

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

**Environmental Assessment
Smith Spring Riparian Development**

February, 2012

DOI-BLM-NV-L010-2012-0002-EA

PREPARING OFFICE

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Chapter 1. Introduction

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1.1. Identifying Information:

1.1.1. Title, EA number, and type of project:

Smith Spring Riparian Fence and Pipeline

DOI-BLM-NV-L010-2012-0002-EA

1.1.2. Location of Proposed Action:

The proposed project area is located approximately 16 miles northwest of Ely, NV (Figure 1).

The legal description for the project area is as follows: T19N, R62E, section 34, NW¼ .

1.1.3. Name and Location of Preparing Office:

Egan Field Office, Ely, NV

1.1.4. Background

In April of 2006, the Smith Valley Watershed Assessment was conducted to evaluate the overall health and functionality of the watershed. During this evaluation, Smith Spring, located on the Thirty Mile Spring Allotment (00503), was not meeting the proper functioning condition objectives. Livestock use was determined to be a causal factor. In an attempt to restore the health and functionality of the spring and the associated riparian area the BLM proposed to build a fence around the spring and riparian area and build a pipeline to troughs outside the riparian fence to exclude livestock use from the spring and riparian area and still maintain access to the water rights of the livestock operator.

Ownership (title) of the right to use water belongs to the current grazing allotment permittee on the Thirty Mile Spring Allotment. BLM does not hold title to any amount of water from Smith Spring.

1.2. Purpose and Need for Action:

BLM's purpose and need for the riparian enclosure fence, water pipeline and troughs is to improve and restore the health and functionality of Smith Spring and its riparian area while still maintaining access to the private water rights of the livestock operator and to implement a guideline to help continue progressing toward achieving the standards and guidelines for rangeland health as approved by Nevada's Northeastern Great Basin Resource Advisory Council (1997).

1.3. Scoping, Public Involvement and Issues:

Internal scoping was conducted by a BLM interdisciplinary (ID) team on February 13, 2012 to identify any resource concerns or issues associated with the proposed action. Concerns identified were the following: how would the project effect sage grouse and its habitat, the project occurs

within priority habitat, how would the project effect pygmy rabbit and its habitat and how the project would influence the Smith Spring riparian area.

An external scoping letter was sent to those publics interested in range improvements and had a comment period from February 24, 2012 through March 25, 2012 to allow for comments. A summary of the project was posted on the eGov for Planning and NEPA (ePlanning Front Office) website on February 21, 2012. No comments were received.

A Tribal Coordination letter was sent to interested tribes notifying them of the proposed action and to solicit comments from March 13, 2012 to April 6, 2012. No comments were received.

Coordination with Nevada Department of Wildlife (NDOW) occurred on March 19, 2012. NDOW supported the project and provided some design features to be consider.

Chapter 2. Proposed Action and Alternatives

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2.1. Description of the Proposed Action:

Introduction

The BLM, Egan Field Office proposes to install a spring water development system, water pipeline and a riparian fence at Smith Spring. The water development would include a leaky spring box or other type of water collection system that would be placed in Smith Spring to collect water and would be connected to one pipeline which would be installed to transport the appropriated water to a trough outside the riparian fence in order to divert livestock use away from the spring and maintain access to the private water right held by the current livestock operator. The appropriated amount of water identified in the water right is 0.025 cubic foot per second or approximately 11 gallons per minute. The water diversion component of the proposed action is based upon the Place of Use which is identified on the private water right from the State Water Engineer of Nevada. Construction activities would occur between August 1 and November 1 to avoid disturbance to the majority of wildlife species. If construction could not occur within the preferred time frame the disturbance area would be surveyed by a wildlife biologist prior to any construction activities.

Water Development

The spring development system would include the installation of a perforated spring box, or other type of leaky water collection system, to collect water from the spring and still leave water at the source to maintain riparian vegetation and function. An underground pipeline would extend from Smith Spring to a trough site approximately 1,000 feet from the spring (Figure 2 (p. 38)). The water development would include a manual shut-off valve at or near the spring and a floating shut-off valve in the trough(s) to conserve water and maintain water at the source. The spring box, discharge pipe, valves, and troughs would be designed and installed to standard Bureau specifications for these structures.

The installation of the spring box would consist of digging a cone shaped hole in the spring approximately 10 feet in diameter by 3 feet deep to install the spring box and then replace the soil. In addition to the spring box, a trench would be dug approximately 8-12 inches wide and approximately 3 feet deep for the length of the pipeline, approximately 1,000 feet, to install the water pipeline which would then be buried. The installation of the spring box and pipeline would require the use of a backhoe or other similar equipment to dig and bury the spring box and pipeline. The installation of the spring box and pipeline would also require the backhoe to drive over vegetation adjacent to the spring, approximately 400 ft² (20 feet by 20 feet) and for the length of the pipeline, approximately 10 feet wide (5 ft on each side of the trench) and 1,000 feet in length or 0.2 acre. The actual removal and replacement of the soil to install the spring box and pipeline would be approximately 1,100 ft² within the overall footprint of 10,400 ft² or 0.2 acre. A manual shut-off valve would be placed at or near the spring box to stop the flow of water to the trough(s) while livestock are not using the area to conserve water. The water trough(s) located outside the fenced riparian area would also include a floating shut-off valve in the water troughs. The floating shut-off valve in the trough(s) would facilitate filling the water troughs and stop the flow when the troughs are full to conserve water and maintain the riparian systems. In addition, escape ramps would be installed in the trough(s) to reduce or eliminate the risk of small animals or birds drowning. It is not anticipated that any new roads would be made or required for the installation of the spring box and pipeline. Pre-existing roads and two-tracks would be used to the extent possible for the installation of the water development. There is currently a

two-track road that leads to the spring. Wildlife would also be allowed to use the water along with authorized livestock.

A cooperative agreement has been entered into for construction and maintenance of the spring box, pipelines and troughs. The Bureau of Land Management (BLM) would supply the spring box and 1,000 feet of pipeline. The BLM has also agreed to install the spring box, pipeline and water trough(s) and would be completed in accordance with specifications and best management practices (Ely RMP, 2008). The permittee would supply the water trough(s) and would also be responsible for the maintenance of the spring box, pipeline and trough(s).

Occasional maintenance of the pipelines may be required to repair the spring box, split or broken portions of the pipeline or troughs. This would require excavating the spring box or portions of the pipeline to be repaired with heavy equipment (backhoe or similar equipment) which would then be re-buried. This would also require the use of existing two-tracks and possibly driving over a small area of vegetation at the areas along the pipeline to be repaired. These activities would require prior authorization from the Bureau's authorized officer (see pipeline maintenance below).

Normal maintenance for the spring box, pipeline and troughs is defined as:

Normal maintenance and upkeep is defined as: The labor and materials required annually to keep an existing spring (and pipeline) in a condition adequate to satisfy the proper distribution and maintenance of livestock. This includes but is not limited to the following:

1. Cleaning the spring head box. Inlet and overflow pipes, and trough(s) (overflow pond, if present) of debris and moss.
2. Repair of broken or split pipe that can be accomplished with hand tools.
3. Ensure proper attachment of bird ladder in stock trough.
4. Repair leaks in stock trough.
5. Repair or replace trough braces.
6. Replacing dirt, gravel or rock fill around trough(s).
7. Replacing those items above ground which will require replacement due to normal use.
8. Maintaining the improvement according to original Bureau Standards.
9. Repair requiring motorized equipment will require prior Bureau authorization.

Riparian Fence

The riparian fence would be a four strand barbed-wire fence which would have an approximate perimeter of 1,400 feet and would encompass approximately 3-4 acres of BLM administered land around Smith Spring. The fence 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 fence would be built with steel T-posts and steel braces. Permanent markers would be attached to the fence to alert wildlife to the existence of the new fence. Fence construction may involve the use of pick-up trucks, post-hole diggers attached to tractors or backhoes, transport vehicles, and other equipment as necessary which would drive over vegetation. The area of

ground disturbance resulting from fence construction will be approximately 10 feet wide around the entire perimeter of the fence which would result in a total disturbance of approximately 0.3 acre. It is not anticipated that any new roads would be made or required for the installation of the fence, pre-existing roads and two-tracks would be used to the extent possible.

A cooperative agreement has been entered into for construction and maintenance of the riparian fence. The Bureau of Land Management has agreed to supply all of the fencing materials (posts and wire) and has agreed to install the fence. The BLM would also maintain the fence.

Occasional maintenance of the fence would require overland travel with a pick-up truck or ATV to access the broken section of fence.

Maintenance of fences is defined as the labor and materials needed to keep an existing fence in a condition adequate to prevent livestock movement through, under, or over the fence. At this time maintenance responsibility would consist of:

1. Ensuring that all strands of fence wire between fence posts are tightly stretched and secured to the fence posts by metal clips or staples as appropriate for the type of post.
2. Ensuring that all fence posts are securely in place and that bent, broken, or missing posts and stays are replaced as needed.
3. Ensuring that all wooden stretch panels, corner braces, and gate posts are securely in place and in sound condition. Rotten or broken wood posts must be replaced as needed.
4. Ensuring that all strands of fence wire and fence spacing wires or wood poles which form the gates are properly stretched and secured. Each gate should have a suitable smooth retaining wire or latch for secure Closure of the gate.
5. Ensuring that the appropriate Bureau standards are maintained.

2.1.1. Migratory Birds

Fence construction and/or pipeline construction is not anticipated during the migratory bird nesting period, from April 15 to July 15. If any construction is necessary during that period, a survey of the areas to be disturbed would be completed prior to construction by a wildlife biologist to identify active nests so that they may be avoided.

2.1.2. Noxious and Invasive Weeds

A Weed Risk Assessment was conducted in conjunction with this project. The stipulations listed in the Weed Risk Assessment (See Appendix B) would be followed during construction of the fence and pipeline.

2.1.3. Monitoring

Monitoring will be conducted in the form of compliance checks during and after construction of the project. Rangeland monitoring data would continue to be collected in accordance with the Ely District Approved Resource Management Plan (August 2008).

2.2. Description of Alternatives Analyzed in Detail:

2.2.1. No Action Alternative

Construction and installation of the fence, spring development and pipeline as described above would not occur. Current management would continue.

2.3. Alternatives Considered but not Analyzed in Detail

There were no unresolved conflicts. No additional alternatives are needed.

2.4. Conformance

The proposed action is in conformance with the Ely District Record of Decision and Approved Resource Management Plan (RMP) (August 20, 2008). The following are resource goals and/or objectives that apply:

Livestock Grazing: “Manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained yield, and watershed function and health..” (pg. 85).

Water Resources:

WR-4: Maintain or improve watershed conditions by controlling or restricting land uses and utilizing tools, where appropriate, to promote desired vegetation conditions.

Soil Resources: “Maintain or improve long-term soil quality”. “To ensure that soils throughout the planning area exhibit infiltration and permeability appropriate to the soil type, with erosion and compaction having minimal effect on soil quality” (pg. 23).

SR-1: Restore and maintain desired range of conditions to increase infiltration, conserve soil moisture, promote groundwater recharge, and ground cover composition (including litter and biotic crusts) to increase or maintain surface soil stability and nutrient cycling.

Vegetative Resources: “To manage for resistant and resilient ecological conditions including healthy, productive, and diverse populations of native or desirable nonnative plant species appropriate to the site characteristics” (pg.26).

- VEG-23 (pg. 33) “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.”

- VEG-24 (pg. 33) “Focus management actions on uses and activities that allow for the protection, maintenance, and restoration of riparian habitat.”

Fish and Wildlife: “Provide habitat for wildlife (i.e., forage, water, cover, and space) and fisheries that is of sufficient quality and quantity to support productive and diverse wildlife and fish populations, in a manner consistent with the principles of multi-use management, and to sustain the ecological, economic, and social values necessary for all species” (pg. 34).

- WL-18 (pg. 36) “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.”

Special Status Species: “To manage suitable habitat for special status species in a manner that will benefit these species directly or indirectly and minimize loss of individuals or habitat from permitted activities” (pg. 38).

Watershed: “To manage watersheds that display physical and biological conditions or functions required for necessary ecological components to achieve state water quality criteria, maintain ecological processes, and sustain appropriate uses” (pg. 105).

2.4.1. Relationship to Other Plans

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

- Northeastern Great Basin Resource Advisory Council (RAC) Standards and Guidelines (1997).
- The White Pine County Public Lands Policy Plan (2007)
- The White Pine County Elk Management Plan (Elk Management Review Team 2007).
- Greater Sage Grouse Conservation Plan for Nevada and Eastern California (2004).
- 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)
- State Protocol Agreement between the Bureau of Land Management (BLM), Nevada and the Nevada State Historic Preservation Office (January 2012)
- 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)

2.4.2. Tiering

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

Chapter 3. Affected Environment:

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3.1. Project Area Description

The project area is defined as a small portion of the Thirty Mile Spring allotment in which the project would take place. This includes Smith Spring and approximately 3-4 acres around the spring as well as the 0.2 acre affected by the pipeline and trough site.

3.2. Resources/Concerns Considered for Analysis

The following items have been evaluated for the potential for significant impacts to occur, either directly, indirectly, or cumulatively, due to implementation of the proposed action. 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 BLM in particular.

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Air Quality	No	White Pine County, Nevada is designated as attaining Air Quality standards for lead and attainment/unclassifiable for the other six criteria pollutants monitored in Nevada (sulphur dioxide, carbon monoxide, ozone, particulate matter <2.5 micrometers, particulate matter <10 micrometers, and nitrogen dioxide). The Proposed Action and No Action Alternative would not affect the designation of air quality standards in White Pine County. Detailed analysis is not necessary.
Areas of Critical Environmental Concern (ACEC)	No	No ACEC's occur within or adjacent to project area.
Cultural Resources	No	A Class III cultural resource inventory would be conducted for the proposed project prior to construction. All archeological sites would be avoided by project design.
Environmental Justice	No	No minority or low-income groups would be disproportionately affected by health or environmental effects. Concern is not present.
Fish and Wildlife	No	Wildlife habitat would be maintained or improved by the proposed action. Design features of the proposed action would help to reduce impacts.
Floodplains	No	Resource not present.
Forest Health	No	Resource is not present within project area.
Lands and Realty	No	There are no conflicting Right-of-Ways within the project area.
Migratory Birds	No	Fence construction and/or pipeline construction is not anticipated during the migratory bird nesting period, from April 15 to July 15. If either construction is necessary during that period, a survey of the areas to be disturbed would be completed prior to construction by a wildlife biologist in order to identify active nests so that they may be avoided. A list of bird species that may be present in the area is included in Appendix B.
Mineral Resources	No	No mineral operations occur within the project area.
Native American Religious Concerns and other concerns	No	No traditional religious or cultural sites have been identified within or adjacent to the proposed project area.
Noxious and Invasive Weed Management	No	Hoary cress is within the project area. A Weed Risk Assessment was conducted for this project. The design features (weed stipulations) of the proposed action would help minimize the spread of weeds. No further analysis is necessary.
Paleontological Resources	No	Currently there are no identified resources within this proposed project area.

Resource/Concern Considered	Issue(s) Analyzed	Rationale for Dismissal from Analysis or Issue(s) Requiring Detailed Analysis
Prime and Unique Farmlands	No	Resource not present. No detailed analysis is necessary.
Rangeland Health	Yes	The proposed action is intended to improve rangeland health by improving riparian area health, a detailed analysis is provided in chapters 3, 4 of this document.
Recreation Uses	No	The proposed action is not anticipated to affect recreation uses.
Special Status Animal Species, other than those listed or proposed by the FWS as Threatened or Endangered	Yes	Special status bird species such as the golden eagle (<i>Aquila chrysaetos</i>), ferruginous hawk (<i>Buteo regalis</i>), long eared owl (<i>Asio otus</i>) and loggerhead shrike (<i>Lanius ludovicianus</i>) may be present within or near the project area. Adherence to the minimization measure in the Migratory Bird section of the proposed action, would avoid impacts to most Special Status avian species. The ground disturbing activities and the presence of new structures may have direct and indirect impacts to sage grouse and pygmy rabbits. Analyzed in chapter 3, 4 of the EA.
Special Status Plant Species, other than those listed or proposed by the FWS as Threatened or Endangered	No	Resource not known to be present.
Soil Resources	Yes	Direct impacts to soils during construction and indirect impacts due to changes in livestock use are expected. Analyzed in EA.
Threatened or Endangered Species or critical habitat.	No	There are no Threatened or Endangered species listed or proposed for listing known to occur within the project area.
Vegetative Resources	Yes	Direct impacts to vegetation during construction and indirect impacts due to changes in livestock use are expected. Analyzed in EA.
Visual Resource Management (VRM)	No	The project would occur within VRM Class III and is consistent with the VRM Class III objective.
Wastes, Hazardous or Solid	No	The proposed action or alternatives would not produce hazardous or solid waste.
Water Resources	No	The proposed action is not expected to lead to a change in the quantity of surface and subsurface water that occurs in the analysis area. Existing water rights would not be affected.
Wilderness	No	The Bristlecone Wilderness is approximately 1/2 mile east of the project area. The project will not cross into the wilderness boundary. No further analysis is necessary.
Lands with Wilderness Characteristics	No	The 1979/1980 Initial Wilderness Inventory for the project area found the unit to be lacking wilderness character. In the event an update to the inventory is completed, this project would not eliminate wilderness character.
Wetlands/Riparian Zones	Yes	The proposed action may impact the Smith Spring riparian area due to the ground disturbing activities, piping water from the spring source and the installation of a protection fence. A detailed analysis of these impacts are conducted in chapters 3 and 4 of this document.
Wild Horses	No	The project area is not within a Wild Horse Herd Management Area (HMA). Wild horses do not generally use this area and should not be affected by the proposed action or alternatives.
Wild and Scenic Rivers	No	No Wild and Scenic Rivers occur within or adjacent to the project area.

3.3. Affected Environment

3.3.1. Wetland/Riparian Zones and Rangeland Health

Smith Spring is not meeting or progressing towards meeting the rangeland health standard for riparian and wetland sites. Smith Spring does not exhibit proper functioning condition and is currently rated non-functional. Smith Spring lacks adequate riparian vegetative cover and exhibits a large amount of bare soil and severe trampling by livestock and wildlife. These conditions generally result in accelerated erosion, decreases groundwater retention, and a reduction in the spring and riparian areal extent. Soil compaction at the spring source may alter, reduce, or stop water flow to the surface. Smith Spring demonstrates signs of reduced flow and size and erosion.

3.3.2. Special Status Animal Species

Sage Grouse

The greater sage-grouse (*Centrocercus urophasianus*) is a high-profile Sensitive Species that has been determined to be warranted for listing but which is precluded by other species of higher priority (Fish and Wildlife Service, 2010). It has been identified as an “umbrella” species by the Ely District BLM, and chosen to represent the habitat needs of the sagebrush (*Artemisia* spp.) obligate or sagebrush/woodland dependent guild (BLM- Ely RMP/FEIS, 2007; p. 4.7-10).

No leks have been identified to occur near the project area.

The project area is within priority habitat for the greater sage grouse and they are know to use this area. The project area consists mostly of summer brood rearing habitat, which provides plants and insects for young chicks to eat and possibly nesting habitat. The spring, in it's current condition, does not provide adequate habitat.

Pygmy Rabbit

The pygmy rabbit (*Brachylagus idahoensis*) is a sagebrush obligate species. The pygmy rabbit is currently designated as a Federal species of concern but has not been warranted for listing as endangered or threatened under the Endangered Species Act of 1973, as amended (Fish and Wildlife Service, 2010). The pygmy rabbit prefers areas of tall, dense sagebrush growing in deep soils which are friable and suitable for digging burrows and is often found along washes or drainages where soils are deep and sagebrush is tall (Fish and Wildlife Service, 2010).

Pygmy rabbits were surveyed within their historic range in Nevada between 2003 and 2006 (Larrucea and Brussard, 2008). Larrucea and Brussard (2008) found current populations of pygmy rabbits throughout all of the species' historic range in Nevada. Although no individuals or populations were observed near the proposed project site, the sagebrush vegetation surrounding the spring may contain suitable habitat for the pygmy rabbit, which exhibits tall, thick sagebrush growing in deep soils with several small drainages present in the area.

3.3.3. Soil Resources

The riparian soil exhibits compaction at the spring source and immediately adjacent to the spring. The upland soil in the area appeared stable and healthy with no signs of excessive erosion or compaction.

3.3.4. Vegetative Resources

The current upland vegetation consists of Wyoming big sagebrush (*Artemisia tridentata wyomingensis*) and Antelope Bitterbrush (*Purshia tridentata*) with a herbaceous understory of perennial grasses and forbs. The current riparian vegetation consists of approximately 0.2 acres of rush (*Juncus spp.*), sedge (*Carex spp.*) and brook grass (*Catabrosa spp.*).

Chapter 4. Environmental Effects:

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4.1. Direct and Indirect Effects

4.1.1. Wetland/Riparian Zones and Rangeland Health

Proposed Action

The proposed action would temporarily disturb approximately 0.5 acre of vegetation and soil from the construction activities to install the fence, spring box and pipeline. The proposed action would rip and replace approximately 78 ft² of soil 3 feet deep at the spring source to install the spring box and approximately 1,000 ft² (1,000 ft in length by 1 ft wide) 3 feet deep of upland soil to install and bury the pipeline which would occur within the 0.5 acres of the total disturbance footprint for the project. The impacts from the construction activities would be temporary.

The proposed action would also protect the spring source and its associated riparian area from livestock pressure by creating a physical barrier and by diverting livestock and possibly wildlife use to the new water site. Research has shown that riparian areas can benefit from fencing and off-site water sources (McGinty, 2009; Bailey, 2004). Protecting the spring with a physical barrier and diverting livestock use would allow the spring and riparian area to re-establish and maintain adequate riparian vegetative cover and reduce trampling on riparian soils. Increasing riparian vegetation cover and reducing trampling within the riparian area could result in Smith Spring retaining more water and possibly expanding. This would be a result of the vegetation capturing soil and reduced erosion and reducing evaporative loss of water by reducing the amount of exposed open water in the riparian area.

The degree to which the riparian system may experience recovery could be limited by the amount of water that would be used in the pipeline and troughs. As water is placed in the pipeline and used in the troughs a decrease in the riparian area could occur during livestock seasons of use. Using a leaky water collection system and floating valves to shut-off water when troughs are full and only allowing water to flow in order to fill troughs could minimize the potential effects.

Maintenance of the pipeline and spring box could consist of driving over upland vegetation to access the broken portion of pipe and removing and replacing very small, isolated portions of the upland soil and vegetation and possibly the riparian soil. Maintenance of the fence could involve driving over upland vegetation to access the broken portions of fence. The effects of maintenance activities would be temporary and would be expected to recover at normal rates.

Overall, the proposed action would help the riparian area to make significant progress towards proper functioning condition and meeting the rangeland health standard for Wetland/Riparian Zones.

No Action

The current conditions at Smith Spring would likely continue. There would not be disturbance to the vegetation or the soil from overland travel and installing the spring box and pipeline.

4.1.2. Special Status Animal Species

Proposed Action

Sage Grouse

The construction of the fence and pipeline would crush and remove approximately 0.5 acre of sagebrush habitat which would create open areas within the area of disturbance. The impacts from the construction activities would be temporary and would recover (see section 4.1.4 Vegetative Resources). In addition, the proposed action would enclose approximately 3-4 acres of the riparian area around Smith Spring.

The project would be expected to help restore the riparian area at Smith Spring and provide a source of brood rearing habitat for sage grouse nesting in the vicinity (McGinty, 2009). The fence could pose a threat of collisions for sage grouse as well as provide perch sites for raptors (Fish and Wildlife Service, 2010). The possible threat to sage grouse from the fence could be reduced by placing permanent markers on it to reduce collision (Wyoming Game and Fish Department, 2009) and the fence would be constructed of steel T-posts and steel pipe braces which may reduce the threat of providing perches for raptors.

Indirect effects include increased grazing activities around the new water site which would result in livestock trampling vegetation around the water site, creating an open area in the sagebrush.

The West Nile Virus, which is transmitted by infected mosquitoes, can affect sage grouse. Although West Nile Virus has been identified to occur in White Pine County, there have not been any confirmed cases of infection in humans or animals at the present time. The probability of the proposed water trough increasing mosquito populations and the West Nile Virus beyond what may already be present in the area would be very low because there is lack of infected hosts and the area exhibits a cooler climate. In addition, the water troughs in the project would receive frequent use from livestock and wildlife and would be susceptible to frequent wind. This use and wind may agitate the water enough to discourage mosquitoes from laying their eggs and/or kill mosquito larvae. The trampled area around the trough sites may provide breeding areas for mosquitoes if there is water on the ground, but the frequent use by livestock and wildlife stepping in the small puddles that may be present, agitating the water, would likely eliminate most of the mosquito larvae. The floating shut-off valves would help prevent water from overflowing onto the ground and creating puddles. The trough would only be in use for a limited time period which may also reduce the risk of supporting breeding mosquitoes.

The impacts from the future maintenance of the pipeline and trough could consist of driving over upland vegetation to access the broken portion of pipe and removing and replacing very small, isolated portions of the upland soil and vegetation. The effects of maintenance activities would be temporary and would be expected to recover at normal rates and would not affect sage grouse that may be present. In addition, these areas would be surveyed for the presence of sage grouse prior to any ground disturbing activities. Maintenance of the fence could involve driving over upland vegetation to access the broken portions of fence.

Pygmy Rabbit

The proposed action would disturb approximately 0.5 acre of sagebrush habitat as well as trench approximately 1,000 ft² of soil 3 feet deep creating open areas in the vegetation and ripped and replaced soil. These impacts would be temporary.

Although no pygmy rabbits are known to occupy in the project area, construction activities of the pipeline and the fence may disturb individual rabbits or destroy individual burrows that may be

present. Any possible pygmy rabbit habitat which could be affected by the fence and pipeline installation would be thoroughly surveyed by a wildlife biologist prior to work commencing so that any burrows would be avoided.

Indirect effects from the fence and the change in livestock use would be similar to those described in the Sage Grouse portion of this section.

Maintenance of the pipeline and spring box could consist of driving over upland vegetation to access the broken portion of pipe and removing and replacing very small, isolated portions of the upland soil and vegetation and possibly the riparian soil. Maintenance of the fence could involve driving over upland vegetation to access the broken portions of fence. The effects of maintenance activities would be temporary and would be expected to recover at normal rates.

In conclusion, the Fish and Wildlife Service has concluded that developments such as those described in this project (fence and pipeline) are not a major threat to pygmy rabbit (Fish and Wildlife Service, 2010).

No Action

The current habitat conditions would likely continue. There would be no new fences to pose a danger to sage grouse or pygmy rabbits and the pipeline construction would not occur.

4.1.3. Soil Resources

Proposed Action

Impacts from construction activities would disturb approximately 0.5 acre of soil from the off-road travel to install the fence, spring box and pipeline. This would temporarily compact the soil in these areas. Soil compaction may be reduced if the construction activities occur when the soil is dry. The proposed action would rip and replace approximately 78 ft³ of soil at the spring source and approximately 3,000 ft³ (1,000 ft in length by 1 ft wide by 3 ft deep) of upland soil to install and bury the pipeline which would occur within the 0.5 acre of the total disturbance footprint for the project. This could lead to temporary wind and/or water erosion in the exposed areas until vegetation re-establishes. These impacts would be negligible due to the small size of the exposed area. Indirect impacts could include soil compaction of upland soil around the new water site due to livestock concentrations and trampling at the new water site.

Maintenance of the pipeline and spring box could consist of driving over upland vegetation to access the broken portion of pipe and removing and replacing very small, isolated portions of the upland soil and possibly the riparian soil. Maintenance of the fence could involve driving over upland vegetation to access the broken portions of fence. The effects of maintenance activities would be temporary and would be expected to recover at normal rates.

No Action

The current soil conditions would likely continue. Soil disturbance and compaction from construction activities would not occur.

4.1.4. Vegetative Resources

Proposed Action

Impacts from construction activities would temporarily crush and possibly remove approximately 0.5 acre of sagebrush and riparian vegetation due to the off-road travel to install the fence, spring box and pipeline and remove approximately 78 ft² of riparian vegetation and 1,000 ft² of upland vegetation due to the installation of the spring box and pipeline trench. These impacts would be temporary until the native vegetation regrows or recovers, which could be 4-5 years. Indirect impacts to upland vegetation would include trampling the vegetation around the new water site due to livestock concentrations at the new water site. Indirect impacts to riparian vegetation include an increase in riparian vegetative cover and density (also see the impacts in Wetland/Riparian Zones and Rangeland Health).

Maintenance of the pipeline and spring box could consist of driving over upland vegetation to access the broken portion of pipe and removing and replacing very small, isolated portions of the upland soil and vegetation and possibly the riparian soil. Maintenance of the fence could involve driving over upland vegetation to access the broken portions of fence. The effects of maintenance activities would be temporary and would be expected to recover at normal rates.

No Action

Vegetative disturbance from construction activities would not occur. The current vegetative conditions would likely continue.

4.2. Cumulative Effects

4.2.1. Introduction

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 area analyzed for impacts in Chapter 3 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) is defined as a small portion of the Thirty Mile Spring allotment with Smith Valley surrounding Smith Spring.

4.2.2. Past, Present and Reasonably Foreseeable Future Actions

Past Actions

Livestock and wild horse 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. In many areas in which this intense grazing occurred there is a lack of herbaceous cover and they are primarily shrub dominate. Hunting, trapping, wildlife viewing, and other recreational activities have occurred within the project area for many years. OHV use has occurred on the roads and two-tracks within the area. Range improvement projects have occurred in the area to improve grazing management and include fencing and spring/stock water developments.

Present Actions

The project area is currently being grazed by livestock and wildlife. Current livestock grazing management can be characterized as light to moderate use of the available forage. Hunting, trapping, wildlife viewing, and other recreational activities occur within the project area occasionally throughout the year. This includes the use of the several existing two-track and developed roads in the area as well as cross-country hiking. OHV use currently occurs on the roads and two-tracks within the project area. Maintenance of range improvements is ongoing and generally includes repairing fences and stock water troughs. These maintenance activities generally require the use of existing two-track and developed roads.

Reasonably Foreseeable Future Actions

It is anticipated that hunting, trapping, wildlife viewing, and other recreational activities would continue to occur within the project area year round. OHV use is likely to occur on the roads and two-tracks within the project area. Maintenance of range improvements would likely continue. New range improvement projects are considered on an annual basis and analyzed on a site-specific basis. No other projects have been proposed to occur within the area. It is anticipated that livestock and wildlife grazing would likely continue at current levels under similar management.

4.3. Cumulative Effects Analysis

4.3.1. Wetland/Riparian Zones and Rangeland Health

Proposed Action

It is anticipated that the proposed action, in combination with the past, present and reasonably foreseeable future actions, would continue to achieve or make significant progress towards achieving the rangeland health standards and guidelines within the CESA and would help restore the riparian area at Smith Spring and would provide for the desired habitat, riparian and rangeland health conditions over the long term and would lead to proper functioning condition.

No Action

It is anticipated that the no action alternative in combination with the past, present and reasonably foreseeable future actions, could affect the achievement of the Wetland/Riparian Zones rangeland health standard in this portion of the grazing allotment. The current conditions would continue to occur. Current livestock management plans are designed to continue to achieve or progress towards achieving the rangeland health standards with the current infrastructure. Although, the

health and functionality of Smith Spring would likely not improve as it would by diverting use away from the spring.

4.3.2. Special Status Animal Species

Proposed Action

It is anticipated that the proposed action, in combination with the past, present and reasonably foreseeable future actions, would help restore the riparian area at Smith Spring and provide quality habitat for sage grouse and pygmy rabbit in the vicinity. The long term effects of the fence would be negligible. The overall beneficial effects of protecting and improving the riparian area would outweigh the possible adverse effects of the fence being present.

No Action

The no action alternative in combination with the past, present and reasonably foreseeable future actions, would likely continue the current habitat conditions. The current management actions and plans are designed to work towards maintaining or improving habitat conditions with the current infrastructure.

4.3.3. Soil Resources

Proposed Action

It is anticipated that the proposed action, in combination with the past, present and reasonably foreseeable future actions, would continue to maintain healthy and productive soil overall.

No Action

The current soil conditions would likely continue. The current management actions and plans are designed to work towards maintaining or improving soil conditions with the current infrastructure.

4.3.4. Vegetative Resources

Proposed Action

It is anticipated that the proposed action, in combination with the past, present and reasonably foreseeable future actions, would continue to maintain upland vegetation overall. Livestock grazing patterns would not change in the area because water has always been available at this site. Cumulative impacts to riparian vegetation would improve cover and density (also see impacts in Wetland/Riparian Zones and Rangeland Health).

No Action

The current vegetative conditions would likely continue. The current management actions and plans are designed to work towards maintaining or improving soil conditions with the current infrastructure.

Chapter 5. Tribes, Individuals, Organizations, or Agencies Consulted:

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A Tribal Coordination letter was sent on March 13, 2012 to interested tribes notifying them of the proposed action and to solicit comments until April 6, 2012.

Coordination with Nevada Department of Wildlife occurred on March 19, 2012.

Table 5.1. List of Persons, Agencies and Organizations Consulted

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
Alan Jenne, Nevada Department of Wildlife	Wildlife/Sage Grouse Coordination and Consultation	NDOW supported the project.
Shivwits Band of Paiutes	Tribal Consultation and Coordination	No comments received.
Duckwater Shoshone Tribe	Tribal Consultation and Coordination	No comments received.
Skull Valley Band of Goshute Indians of Utah	Tribal Consultation and Coordination	No comments received.
Elko Band Council	Tribal Consultation and Coordination	No comments received.
Kaibab Band of Paiutes	Tribal Consultation and Coordination	No comments received.
Yomba Shoshone Tribe	Tribal Consultation and Coordination	No comments received.
Moapa Band of Paiutes	Tribal Consultation and Coordination	No comments received.
Cedar City Band of Paiutes	Tribal Consultation and Coordination	No comments received.
South Fork Band Council	Tribal Consultation and Coordination	No comments received.
Wells Band Council	Tribal Consultation and Coordination	No comments received.
Indian Peaks Band	Tribal Consultation and Coordination	No comments received.
Te-Moak Tribes of the Western Shoshone Indian of Nevada	Tribal Consultation and Coordination	No comments received.
Paiute Indian Tribe of Utah	Tribal Consultation and Coordination	No objections to the project
Battle Mountain Band Council	Tribal Consultation and Coordination	No comments received.
Confederated Tribes of the Goshute Reservation, Nevada-Utah	Tribal Consultation and Coordination	No comments received.
Las Vegas Paiute Tribe of the Las Vegas Indian Colony	Tribal Consultation and Coordination	No comments received.
Ely Shoshone Tribe of Nevada	Tribal Consultation and Coordination	No comments received.

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Chapter 6. List of Preparers

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Table 6.1. List of Preparers

Name	Title	Responsible for the Following Section(s) of this Document
TJ Mabey	Natural Resource Specialist	Rangeland Health, Vegetative Resources /Project Lead
Marian Lichtler	Wildlife Biologist	Wildlife, Migratory Birds, Special Status Species
Lisa Gilbert	Archeologist Technician	Cultural and Paleontological Resources
Mindy Seal	Natural Resource Specialist	NEPA, Environmental Justice
Mark D'Aversa	Hydrologist	Air Quality, Soil Resources, Water Resources, Wetland/Riparian Zones, Flood Plains, Prime and Unique Farmland
Stephanie Trujillo	Realty Specialist	Lands and Realty
Erin Rajala	Outdoor Recreation Planner	Visual Resources, Recreation
Miles Kriedler	Geologist	Mineral Resources
Emily Simpson	Wilderness Planner	Wilderness, Lands with Wilderness Characteristics, Wild and Scenic Rivers
Elvis Wall	Native American Coordinator	Native American Religious and other Concerns

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Chapter 7. References

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Appendix A. Maps



Figure 1. Project Location Map

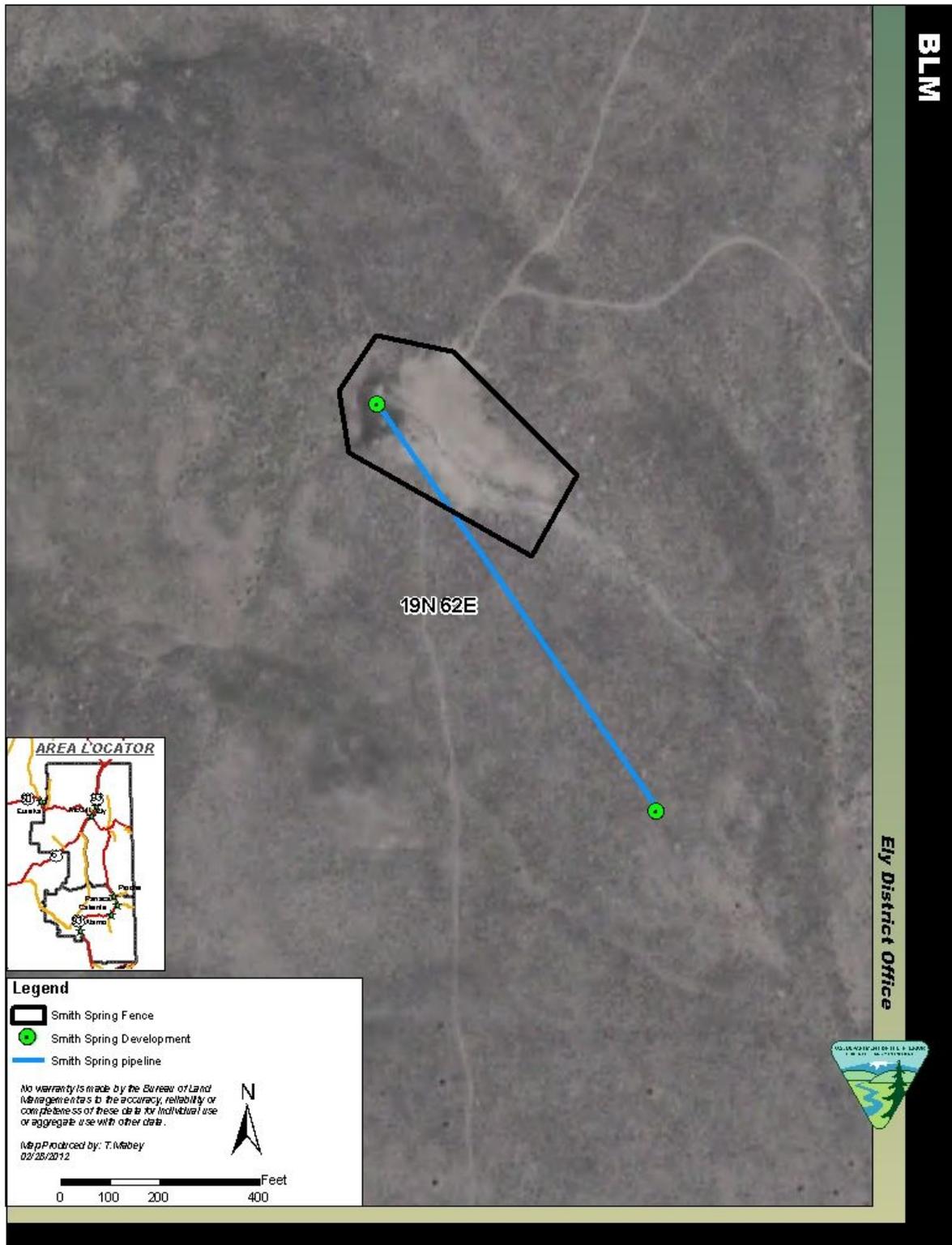


Figure 2. Proposed Project Layout

Appendix B. Migratory Birds

The following data reflect survey blocks and/or incidental sightings of bird species within the allotment boundaries from the Atlas of the Breeding Birds of Nevada (Floyd et al. 2007). These data represent birds that were confirmed, probably, or possibly breeding within the allotment boundaries. These data are not comprehensive, and additional species not listed here may be present within the allotment boundary.

Common Name (*Scientific Name*)

- American kestrel (*Falco tinnunculus*)
- American robin (*Turdus migratorius*)
- black-billed magpie (*Pica hudsonia*)
- brown-headed cowbird (*Molothrus ater*)
- black-headed grosbeak (*Pheucticus melanocephalus*)
- Brewer's blackbird (*Euphagus cyanocephalus*)
- *Brewer's sparrow (*Spizella breweri*)
- bushtit (*Psaltriparus minimus*)
- Cassin's finch (*Carpodacus cassinii*)
- chukar (*Alectoris chukar*)
- common nighthawk (*Chordeiles minor*)
- common poorwill (*Phalaenoptilus nuttallii*)
- common raven (*Corvus corax*)
- dusky flycatcher (*Empidonax oberholseri*)
- European starling (*Sturnus vulgaris*)
- *greater sage-grouse (*Centrocercus urophasianus*)
- green-tailed towhee (*Pipilo chlorurus*)
- house wren (*Troglodytes aedon*)
- mourning dove (*Zenaida macroura*)
- northern flicker (*Colaptes auratus*)
- rock wren (*Salpinctes obsoletus*)
- sage thrasher (*Oreoscoptes montanus*)
- Savannah sparrow (*Passerculus sandwichensis*)

- spotted towhee (*Pipilo maculatus*)
 - turkey vulture (*Cathartes aura*)
 - Virginia's warbler (*Vermivora virginiae*)
 - warbling vireo (*Vireo gilvus*)
 - white-crowned sparrow (*Zonotrichia leucophrys*)
 - western scrub-jay (*Aphelocoma californica*)
- * = Sensitive or Species of Concern

Appendix C. Weed Risk Assessment

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Smith Spring Riparian Development Project

White Pine County, Nevada

BLM proposes to construct a riparian enclosure fence and a water collection system with a pipeline and trough outside the enclosure fence. The construction of the fence would include the use of pick-up trucks, post-hole diggers attached to tractors or backhoes, transport vehicles, and other equipment as necessary which would drive over vegetation. The area of ground disturbance resulting from fence construction will be approximately 10 feet wide around the entire perimeter of the fence which would result in a total disturbance of approximately 0.3 acre. The construction of the spring development and pipeline would include digging a cone shaped hole in the spring approximately 10 feet in diameter by 3 feet deep to install the spring box and then replace the soil. In addition to the spring box, a trench would be dug approximately 8-12 inches wide and approximately 3 feet deep for the length of the pipeline, approximately 1,000 feet, to install the water pipeline which would then be buried. The installation of the spring box and pipeline would require the use of a backhoe or other similar equipment to dig and bury the spring box and pipeline. The installation of the spring box and pipeline would also require the backhoe to drive over vegetation adjacent to the spring, approximately 400 ft² (20 feet by 20 feet) and for the length of the pipeline, approximately 10 feet wide (5 ft on each side of the trench) and 1,000 feet in length or 0.2 acre. The actual removal and replacement of the soil to install the spring box and pipeline would be approximately 1,100 ft² within the overall footprint of 10,400 ft² or 0.2 acre.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. Hoary cress (*Lepidium draba*) is found within and adjacent to the project. The following species are found along roads or drainages leading to the projects:

Onopordum acanthum	Scotch thistle
Lepidium draba	whiteweed/hoary cress
Carduus nutans	Musk thistle
Cirsium vulgare	bull thistle

While not officially inventoried the following weeds probably occur in or around the project area: cheatgrass (*Bromus tectorum*), bur buttercup (*Ceratocephala testiculata*), field bindweed (*Convolvulus arvensis*), halogeton (*Halogeton glomeratus*), horehound (*Marrubium vulgare*), and Russian thistle (*Salsola kali*). This area was last inventoried for noxious weeds in 2008.

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 the proposed action, the factor rates as Moderate (6) at the present time. The ground disturbance created by the installation of the fencing and pipeline and the use of heavy machinery could lead to the introduction of new weed infestations to the project area. The area around the spring has already been disturbed and lacks vegetations and some weeds are present. In addition, the area around the new water site (approx. 50-100 ft radius) would likely become infested with weeds due to the trampling and removal the vegetation around the water site because of the concentration of livestock around the water. It is not anticipated that the weeds would spread out any further than the 50-100 ft radius around the water into the surrounding native vegetation.

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.

The proposed action rates as Moderate (7) at the present time. If new weed infestations establish within the project area, particularly cheatgrass and hoary cress, this could have an adverse impact to native plant communities since the majority of the area is currently weed-free and is considered very important wildlife habitat for several species. Any increase of cheatgrass could alter the fire regime and degrade wildlife habitat 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 proposed action, the Risk Rating is Moderate (42). 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 District 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:	<i>/s/TJ Mabey</i>	04/10/2012
	TJ Mabey	Date
	Natural Resource Specialist	

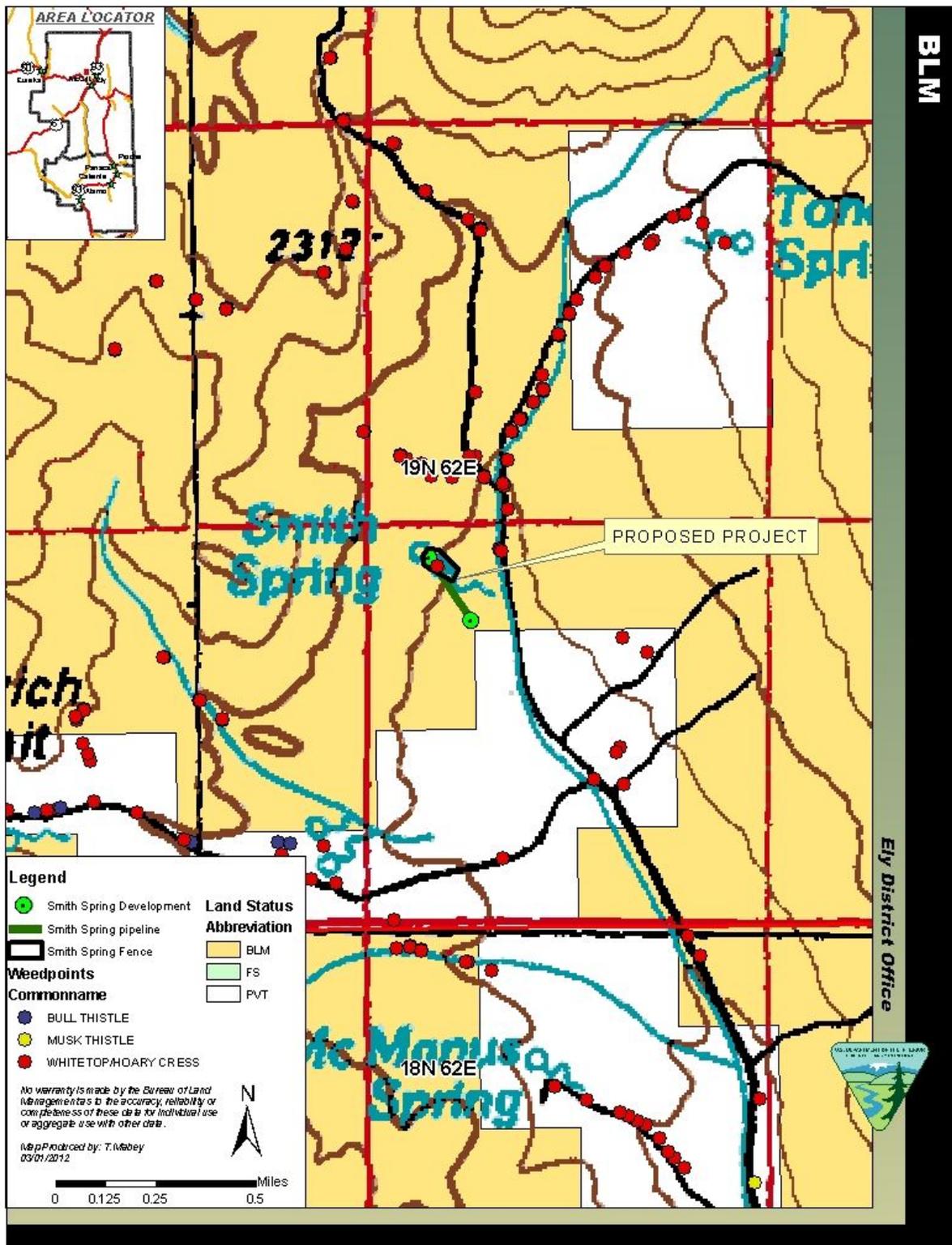


Figure C.1. Weed Inventory Adjacent to the Proposed Project

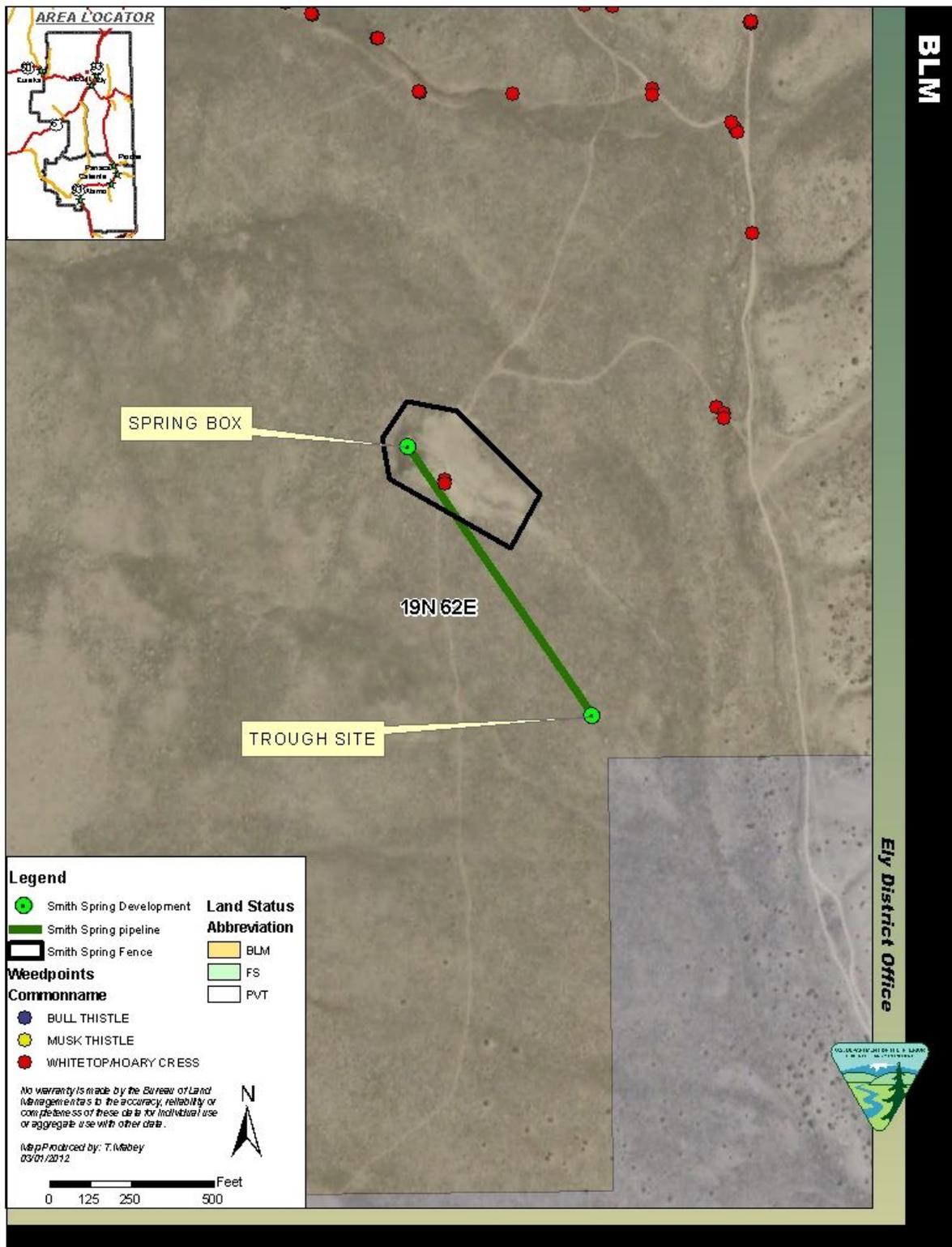


Figure C.2. Weed Inventory near the Project Area