



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Mount Lewis Field Office  
50 Bastian Road  
Battle Mountain, Nevada 89820  
<http://www.blm.gov/nv/st/en.html>



In Reply Refer to:  
2800 (LLNVB01000)  
NVN-39818

JAN 03 2011

Dear Interested Public:

Pursuant to the National Environmental Policy Act (NEPA) and Council on Environmental Quality regulations for implementing NEPA the Bureau of Land Management (BLM) Mount Lewis Field Office (MLFO) has prepared an Environmental Assessment (EA) which analyzes the impacts of a proposed Right-of-Way (ROW) amendment near Crescent Valley, Nevada. The EA identifies, describes and evaluates resource protection measures that would mitigate the possible impacts from the proposal.

The Eureka County Public Works Department has applied for an amendment to the Town of Crescent Valley's existing ROW grant, N-39818, which authorizes a well, pump station, water storage tanks, and a pipeline. The amendment would allow for the construction of a new arsenic removal facility, a replacement water supply well, installation of a 3,800' long water line, and construction of a new water storage tank. In addition, an unauthorized tank constructed at the site will also be authorized. The proposed project is located approximately one mile west of the town of Crescent Valley.

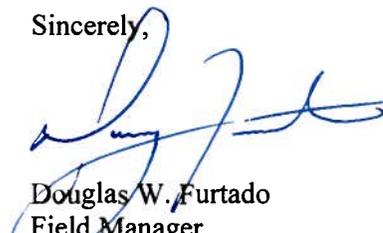
According to the regulations found at 43 CFR 4.410, you have the right to appeal the decision analyzed in this EA if you have a legally recognizable interest which has been, or could be, adversely affected by it. An adversely affected party can be one who has participated in the decision making process by commenting on an environmental document however, such comments must be substantive in content.

The EA will be available for a 30-day public comment period. Written comments on this EA will be accepted at the above address until 4:30 p.m., February 9, 2011. The EA can be viewed on the BLM Battle Mountain District website at: [http://www.blm.gov/nv/st/en/fo/battle\\_mountain\\_field/blm\\_information/national\\_environmental.html](http://www.blm.gov/nv/st/en/fo/battle_mountain_field/blm_information/national_environmental.html)

Before including your address, phone number, e-mail, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

If you have any questions or to obtain a hard copy of this document, please contact Chuck Lane, Project Lead, or Angelica Rose, Planning and Environmental Coordinator, at the above address or at (775) 635-4000.

Sincerely,



Douglas W. Furtado  
Field Manager  
Mount Lewis Field Office

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

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**Environmental Assessment DOI-BLM-NV-B010-2010-0129-EA  
N-39818  
November 2010**

**Eureka County Public Works Department  
Crescent Valley  
Water System Right-of-Way Amendment  
ENVIRONMENTAL ASSESSMENT**

U.S. Department of the Interior  
Bureau of Land Management  
Battle Mountain District  
Mount Lewis Field Office  
Phone: 775-635-4000  
Fax: 775-635-4034



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## LIST OF ACRONYMS

<b>ARPA</b>	Archaeological Resources Protection Act
<b>AUM</b>	Animal Unit Month
<b>BLM</b>	Bureau of Land Management
<b>BMP</b>	Best Management Practice
<b>CFR</b>	Code of Federal Regulations
<b>EA</b>	Environmental Assessment
<b>FLPMA</b>	Federal Land Policy and Management Act
<b>GIS</b>	Geographic Information System
<b>MLFO</b>	Mount Lewis Field Office
<b>NAGPRA</b>	Native American Graves Protection and Repatriation Act
<b>NDEP</b>	Nevada Division of Environmental Protection
<b>NDOW</b>	Nevada Department of Wildlife
<b>NEPA</b>	National Environmental Policy Act
<b>NNHP</b>	Nevada Natural Heritage Program
<b>NRCS</b>	Natural Resources Conservation Service
<b>NRS</b>	Nevada Revised Statutes
<b>ppb</b>	parts per billion
<b>PVC</b>	Polyvinyl Chloride
<b>RMP</b>	Resource Management Plan
<b>ROD</b>	Record of Decision
<b>ROW</b>	Right-of-Way
<b>SWReGAP</b>	Southwest Regional Gap Analysis Project
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TCP</b>	Traditional Cultural Property
<b>USC</b>	United States Code
<b>USEPA</b>	U.S. Environmental Protection Agency
<b>USFWS</b>	U.S. Fish and Wildlife Service
<b>VRM</b>	Visual Resource Management
<b>WAP</b>	Wildlife Action Plan

# **CHAPTER 1 INTRODUCTION**

## **1.1 INTRODUCTION**

The Eureka County Public Works Department (Eureka County) proposes to amend an existing right-of-way (ROW) N-39818 granted to the Town of Crescent Valley (Crescent Valley) to make improvements to the town's water system. Eureka County proposes to construct an arsenic treatment plant and new water main, drill a replacement water supply well, and request authorization for an unauthorized water storage tank presently within the ROW. The ROW is located 0.7 mile west of Crescent Valley on public lands managed by the Bureau of Land Management (BLM) Mount Lewis Field Office (MLFO) (Figure 1).

Crescent Valley's water system serves approximately 180 residential and commercial customers (Eureka County 2010). The water supply originates from two wells. ROW N-39818 contains one of the wells and the other is located private land in town. The ROW also contains three storage tanks that are used to supply the gravity system. Crescent Valley is experiencing several separate problems with its water supply and water system infrastructure. First, annual water quality testing of the water supply show the average arsenic levels from the two wells are 13.25 and 13.5 parts per billion (ppb), exceeding the U.S. Environmental Protection Agency's (USEPA) new arsenic standard for drinking water which is 10 ppb. Second, a recent inspection of the well located within ROW N-39818 found holes in the well casing which could potentially allow external contaminants into the water supply. Finally, the existing ROW contains a water storage tank that was built around 1999 without authorization.

Eureka County submitted an SF299 application for Transportation and Utility Systems and Facilities on Federal Lands to the BLM Battle Mountain District, Mount Lewis Field Office (MLFO) on April 16, 2010, requesting an amendment to the Town of Crescent Valley's existing ROW grant N-39818. Currently, the BLM is preparing this Environmental Assessment (EA) as part of the decision process in consideration of the requested ROW amendment. Through this decision process, BLM meets obligations under the Federal Land Policy and Management Act of 1976 (FLPMA), National Environmental Policy Act (NEPA), and other Public Land Acts.

## **1.2 AGENCY PURPOSE AND NEED FOR THE PROPOSED ACTION**

The purpose of the Proposed Action is to improve the quality of Crescent Valley's water supply so it can meet USEPA's new arsenic standard for drinking water (below 10 ppb) and to prevent potential contamination at one of their water supply wells. A secondary purpose is to bring ROW N-39818 into compliance.

BLM's need is to respond to Eureka County's SF299 application for a ROW Amendment in accordance with FLPMA, and ensure that the action would avoid undue or unnecessary degradation of public land. Specifically, the need for the proposed action is to have the MLFO issue an amended ROW for the (1) construction of an arsenic treatment plant and underground water main, (2) replacement of the deteriorating well, and (3) authorization of an unauthorized tank presently at the site under the authority of Section 501 of the FLPMA and 43 United States Code (USC 1761) (discussed further in the section below).

### **1.3 RELATIONSHIP TO PLANNING AND CONFORMANCE WITH PLANS AND POLICIES**

The public lands administered by the BLM in the project vicinity are managed in accordance with the Shoshone-Eureka Resource Management Plan (RMP) and Record of Decision (ROD) for the Shoshone-Eureka Resource Area (BLM 1984, 1986). The Proposed Action is in conformance with the RMP, even though it is not specifically provided for, because it is consistent with the following RMP decisions (objectives, terms, and conditions): "Management Actions Not Expressly Addressed by the Resource Management Plan– ROD PART II.E (page 28)."

FLPMA Section 501(a)(1) gives BLM the authority to grant, issue or renew ROW over, upon, under, or through public lands for "[r]eservoirs, canals, ditches, flumes, laterals, pipes, pipelines, tunnels and other facilities and systems for the impoundment, storage, transportation, or distribution of water...." Title 43 CFR 2800 allows for issuing, amending or renewing ROW grants for necessary transportation or other systems or facilities which are in the public interest and which require ROW over, upon, under or through public lands. 43 CFR 2800.0-3 is the authority for issuing regulations providing for the use, occupancy, and development of the public lands through permits, easements, and ROWs.

The project is in conformance with Eureka County Master Plan 2010 and the goal stated for the management of the public water supply: "GOAL 4.8 – Provide potable water as necessary to meet demands of planned land use, with cost-effective and environmentally sound systems."

## CHAPTER 2 PROPOSED ACTION AND ALTERNATIVES

### 2.1 PROPOSED ACTION

Eureka County Public Works Department proposes to amend Crescent Valley's existing ROW N-39818 (Figures 1 and 2). The existing ROW consists of a 200-foot by 200-foot area containing a municipal well, three water storage tanks, a pump house, and a 50-foot-wide corridor approximately 4,000 feet long, containing a buried 10-inch water main, overhead powerline, and portions of McDaniel Avenue. The ROW is within Section 6, Township 29 North, Range 48 East, Mount Diablo Base and Meridian, Lander County, Nevada. From Crescent Valley, the project site can be reached by travelling west on McDaniel Avenue.

#### 2.1.1 Description

Eureka County Public Works Department would construct a new buried pipeline within the existing ROW. Eureka County is also requesting a ROW amendment to expand its existing ROW by 200 feet by 100 feet to construct an arsenic treatment plant and drill a replacement well. The specific components of the Proposed Action are as follows:

##### Within the Existing ROW

- Construct 4,000 feet of 8-inch polyvinyl chloride (PVC) transmission main. The transmission main would connect an existing municipal well in town to the new treatment plant. The line would be installed within the existing ROW next to an existing 8-inch water main. Approximately 1,200 feet of the pipeline would be constructed within McDaniel Avenue, an existing gravel road.
- Authorize an existing water storage tank not currently authorized (Figure 3). The tank was installed around 1999. The other two tanks are authorized.

##### Within the Expanded ROW

- Construct an arsenic treatment plant housed within a 20-foot by 40-foot structure to be built adjacent to the existing well building. The treatment plant would consist of an adsorptive-media, pressure filter system and 12,000-gallon bolted steel backwash tank (described in more detail below).
- Drill a new municipal well to replace the well in the existing ROW.

The arsenic water treatment plant would be a skid-mounted pressure filter system including three steel filter vessels with granular media, valving, piping, flow meter, pressure gauges, control

panel, chlorination system, and backwash system. Valves would be operated automatically. All plant components would be fabricated offsite and shipped to the site for assembly.

The two wells that would discharge to the treatment plant are the existing well at the water storage tank site and a well approximately 1½ miles east of the water storage tank site located on private land. (Once the new well is drilled, it would replace the existing on-site well.) The existing site piping would be modified to provide direct discharge from the wells to the treatment plant so they would not discharge into the distribution system as they do now. The anticipated maximum capacity of the water treatment plant is 350 gallons per minute or 0.50 million gallons per day.

An approximate 20-foot by 40-foot pre-fabricated metal building would be constructed to house the skid-mounted filter system. Once the under-piping is installed and the concrete floor slab is poured, the filtration equipment would be slid into place and the remainder of the building would be erected. The building would include steel structural members, metal siding, insulation, electrical power, a small lab area for water samples, and a large roll-up door for forklift access during media replacement or for maintenance.

The filter system utilizes an adsorptive filter media to remove the arsenic from the water. The particles that are removed from the filter media would be collected in bag filters prior to discharging to the backwash tank. The particles collected by the bag filters would be analyzed for suitability for landfill disposal. The backwash water collected in the backwash tank would be pumped to the raw water intake line upstream of the filters for re-oxidation and re-filtering. There would be no deposition of particulate matter from the filter media in the backwash tank. The backwash tank would include an overflow in case of a control failure and a drain line for maintenance or repairs. Operations and maintenance of the new treatment facility would be managed by Eureka County.

The replacement well would be drilled by a licensed well driller who would ensure that its construction and sealing of the abandoned well, meet Nevada Division of Water Resources Office of the State Engineer Regulations for water well drilling (Nevada Revised Statutes (NRS) Chapter 534.) The existing well is 10 inches in diameter and approximately 375 feet deep. The replacement well would be the same size and depth. The location of the replacement well would meet NRS requirements and would be placed within the expanded ROW.

The construction of the new water main would consist of first excavating a trench approximately 6 feet deep and 9 feet wide (3 feet wide at the base of the trench). Material to be placed in the trench would include the pipe and clean bedding material. The pipe would be placed at a minimum depth of 48 inches below the existing surface. The trench would then be backfilled with native material. Bedding and backfill material, and compaction density would meet requirements of Nevada Standard Details for Public Works Construction and standards used by Eureka County Public Works Department. It would be the construction contractor's responsibility to find a source of gravel (bedding material) from private land or secure the

appropriate permit from BLM should the gravel source be located on BLM land. The disturbed ground surface would be reclaimed to preconstruction contours and seeded with a BLM-approved seed mix. Disturbance on public land for the pipeline would be 4.6 acres and would be limited to the width of the ROW (50 feet). Approximately 1,200 feet of the pipeline would be constructed within an existing gravel road (McDaniel Avenue).

### **2.1.2 Environmental Protection Measures**

The following Environmental Protection Measures are incorporated into the Proposed Action in order to reduce or avoid adverse effects.

1. To reduce visual contrast, the arsenic treatment plant backwash tank would be painted a beige color that matches the existing tanks.
2. To minimize impacts to vegetation, all surface disturbances would be limited to the boundaries of the requested ROW.
3. To protect the quality and quantity of ground water, the replacement well would be drilled by a Nevada licensed well driller who would ensure that construction of the new well and abandonment of the old well are in accordance with NRS Chapter 534.
4. To protect water quality, Eureka County and/or its contractors would implement Best Management Practices (BMPs) at all times during construction. BMPs are defined by the Nevada Division of Environmental Protection (NDEP) in the State of Nevada Non-Designated Area Water Quality Management Plan, Handbook of Best Management Practices (1994).
5. As a part of its BMP plan, Eureka County and/or its contractors would implement measures for spill prevention and cleanup. Eureka County and/or its construction contractor would not fuel equipment at the project site. No washing of oil, grease, or other petroleum products would be allowed onsite during construction. In the event of oil, fuel, or hydraulic fluid leaks, cleanup would be conducted immediately after detection. If the leak is on a compacted surface, an oil-absorbing product would be applied. Once the cleanup product has absorbed the leak, it would be swept up and disposed of according to federal, state, or local regulations. If the leak occurs on soil, the contaminated soil would be removed and disposed of according to federal, state, or local regulations.

### **2.1.3 Permits and Approvals**

Eureka County is responsible for obtaining valid permits and approvals from all relevant federal, state, and local agencies to construct the proposed project. Known permits and approvals needed for this project are shown in Table 1.

The treatment process was approved by the NDEP Bureau of Safe Drinking Water based on the pilot testing results.

**Table 1 Permits and Approvals**

<b>Authorizing Action/Permit</b>	<b>Agency</b>
Notice of Intent (to drill and/or plug a well)	Nevada Division of Water Resources, State Engineers Office
Stormwater General Permit NVR10000	NDEP Bureau of Water Pollution Control
Air Quality Operating Permit Surface Area Disturbance	NDEP Bureau of Air Pollution Control

## **2.2 NO ACTION ALTERNATIVE**

Under the No Action Alternative, the BLM would not grant a ROW amendment to Eureka County. Consequently, Eureka County would need to build the treatment facility and the replacement well on private land. Drinking water standards for arsenic would continue to be exceeded until a treatment facility is built and the water supply would continue to be at risk from contamination until the damaged well is replaced. Without a ROW amendment the third water storage tank would continue to be unauthorized.

A suitable site on private land would have to be determined but would need to be about one acre in order to accommodate not only a treatment plant and well, but also a water storage tank and a booster pump station to pump water uphill to the storage tanks in the existing ROW N-39818. The storage tanks presently in the ROW would be maintained because they are situated above Crescent Valley and are needed to maintain the water pressure for the system.

## **2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED**

*Preliminary Engineering Report* (Day Engineering 2009) evaluated the following non treatment and treatment alternatives available to Eureka County:

- Bottled water for customers
- Under-the-counter treatment units (filters) for customers in Crescent Valley
- Drilling and constructing new wells
- Treatment plant using ion exchange technology
- Treatment plant using coagulation/filtration system

The bottled water alternative would involve the purchase and delivery of 5-gallon bottles to all customers on the Crescent Valley water system. This alternative was considered but eliminated because it does not meet the project purpose which is to improve the quality of the Crescent Valley's water supply so it can meet EPA standards for arsenic. Additionally, safety was also a concern. Untreated water could still be consumed, even if accidentally, because water supplied from the existing wells would still be delivered to customers for washing, bathing, irrigation, fire suppression and any other normal uses

The under-the-counter treatment alternative would involve the installation of a filter-type system at each residence. This alternative was considered but eliminated because of the impracticability of accessing each residence several times a year to obtain water samples and replace filters. High cost was also an issue. The existing wells would remain in operation to supply customers with water for other normal uses, making this alternative an additional expense added to the current cost of operating and maintaining the existing water system.

Arsenic tests of wells in Crescent Valley area indicate that it would be possible to drill and construct new wells that supply water that contain less than 10 ppb in arsenic. Good results seemed to be in the lower part of the valley, which would indicate that a well to the east of town would be a possibility. However, this alternative was eliminated from further consideration because of the uncertainty as to whether the groundwater quality and groundwater levels would remain high. It was unknown whether wells could be relied upon over the long term. Cost was also an issue. New wells would be located at an elevation lower the existing water storage tanks and would require a booster station to pump water to the tanks, increasing operation and maintenance costs.

Other types of water treatment plants were considered including Ion Exchange and Coagulation/Filtration. Ion exchange is a proven technology based on the premise that within the anion exchange resin, a chloride anion is exchanged for a pentavalent arsenic anion and then released. Competing ions reduce the effectiveness of removal, and therefore, ion exchange would be a viable technology when raw water contains less than 500 mg/l of total dissolved solids and less than 150 mg/l sulfates. The standard operating ion exchange process typically passes feed water oxidized with chlorine or permanganate down through a strong base anion exchange resin (chloride-form) in a packed column with an empty bed contact time of greater than 1.5 minutes. Once the specified arsenic breakthrough concentration occurs, the column is removed from service and regenerated with sodium chloride. Typically, the regenerate brine can be recycled before it must be processed for disposal. The spent brine is treated with ferric chloride to precipitate arsenic with ferric hydroxide in a settling basin. The supernatant is pumped into an evaporation pond for disposal. The ferric hydroxide/arsenic precipitate is dewatered by a belt press/centrifuge and taken to a standard landfill for disposal.

Although costs for ion exchange media is comparable to the Proposed Action, this alternative was eliminated because of the complexity of the system and because the process would generate a waste stream of approximately 10 percent or more requiring handling and disposal. Additionally, long-term operational performance for ion exchange media is uncertain because long-term data does not exist.

Coagulation/filtration utilizes a ferric chloride addition to the water and filter media to remove the solids that coagulate. The arsenic is adsorbed onto the ferric solids and removed by filtration. The chemical dosing rate and pH adjustment must be tailored to specific water chemistry. Typically, caustic soda is added after filtration to bring the pH of the treated water back up to a

non-corrosive condition. Pressure filters require a flocculation time of around 10 minutes to create a flow particle large enough to be removed by the granular media. This treatment method requires the handling of waste water and sludge; however, backwash water can be reclaimed through use of a backwash recovery tank. Backwash supply water is typically supplied by the system. In most instances, the sludge collected at the bottom of the backwash recovery tank is suitable to go to a public sewer system. Although costs are comparable to the Proposed Action, this alternative was eliminated because the system is complex to operate, involving a complex chemical process requiring constant monitoring and adjustments. Response time for repairs can be lengthy and larger ROW would be needed to accommodate a larger treatment building.

## **2.4 SCOPING**

The project was internally scoped by the BLM Interdisciplinary Team in June and July 2010. The BLM Interdisciplinary Team identified the supplemental authority elements and other resources to be addressed in this document as further discussed in Section 3.2. The BLM determined that formal Native American Consultation would not be necessary; see Section 3.5 for further detail.

**CHAPTER 3**  
**AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

**3.1 RESOURCES CONSIDERED FOR ANALYSIS**

The BLM is required to address specific elements of the environment that are subject to requirements specified in statute or regulation or by executive order (BLM 1988, 1997, 2008). The following table lists the elements that must be addressed in all environmental analyses and indicates whether the Proposed Action affects those elements. Supplemental authority elements determined to be Not Present or Present but Not Affected need not be carried forward for analysis or discussed further in the document.

**Table 2 Supplemental Authority Elements Considered for Analysis**

Supplemental Authority Element	Not Present	Present/ Not Affected	Present/ May Be Affected	Rationale
Air Quality		✓		The proposed project is not within an area of non-attainment or area where total suspended particulates or other criteria pollutants exceed Nevada air quality standards. There would be a temporary increase in particulate matter due to fugitive dust during construction; however, Nevada air quality standards would not be exceeded.
Area of Critical Environmental Concern (ACEC)	✓			Resource is not present.
Cultural Resources	✓			Resource is not present. The BLM determined that a cultural resource inventory was not warranted because the ground surface of the amended and existing ROW have been disturbed and would not likely contain sites eligible for the National Register of Historic Places. Section 3.15 discusses the measures that would be implemented in the event that previously unknown cultural resources are discovered.
Environmental Justice	✓			No minority populations or populations below poverty level occur in Crescent Valley based on census block information.
Farm Lands (Prime or Unique)	✓			Resource is not present.
Fish Habitat	✓			Resource is not present.
Floodplains	✓			Resource is not present.
Forests and Rangelands (HFRA only)	✓			This project does not meet the criteria to qualify as an HFRA project.
Human Health and Safety	✓			Not applicable because this is not an herbicide project.
Migratory Birds			✓	Impacts are assessed in Section 3.12.

Supplemental Authority Element	Not Present	Present/ Not Affected	Present/ May Be Affected	Rationale
Native American Religious Concerns	✓			Resource is not present. The existing ROW contains water system facilities, and the proposed expanded ROW has been cleared of vegetation. The BLM determined that formal notification to the tribes would not be needed because the potential for Native American concerns is low; see Section 3.5. Measures which would be implemented in the event that Native American resources are discovered are discussed in Section 3.15.
Noxious Weeds/Non-native Invasive Non-native Species			✓	Impacts are assessed in Section 3.8.
Threatened and Endangered Species	✓			Resource is not present based on a review of USFWS list of federally listed species and USFWS correspondence (Appendix B).
Waste–Hazardous and Solid			✓	Impacts are assessed in Section 3.13.
Water Quality (Surface/Ground)			✓	Impacts are assessed in Section 3.14.
Wetlands/Riparian Zones	✓			Resource is not present.
Wild & Scenic Rivers	✓			Resource is not present.
Wilderness	✓			Resource is not present.

Other resources of the human environment that have been considered for EA are listed in the table below. Elements that may be affected are further described in the EA.

**Table 3 Other Resources Considered for Analysis**

Other Resources	Not Present	Present/ Not Affected	Present/ May Be Affected	Rationale
Grazing Management			✓	Impacts are assessed in Section 3.9.
Homeland Security of Drinking Water Systems		✓		The Proposed Action would improve and protect Crescent Valley’s water supply by adding an arsenic treatment plant and replacing a damaged well. A vulnerability assessment of this community water system is not required per the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. These assessments are required for systems serving populations of more than 3,300 persons.
Land Use Authorization			✓	Impacts are assessed in Section 3.2.
Minerals	✓			Resource is not present.

Other Resources	Not Present	Present/ Not Affected	Present/ May Be Affected	Rationale
Paleontological Resources	✓			Resource is not present.
Recreation	✓			Resource is not present. Within the vicinity of the project area there are no designated public recreation trails, campgrounds, or parks.
Socioeconomics			✓	Impacts are assessed in Section 3.4.
Soils			✓	Impacts are assessed in Section 3.6.
Vegetation			✓	Impacts are assessed in Section 3.7.
Visual Resources			✓	Impacts are assessed in Section 3.3.
Wild Horses and Burros	✓			Resource is not present.
Wildlife			✓	Impacts are assessed in Section 3.10. BLM Sensitive Species are assessed in Section 3.11.

The following sections describe the affected environment for each resource and the environmental consequences resulting from the Proposed Action. Photographs of the project site are contained in Appendix A. Mitigation measures and the analysis of other alternatives and residual impacts are discussed at the end of this chapter. The analysis of cumulative effects is contained in Chapter 4.

## 3.2 LAND USE AUTHORIZATIONS

### 3.2.1 Affected Environment

A well, pump house, and 150,000 and 200,000 gallon water storage tanks are currently authorized by ROW N-39818. A 322,000 gallon water storage tank exists but was constructed without authorization. The 50-foot-wide pipeline ROW (also N-39818) contains an 8-inch water supply main and a 25-foot-wide ROW (N-59657) granted to Sierra Pacific for an overhead electric power line that runs along the existing pipeline corridor has been to provide electricity to the pump station. No other ROWs are located within the vicinity of the Proposed Action.

### 3.2.2 Environmental Consequences

The Proposed Action would bring ROW N-39818 grant into compliance by authorizing the existing 322,000 gallon storage tank that was constructed without authorization. The expanded ROW would contain the new above ground structures including well, new treatment building to house arsenic treatment plant and backwash tank. The Proposed Action is not expected to impact existing facilities within ROW N-39818, and in fact, the proximity of new facilities to the existing storage tanks is desirable to minimize the length of underground pipeline needed to connect new features to the system. The new pipeline would be constructed

parallel to, but sufficiently distant from, the existing water main and the overhead utility line to prevent damage during construction.

The BLM would notify all ROW grantees of the Proposed Action before a decision is made.

### **3.3 VISUAL RESOURCES**

#### **3.3.1 Affected Environment**

The BLM's Visual Resource Management (VRM) process is used to manage the quality of landscapes on public land and evaluate the potential impacts to visual resources from development and land utilization activities. VRM class designations identify various permissible levels of landscape alteration while protecting the overall visual quality of the region. They are divided into four levels (Classes I, II, III, and IV). Class I is the most restrictive, and Class IV is the least restrictive (BLM 1986).

The Shoshone-Eureka RMP designates the project area as VRM Class IV. The Class IV objective provides for (1) management activities that require major modifications to the existing character of the landscape and may dominate the view of the casual observer or attract attention and (2) a level of change that can be high. Every attempt should be made to minimize impacts of activities by carefully locating activities and repeating the basic elements found in the natural features (form, line, color, and texture) of the landscape.

In general, the visual setting of the project area is an altered landscape common to areas near developed towns in central Nevada. The landscape consists of large, open spaces with tall mountains in the distant horizon. Dominant vegetation in this area consists of low shrubs with areas of bare soil and rock. In the immediate vicinity of the Proposed Action, the visual resource has been altered by existing water storage tanks and other manmade structures present in the existing ROW.

#### **3.3.2 Environmental Consequences**

Visual impacts of the Proposed Action would in conformance with the objectives of BLM VRM Class IV. During construction of the project, equipment and material stockpiles would be visible, but impacts would be temporary for the duration of construction, lasting no more than 30 days. Vegetation would be lost in the construction zone in the pipeline ROW and the loss would be visible upon completion of the project. This visual impact would be temporary until disturbed areas are successfully revegetated. To minimize impacts and facilitate the revegetation process, all areas disturbed during construction would be reseeded with the BLM-approved seed mix contained in Section 3.15 Mitigation Measures.

The construction of the treatment plant building and backwash tank would add permanent features to the visual landscape. Impacts would be minimal because these structures would only be visible within a mile from observations points to the west, north and south. As an

Environmental Protection Measure, Eureka County would paint the backwash tank to match the existing tanks to minimize the visual contrast. The new structures would not be visible when viewed from the east along McDaniel Avenue or from Crescent Valley as the three existing water storage tanks would block the view.

### **3.4 SOCIOECONOMICS**

#### **3.4.1 Affected Environment**

Eureka County is a rural county encompassing approximately 4,176 square miles with a population of 1,608 residents. Crescent Valley is one of the four towns/areas where Eureka County's population is concentrated. According to the Draft Eureka County Master Plan 2010, the unincorporated town of Crescent Valley has a population of 396, which represents about 25 percent of the county's population (Eureka 2010). Land uses occurring in Crescent Valley include residential, agricultural, mining, and limited commercial and industrial use. The mining industry is by far the largest employer in the region, and growth and development of Crescent Valley is dependent on mining activity in the area. Livestock and hay farming are also an important part of the area's socioeconomics.

#### **3.4.2 Environmental Consequences**

Impacts to socioeconomics would be negligible because the Proposed Action is not expected to generate employment opportunities within the community, substantially change the population size in the area, or generate a demand for housing and community services. It is possible that the improvement to the quality of the drinking water from the Proposed Action may attract residents to the community or prevent residents from moving away from the community. Eureka County expects that a licensed contractor would come from out of town to make the improvements to the facility due to the lack of qualified licensed contractors available locally. Seven to 10 workers are anticipated, and they would likely find accommodations and meals in Battle Mountain, Elko, or Carlin for a period of less than 30 days.

### **3.5 NATIVE AMERICAN CONCERNS**

#### **3.5.1 Affected Environment**

Various tribes and bands of the Western Shoshone have stated that federal projects and land actions can have widespread effects on their culture and religion as they consider the landscape as sacred and as a provider. The proposed action lies within the traditional territory of the Western Shoshone. Sites and resources considered sacred or detrimental to the continuation of tribal traditions include, but are not limited to, prehistoric and historic village sites, sources of water (hot and cold springs), pine nut gathering locations, sites of ceremony and prayer, archaeological sites, burial locations, "rock art" sites, medicinal/edible plant gathering locations, areas associated with creation stories, or any other tribally designated Traditional Cultural Property (TCP).

The BLM determined that formal notification to the tribes would not be needed because the potential for Native American concerns is low. The project would be constructed just outside of the town of Crescent Valley. Tribally identified TCPs and specific Native American cultural, traditional, or spiritual activities, sites, or resources are not known to exist in the immediate vicinity of the Crescent Valley. All project construction would take place in areas where the ground has already been disturbed. The pipeline would be placed within an existing ROW that contains a gravel road, another buried water pipeline and overhead powerline. The water system facilities would be placed on an expanded ROW that has been previously graded.

### **3.5.2 Environmental Consequences**

Considering the amount of previous disturbances and the proximity of the Proposed Action to Crescent Valley (less than 1 mile), it is unlikely that the Proposed Action would adversely affect any Native American religious site, religious practice, or ceremony, or any other traditional/spiritual/cultural use site or resource. The Proposed Action does not appear to have the ability to compromise the physical integrity of any traditional/spiritual/cultural or ceremonial use area. This action would not limit or prevent access to any unknown (to BLM) or known traditional or ceremonial sites currently in use.

The inadvertent discovery of previously unidentified Native American gravesites would require Eureka County to implement the measures described in Section 3.15 Mitigation Measures. These measures would ensure that such a discovery is protected in compliance with the Native American Graves Protection and Repatriation Act (NAGPRA), the FLPMA, and the Archaeological Resources Protection Act (ARPA). Therefore, impacts to Native American religious concerns would not occur as a result of the Proposed Action.

## **3.6 SOILS**

### **3.6.1 Affected Environment**

Soils have been mapped by the Natural Resources Conservation Service (NRCS) and are described in the *Soil Map-Eureka County Area, Nevada; and Lander County, Nevada, North Part* (NRCS 2009). The project would be constructed on the following soil units:

- Whirlo-Creemon association (unit 1165)
- Tenabo-Ricert association (unit 1041)

The expanded ROW where the new treatment plant, water tanks, and well would be constructed is located on the Tenabo-Ricert association soil unit. The Tenabo-Ricert association is found on fan piedmonts and is composed of 60 percent Tenabo soil and 25 percent Ricert. Tenabo soil occurs on 0 to 4 percent slopes. In a typical profile, it is silt loam and silty clay loam over an indurated hardpan at 9 to 20 inches. Tenabo soil is well drained, very slightly saline to strongly saline, with a low available water capacity. Ricert soil is found on 2 to 4 percent slopes and is a gravely silt loam over a clay loam and lacks a restrictive layer. Ricert soil is well drained,

nonsaline to slightly saline with a low available water capacity. Ecological site classification for both soil types is loamy 5-8 precipitation zone. Erosion potential on both soil types is slight due to the lack of slope.

The pipeline ROW occurs on the Whirlo-Creemon association soil unit. The Whirlo-Creemon association is composed of 45 percent Whirlo soil and 40 percent Creemon soil. The association is found on fan skirts and inset fans. Whirlo soil is found on 2 to 4 percent slopes. A typical profile has gravelly loam at 0 to 12 inches over a very gravelly fine sandy loam at 12 to 24 inches. The soil is well drained, very slightly saline to moderately saline, with a low available water capacity. Creemon soil is found on 0 to 2 percent slopes. A typical profile has silt loam at 1 to 15 inches over a stratified very fine sandy loam to silt loam at 15 to 45 inches. Creemon soil is well drained, slightly saline to strongly saline, and has a high available water capacity. Erosion potential on both soils is slight due to the lack of slope, and the ecological site classification is loamy 5-8 precipitation zone.

### **3.6.2 Environmental Consequences**

The construction of the water system infrastructure on the expanded ROW would cover up to 0.46 acre of substrate. Impacts would be minimal because the site has been previously cleared and graded. Up to 4.6 acres of soil within the pipeline ROW would be disturbed through excavation. Impacts would be minimal because the ROW has been previously disturbed during construction of the existing pipeline and McDaniel Avenue and impacts would be temporary. Once new pipe and bedding are installed, the trench would be backfilled with native soil and preconstruction contours would be restored. Any impacts would be further minimized through use of BMPs during construction to control erosion and siltation. BMPs also would include reclamation of the disturbed areas to pre-construction contours. All disturbed areas would be seeded with the BLM-approved seed mix listed in Section 3.15 Mitigation Measures.

## **3.7 VEGETATION**

### **3.7.1 Affected Environment**

JBR Environmental Consultants, Inc. (JBR) conducted a vegetation survey on August 27, 2010, and photographs showing vegetation contained within the project area are presented in Appendix A. The survey found the vegetation over the majority of the project site is salt desert scrub community with a sagebrush community in ephemeral dry swales. The desert scrub community was dominated by early successional species and lacked a diversity of grasses.

The soil surface of the proposed expanded ROW has been previously disturbed and has been recolonized by a weedy community of short statured halogeton (*Halogeton glomeratus*), cheatgrass (*Bromus tectorum*), clasping pepperweed (*Lepidium perfoliatum*), tumble mustard (*Sisymbrium altissimum*), and some shadscale (*Atriplex confertifolia*). The perimeter of the ROW area is used as a vehicle turnaround, and frequent and regular use has prevented the reestablishment of vegetation around the perimeter (Photographs 1 and 2).

A gravel road (McDaniel Avenue) has been built over portions of the western 1,200 feet of the pipeline ROW. The remaining portions of the pipeline ROW have been disturbed by the existing buried water main and overhead power line that supplies power to the existing pump house. The ROW area has been revegetated with rubber and needle leaf rabbitbrush (*Ericameria teretifolia*), squirreltail bottle brush (*Elymus elymoides*), cheatgrass, broom snakeweed (*Gutierrezia sarothrae*), shadscale, and four wing saltbush (*Atriplex canescens*) (Photograph 3). Halogeton, clasping pepperweed, and tumble mustard are also common. Six- to 10-foot-wide linear stringers of sparse Wyoming sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) with Great Basin wildrye (*Leymus cinereus*) and curly dock (*Rumex crispus*) occur in several swales and lower topographic areas.

### **3.7.2 Environmental Consequences**

Vegetation would be permanently lost from the expanded ROW and temporarily lost from the pipeline ROW. Following grading, the expanded ROW would be compacted and covered with a gravel or concrete foundation, precluding re-establishment of vegetation. Within the pipeline ROW, vegetation cleared from the excavation area would re-establish after the ground is restored to its preconstruction contours and reseeded. It should be noted that the first 1,200 feet of the pipeline would be constructed within McDaniel Avenue where vegetation has already been permanently lost. Impacts to vegetation in the pipeline and expanded ROW would not be significant because the ROW areas have already been disturbed. To minimize impacts to vegetation, Eureka County would use the BLM-approved seed mix listed in Section 3.15 Mitigation Measures to ensure that ecologically appropriate plant species are used.

## **3.8 NOXIOUS WEEDS, INVASIVE, NON-NATIVE SPECIES**

### **3.8.1 Affected Environment**

Within Nevada, noxious weeds are defined in the Nevada Revised Statutes 555.005 as “any species of plant which is, or is likely to be, detrimental or destructive and difficult to control or eradicate.” The Nevada Department of Agriculture’s Noxious Weed Website ([http://agri.state.nv.us/PLANT\\_NoxWeeds\\_index.htm](http://agri.state.nv.us/PLANT_NoxWeeds_index.htm)) provides a list of all weeds currently listed as noxious for the State of Nevada.

A noxious weed inventory was conducted on August 25, 2010. No State of Nevada noxious weeds were observed. However, invasive species cheatgrass, halogeton, clasping pepperweed, and tumble mustard were found throughout the pipeline ROW and proposed ROW expansion area.

### **3.8.2 Environmental Consequences**

Up to 4.6 acres of ground within the existing pipeline ROW would be temporarily disturbed from pipeline construction and 0.46 acre of land on the expanded ROW would be disturbed or covered from construction of the new water system facilities. Ground disturbance increases the risk of

colonization by noxious and non-native invasive weeds. While no Nevada state-designated noxious weeds were identified in the survey area, the proposed ROW would be prone to colonization by noxious weeds because it is located alongside McDaniel Avenue on which weed seeds can be transported (Figure 3). The prevalence of halogeton, cheatgrass, and other invasive species within the ROW makes re-establishment of these invasive species highly likely.

Eureka County would minimize the potential for the establishment of noxious weeds and non-native invasive species by implementing BMPs. BMPs would include washing construction equipment prior to entering the project area, using only certified weed-free hay if hay bales are used for erosion control, reseeding disturbed areas. The Diamond Valley Weed District would monitor and treat weed infestations as described in Section 3.15 Mitigation Measures

### **3.9 GRAZING MANAGEMENT**

#### **3.9.1 Affected Environment**

The Proposed Action is within the 332,016-acre Argenta grazing allotment. Approximately 144,974 acres of the allotment are on public land. There are currently 17,203 Animal Unit Months (AUMs) permitted for use within the Argenta Allotment. An AUM is the amount of forage necessary to sustain a cow and calf, one horse, or five sheep for one month. Cattle, sheep, and some horses are permitted to utilize the allotment.

#### **3.9.2 Environmental Consequences**

The expanded ROW would be fenced, making 0.46 acre of forage no longer available to livestock. This represents less than 0.1 AMU, a negligible loss of forage. The loss of forage from the pipeline ROW would also be negligible, not only because the ROW area is small but also because the loss would be temporary until vegetation is re-established. To minimize impacts to forage, Eureka County would reseed pipeline disturbance with the BLM-approved seed mix listed in Section 3.15 Mitigation Measures.

The BLM would notify all permittees with allotments that could be potentially affected by the Proposed Action.

### **3.10 WILDLIFE**

#### **3.10.1 Affected Environment**

The Nevada Department of Wildlife's (NDOW) Wildlife Action Plan (WAP) characterized Nevada's vegetative land cover into eight broad ecological system groups and linked those with key habitat types, which are further refined into ecological systems characterized by plant communities or associations that support various wildlife species (Nevada Wildlife Action Plan Team 2006). The habitat mapped within the project area is mixed salt desert scrub with minor inclusions of big sagebrush shrubland; see Section 3.7 Vegetation. The WAP considers the

mixed salt desert scrub habitat as a part of a broader Intermountain Cold Desert Scrub habitat. According to the WAP, the two most dependable herbivorous food staples within the vegetation community are ricegrass and shadscale seeds, although forb seeds and leaf material will also be used when present. Shrubs serve as nesting structures and provide protection from predators and thermal cover for a variety of avian species.

NDOW stated that habitat in the project area has been severely compromised by fire, development, noxious weeds, and other anthropomorphic influences (Appendix B). A JBR biologist conducted a wildlife survey on August 27, 2010, and findings of the survey were consistent with NDOW's assessment. The JBR biologist observed that the greatest man-made influence in both ROW areas has been the ground disturbance from previous construction.

NDOW stated that pronghorn antelope will be found in low densities in the project area year round but are more likely to occur in winter months. NDOW also noted that red-tailed hawks (*Buteo jamaicensis*), rough-legged hawks (*Buteo lagopus*), and American kestrel (*Falco sparverius*) may utilize the project area. Migratory birds that would be expected to occur include horned larks (*Eremophila alpestris*), meadowlarks (*Sturnella neglecta*), and Brewer's sparrows (*Spizella breweri*) (Appendix B).

### **3.10.2 Environmental Consequences**

Up to 4.6 acres of wildlife habitat would be temporarily disturbed during pipeline construction, and 0.46 acre of wildlife habitat would be lost from development of the expanded ROW. Impacts would be minimal for several reasons. The majority of the impacts are considered temporary as the habitat would be reseeded, allowing for revegetation of the habitat. Habitat that would be permanently lost has been disturbed and lacks shrubs and palatable vegetation. Additionally, there is an abundance of desert scrub habitat immediately surrounding the ROW areas that would still be available to wildlife. Specific impacts to pronghorn antelope are expected to be minimal for this reason and because the number of antelope known to pass through the project area is small.

## **3.11 BLM SENSITIVE SPECIES**

### **3.11.1 Affected Environment**

According to correspondence from the U.S. Fish and Wildlife Service (USFWS) dated July 1, 2010, no federally listed or proposed plant or animal species are known to occur in the project area (Appendix B). However, the agency notes that greater sage-grouse (*Centrocercus urophasianus*), a candidate species, may occur within the project area (Appendix B). The greater sage grouse and pygmy rabbit are BLM sensitive species.

A query of the Nevada Natural Heritage Program (NNHP) database found no occurrences of endangered, threatened, candidate, and/or At Risk plant and animal taxa near the project area (Appendix B). Like USFWS, NNHP also stated that the active greater sage-grouse leks are near

the project area. Correspondence from NDOW stated that no greater sage-grouse leks are nearby but that the project area is considered winter habitat (Appendix B). However, the agency does not expect that sage-grouse would be encountered due to “extreme disturbances in recent decades.”

BLM sensitive avian species noted by NDOW that have been known to forage in the area include golden eagle (*Aquila chrysaetos*), prairie falcon (*Falco mexicanus*), Swainson’s hawk (*Buteo swainsoni*), American kestrel, great horned owl (*Bubo virginianus*), and short-eared owl (*Asio flammeus*), ferruginous hawk (*Buteo regalis*), and burrowing owl (*Athene cunicularia*). NDOW also noted that Townsend’s big eared bats (*Corynorhinus townsendii*) have been documented in high densities in the abandoned mines around the project area. No suitable roost opportunities occur on the project site, but the Townsend’s big eared bat along with other bat species would be expected to forage in the project area.

The wildlife survey included a search for all sensitive species with the potential to occur in the area. The pipeline ROW contains limited areas of suitable pygmy rabbit habitat consisting of 6- to 10-foot-wide stringers of sagebrush within ephemeral drainage swales, but no burrows or pellets were observed. No suitable sagebrush habitat occurs within the expanded ROW. The wildlife survey also found no evidence of greater sage-grouse. No sage-grouse activity would be expected because the existing powerline along the pipeline ROW and structures at the pumping facility provide ample perch sites for predatory raptors. The wildlife survey included a search for burrowing owl burrows and kit fox burrows; no burrows belonging to either species were found.

### **3.11.2 Environmental Consequences**

Impacts to sensitive avian and bat species that would forage at the project site would be minimal because the majority of project impacts are temporary, the existing habitat quality is low, and suitable foraging habitat is abundant outside of the project area. Minimal impacts to pygmy rabbit would be expected because areas of suitable habitat are limited and no signs of pygmy rabbits were found.

## **3.12 MIGRATORY BIRDS**

### **3.12.1 Affected Environment**

Migratory birds are defined in Title 50 Code of Federal Regulations (CFR) 10.12 as any bird, whatever its origin and whether or not raised in captivity, which belongs to a species listed in 50 CFR 10.13 and any bird which is a mutation or a hybrid of any such species. The definition extends to include any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof. Migratory bird species are protected under the Migratory Bird Treaty Act of 1918. This act prohibits killing or taking migratory bird species without a permit. Protection under the act extends to nesting birds and their eggs.

Migratory birds noted by NDOW that may nest in the area include horned larks, meadow larks, and Brewer's sparrows. Avian species composition and density in the project area varies with season and habitat type. Avian species diversity is highest during the spring and summer months, when more migrant species are present in the area. Species diversity decreases markedly during the fall and winter season, when many nesting species move south, out of the project area. The horned larks are a resident species. Sparrows are migratory and would occur in the area during the spring, summer, and early fall. Other migratory bird species may utilize the project area in addition to the species directly specified within this EA.

### **3.12.2 Environmental Consequences**

Approximately 0.46 acre of migratory bird habitat would be permanently lost, and 4.6 acres would be disturbed. Impacts to migratory birds are expected to be minimal because the ROW areas are surrounded by an abundance of suitable habitat.

The potential for impacts to nesting migratory bird could occur if project construction occurs during migratory bird nesting season (March 1 through August 31 for raptors and April 1 through July 31 for other migratory birds). If the project is constructed during the migratory bird nesting season, a preconstruction survey for nesting migratory birds would be conducted by a qualified biologist; see Section 3.15 Mitigation Measures. If active nests are found, nests would be avoided until the nesting attempt has been completed.

## **3.13 HAZARDOUS AND SOLID WASTE**

### **3.13.1 Affected Environment**

Solid waste generated by the project during construction would include excess sidecast material, cleared vegetation, left-over construction material, and construction debris. All solid waste generated during construction that cannot be reused would be hauled offsite and appropriately disposed of. Waste generated during operation of the arsenic treatment plant would be limited to particulate matter removed and collected by bag filters. The particles collected by the bag filters would be analyzed by the Toxicity Characteristic Leaching Procedure (TCLP) to ensure suitability for landfill disposal. Waste generated by the Proposed Action is not expected to be hazardous. If contaminant concentrations in the TCLP are in excess of those allowable in the Land Disposal Restrictions of the Resource Conservation Recovery Act, it would be classified as hazardous and would be disposed in a Class C landfill.

### **3.13.2 Environmental Consequences**

Impacts from solid waste would be minor because all waste generated by the project would be taken offsite and disposed of appropriately, such as in a landfill. Classification of the particles on the bag filters as a hazardous material based on testing is not expected and no hazardous materials would be used in the treatment process.

As would be specified in the project BMP plan, Eureka County and/or the County's construction contractor would implement BMPs for spill prevention and cleanup; see Environmental Protection Measures Section 2.1.2. Eureka County and/or the County's construction contractor would not maintain and fuel equipment at the project site. Vehicles would be cleaned prior to delivery to the construction site. No washing of oil, grease, or other petroleum products would be allowed on-site during construction. In the event of oil, fuel, and hydraulic fluid leaks, cleanup would be conducted immediately after detection.

### **3.14 WATER QUALITY**

#### **3.14.1 Affected Environment**

The annual average concentration of arsenic in the Crescent Valley's two water supply wells is 13.5 and 13.25 and exceed the EPA's arsenic standard by several ppb (Crescent Valley Water System 2007).

#### **3.14.2 Environmental Consequences**

The Proposed Action would improve the drinking water quality to less than 10 ppb of arsenic, bringing Crescent Valley's water supply into compliance with EPA regulations. Meeting the EPA's regulatory requirements is intended to protect the health of the town's water supply customers. The arsenic treatment plant component of the project would provide treatment of the water supply but would not affect the ground water or change surface water conditions.

The replacement of existing well would minimize the risk of potential contamination of the drinking water supply from external sources. Replacing the existing well would not increase water demand or increase water withdrawals. The well would be drilled by a licensed well driller who would ensure construction, including abandonment of the old well, meet Nevada Division of Water Resources Regulations for water well drilling (Nevada Revised Statutes Chapter 534). If contaminated water is encountered, the well driller would follow NRS 534.020, 534.110, 534.140 to ensure the movement of the contaminant or contaminated water in the well bore is prevented.

### **3.15 MITIGATION MEASURES**

The following mitigation measures would be implemented in conjunction with the Proposed Action. These measures are designed to reduce the severity of impacts associated with the Proposed Action.

#### Vegetation, Soils, Noxious Weeds

1. In order to minimize impacts to vegetation and soils and to minimize the potential for weeds to establish, Eureka County would reclaim disturbed areas using the BLM-

approved seed mix. The proposed seed mix and application rates in pounds per acre of pure live seed are as follows:

<u>Species</u>	<u>Scientific Name</u>	<u>Rate pounds per acre</u>
Forage Kochia	<i>Bassia prostrate</i>	5.0
Crested Wheatgrass	<i>Agropyron cristatum</i>	5.0
Western Yarrow	<i>Achillia millefolium</i>	0.5
Scarlet Globemallow	<i>Sphaeralcea coccinea</i>	0.25

Additionally, construction equipment would be washed prior to entering the project area. Only certified weed-free hay would be used if hay bales are used for erosion control.

The Diamond Valley Weed District would include the project ROW areas as a part of its annual work plan to ensure the ROW areas would be inspected and all noxious weeds and invasive species would be treated.

### Native American and Cultural Resources

2. The ARPA, as well as the NAGPRA, both provide protection for historic properties, cultural resources, and Native American funerary items, gravesites, and/or physical remains located on federal land. Section (3)(d)(1) of NAGPRA states that the discovering individual must notify the land manager in writing of such a discovery. In addition, ARPA provides for the assessment of criminal and/or civil penalties for damaging cultural resources. Any unplanned discovery of surface and/or subsurface cultural properties, items, or artifacts (e.g., stone tools, projectile points, etc.), human remains, items of cultural patrimony, sacred objects, or funerary items requires that all activity in the vicinity of the find ceases and notification be made to Doug Furtado, Field Manager, Mount Lewis Field Office, 50 Bastian Way, Battle Mountain, NV 89820 (775-635-4000) by telephone, with written confirmation to follow, immediately upon such discovery. The location of the find should not be publically disclosed, and any human remains must be secured and preserved in place until a Notice to Proceed is issued by the authorized officer.

### Migratory Birds

3. Constructing the project during the migratory bird nesting season (March 1 through August 31 for raptors and April 1 through July 31 for other migratory birds) could potentially disturb nesting migratory birds. If the project is constructed during the migratory bird nesting season, a preconstruction survey for nesting migratory birds would be conducted by a qualified biologist. If nests are located, or if other evidence of nesting (i.e., mated pairs, territorial defense, carrying nesting material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the

species) would be delineated and the entire area avoided preventing destruction or disturbance to nests until they are no longer active.

### Wildland Fires

4. The following precautionary measures should be taken to prevent wildland fires. In the event your operations should start a fire, you could be held liable for all suppression costs.
  - a) All vehicles should carry fire extinguishers.
  - b) Adequate fire fighting equipment i.e. shovel, pulaski, extinguisher(s), and/or an ample water supply should be kept at the drill site(s).
  - c) Vehicle catalytic converters should be inspected often and cleaned of all brush and grass debris.
  - d) When conducting welding operations, they should be conducted in an area free from or mostly free from vegetation. An ample water supply and shovel should be on hand to extinguish any fires created from the sparks. Extra personnel should be at the welding site to watch out for fires created by welding sparks.
  - e) Report wildland fires immediately to the BLM Central Nevada Interagency Dispatch Center at (775) 623-3444.
  - f) When conducting operations during the months of May through September, the operator must contact the BLM Battle Mountain Field Office, Division of Fire and Aviation at (775) 635-4000 to find out about any fire restrictions in place for the area of operation and to advise this office of approximate beginning and ending dates for your activities.

### **3.16 NO ACTION ALTERNATIVE**

Under the No Action Alternative, Eureka County would build the treatment facility and the replacement well on private land. The private land site would need to include a water storage tank and a booster pump station to pump water to the existing ROW. Therefore, under the No Action Alternative, a slightly larger constructed area would be needed compared to the Proposed Action. The water storage tanks within the existing ROW would continue to be operated and maintained.

The location of the No Action has not been determined and therefore specific impacts to land use, visual resources, cultural resources, Native American resources, soils, vegetation, noxious weeds, grazing, wildlife, BLM sensitive species, and migratory birds are unknown. Impacts to these resources from the No Action Alternative are expected to be similar to those of the Proposed Action because the type of structures and the project footprint would be similar. Impacts to water quality and solid hazardous waste would be the same as the Proposed Action.

### **3.17 RESIDUAL IMPACTS**

Residual impacts are those that would remain after mitigation is successfully implemented. With the successful implementation of the environmental protection measures and mitigation measures, the proposed project would result in only minimal residual impacts. Development of the expanded ROW to construct the water treatment plant and new well would cause the permanent loss of 0.46 acre of soils, vegetation, and wildlife habitat.

Under the No Action Alternative the arsenic treatment plant and new well would be constructed on private land rather than public land, but the specific location is unknown at this time. Compared with the Proposed Action, similar residual impacts (e.g., permanent loss of soils, vegetation, and wildlife) would be expected to occur under the No Action Alternative.

## CHAPTER 4 CUMULATIVE EFFECTS

### 4.1 CUMULATIVE IMPACTS ASSESSMENT

A cumulative impact is defined under NEPA as “the change in the environment 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 action” (40 CFR Part 1508.7). “Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (NEPA 40 CFR Part 1508.7).

A 2,705 acre area extending more or less 1 mile in all directions from the proposed extended ROW was identified as the cumulative effects study area (CESA) (Figure 4). This area was identified for analysis because the Proposed Action is unlikely to have measureable effects outside of this area. The CESA boundary shown in Figure 4 is used for all resources analyzed for cumulative impacts.

Past and present activities include the following:

1. Construction of the existing water system facilities within existing ROW N-39818 (0.9 acre)
2. Dirt and gravel roads (3.8 miles/4.6 acres)
3. Town of Crescent Valley (96 acres)
4. Other well site (3 acres)
5. Existing power line
6. Wildlife use
7. Livestock grazing
8. Dispersed recreation

Past wildland fires have probably occurred within the CESA but specific detail (dates and acres) regarding the fires is unavailable.

Reasonably foreseeable future actions include the continued use of the CESA by wildlife, livestock and recreationists. Eureka County would continue to use the ROW to operate and maintain the water treatment plant, storage tanks, and well. A fourth water storage tank within the Crescent Valley’s ROW expansion may be proposed in the future, but it is not considered in this analysis as a reasonably foreseeable future action because specific details regarding the need for the tank, the dimensions and the timing of construction are unknown.

## 4.2 CUMULATIVE EFFECTS TO RESOURCES

Resource topics considered under the cumulative effects analysis include all resources identified in Table 2 for which the Proposed Action may cause direct or indirect impacts. Since negligible to no impacts were identified for land use, socioeconomics, cultural resources, Native American religious concerns, grazing management, solid waste, and water quality these resources are not addressed in the cumulative impacts assessment. Cumulative impacts are addressed for the following resources:

- Visual Resources
- Soils
- Vegetation
- Noxious Weeds/Non-native Invasive Species
- Special Status Species
- Wildlife
- Migratory Birds

### 4.2.1 Visual Resources

Past and present actions have impacted visual resources by replacing approximately 104.5 acres of native shrubland (5 percent of the CESA) with manmade structures and features. The Proposed Action would cause an additional 0.46 acre of development and would contribute a minor visual change. New above ground water system structures are similar to structures presently within the existing ROW. New structures would meet VRM Class IV objectives and blend in and would not be visible from all directions. In order to reduce visual contrast, the Proposed Action would include painting the tank a color that matches the color of the existing environment and revegetating construction disturbances. As a result, the contribution of the Proposed Action to past, present, and reasonably foreseeable cumulative impacts to visual resources would be minimal. For projects requiring BLM approval, including the Proposed Action, BLM would require that projects to meet VRM Class IV objectives and potential adverse impacts would be avoided and/or mitigated, thus minimizing cumulative losses.

Under the No Action Alternative, similar structures would be built on private land and cumulative impacts would be similar.

### 4.2.2 Vegetation, Soils, and Noxious Weeds/Non-native Invasive Species

Past and present cumulative actions have resulted in loss of approximately 104.5 acres of native vegetation and soil resources, representing 5 percent of the CESA. Past wildland fires have likely changed the pre-fire vegetation community into a community that supports fewer shrubs. The degree to which fire has the changed the pre-fire community is unknown. The loss and/or disturbance to vegetation and soils from cumulative actions have contributed to the spread of non-native invasive species and risk of establishment of noxious weeds.

The Proposed Action would cause an additional 0.46 acre of permanent loss to vegetation and soils. Cumulative effects would be reduced with the implementation of BMPs, reseeded of areas disturbed by construction, and monitoring and control of weeds by the Diamond Valley Weed District. For projects requiring BLM approval, including the Proposed Action, BLM would require the project applicant to avoid and/or mitigate potential adverse effects, thus minimizing cumulative losses.

Under the No Action Alternative, similar structures would be built on private land and minimization of cumulative impacts to vegetation, soils, and weeds would be similar. Seeding to revegetate disturbed areas would still occur because it would be required by the NDEP Stormwater General Permit. The Diamond Valley Weed District would continue to monitor and treat weeds.

#### **4.2.3 Wildlife, Migratory Birds, and Special Status Species**

An estimated 104.5 acres of natural habitat for wildlife, migratory birds, and special status species have been lost from past and present cumulative actions. This acreage equates to 5 percent of the land contained in the CESA. Past wildland fires have probably converted the pre-fire vegetation community into a community that supports fewer shrubs diminishing the quality of habitat for wildlife species that depend on shrubs for food, cover, and reproduction. The degree to which fire has affected shrub-dependent wildlife is unknown.

The Proposed Action would contribute an additional permanent loss of 0.46 acre of habitat. Cumulative effects would be reduced with the implementation of BMPs and revegetation of habitat disturbed by construction. For projects requiring BLM approval, including the Proposed Action, BLM would require the project applicant to avoid and/or mitigate potential adverse effects, thus minimizing cumulative losses.

Under the No Action Alternative similar structures would be built on private land, and cumulative impacts to wildlife, migratory birds, and special status species would be similar. Seeding to revegetate disturbed areas would still occur because it would be required by the NDEP Stormwater General Permit.

## **CHAPTER 5 LIST OF PREPARERS AND SOURCES**

### **5.1 REPORT PREPARERS**

This EA was prepared by the following individuals:

JBR Environmental Consultants, Inc.  
Nancy Kang, Project Manager  
George Dix, Environmental Analyst  
David Worley, Wildlife Biologist  
Travis Branzell, Wildlife Biologist  
Christine Johnson, GIS/Mapping Specialist  
Michael Derby, GIS/Mapping Specialist

Eureka County Public Works  
Ron Damele, Director

#### **BLM**

Chuck Lane, Realty Specialist  
Angelica Rose, Planning and Environmental Coordinator  
Ryan Sandefur, Wildlife Biologist  
Casey Johnson, Rangeland Management Specialist  
Michael Vermeys, Noxious Weed Specialist  
Teresa Dixon, Archaeologist  
Gerald Dixon, Native American Coordinator  
Daniel Tecca, Hazardous Materials Specialist  
Cory Gardner, Land Law Examiner

### **5.2 PERSONS, GROUPS, AND AGENCIES CONSULTED**

Martin Ugalde, P.E., Day Engineering, Inc.  
Katie Miller, NDOW  
Eric Miskow, NNHP  
Robert Williams, USFWS

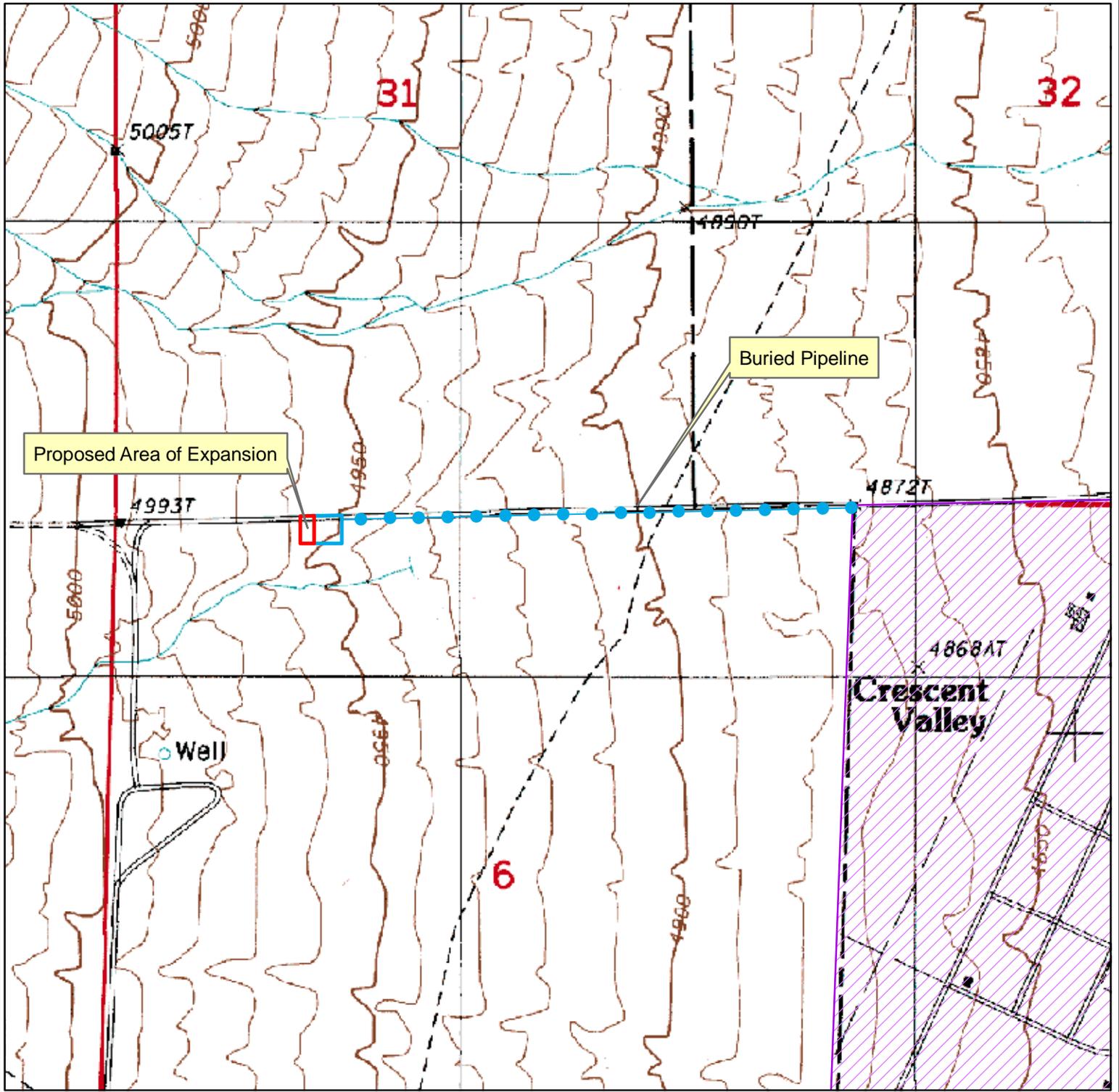
### 5.3 REFERENCES

- Bureau of Land Management (BLM). 1984. Shoshone - Eureka Resource Management Plan, Environmental Impact Statement; Final. Battle Mountain, Nevada: U.S. Bureau of Land Management, Battle Mountain District Office. TIC: 241507.
- \_\_\_\_\_. 1986. Shoshone - Eureka Resource Area Record of Decision. Battle Mountain, Nevada: U.S. Bureau of Land Management, Battle Mountain District Office.
- \_\_\_\_\_. 2008. BLM National Environmental Policy Act Handbook H-1790-1. U.S. Department of the Interior, Washington, D.C.
- Crescent Valley Water System. 2007. 2007 Annual Drinking Water Quality Report. Crescent Valley, Nevada.
- Day Engineering (Day). 2009. Crescent Valley Water System Preliminary Engineering Report. Prepared for Eureka County, April 22, 2009. 37pp.
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- Nevada, State of. 1994. Best Management Practices Handbook. Nevada Division of Environmental Protection, Carson City, Nevada.
- Wildlife Action Plan Team. 2006. Nevada Wildlife Action Plan. Nevada Department of Wildlife, Reno, Nevada.

## **FIGURES**

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**FIGURE 1  
PROPOSED AMENDMENT TO CRESCENT VALLEY WATER FACILITY  
N-39818**

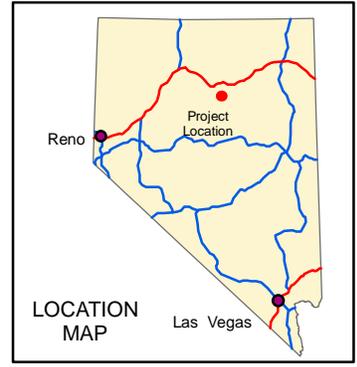


**Legend**

-  Pipeline
-  Amended ROW
-  Existing ROW
-  Private Land



U.S. DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Mount Lewis Field Office  
50 Bastian Road  
Battle Mountain, NV 89820  
(775) 635-4000

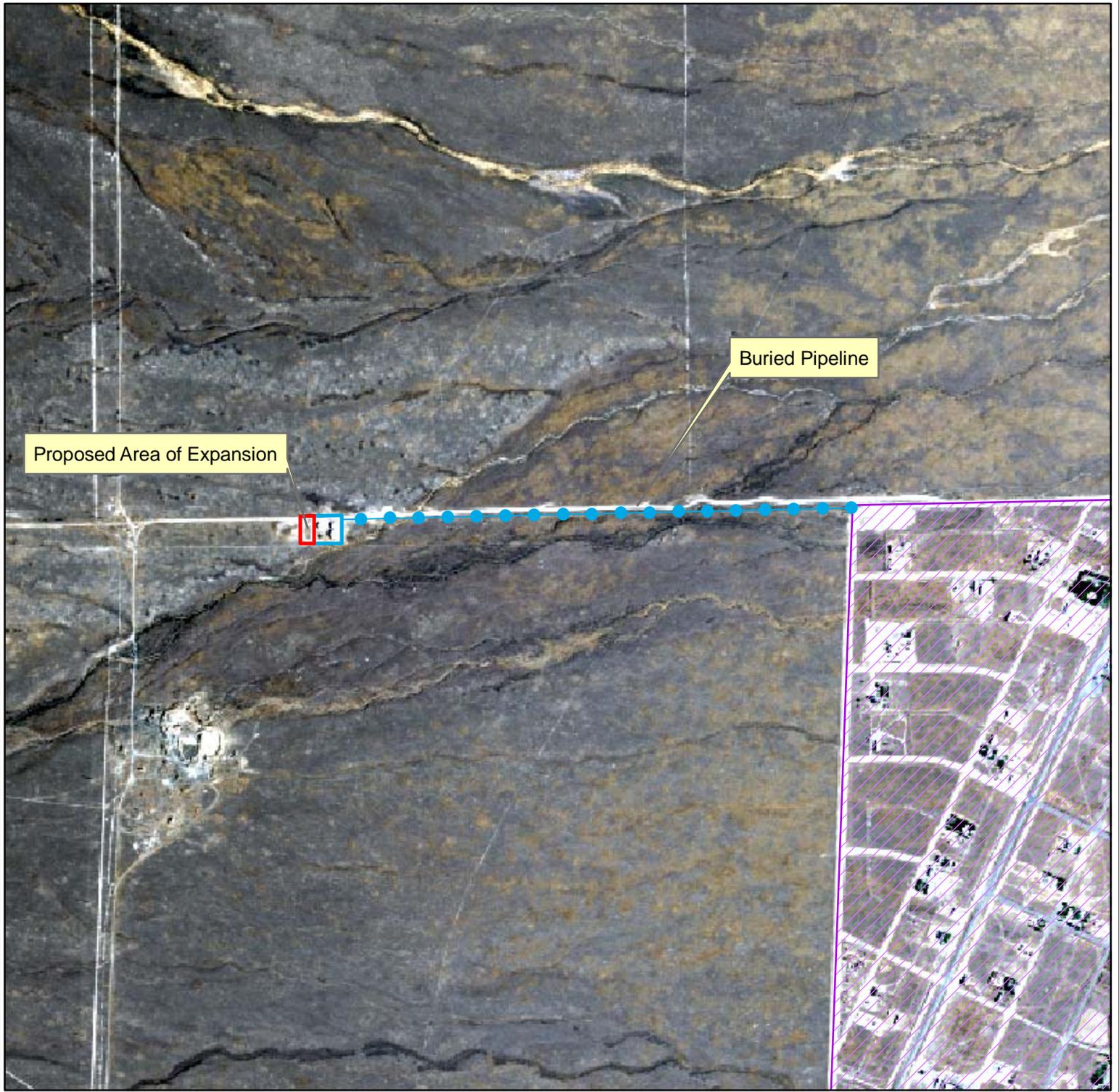


September 27, 2010

No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data in individual use or aggregate use with other data.



**FIGURE 2  
PROPOSED AMENDMENT TO CRESCENT VALLEY WATER FACILITY  
N-39818**



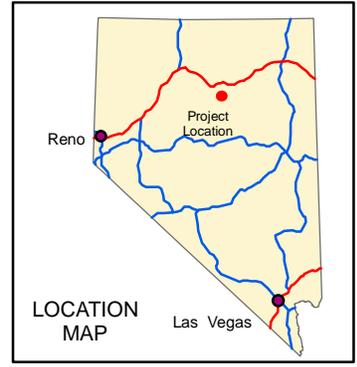
**Legend**

-  Pipeline
-  Amended ROW
-  Existing ROW
-  Private Land

September 27, 2010

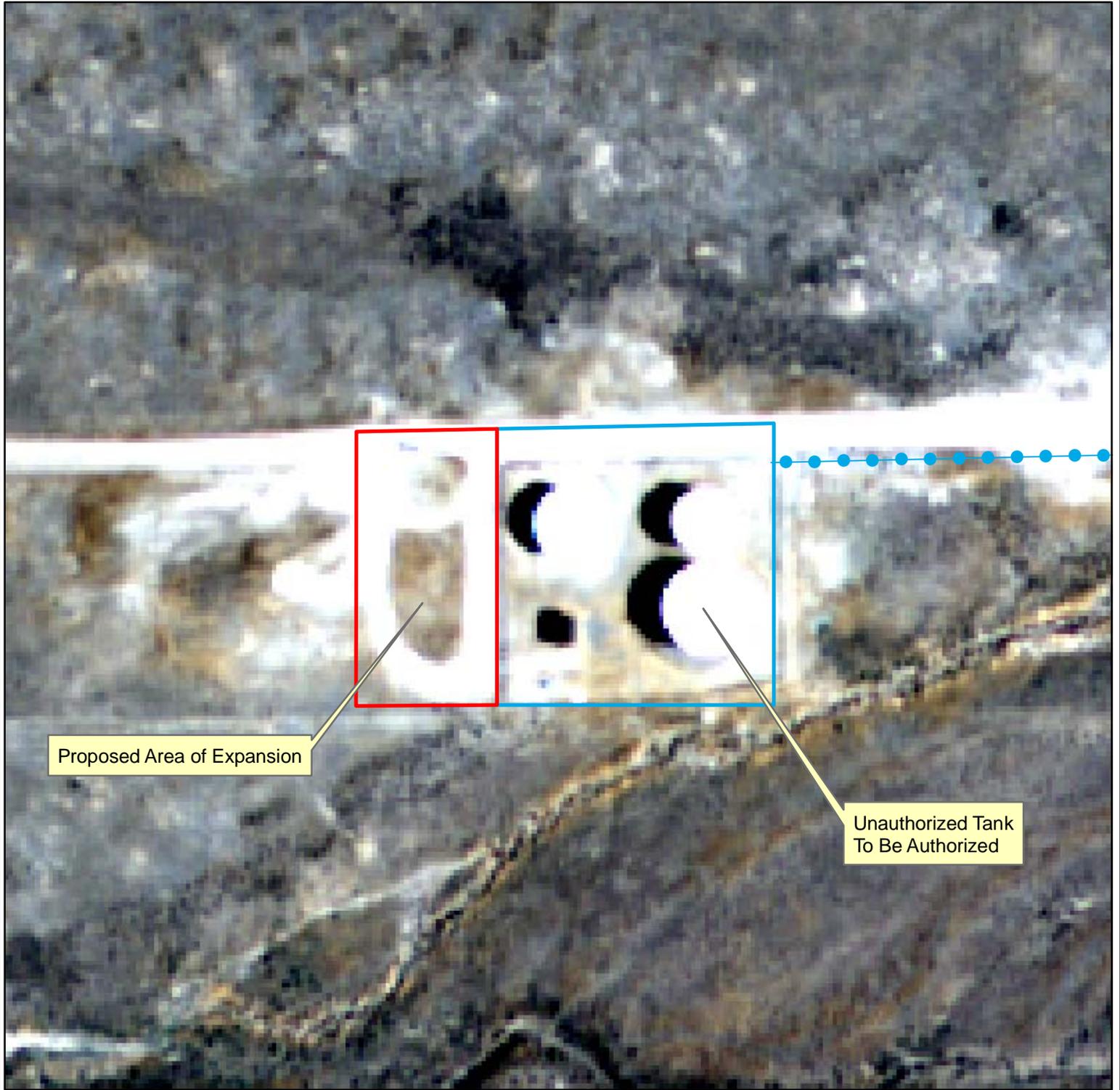


U.S. DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Mount Lewis Field Office  
50 Bastian Road  
Battle Mountain, NV 89820  
(775) 635-4000



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**FIGURE 3  
PROPOSED AMENDMENT TO CRESCENT VALLEY WATER FACILITY  
N-39818**



Proposed Area of Expansion

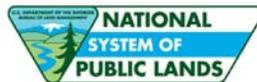
Unauthorized Tank To Be Authorized

**Legend**

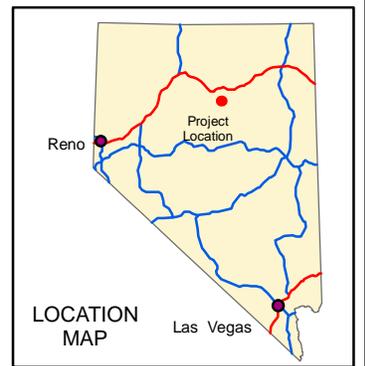
-  Pipeline
-  Amended ROW
-  Existing ROW
-  Private Land

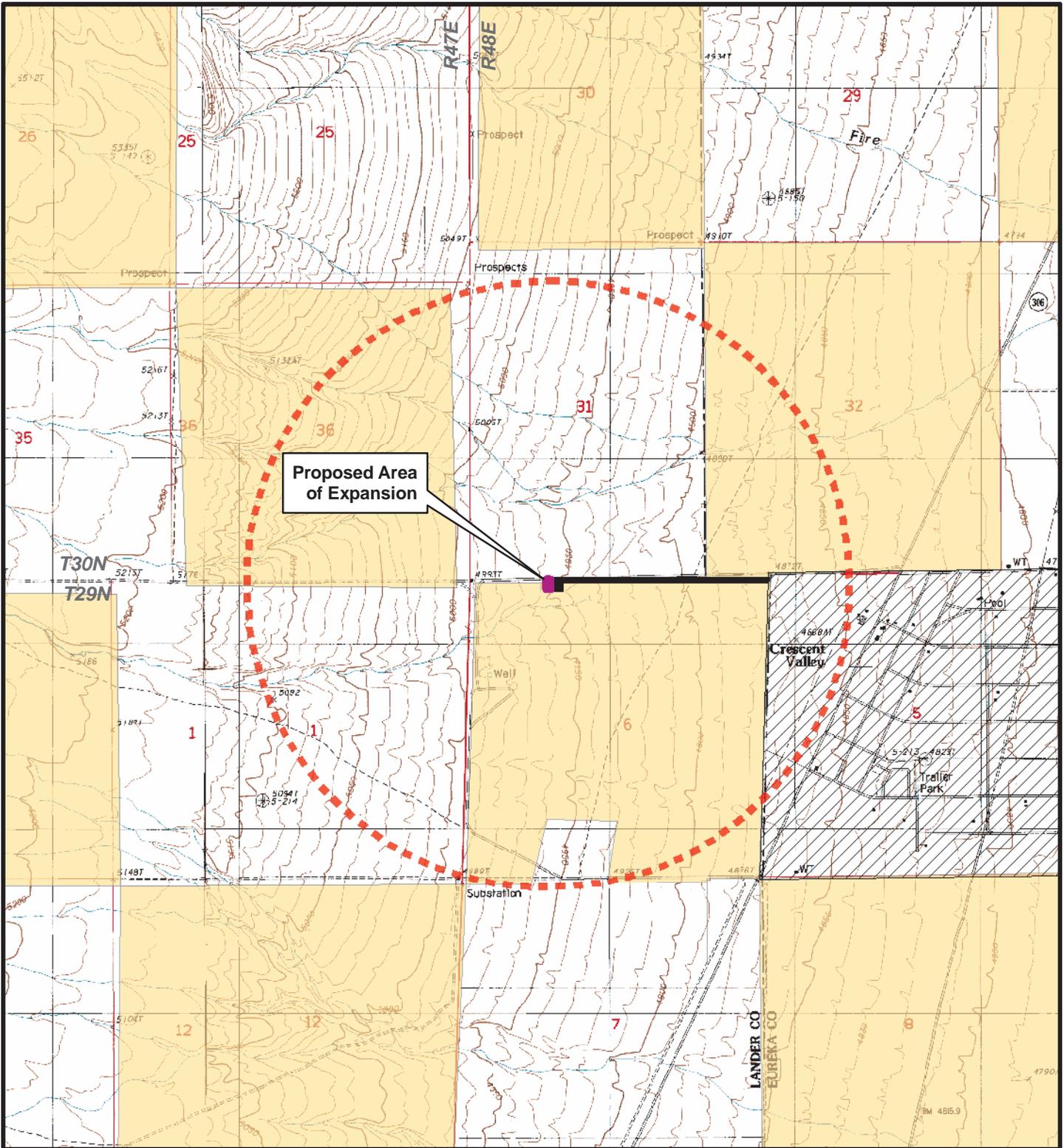
September 27, 2010

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BUREAU OF LAND MANAGEMENT  
Mount Lewis Field Office  
50 Bastian Road  
Battle Mountain, NV 89820  
(775) 635-4000

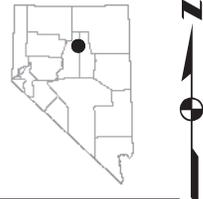




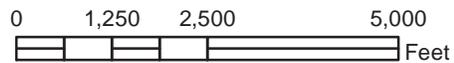
BASE IMAGE: USGS 1:24,000-SCALE TOPOGRAPHIC MAP

MAP DATE: September 2, 2010

- Cumulative Effects Study Area 1-Mile Radius
- Amended ROW
- Existing ROW
- Town of Crescent Valley
- BLM
- Private



1 inch = 2,500 feet



IF THE ABOVE BAR DOES NOT SCALE 1 INCH, THE DRAWING SCALE IS ALTERED

**EUREKA CO. PUBLIC WORKS DEPT.  
CRESCENT VALLEY ROW  
N-39818 AMENDMENT**

**FIGURE 4  
CUMULATIVE EFFECTS STUDY AREA**



BLM Battle Mountain District Office  
50 Bastian Road  
Battle Mountain, NV 89820

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data.

# **APPENDIX A**

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Photographs



Photograph 1 View looking southeast at the northern portion of the proposed expanded ROW. The ROW expansion would start at the chain link fence and extend 100 feet to the west (toward the viewer).



Photograph 2 View of southern portion of the proposed expanded ROW. The lack of native shrubs indicates past disturbance of the ground surface.



Photograph 3 View looking west toward the Crescent Valley pumping facility at the start of the 4,000 foot pipeline ROW. This is an existing ROW containing an underground water main and overhead powerline.

# **APPENDIX B**

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Agency Coordination



JIM GIBBONS  
Governor

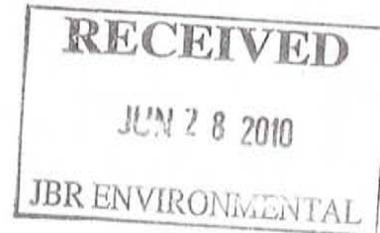
STATE OF NEVADA  
**DEPARTMENT OF WILDLIFE**

1100 Valley Road  
Reno, Nevada 89512  
(775) 688-1500 • Fax (775) 688-1595

KENNETH E. MAYER  
Director

RICHARD L. HASKINS, II  
Deputy Director

June 23, 2010



George Dix  
Environmental Analyst  
JBR Environmental Consultants, Inc.  
595 Double Eagle Ct.  
Suite 2000  
Reno, NV 89521

RE: Data request for the Crescent Valley Water Infrastructure Project

Dear Mr. Dix,

This letter is in response to your recent request for wildlife information in and around the Crescent Valley Water Infrastructure Project area. The habitat in the project area has been severely compromised from fire, development, noxious weeds and other anthropomorphic influences.

Pronghorn antelope will be found in low densities within and adjacent to the project area. They can be found year round, but are more likely to occur during the winter months.

Historically, this area has provided wintering habitat to sage grouse. However, due to the extreme disturbances in recent decades, it is unlikely that the project will encounter sage grouse. However, NDOW does have this area characterized as sage grouse winter habitat. Please see enclosed map. There are no active leks in proximity to the project area.

Townsend's big-eared bats have been documented in high densities in the abandoned mines around the project area. There are no roosting opportunities within the project area, but individuals of this and other bat species may use the project area for foraging.

Golden eagles and prairie falcons have been documented near the project area. Additional raptors that may be found include red-tailed hawks, rough-legged hawks, Swainson's hawk, American kestrel, great horned owl, and short-eared owl. Migratory birds that rely on the sagebrush steppe ecosystem, such as horned larks, meadowlarks, and Brewer's sparrows, will likely be found in the project area.

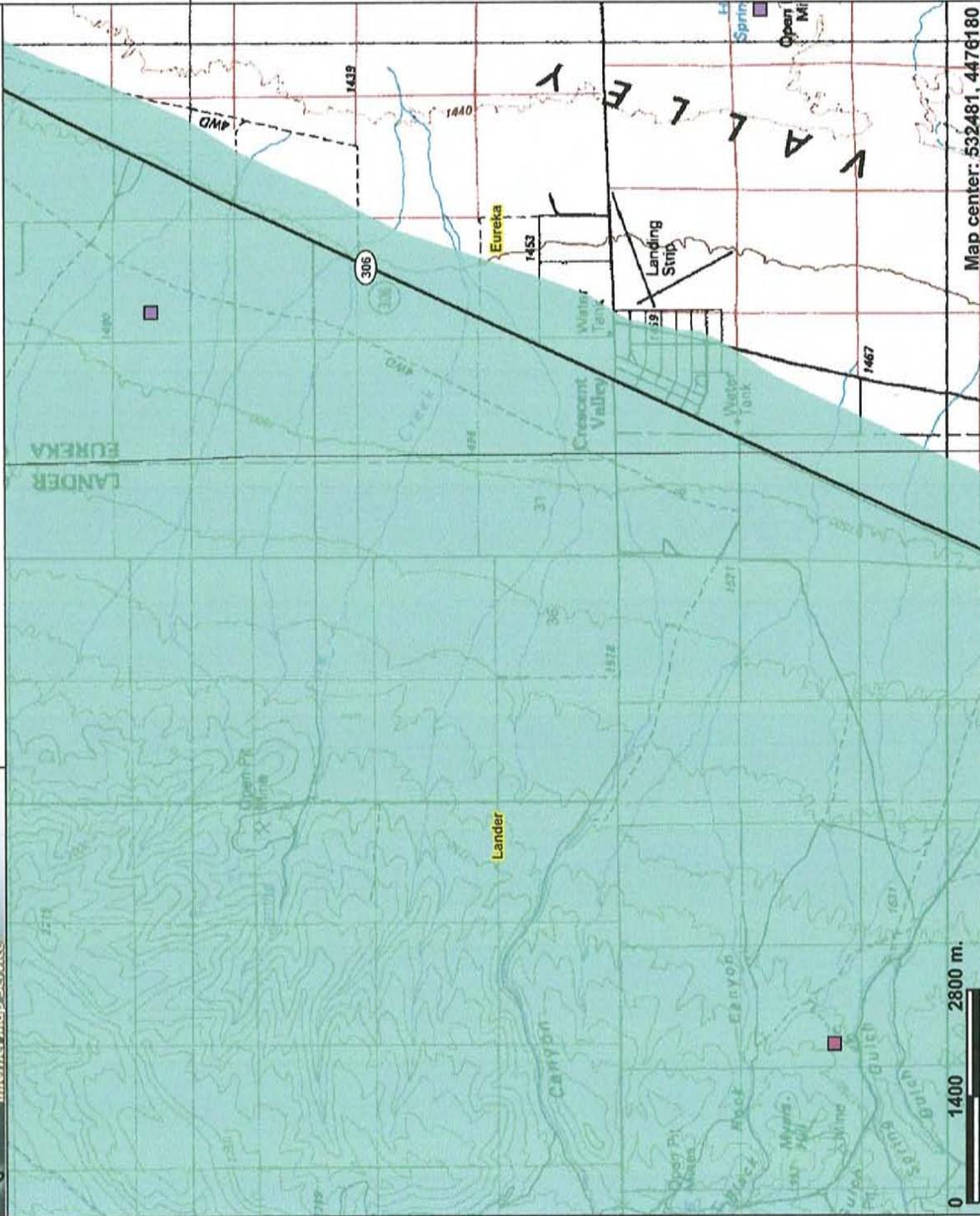
Please contact me if you require additional information or clarification on the data provided.

Sincerely,



Katie Erin G. Miller  
Eastern Region Mining Biologist  
Nevada Department of Wildlife  
60 Youth Center Road  
Elko, NV 89801  
775-777-2368  
[kmiller@ndow.org](mailto:kmiller@ndow.org)

# Crescent Valley Infrastructure Project - Wildlife



0 1400 2800 m.

Map center: 532481, 4476180

## Legend

- Counties
- Scientific Collections
  - Amphibian
  - Bird
  - Crustacean
  - Fish
  - Gastropod
  - Lizard
  - Mammal
  - Polecyopod
  - Reptile
  - Snake
- Nevada Major Roads
  - Freeway
  - Primary Highway
  - Paved Road
  - Ramps or Connecting Roads
  - All other values
- Sage Grouse Winter Distribution
  - Winter
  - Non Use
  - Raptor Nest Sites
  - USGS\_100K\_DRG



Scale: 1:80,000

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Leo Drozdoff  
Acting Director

Department of Conservation  
and Natural Resources

JENNIFER E. NEWMARK  
Administrator

JIM GIBBONS  
Governor



Nevada Natural Heritage Program  
Richard H. Bryan Building  
901 S. Stewart Street, suite 5002  
Carson City, Nevada 89701-5245  
U.S.A.

tel: (775) 684-2900  
fax: (775) 684-2909



STATE OF NEVADA  
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
**Nevada Natural Heritage Program**  
<http://heritage.nv.gov>

14 June 2010

George Dix  
JBR Environmental Consultants, Inc.  
595 Double Eagle Parkway, Suite 2000  
Reno, NV 89521



RE: Data request received 14June 2010

Dear Mr. Dix:

We are pleased to provide the information you requested on endangered, threatened, candidate, and/or At Risk plant and animal taxa recorded within or near the Crescent Valley Water Infrastructure Project area. We searched our database and maps for the following, a five kilometer radius including:

Township 30N Range 48E Section 31 and 32  
Township 29N Range 48E Section 05 and 06

There are no at risk taxa recorded within the given area. However, habitat may be available for, the pygmy rabbit, *Brachylagus idahoensis*, a Nevada Bureau of Land Management Sensitive Species. We do not have complete data on various raptors that may also occur in the area; for more information contact Chet VanDellen, Nevada Department of Wildlife at (775) 688-1565. Note that all cacti, yuccas, and Christmas trees are protected by Nevada state law (NRS 527.060-.120), including taxa not tracked by this office. Additionally, there are active Greater Sage-grouse (*Centrocercus urophasianus*) leks near your project area. For more information please contact Shawn Espinosa at NDOW (775) 688-1523 to further assess any potential Impacts your project may potentially incur.

Please note that our data are dependent on the research and observations of many individuals and organizations, and in most cases are not the result of comprehensive or site-specific field surveys. Natural Heritage reports should never be regarded as final statements on the taxa or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Thank you for checking with our program. Please contact us for additional information or further assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Eric S. Miskow".

Eric S. Miskow  
Biologist /Data Manager



# United States Department of the Interior

## Pacific Southwest Region FISH AND WILDLIFE SERVICE

Nevada Fish and Wildlife Office  
1340 Financial Blvd., Suite 234  
Reno, Nevada 89502

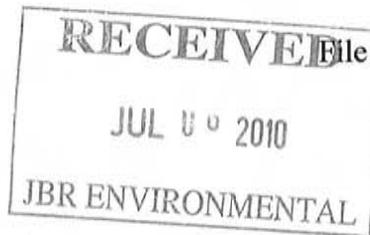
Ph: (775) 861-6300 ~ Fax: (775) 861-6301



July 1, 2010

File No. 2010-SL-0356

Mr. George Dix  
JBR Environmental Consultants, Inc.  
595 Double Eagle Court, Suite 2000  
Reno, Nevada 89521



Dear Mr. Dix:

Subject: Species List Request for the Town of Crescent Valley Water Supply Project,  
Eureka and Lander Counties, Nevada

This responds to your letter received on June 14, 2010, requesting a species list for the Town of Crescent Valley Water Supply Project in Eureka and Lander Counties, Nevada. To the best of our knowledge, no listed or proposed species occur in the subject project area; however, the following is a list of candidate species which may occur in the subject project area:

- Greater sage-grouse (*Centrocercus urophasianus*), candidate

This list fulfills the requirement of the Fish and Wildlife Service (Service) to provide information on listed species pursuant to section 7(c) of the Endangered Species Act of 1973, as amended (ESA), for projects that are authorized, funded, or carried out by a Federal agency. Candidate species receive no legal protection under the ESA, but could be proposed for listing in the near future. Consideration of these species during project planning may assist species conservation efforts and may prevent the need for future listing actions.

Greater sage-grouse (*Centrocercus urophasianus*) are known to occur within the project area; therefore, we recommend that you analyze potential impacts from this project on the species to ensure that the proposed action does not exacerbate further decline of the species. On March 23, 2010, the Service's 12-month status review finding for the species was published in the Federal Register (75 FR 13910). We determined that the greater sage-grouse warrants the protection of the ESA but that listing the species at this time is precluded by the need to address higher priority species first. The greater sage-grouse will be placed on the candidate list for future action,

meaning the species does not receive statutory protection under the ESA, and States will continue to be responsible for managing the species. The Western States Sage and Columbian Sharp-tailed Grouse Technical Committee, under direction of the Western Association of Fish and Wildlife Agencies, has developed and published guidelines to manage and protect greater sage-grouse and their habitats in the Wildlife Society Bulletin (Connelly *et al.* 2000). We ask that you consider incorporating these guidelines (<http://www.ndow.org/wild/conservation/sg/resources/guidelines.pdf>) into the proposed project. On a more local level, the Sage Grouse Conservation Plan for Nevada and Portions of Eastern California was completed in June 2004. The Plan is available online at: <http://www.ndow.org/wild/conservation/sg/plan/SGPlan063004.pdf>. We encourage you to adopt all appropriate management guidance from this Plan as you analyze and implement your proposed action and to engage your local State and Federal wildlife biologists early in the project planning process.

The Nevada Fish and Wildlife Office no longer provides species of concern lists. Most of these species for which we have concern are also on the sensitive species list for Nevada maintained by the State of Nevada's Natural Heritage Program (Heritage). Instead of maintaining our own list, we are adopting Heritage's sensitive species list and partnering with them to provide distribution data and information on the conservation needs for sensitive species to agencies or project proponents. The mission of Heritage is to continually evaluate the conservation priorities of native plants, animals, and their habitats, particularly those most vulnerable to extinction or in serious decline. Consideration of these sensitive species and exploring management alternatives early in the planning process can provide long-term conservation benefits and avoid future conflicts.

For a list of sensitive species by county, visit Heritage's website at [www.heritage.nv.gov](http://www.heritage.nv.gov). For a specific list of sensitive species that may occur in the project area, you can obtain a data request form from the website or by contacting Heritage at 901 South Stewart Street, Suite 5002, Carson City, Nevada 89701-5245, (775) 684-2900. Please indicate on the form that your request is being obtained as part of your coordination with the Service under the ESA. During your project analysis, if you obtain new information or data for any Nevada sensitive species, we request that you provide the information to Heritage at the above address. Furthermore, certain species of fish and wildlife are classified as protected by the State of Nevada (see <http://www.leg.state.nv.us/NAC/NAC-503.html>). Before a person can hunt, take, or possess any parts of wildlife species classified as protected, they must first obtain the appropriate license, permit, or written authorization from the Nevada Department of Wildlife (visit <http://www.ndow.org> or call 775-688-1500).

We note that the pygmy rabbit (*Brachylagus idahoensis*) may occur within the planning area and could be affected by it. On January 8, 2008, the Service published a substantial 90-day finding on a petition to list the pygmy rabbit as threatened or endangered under the ESA, thus initiating a status review of the species. Draft survey guidelines have been developed for this species and are available upon request from the Nevada Fish and Wildlife Office. We encourage you to

survey the proposed project area for pygmy rabbits prior to any ground disturbing activities and to consider the needs of this species as you complete project planning and implementation. The Bureau of Land Management State Director for Nevada has directed all Field Office staff in Nevada to address the pygmy rabbit in all upcoming Land Use Plan revisions.

If (*Haliaeetus leucocephalus*) and/or golden eagles (*Aquila chrysaetos*) occur in the project area or within 4 miles of the proposed project area boundary, we recommend you analyze project impact to the affected individuals, their habitats and regional populations. While the bald eagle has been removed from the Federal list of threatened and endangered species (August 8, 2007; 72 FR 37346), it remains classified as endangered by the States of Nevada and California. Further, the bald eagle along with the golden eagle continues to be protected under the Bald and Golden Eagle Protection Act (BEGPA) of 1940, as amended (16 U.S.C. 668-668d) and the Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). Both the MBTA and the BGEPA prohibit take as defined as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, disturb, or otherwise harm eagles, their nests, or their eggs. Under the BGEPA, "disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. On September 11, 2009 (74 FR 43686), the Service set in place rules establishing two new permit types, 1) authorize take of bald and golden eagles that is associated with, but not the purpose of, the activity; and 2) authorize purposeful take of eagle nests that pose a threat to human or eagle safety. We recommend you coordinate with State and Federal wildlife officials early in the planning process to develop a survey protocol and to evaluate the extent of potential take of eagles. If take is reasonably anticipated to occur, we recommend you develop an Avian Protection Plan (APP) in coordination with State wildlife agencies and the Service. An APP is intended to avoid, minimize, or mitigate impacts to these species. Please also coordinate with State wildlife agencies to ensure compliance with state regulations regarding the bald eagle.

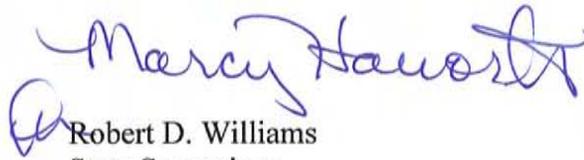
Based on the Service's conservation responsibilities and management authority for migratory birds under the MBTA, we are concerned about potential impacts the proposed project may have on migratory birds in the area. Given these concerns, we recommend that any land clearing or other surface disturbance associated with proposed actions within the project area be timed to avoid potential destruction of bird nests or young, or birds that breed in the area. Such destruction may be in violation of the MBTA. Under the MBTA, nests with eggs or young of migratory birds may not be harmed, nor may migratory birds be killed. Therefore, we recommend land clearing be conducted outside the avian breeding season. If this is not feasible, we recommend a qualified biologist survey the area prior to land clearing. If nests are located, or if other evidence of nesting (*i.e.*, mated pairs, territorial defense, carrying nesting material, transporting food) is observed, a protective buffer (the size depending on the habitat

requirements of the species) should be delineated and the entire area avoided to prevent destruction or disturbance to nests until they are no longer active.

Because wetlands, springs, or streams may occur in the vicinity of the project area, we ask that you be aware of potential impacts project activities may have on these habitats. Discharge of fill material into wetlands or waters of the United States is regulated by the U.S. Army Corps of Engineers (ACOE) pursuant to section 404 of the Clean Water Act of 1972, as amended. We recommend you contact the ACOE's Regulatory Section, 300 Booth Street, Room 2103, Reno, Nevada 89509, (775) 784-5304, regarding the possible need for a permit.

Please reference File No. 2010-SL-0356 in future correspondence concerning this species list. If you have any questions regarding this correspondence or require additional information, please contact me or James Harter at (775) 861-6300.

Sincerely,

  
Robert D. Williams  
State Supervisor