock and wild horses from accessing the spring and riparian zone. This would eliminate livestock and wild horse grazing the riparian vegetation and trampling the spring sources, banks, and downstream areas. The fence would assist in meeting the standards for riparian and wetland sites established by the Nevada Mojave-Southern Great Basin Resource Advisory Council by returning the spring area to proper functioning condition.

Short-term effects are expected to see a reduction in trampling of riparian soils and a reduction of use of riparian vegetation by wild horses and livestock within the enclosure. Long-term desired effects include the establishment of stabilizing riparian vegetation along the free-flowing segments of the riparian systems and establishment of dense mats of riparian vegetation within the riparian segments supported by subsurface water flow. The lentic and lotic riparian systems

would be expected to show increased resilience to large wind and water events and an increased functionality to store water during seasons of high flow and release of water longer into the drier months of the year. All of this allows the riparian system to produce more water for use outside the riparian enclosure (stock watering troughs) and retain riparian functionality and resiliency within the riparian enclosure

3.4.2.2 No Action Alternative

The impacts from the construction and installation of the fence and spring development as described above would not occur. Without the proposed riparian fence and spring development, livestock and wild horses would continue to have access to the spring and riparian zone resulting in the continuation of trampling and heavy use to the riparian area.

4.0. CUMULATIVE EFFECTS

As required under NEPA and the regulations implementing NEPA, this section analyzes potential cumulative impacts from past, present, and reasonably foreseeable future actions combined with the Proposed Action within the areas analyzed for impacts in Chapter 3.0 specific to the resources for which cumulative impacts may be anticipated. A cumulative impact is defined as “the impact which results from the incremental impact of the action, decision, or project when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 Code of Federal Regulations 1508.7).

The Cumulative Effects Study Area (CESA) for the cumulative effects analysis is defined by the White River Central Watershed, which contains the towns of Lund and Preston.

4.1 Past Actions

Livestock grazing has a long history in the region dating back to the late 1800’s. Throughout its history, livestock grazing has been characterized by localized areas of intense use. Hunting, trapping, wildlife viewing, wild horse use and other activities have occurred on the watershed year round. OHV use has occurred on the roads and two-tracks in the watershed. Range improvements have been implemented/installed in the watershed to improve grazing management including fencing, seedings, and stockwater developments. Wildfires have occasionally occurred in the watershed.

The Golden Gate, Seaman Range, and White River HAs wild horse gather was completed in 2009.

Charity Oil & Gas Exploration Wells were drilled during 2010. Oil and gas leasing continues throughout the area.

Existing gravel pits on the Sunnyside Allotment have been converted to a community pit and a Nye County pit.

The Horse Range Big Game Water Development Project was installed during the summer of 2010 in White River Valley.

The Wayne E. Kirch Wildlife Management Area (KWMA) is located in White River Valley. This area was established in 1968. KWMA is composed of a total of 14,815 acres, including five major reservoirs. The area has a mosaic of habitats and supports extremely diverse populations of wildlife (NDOW, unpublished).

4.2 Present Actions

The grazing allotments in the watershed are currently being grazed by cattle and sheep. Across the watershed, grazing allotments, including the Forest Moon Allotment, are being evaluated for achievement of Rangeland Health Standards. Grazing permit renewals are being completed in conjunction with these evaluations.

Hunting, trapping, wildlife viewing, wild horses and other activities occur in the watershed year round. OHV use may occur on the roads and two-tracks on the allotment. Maintenance of range improvements is ongoing.

The Southwest Intertie Project (SWIP) power line corridor occurs in White River Valley. This corridor is 0.5 miles wide with one power line currently authorized to begin construction in 2011.

4.3 Reasonably Foreseeable Future Actions

Wildfires could likely be within the CESA. Hunting, trapping, wildlife viewing, wild horses and other activities will probably occur on the watershed year round. OHV use could occur on the roads and two-tracks in the watershed. Maintenance of range improvements is ongoing. New range improvement projects are considered on an annual basis and analyzed on a site-specific basis. Livestock grazing permits on the allotments expire after ten years at which time they will likely be renewed.

Current water permit titleholders may be expected to apply for a change in the quantity of water, POU, and manner of use associated with their Permits.

Authorizing power lines within the SWIP corridor will likely continue through subsequent NEPA.

4.4 Cumulative Effects Analysis

Wetland/Riparian Zones

The actions related to the proposed action and alternative action would enhance riparian zone resiliency on a long-term basis. Most of the past, present and reasonably foreseeable future actions (interrelated projects) have or would result in effects to the riparian area, either through physical disturbance or alteration of vegetation communities. Construction of the SWIP transmission line is expected to have no or minimal impacts to the riparian area through avoidance or mitigation. The enhanced riparian area resiliency resulting from the proposed

action or alternative action should offset the past and potential future disturbance effects from interrelated projects.

PROPOSED MITIGATION AND MONITORING

Proposed Mitigation

Outlined design features incorporated into the proposed actions are sufficient. No additional mitigation is proposed based on the analysis of environmental effects.

Proposed Monitoring

Appropriate monitoring has been included as part of the Proposed Action. No additional monitoring is proposed as a result of the impact analysis.

TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED

- Tribal Coordination Letters were sent October 22, 2010. One response was received, no concerns were identified.
- Interested public letters were sent on September 7, 2010. Two comments were received, no concerns were identified.
- The public was notified of the proposed action through notification on the Ely District website in September, 2010. No comments were received.

VI. LIST OF PREPARERS

Gina Jones	Ecologist/Planning and Environmental Coordinator
Amanda Anderson	Rangeland Resources
Mindy Seal	Vegetation; Noxious and Invasive, Non-native Species
Marian Lichtler	Preparer/Wildlife, Special Status Species, Migratory Birds
Erin Rajala	Recreation, Visual Resources
Lisa Gilbert	Cultural Resources
Mark D'Aversa	Soil, Water, Riparian/Wetlands, Floodplains, Air Quality
Elvis Wall	Native American Cultural Concerns
Melanie Peterson	Hazardous Materials, Safety
Miles Kriedler	Minerals
Ruth Thompson	Wild Horse and Burro Resource

6.0 REFERENCES, GLOSSARY AND ACRONYMS

6.1 References Cited

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6.2 Acronyms and Definitions

BLM-Bureau of Land Management

CFR-Code of Federal Regulations

DR-Decision Record

EA-Environmental Assessment

EIS-Environmental Impact Statement

FLPMA-Federal Land Policy and Management Act

FMUD-Final Multiple Use Decision

FONSI-Finding of No Significant Impact

ID-Interdisciplinary

IM-Instructional Memorandum

Lentic – Still Water riparian systems

Lotic – Flowing Water riparian systems

NEPA-National Environmental Policy Act

RFFA-Reasonably Foreseeable Future Action

RMP-Resource Management Plan

APPENDIX I STANDARD OPERATING PROCEDURES

The following SOP's that apply to the proposed action should be adhered to for the riparian fence projects:

1. Removal of vegetation will be held to the minimum necessary for construction, access, and to provide for safety.
2. Construction activities will be limited to times when soils are not wet or saturated, to lessen soil compaction by equipment. In addition, construction activities may be delayed by the authorized officer due to severely dry conditions, to prevent unnecessary erosion of soil resources.
3. Vehicle travel shall only be permitted along the proposed fence line corridor during the construction phase. Access will be via existing roads and trails whenever possible. Where existing roads are not available, off road travel will be kept to the minimum necessary for construction.
4. If barbed wire is used, white flagging will be tied at each wire stay for visibility to animals such as deer and sage grouse. These will remain for a time sufficient to allow animals to see the newly constructed fence.
5. Maximum corridor width of the fence lines would be a total of 16 feet.
6. If the need to use, store, and/or dispose of hazardous materials arises, (which is not identified in this EA), the authorized person(s) constructing the project would notify and seek authorization from the BLM.
7. Maintenance of the riparian fence projects will be accomplished by the operator(s) through cooperative agreements with the BLM, or through range improvement permits.
8. Pursuant to 43 CFR 10.4(G) the holder of this authorization must notify the authorized officer by telephone, with written confirmation immediately upon discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.2). Further, pursuant to 43 CFR 10.4 (c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.
9. All equipment and assorted materials associated with the construction of the projects must be removed within 30 days after completion of the projects. Project area cleanup will be accomplished by removing all refuse to an approved sanitary landfill.
10. Fence specifications for wildlife concerns will be strictly adhered to in the construction of these fences. These specifications are to be provided to the builder prior to construction.

11. The “no activity” period for all management actions in migratory bird habitat is from 4/15 to 7/15 unless a survey is done to determine no migratory bird breeding or nesting is occurring in the area. For any activity scheduled between 4/15 and 7/15 the following must take place:

The wildlife team will conduct breeding bird surveys to identify if migratory bird breeding or nesting is occurring in the area.

12. For sage grouse wintering grounds, disturbance should be avoided from November 1 to March 31.

APPENDIX II
RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Little Spring Enclosure

The proposed action is to construct a livestock enclosure fence around the Little Spring riparian area, install a collection system at the spring sources, install pipelines to a livestock trough outside the fenced riparian zones, and move or install new livestock troughs. The enclosure would be approximately one half to one acre in size. Fence construction may involve the use of pick-up trucks, augurs attached to tractors or backhoes, and other equipment as necessary. Spring development could include the use of heavy equipment (i.e. backhoe-loader tractors) as well as pickup trucks.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. There are currently no mapped weed infestations within Little Spring. Russian knapweed (*Acroptilon repens*), Scotch thistle (*Onopordum acanthum*) and hoary cress (*Lepidium draba*) are found along roads leading to the project area. While not officially inventoried cheatgrass (*Bromus tectorum*) and halogeton (*Halogeton glomeratus*) probably occur along roads and drainages leading to the spring. The Little Spring area was last inventoried for noxious weeds in 2002.

Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

For this project, the factor rates as Moderate (4) at the present time. The ground disturbance created by the installation of the fence and pipeline requires the use of equipment that could lead to the introduction of new weed infestations to the project area. Also as soil moisture increases and the enclosure is not grazed, weeds could establish within the enclosure.

Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.

Low to Nonexistent (1-3)	None. No cumulative effects expected.
Moderate (4-7)	Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious/invasive weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

This project rates as High (8) at the present time. If new weed infestations establish within the project area this could have an adverse impact those native plant communities since the areas are currently considered to be mostly weed-free. Also, an increase of cheatgrass could alter the fire regime in the area.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

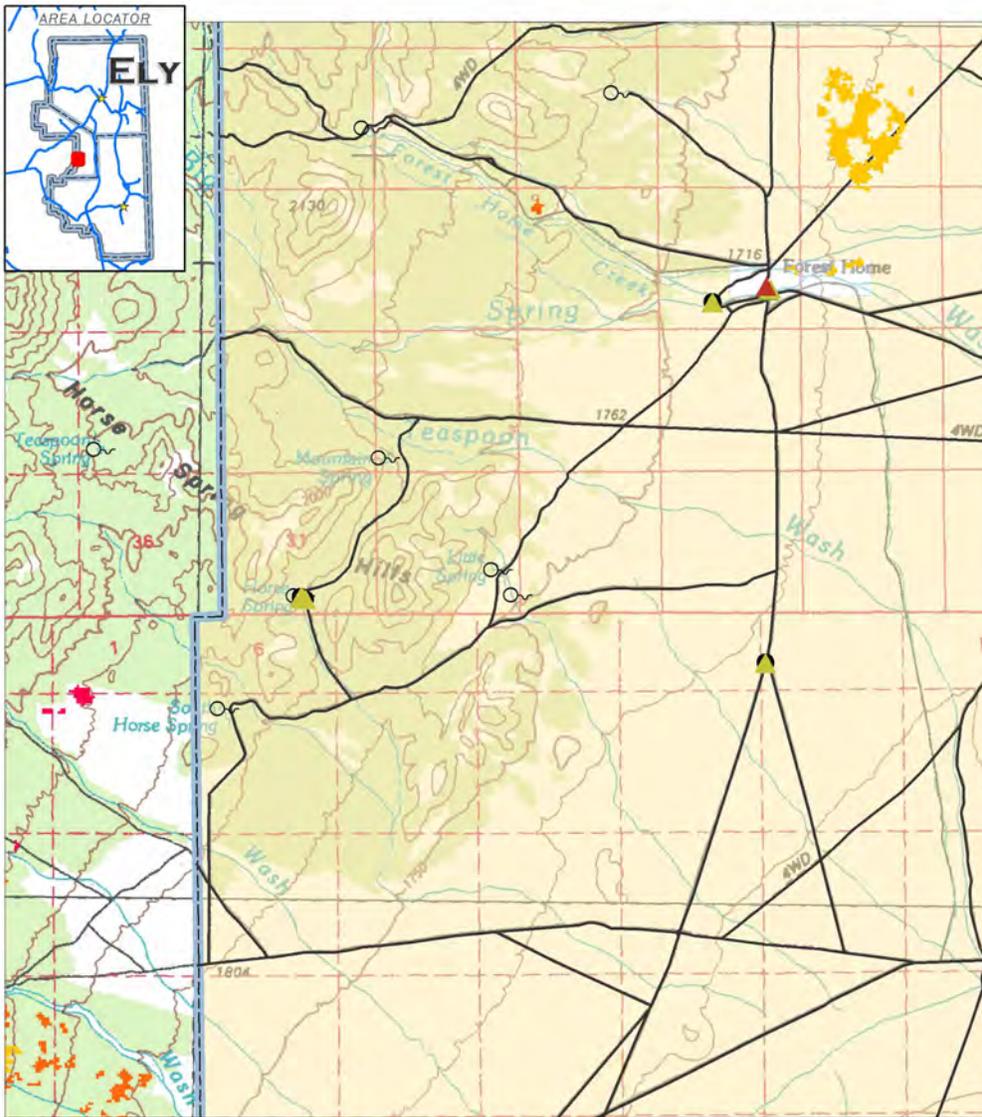
For this project, the Risk Rating is Moderate (32). This indicates that the project can proceed as planned as long as the following measures are followed:

- Prior to the entry of vehicles and equipment to a planned disturbance area, a weed scientist or qualified biologist will identify and flag areas of concern. The flagging will alert personnel or participants to avoid areas of concern.
- Prior to entering public lands, the contractor, operator, or permit holder will provide information and training regarding noxious weed management and identification to all personnel who will be affiliated with the implementation and maintenance phases of the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will be explained.
- To eliminate the transport of vehicle-borne weed seeds, roots, or rhizomes all vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. All such vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the District Office Weed Coordinator or designated contact person.
- To eliminate the introduction of noxious weed seeds, roots, or rhizomes all interim and final seed mixes, hay, straw, hay/straw, or other organic products used for reclamation or stabilization activities, feed, bedding will be certified free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely Field Office.

- Removal and disturbance of vegetation would be kept to a minimum through construction site management (e.g. using previously disturbed areas and existing easements, limiting equipment/materials storage and staging area sites, etc.)
- Include noxious and invasive weed detection in all monitoring activities. If the spread of noxious or invasive weeds is noted, appropriated weed control procedures will be determined in consultation with BLM personnel and will be in compliance with the appropriate BLM handbook sections and applicable laws and regulations.

Reviewed by: /s/Mindy Seal
Mindy Seal
Natural Resource Specialist

12/3/2010
Date



**Little Spring Enclosure
Noxious and Invasive Weeds**

Legend

- | | |
|---|---------------------------------------|
| Ely Dist. Noxious Weed Inventory | Invasive Annual and Biennial Forbland |
| Commonname | Invasive Annual Grassland |
| RUSSIAN KNAPWEED | Invasive Perennial Grassland |
| SCOTCH THISTLE | Roads |
| WHITETOP/HOARY CRESS | BLM |
| | Private |



Map Produced by: M. Sisk
11/1/2010
Last Surveyed

BLM

Ely District Office