

**BUREAU OF LAND MANAGEMENT  
ELKO DISTRICT  
WELLS FIELD OFFICE**

**Metropolis Seeding  
Allotment  
Grazing Permit Renewal  
ENVIRONMENTAL ASSESSMENT**



4130 (NVE0300)  
DOI-BLM-NV-N030-2010-0015-EA

**September 2011**



**BLM**

Elko District, Nevada

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**COVER PHOTOGRAPH: Metropolis Seeding Allotment on August 30, 2010 by Jeffrey Moore, Rangeland Management Specialist.**

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## **1 - INTRODUCTION**

The Bureau of Land Management, Elko District, Wells Field Office (BLM) proposes to issue a grazing permit renewal to provide area-specific direction and management actions for the Metropolis Seeding Allotment.

This environmental assessment (EA) has been prepared for compliance with the National Environmental Policy Act of 1969 (NEPA). This EA tiers to the Environmental Impact Statement (EIS) completed for the 1985 Proposed Wells Resource Management Plan and Final Environmental Impact Statement (BLM, 1985a), and references the Metropolis Seeding Allotment Draft Northeastern Great Basin Standards and Guidelines for Rangeland Health Assessment (BLM, 2009). These documents are available upon request at the Elko District Office and online at [www.blm.gov/rv5c](http://www.blm.gov/rv5c).

### **1.1 PURPOSE AND NEED**

The purpose of the action is to fully process the term grazing permit (Authorization # 2701077) for the Metropolis Seeding Allotment in accordance with all applicable laws, regulations, and policies and in accordance with Title 43 CFR § 4130.2(a) which states: “Grazing permits or leases shall be issued to qualified applicants to authorize use on the public lands and other lands under the administration of the Bureau of Land Management that are designated as available for livestock grazing through land use plans.” The need for the action is to renew this grazing permit with terms and conditions for grazing use that would meet, or make significant progress towards meeting, the *Northeastern Great Basin Standards and Guidelines for Grazing Administration* (RAC, 1997), Resource Management Plan, and other pertinent multiple use objectives for the allotment.

The decision to be made is to determine the conditions and limitations necessary to issue a grazing permit that will comply with the BLM’s statutory obligations as outlined in 43 CFR § 4130.2 (a) and multiple use mandate specified in the Federal Land Policy and Management Act of 1976 (FLPMA), and conform to the Fundamentals of Rangeland Health (43 CFR § 4180).

### **1.2 RELATIONSHIP TO LAWS, POLICIES AND PLANS**

The Federal Land Policy and Management Act of 1976 (FLPMA) requires an action under consideration be in conformance with the applicable BLM land use plan, and be consistent with other federal, state, local and tribal policies to the maximum extent possible.

#### **1.2.1 BLM Land Use Plan Conformance**

The Proposed Action is in conformance with the Proposed Wells Resource Management Plan (RMP) (BLM 1985a), as approved in the Wells Resource Management Plan Record of Decision dated July 16, 1985, and as amended. The Proposed Action is also consistent

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with allotment specific objectives from the Wells Rangeland Program Summary dated September 15, 1986.

### A. Wells Resource Management Plan Record of Decision

1. Livestock Grazing (BLM, 1985b, p. 17)
  - a. Provide for livestock grazing consistent with other resources.
  - b. Livestock grazing will continue in all allotments.
  - c. Monitor and adjust grazing management systems and livestock numbers as required.
2. Terrestrial Wildlife Habitat (BLM, 1985b, p. 19-22)
  - a. Conserve and/or enhance wildlife habitat to the maximum extent possible.
  - b. Eliminate all of the fencing hazards in crucial big game habitat and most of the fencing hazards in non-crucial big game habitat.

### B. Wells Rangeland Program Summary

Allotment Specific Objectives for Metropolis Seeding (BLM, 1986, p. 22)

1. Livestock Grazing
  - a. Improve livestock distribution in the southwest portion of the allotment.
  - b. Make uniform use of the Metropolis Seeding.
2. Terrestrial Wildlife Habitat
  - a. Manage rangeland habitat to provide forage for wildlife: Antelope 5 AUMs.
  - b. Facilitate big game movements by fence modification, if necessary.

#### 1.2.2 Consistency with Non-BLM Authorities

The Proposed Action is further consistent with other federal, state and local plans, policies and programs to the maximum extent possible. This includes the *Nevada Statewide Policy Plan of Public Lands* (Nevada Division of State Lands, 1986) and the *Elko County Public Land Use and Natural Resource Management Plan* (Elko County, 2010).

The following table identifies elements of the human environment that are regulated by a statutory or regulatory authority and if they are present and/or would be affected by the Proposed Action. The elements that are present and require further analysis are analyzed in Chapter 3 of this EA.

**Table 1.2.2: Review of Statutory or Regulatory Authorities**

ELEMENT/RESOURCE	Present?	Affected?	Comment
Air Quality	Yes	No	No permit required
Area of Critical Environmental Concern	No	No	None present
Cultural Resources	Yes	No	Analyzed in this EA
Environmental Justice	No	No	
Farm Land -Prime/Unique	No	No	No mapped Farmland affected
Floodplains	No	No	

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ELEMENT/RESOURCE	Present?	Affected?	Comment
Human Health & Safety	No	No	
Migratory Birds	Yes	Yes	Analyzed in this EA
Native American Religious Concerns	No	No	
Non-Native Invasive and Noxious Species	Yes	Yes	Analyzed in this EA
Soils	Yes	No	Analyzed in this EA
Threatened/Endangered Species	Yes	No	Analyzed in this EA
Visual Resources	Yes	No	
Water Quality (Surface/Ground)	Yes	No	No Permit Required
Wastes, Hazardous/Solid	No	No	
Wetlands, Riparian Zones	No	No	None present
Wild & Scenic Rivers	No	No	None present
Wilderness	No	No	None present

### 1.2.3 Background Information

The Metropolis Seeding Allotment is located approximately 13 miles northwest of Wells, NV. See Map 1. Elevations in the allotment range from 5,460 to 5,530 feet above sea level. Topography in the allotment is generally flat, with low ridges and shallow swales. The allotment contains approximately 2,457 acres of land, all of which are public. See Subsection 3.2.1 for information on average precipitation.

The allotment has no interior pasture fences. See Map 1. The entire allotment was seeded to crested wheatgrass (*Agropyron cristatum*) during the 1960's. Wyoming big sagebrush (*Artemisia tridentata wyomingensis*) along with a variety of other native shrubs, forbs, and grasses have become re-established in the plant community. The only water sources in the allotment are found at the Dahl Well and one trough on the Bluewell Pipeline which extends into Metropolis Seeding from an adjacent allotment. All of the water sources are located towards the northern part of the allotment. See Map 1 for the location of water developments.

In 1990 the BLM issued the Metropolis Seeding Allotment Evaluation (BLM, 1990) that analyzed monitoring data collected between 1986 and 1989. The allotment evaluation (AE) resulted in a grazing agreement that has never been implemented. In 2008 and 2009 the BLM completed draft Standards and Guidelines for Rangeland Health Assessments (S&G) that analyzed monitoring data collected between 1986 and 2007 and drew conclusions about attainment of multiple use objectives and the achievement of standards established by the Northeastern Great Basin Resource Advisory Council (RAC) in the *Northeastern Great Basin Standards and Guidelines for Grazing Administration* (RAC, 1997). Although the agreement was never implemented, the terms and conditions of the current permit outline management that has allowed for the attainment of the standards and guidelines.

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The 2009 draft S&G assessment (BLM, 2009) determined that the applicable standards have been met. The standards evaluated in the 2009 draft S&G assessment are outlined below.

Standard 1. Upland Sites: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and landform.

Standard 3. Habitat: Habitats exhibit a healthy, productive, and diverse population of native and/or desirable plant species, appropriate to the site characteristics, to provide suitable feed, water, cover and living space for animal species and maintain ecological processes. Habitat conditions meet life cycle requirements of threatened and endangered species.

Standard 4. Cultural Resources: Land use plans will recognize cultural resources within the context of multiple use.

The assessment did not include an assessment of Standard 2 (Riparian and Wetland Sites) or Standard 5 (Healthy Wild Horse and Burro Populations) because there are no riparian or wetland sites or wild horse herd management areas in the Metropolis Seeding Allotment.

## 2 - ALTERNATIVES

This chapter describes the Proposed Action (No Action Alternative) and other alternatives considered but eliminated from detailed analysis in this EA.

### 2.1 PROPOSED ACTION (NO ACTION ALTERNATIVE)

The Proposed Action is to fully process and issue a grazing permit for the Metropolis Seeding Allotment with the proposed terms and conditions listed below. These terms and conditions are on the current permit and would be brought forward with no changes, making the Proposed Action and the No Action Alternative identical. Cattle grazing would continue to be authorized as outlined in Subsection 2.1.1 below.

#### 2.1.1 Proposed (Current) Terms and Conditions

**Table 2.1.1 Mandatory Terms and Conditions**

Allotment	Livestock Number	Livestock Kind	Grazing Period Begin	Grazing Period End	Percent Public Land	Type of Use	AUMs
Metropolis Seeding	317	Cattle	04/16	8/01	100%	Active	1126

**Other Terms and Conditions**

1. There is no historic non-use for the Metropolis Seeding Allotment.
2. Actual use data on all pastures must be submitted to this office within 15 days from the last day of use.
3. Supplemental feeding is limited to salt, mineral and/or protein supplements in block, granular or liquid form. Such supplements must be placed at least ¼ mile from live waters (springs, streams), troughs, wet or dry meadows, and aspen stands.
4. All riparian enclosures, including spring development enclosures, are closed to livestock use unless specifically authorized in writing by the authorized officer.
5. Pursuant to 43 CFR 10.4(G), the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(C) and (D), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.
6. The terms and conditions of your permit may be modified if additional information indicates that revision is necessary to conform with 43 CFR 4180
7. Payment of grazing fees is due on or before the due date of the grazing bill. Failure to pay the grazing bill within 15 days of the specified due date specified on the bill shall result in a late fee assessment of \$25.00 or 10 percent of the grazing bill, whichever is greater, but not to exceed \$250.00.

**2.2 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS**

**2.2.1 No Grazing Alternative**

Under the No Grazing Alternative the permit would be allowed to expire and not be renewed. This alternative would result in the discontinuation of livestock grazing in the Metropolis Seeding Allotment. This alternative is not in compliance with the objectives identified in the Wells RMP Record of Decision and the Wells Rangeland Program Summary, nor is it in compliance with the multiple use mandate of FLPMA. Under the current grazing management the Metropolis Seeding Allotment is meeting the *Northeastern Great Basin Standards and Guidelines for Grazing Administration* as most recently determined in 2009 (BLM, 2009), so there is no compelling reason to consider allowing the grazing permit to expire. Therefore, the No Grazing Alternative has been eliminated from detailed analysis.

### **2.2.2 AE Grazing Agreement Alternative**

Under the AE Grazing Agreement Alternative, the Metropolis Seeding Allotment would be cross fenced into two pastures and an additional water source (a well) would be developed to improve livestock distribution in the southwest portion of the allotment (BLM, 1992) in accordance with the allotment specific objectives identified in the Wells Rangeland Program Summary. The AE was never implemented because the Metropolis Seeding Allotment was originally ranked 23<sup>rd</sup> on the list of “I” (Improve) category allotments, making it a relatively low priority for range improvements requiring federal funding. However, the BLM offered in July 2011 to provide assistance with NEPA analysis by including the suggested range improvements as a fully analyzed alternative in this EA if the permittee was interested in privately funding the construction. The BLM was informed by the permittee that funding the drilling and equipping of a new well was not an option at this time, nor would it be in the foreseeable future.

The Metropolis Seeding Allotment is currently meeting *Northeastern Great Basin Standards and Guidelines for Grazing Administration* as most recently determined in 2009 (BLM, 2009). The current permit contains terms and conditions which have provided for the management that has ensured the attainment of these standards. Therefore, the AE Grazing Agreement Alternative has been eliminated from detailed analysis.

## **3 - AFFECTED ENVIRONMENT/EFFECTS OF ALTERNATIVES**

This chapter outlines past, present, and reasonably foreseeable future actions and characterizes the resources and uses that have the potential to be affected by the Proposed Action, followed by a comparative analysis of the direct, indirect and cumulative effects of the alternatives. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Cumulative effects consider those effects on the resource of concern from past, present, and reasonably foreseeable future actions combined with the Proposed Action. For each resource, a cumulative effects study area (CESA) is identified. This is the geographic area of analysis for each resource or issue. These CESAs may be the same for each resource or may vary.

### **3.1 PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS**

Past, present, and reasonably foreseeable future actions related to the analysis of cumulative impacts on resources or uses affected by the Proposed Action are discussed below.

#### Livestock Grazing

Grazing of domestic cattle, sheep and horses has occurred on public and private lands in the area since at least the 1860's and it is reasonably foreseeable for livestock grazing to

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continue at or near current levels as long as rangeland health standards and guidelines are met or exceeded. There are several activities associated with livestock grazing that have, do, and will most likely continue to occur within and near the Metropolis Seeding Allotment. These include on and off-highway vehicle (OHV) travel, installation and maintenance of range improvements such as fences, pipelines, and watering wells, feeding of mineral and protein supplements, and creation of vegetation treatments such as the 1960's seeding of the Metropolis Seeding Allotment. Livestock grazing is discussed in further detail in Subsection 3.5.1.

Recreation: Past and present recreational uses primarily include dispersed recreation activities such as hunting, fishing, camping, nature-viewing and on and off-highway vehicle (OHV) travel. It is reasonably foreseeable for recreation to continue at or near current levels.

Minerals Related Activities: Some mineral (oil, gas, mining, geothermal) leasing, exploration, and developmental (Ruby Pipeline) activity has occurred in the past in the vicinity of (but not within) the Metropolis Seeding Allotment and is expected to continue at current levels.

Agriculture: Agricultural activities, primarily the cultivation of hay crops for livestock, occur on private lands within the immediate watershed. It is anticipated that agricultural activities would remain at present levels.

Climate Change: Although climate change is not an action, it can result in incremental impacts when added to past, present, and reasonably foreseeable actions. Predictions associated with climate change, identified during a literature review for impacts that could occur within the Elko BLM District include an increase in temperature and a change in amounts of precipitation.

A temperature increase of 1 to 2° F is predicted (Karl et al., 2009) between now and 2020, which may lead to:

- earlier snow melt and onset of spring (Stewart et al., 2005; Mote et al., 2005; Bernstein et al., 2007; Feng & Hu, 2007; Barnett et al., 2008),
- longer growing season for forage production (Bernstein et al., 2007), but potentially of lower quality forage (Karl et al., 2009),
- an increase in evapotranspiration (Hamlet & Lettenmaier, 2007),
- the threat of an increase for diseases, insects, and non-native and noxious species (Chambers & Wisdom, 2009),
- a reduction in soil moisture for plants (Izaurrealde et al., 2011)
- an increase in drought frequency and severity (Bernstein et al., 2007),
- a likely increase to stream temperature in non-shaded riparian areas, and
- an increase in wildfires resulting from a combination of the above factors (Ehrenfeld, 2003; Norton et al., 2003).

Precipitation could vary from no change to as much as 15% less than current levels (Timmerman et al., 1999; Karl et al., 2009) suggesting the:

- potential for species shifting geographically to adapt to changing conditions (Crozier, 2003 and 2004; Inouye et al., 2000),
- mortality of species unable to adapt to changing conditions (Beever et al., 2003; Galbreath et al., 2009),
- increase of storm intensity (Bernstein et al., 2007),
- higher potential for floods and subsequent erosion on soils with high clay content (CCSP, 2008), and
- higher demand for water in urban, rural, and agricultural areas, as well as from increasing demands for diverted flow to areas like Las Vegas, Nevada (Deacon et al., 2007).

### 3.2 SOIL RESOURCES

#### 3.2.1 Affected Environment

The dominant soils in the Metropolis Seeding Allotment are from the Bioya-Orovada soil series. They are positioned on fan piedmont and composed of mixed fine-sandy alluvium. They are moderately deep and well drained with a sandy texture. According to the U.S. Natural Resource Conservation Service Nevada site description, the approximate vegetative ground cover of native vegetation appropriate for the Loamy 8 to 10" precipitation zone ecological site ranges between 20% to 30% (NRCS, 1987 and 2002).

Recent monitoring information including cover data accompanied by field observations indicate that soil quality is good and standards are being met (BLM, 2009). The assessment indicated that sufficient vegetative cover, litter and rock fragments are present to meet the requirements of this standard given the potential of the sites monitored. Furthermore, the utilization objective established on the allotment has been achieved. The attainment of the utilization objective has resulted in healthy and vigorous crested wheatgrass plants in the allotment, as well as re-establishment of some native shrubs, forbs, and grasses. The vegetative cover required to stabilize soils and ensure appropriate infiltration and permeability rates is being maintained in the allotment.

#### 3.2.2 Direct and Indirect Effects

##### Proposed Action (No Action Alternative)

There would be no new effects to soils under the Proposed Action and soil quality would be expected to remain unchanged.

#### 3.2.3 Cumulative Effects

The CESA for Soil Resources is the Metropolis Seeding Allotment. The past, present, and reasonably foreseeable future actions within the CESA are minerals related activities and climate change (reasonably foreseeable), livestock grazing and dispersed recreation (past, present, and reasonably foreseeable). Environmental factors include flooding, fire and drought. Climate change may result in gradual changes in quantity of water and timing of environmental factors as discussed in Section 3.1. While these activities may

result in some negative effects to soils, they have not and are not expected to result in substantive cumulative effects under the Proposed Action.

### **3.3 INVASIVE, NONNATIVE SPECIES AND NOXIOUS WEEDS**

#### **3.3.1 Affected Environment**

Cheatgrass (*Bromus tectorum*) is known to exist in very small infestations within the Metropolis Seeding Allotment. Known occurrences exist in areas of disturbance which include roads, a well and a pipeline with associated troughs. Although cheatgrass has been present on the areas of disturbance for many years, it has not noticeably spread into other areas of the allotment.

No noxious weeds are known to occur within the allotment. Noxious weed inventories will continue to take place in the future to detect any movement of weeds, including cheatgrass, into the area.

#### **3.3.2 Direct and Indirect Effects**

##### Proposed Action (No Action Alternative)

It is possible for livestock to transport weed seeds in their fur, hooves, and digestive tracts, resulting in the direct effect of spreading and/or introducing weeds. However, the Proposed Action is not likely to have any effect, direct or indirect, on the spread of cheatgrass within the Metropolis Seeding Allotment because even though cheatgrass has been present for many years, it has not noticeably spread under the current grazing management (which is proposed to continue under the Proposed Action).

#### **3.3.3 Cumulative Effects**

The CESA for Invasive, Non-native Species and Noxious Weeds is the Metropolis Seeding Allotment. The past, present, and reasonably foreseeable future actions within the CESA are minerals related activities and climate change (reasonably foreseeable), livestock grazing and dispersed recreation (past, present, and reasonably foreseeable). While these activities may result in some negative effects through the spread of weed seeds, a possible increase in non-native and noxious species, and/or changes in ability for desirable plant species to compete with invasive species, they have not and are not expected to result in substantive cumulative effects under the Proposed Action.

### **3.4 SPECIAL STATUS SPECIES, MIGRATORY BIRDS AND OTHER WILDLIFE**

#### **3.4.1 Affected Environment**

This allotment provides habitat for a diversity of wildlife species, including mule deer (*Odocoileus hemionus*), pronghorn (*Antilocapra americana*), and numerous species of

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upland game birds, meso-carnivores, small mammals, passerine birds, waterfowl, raptors, amphibians, reptiles, and invertebrates. The standards and guidelines assessment (BLM, 2009) documented that upland habitats were meeting the objectives in the Wells Rangeland Program Summary and the *Northeastern Great Basin Standards and Guidelines for Grazing Administration* (RAC, 1997), given the capability of the seeding within the allotment.

### *Big Game Species*

The entire allotment has been identified as mule deer intermediate range. Portions of the allotment have been identified as pronghorn crucial winter range. Mule deer depend upon healthy, diverse, and productive plant communities, adequate horizontal screening cover, and readily available browse. While pronghorn are less dependent upon horizontal cover than mule deer, it is important while raising young. Pronghorn depend upon a healthy, diverse, and productive herbaceous component to the plant community for forage. Fences can restrict the movement of big game, causing changes in herd distribution, deaths, and overall decrease in habitat quality (Kindschy et al., 1982). The north, west, and east boundary fences of the Metropolis Seeding Allotment are currently not in conformance with BLM wildlife friendly fence specifications; the south boundary fence is wildlife friendly (Collins, 2011b).

### *Special Status Species*

Special status species include species that are listed or proposed for listing as Threatened or Endangered (T&E) under the Endangered Species Act (ESA), species that are candidates for listing under the ESA, species that are listed by the State of Nevada, and/or species that are on Nevada BLM's list of Sensitive Species. No federally Proposed, Threatened, or Endangered species are known to exist on the Metropolis Seeding Allotment.

Greater sage-grouse (*Centrocercus urophasianus*), a Candidate species, may utilize this allotment year-round. Sage-grouse pellets estimated as being over one year old were observed within the allotment on July 7, 2011 by a BLM wildlife biologist (Collins, 2011a). The entire allotment is classified as nesting and summer habitat. The nearest known lek lies approximately 3.4 miles NE of the allotment, and was last surveyed in 2004. The activity status of the lek could not be determined at that time. Crested wheatgrass seedings typically do not provide high quality habitat for greater sage-grouse, but as native vegetative plant species re-establish, habitat quality generally improves.

Special status species likely to exist within the allotment are listed in Table 3.4.1. For this analysis, sensitive species were grouped based upon common habitat components or life histories in order to avoid unnecessary repetition.

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**Table 3.4.1 Sensitive species with potential to exist on the Metropolis Seeding Allotment (BLM, 2009, Appendix G).**

COMMON NAME	SCIENTIFIC NAME
<b>Federally Proposed, Threatened, or Endangered Species</b>	
(None)	(None)
<b>Federal Candidate Species</b>	
Greater Sage-Grouse	<i>Centrocercus urophasianus</i>
<b>Nevada BLM Sensitive Species</b>	
<b>Birds</b>	
Northern Goshawk	<i>Accipiter gentilis</i>
Ferruginous Hawk	<i>Buteo regalis</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Golden Eagle	<i>Aquila chrysaetos</i>
Prairie Falcon	<i>Falco mexicanus</i>
Columbian Sharp-tailed Grouse	<i>Tympanuchus phasianellus</i>
Mountain Quail	<i>Oreortyx pictus</i>
Burrowing Owl	<i>Athene cunicularia</i>
Loggerhead Shrike	<i>Lanius ludovicianus</i>
Vesper Sparrow	<i>Pooecetes gramineus</i>
Black Rosy-Finch	<i>Leucosticte atrata</i>
<b>Mammals</b>	
Preble's Shrew	<i>Sorex pleblei</i>
Pallid Bat	<i>Antrozous pallidus</i>
Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>
Big Brown Bat	<i>Eptesicus fuscus</i>
Spotted Bat	<i>Euderma maculatum</i>
Silver-haired Bat	<i>Lasionycteris noctivagans</i>
Western Red Bat	<i>Lasiurus blossevillii</i>
Hoary Bat	<i>Lasiurus cinereus</i>
California Myotis	<i>Myotis californicus</i>
Western Small-footed Myotis	<i>Myotis ciliolabrum</i>
Little Brown Myotis	<i>Myotis lucifugus</i>
Fringed Myotis	<i>Myotis thysanodes</i>
Long-legged Myotis	<i>Myotis volans</i>
Yuma Myotis	<i>Myotis yumanensis</i>
Western Pipistrelle	<i>Pipistrellus hesperus</i>
Brazilian Free-tailed Bat	<i>Tadarida brasiliensis</i>
Pygmy Rabbit	<i>Brachylagus idahoensis</i>
<b>Reptiles</b>	
Short-horned Lizard	<i>Phrynosoma douglassi</i>

### *Other Migratory Birds*

In addition to those protections offered to migratory birds that are considered Nevada BLM Sensitive Species, all migratory birds are offered certain protections under the Migratory Bird Treaty Act and Presidential Executive Order. On January 11, 2001, President Clinton signed the Migratory Bird Executive Order. This Order outlined the responsibilities of Federal agencies to protect migratory birds and directed executive departments and agencies to take certain actions to further implement the Migratory Bird Treaty Act. A list of migratory birds affected by the President's Order is contained in 50 CFR 10.13.

On April 12, 2010 the BLM entered into a Memorandum of Understanding (MOU) with the US Fish and Wildlife Service (USFWS) to promote the conservation of migratory birds. An example of a conservation measure in the MOU is to manage livestock to avoid impacts on nesting birds and to improve migratory bird habitat. Standard BLM grazing terms and conditions (e.g., maximum utilization levels, 1/4 mile minimum distance from mineral supplements to live water sources) are designed to minimize effects to migratory birds and help promote their conservation.

### *Eagles*

On July 9, 2007, the bald eagle was removed (“de-listed”) from the list of Threatened and Endangered species. The BLM is coordinating with the Nevada Department of Wildlife (NDOW) to ensure compliance with state regulations regarding the bald eagle. The BLM considers the bald eagle a Sensitive Species. Bald eagles continue to be protected under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act. Both of these laws prohibit killing, selling or otherwise harming eagles, their nests, or their eggs. The USFWS has established a permit program under the BGEPA that would authorize limited take of bald and golden eagles consistent with the purpose and goal of the BGEPA. The USFWS has also prepared a draft post-delisting bald eagle monitoring plan. These documents and more information about the bald and golden eagle are available on the USFWS's website (<http://www.fws.gov/midwest/eagle/protect/DraftBAEAPDM.pdf>; <http://www.fws.gov/migratorybirds/baldeagle.htm>). Bald eagles have not been documented within the Metropolis Seeding Allotment and would likely only occur occasionally during winter while foraging. Golden eagles are expected to utilize the habitat in Metropolis Seeding Allotment on a year-round basis.

### **3.4.2 Direct and Indirect Effects**

#### Proposed Action (No Action Alternative)

The Metropolis Seeding Allotment Draft Northeastern Great Basin Standards and Guidelines for Rangeland Health Assessment (BLM, 2009) classified the upland habitat objective as “Met.” Because of this, no alteration of the grazing system is proposed in this EA. The Proposed Action would allow livestock grazing during the growing season each year, but to an extent that has been shown to be sustainable and to allow native plant re-establishment. Mule deer habitat is expected to improve as sagebrush and other native shrub species continue to re-establish. Additionally, as native herbaceous species,

particularly forbs, continue to re-establish, forage quality is expected to improve. Pronghorn forage quality is likely to increase as sagebrush and native herbaceous species re-establish and provide a more diverse forage base.

Under the current grazing system, canopy cover of native perennial grasses and forbs has increased. Greater sage-grouse habitat would likely improve as a positive, indirect effect of the Proposed Action, which is a continuation of the current grazing management. Specifically, canopy cover of native grasses and forbs are expected to increase. As this happens, early and late summer habitat quality should improve. Sagebrush canopy cover would increase as it continues to re-establish.

The Proposed Action is not expected to have any direct effects on wildlife; however it is expected to have a positive, indirect effect on habitat quality for sensitive species and non-sensitive migratory birds, as it is likely to improve. Many of these species depend upon healthy, diverse, and productive native herbaceous plant communities. As native plant cover and vigor increases as a result of plant re-establishment, habitat quality for sensitive and non-sensitive migratory birds is expected to improve. Other species, such as raptors, will indirectly benefit from an increase in prey populations.

### **3.4.3 Cumulative Effects**

The CESA for Special Status Species, Migratory Birds, and Other Wildlife is the Tabor Flats area as delineated in Map 2. This CESA boundary was selected because it represents a reasonable area of use for the local wildlife populations based on expected annual use patterns. The past, present, and reasonably foreseeable future actions within the CESA are minerals related activities (past and reasonably foreseeable), climate change (reasonably foreseeable), livestock grazing, agriculture, and dispersed recreation (past, present, and reasonably foreseeable). Climate change may result in gradual changes in quantity of precipitation and changes in vegetation as discussed in Section 3.1. While these activities may result in both positive and negative effects on wildlife and its habitat, they have not and are not expected to result in substantive cumulative effects under the Proposed Action.

## **3.5 LIVESTOCK GRAZING**

### **3.5.1 Affected Environment**

Grazing of domestic cattle, sheep and horses has occurred on public and private lands in the area since at least the 1860's and has long been a part of the culture in Elko County and throughout the West. Livestock grazing on public lands remained unregulated until the passage of the 1934 Taylor Grazing Act established the U.S. Grazing Service. Public lands were then adjudicated and forage allocated for livestock. Since FLPMA and as further outlined in the Wells RMP in 1985, forage has been managed for multiple uses. It is anticipated that levels of livestock grazing would remain consistent at or near present levels on public lands within the allotment as long as standards and guidelines are met or

exceeded. Numbers on private lands (outside of the stated CESA) could increase or decrease at the landowner's discretion.

Livestock grazing is one of the most important economic activities in Elko County. A 2003 study identified 142 economic sectors within the Elko County economy. Cattle ranching recorded \$53.8 million in output value, which ranked this industry 8th out of the 142 sectors; the sector employed 482 people, representing 2.53% of the total workforce, which ranked this sector 9th out of the 142 sectors; the industry realized \$43.5 million in export sales, representing 5.77% of Elko County's total exports, which ranked this sector 4th out of the 142 sectors. Total economic impact of the industry to Elko County amounted to \$96.6 million dollars, with a total direct and indirect payroll of 905 jobs representing \$14.4 million in income (Alevy et al., 2007; Fadali et al., 2009; Fadali and Harris, 2006; Harris et al., 2007).

Elko County has a land base of just less than eleven million acres, of which 71.5% is in Federal ownership. Private farm and rangelands occupy another 26% of the county's land base, with the remaining 2.5% of the land base occupied by other uses. Hay is the principle crop raised on the private farmlands. The 1997 Census of Agriculture counted 402 farms and ranches in the county, with an aggregate cow herd ranking Elko County fourth in the nation in terms of animal numbers. Approximately 68% of all Elko County beef cow operations held federal grazing permits. The average Elko county ranch derives 49% of its annual forage requirements from public lands. Each Animal Unit Month (AUM) utilized on public lands in Elko County is estimated to have a total production value of \$38 and a total economic impact of \$68 when considered independently of private land resources; when combined with private lands involved in livestock operations, these figures increase to an annual production value of \$84 per AUM and a total economic impact of \$148 per AUM. In 2006 an estimated 152,000 cows grazed within the county.

The current grazing permit for the Metropolis Seeding Allotment allows cattle to graze from 4/16 to 8/01 annually, with a total permitted use of 1126 AUMs. Based on the 2003 study, this represents a total potential annual economic impact of \$76,568 to the Elko County economy for the public AUMs alone (\$166,648 including private lands). This grazing permit is most likely an important source of feed for the associated grazing operation.

Livestock require food for energy to maintain body function and growth. A combination of carbohydrates, fats, proteins, minerals and vitamins are required for animal development, weight gain and milk production; all of these are obtained through the consumption of forage. The nutrients found in forage vary by plant species and by season, so a wide variety of forage plants is desirable for providing nutrients for livestock. Because of the natural variation in forage nutritional content, livestock operators may supplement the diet of their livestock with minerals and protein. The successful and prolific production of livestock is necessary for the viability of the grazing operation and for the stability of the operator's livelihood.

### **3.5.2 Direct and Indirect Effects**

#### Proposed Action (No Action Alternative)

One grazing permit would be renewed with the existing terms and conditions. The number of permitted AUMs and season of use would remain the same. The current grazing management has been in effect for many years, and it is proposed and reasonably foreseeable that the current grazing management practices remain unchanged as long as standards and guidelines are met or exceeded. The Proposed Action would have no direct or indirect effect on livestock grazing, other than what is already occurring.

### **3.5.3 Cumulative Effects**

The CESA for Livestock Grazing is the Metropolis Seeding Allotment. The past, present, and reasonably foreseeable future actions within the CESA are minerals related activities and climate change (reasonably foreseeable), livestock grazing and dispersed recreation (past, present, and reasonably foreseeable). Climate change may result in gradual changes in quantity of precipitation and changes in vegetation as discussed in Section 3.1. While these activities may result in both positive and negative effects on livestock grazing, they have not and are not expected to result in substantive cumulative effects under the Proposed Action.

## **3.6 CULTURAL RESOURCES**

### **3.6.1 Affected Environment**

No cultural resource inventories have been done within the Metropolis Seeding Allotment. Due to plowing in the 1960's for seeding the allotment, the potential for encountering intact cultural resources is low. If sites eligible for listing on the National Register of Historic Places (aka "historic properties") were present their condition would have been compromised by plowing.

### **3.6.2 Direct and Indirect Effects**

#### Proposed Action (No Action Alternative)

There would be no new effects to cultural resources under the Proposed Action. Grazing under the Proposed Action is unlikely to do damage beyond what was done by the plowing. The cultural resources would be expected to remain unchanged.

### **3.6.3 Cumulative Effects**

The CESA for Cultural Resources is the Metropolis Seeding Allotment. The past, present, and reasonably foreseeable future actions within the CESA are minerals related activities and climate change (reasonably foreseeable), livestock grazing and dispersed recreation (past, present, and reasonably foreseeable). While these activities may result in some negative effects on cultural resources, they are unlikely to do damage beyond what was done by plowing, or by multiple resource actions that have already occurred

and are not expected to result in substantive cumulative effects under the Proposed Action.

## **4 – CONSULTATION AND COORDINATION**

### **4.1 PERSONS, GROUPS OR AGENCIES CONSULTED**

Scoping for the S&G assessment of the Metropolis Seeding Allotment has been an ongoing process started in 2002. In September of 2002 the BLM mailed a scoping letter and draft S&G assessment to the livestock permittee and members of the interested public for the Metropolis Seeding Allotment. The only comment received in 2002 was from the Nevada Division of Wildlife which indicated that the Bald Eagle is a winter resident in the Metropolis Seeding Allotment and should be added to the list of wildlife values found there. The Bald Eagle has since been added to the list of wildlife values found in the Metropolis Seeding Allotment and added to the analysis.

In October 2008 the BLM mailed a scoping letter and draft S&G assessment to the livestock permittee and members of the interested public for the Metropolis Seeding Allotment; no comments were received.

In March 2009 the BLM mailed a scoping letter and draft S&G assessment to the livestock permittee and members of the interested public for the Metropolis Seeding Allotment; no comments were received.

### **4.2 LIST OF PREPARERS**

Mark Dean- Air Quality, Soils, Water Quality  
Terri Dobis- Lead Preparer, Livestock Grazing, Vegetation  
Bryan Fuell- Native American Religious Concerns  
JoeyJames Giustino- Lands and Realty  
Tyson Gripp- Non-Native Invasive and Noxious Species  
Tamara Hawthorne- Recreation, Wilderness Study Areas, Visual Resources  
Derrick Holdstock/Cameron Collins- Migratory Birds, Threatened/Endangered Species,  
Sensitive Species, Wildlife  
Victoria Anne/Kirk Laird- LUP Conformance, NEPA Coordination  
Tim Murphy- Cultural Resources  
Whitney Wirthlin- Human Health and Safety, Hazardous and Solid Wastes

### **4.3 REFERENCES**

Alevy, J., E. Fadali, and T.R. Harris. (2007). Analysis of Impacts of Public Land Grazing on the Elko County Economy: Part III: Economic Impacts of Federal Grazing in Elko County. University of Nevada, Reno Technical Report UCED 2006/07-03.

## Metropolis Seeding Allotment Grazing Permit Renewal EA

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- Barnett, T. P. ...M. D. Dettinger. (2008). Human-Induced Changes in the Hydrology of the Western United States. *Science*. 19: 1080-1083.
- Beever, E.A., P. F. Brussard, J. Berger. (2003). Patterns of apparent extirpation among isolated populations of pikas (*Ochotona princeps*). *Great Basin Journal of Mammalogy*. 84: 37–54.
- Bernstein, L. ...G. Yohe. (2007). Climate Change Synthesis Report: An Assessment of the Intergovernmental Panel on Climate Change. IPCC Plenary XXVII (Valencia, Spain, 12-17 November 2007).
- BLM. (1985a). Proposed Wells Resource Management Plan and Final Environmental Impact Statement. U.S. Department of the Interior, Bureau of Land Management, Elko District Office. Elko, Nevada.
- BLM. (1985b). Wells Resource Management Plan Record of Decision. U.S. Department of the Interior, Bureau of Land Management, Elko District Office. Elko, Nevada.
- BLM. (1986). Wells Rangeland Program Summary. U.S. Department of the Interior, Bureau of Land Management, Elko District Office. Elko, Nevada.
- BLM. (1990). Metropolis Seeding Allotment Evaluation. U.S. Department of the Interior, Bureau of Land Management, Elko District Office. Elko, Nevada.
- BLM. (1992). Agreement for Implementation of Changes in Grazing Use for the Metropolis Seeding Allotment. U.S. Department of the Interior, Bureau of Land Management, Elko District Office. Elko, Nevada.
- BLM. (2009). Metropolis Seeding Allotment Draft Northeastern Great Basin Standards and Guidelines for Rangeland Health Assessment. U.S. Department of the Interior, Bureau of Land Management, Elko District Office. Elko, Nevada.
- CCSP. (2008). The effects of climate change on agriculture, land resources, water resources, and biodiversity. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. P. Backlund, ... R. Shaw. U.S. Environmental Protection Agency, Washington, DC., USA, 362 pp.
- Chambers, J. C. and M. J. Wisdom. (2009). Priority Research and Management Issues for the Imperiled Great Basin of the Western United States. *Restoration Ecology* Vol. 17, 5: 707–714.
- Collins, C. (2011a). Field Notes, July 7, 2011. U.S. Department of the Interior, Bureau of Land Management, Elko District Office. Elko, Nevada.
- Collins, C. (2011b). Field Notes, August 4, 2011. U.S. Department of the Interior, Bureau of Land Management, Elko District Office. Elko, Nevada.

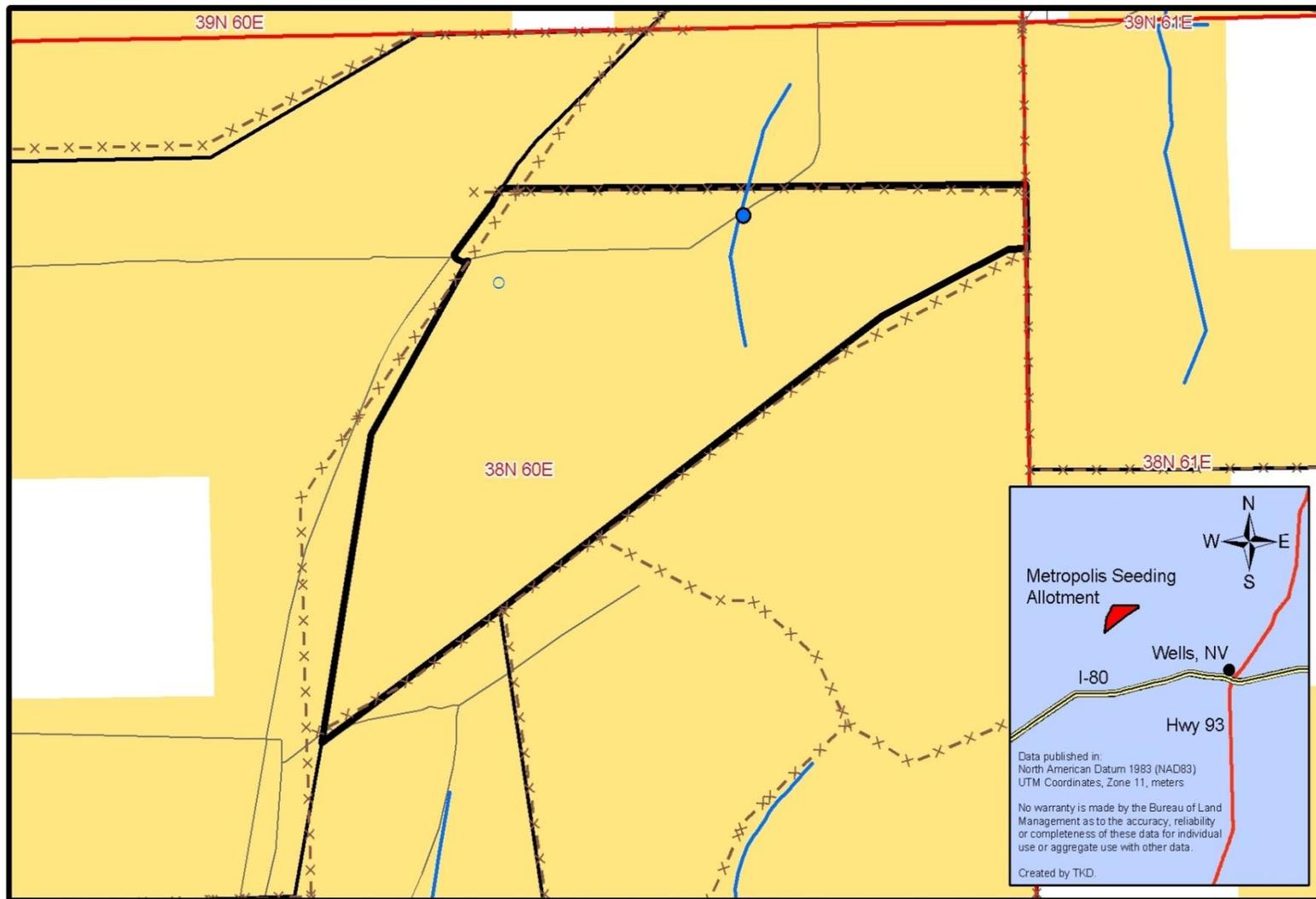
## Metropolis Seeding Allotment Grazing Permit Renewal EA

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- Crozier, L. (2003). Winter warming facilitates range expansion: cold tolerance of the butterfly *Atalopedes campestris*. *Oecologia*. 135: 648–656.
- Crozier, L. (2004). Warmer winters drive butterfly range expansion by increasing survivorship. *Ecology*. 85:231–241.
- Deacon J. E., A. E. Williams, C. Deacon-Williams, and J. E. Williams. (2007). Fueling Population Growth in Las Vegas: How Large-scale Groundwater Withdrawal Could Burn Regional Biodiversity. *BioScience*, 57(8):688-698. American Institute of Biological Sciences. DOI: 10.1641/B570809.
- Ehrenfeld, J. G. (2003). Effects of Exotic Plant Invasions on Soil Nutrient Cycling Processes. *Ecosystems* 6: 503–523. DOI: 10.1007/s10021-002-0151-3.
- Elko County. (2010). Elko County Public Land Use and Natural Resource Management Plan. Elko County Board of Commissioners, Elko, Nevada.
- Fadali, E., T. R. Harris, and J. Alevy. (2009). Analysis of Impacts of Public Land Grazing on the Elko County Economy: Part VI: Executive Summary. University of Nevada, Reno Technical Report UCED 2006/07-09.
- Fadali, E., and T. R. Harris. (2006). Estimated Economic Impacts of the Cattle Ranching and Farming Sector on the Elko County Economy. University of Nevada, Reno Technical Report UCED 2005/06-26.
- Feng, S. and Q. Hu, (2007). Changes in winter snowfall/precipitation ratio in the contiguous United States. *Journal of Geophysical Research*, 112, D15109, DOI:10. 1029/2007JD008397.
- Galbreath, K. E., D. J. Hafner, and K. R. Zamudio. (2009). When Cold is Better: Climate-driven Elevation Shifts Yield Complex Patterns of Diversification and Demography in an Alpine Specialist (American pika, *Ochotona princeps*). *The Society for the Study of Evolution*. *Evolution* 63-11: 2848–2863.
- Hamlet, A. F. and D. P. Lettenmaier. (2007). Effects of 20th century warming and climate variability on flood risk in the western U.S. *Water Resources Research*, 43, W06427, DOI:10.1029/2006WR005099.
- Harris, T. R., F. Nota, and E. Fadali. (2007). Analysis of Impacts of Public Land Grazing on the Elko County Economy: Part V: An Economic Description of the Agricultural Sector and Range Livestock Sector in Elko County. University of Nevada, Reno Technical Report UCED-2006/07-05.
- Inouye, D. W., B. Barr, K. B. Armitage and B. D. Inouye. (2000). Climate change is affecting altitudinal migrants and hibernating species. *Proceedings of the National Academy of Sciences*. 97: 1630–1633.

- Izaurrealde, R. C., A. M. Thomson, J. A. Morgan, P. A. Fay, H. W. Polley, and J. L. Hatfield. (2011). Climate Impacts on Agriculture: Implications for forage and Rangeland Production.
- Karl, T. R., J. M. Melillo, and T. C. Peterson. (2009). Global Climate Change Impacts in the United States. Cambridge University Press. (eds.).
- Kindschy, R. R., C. S. Undstrom, and J.D. Yoakum. (1982). Wildlife habitats in managed rangelands- the Great Basin of southeastern Oregon: pronghorns. Gen. Tech. Rep. PNW-GTR-145. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.
- Mote, P.W., A.F. Hamlet, M.P. Clark, and D.P. Lettenmaier. (2005). Declining mountain snowpack in western North America. Bulletin of the American Meteorological Society, 86(1), 39-49.
- Nevada Division of State Lands. (1986). Nevada Statewide Policy Plan for Public Lands. State of Nevada, Nevada Division of State Lands, Carson City, Nevada.
- Norton, J. B., T. A. Monaco, J. M. Norton, D. A. Johnson, T. A. Jones. (2003). Soil morphology and organic matter dynamics under cheatgrass and sagebrush-steppe plant communities. Journal of Arid Environments (2004). 54: 445-466.
- NRCS. (1987 and 2002). Nevada site Descriptions, Major Land Resource Area 28B (1987) and Soil Survey of Elko County, Southeast Part (2002). Natural Resource Conservation Service, Washington D.C.
- RAC. (1997). Northeastern Great Basin Standards and Guidelines for Grazing Administration. U.S. Department of the Interior, Bureau of Land Management, State of Nevada, Northeastern Great Basin Resource Advisory Council.
- Stewart, I. T., D. R. Cayan and M. D. Dettinger. (2005). Changes toward earlier streamflow timing across western North America. Journal of Climate, 18(8), 1136-1155.
- Timmerman, A., J. Oberhuber, A. Bacher, M. Esch, M. Latif, & E. Roeckner. (1999). Increased El Niño frequency in a climate model forced by future greenhouse warming. Nature. 398: 694-697.

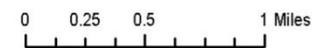
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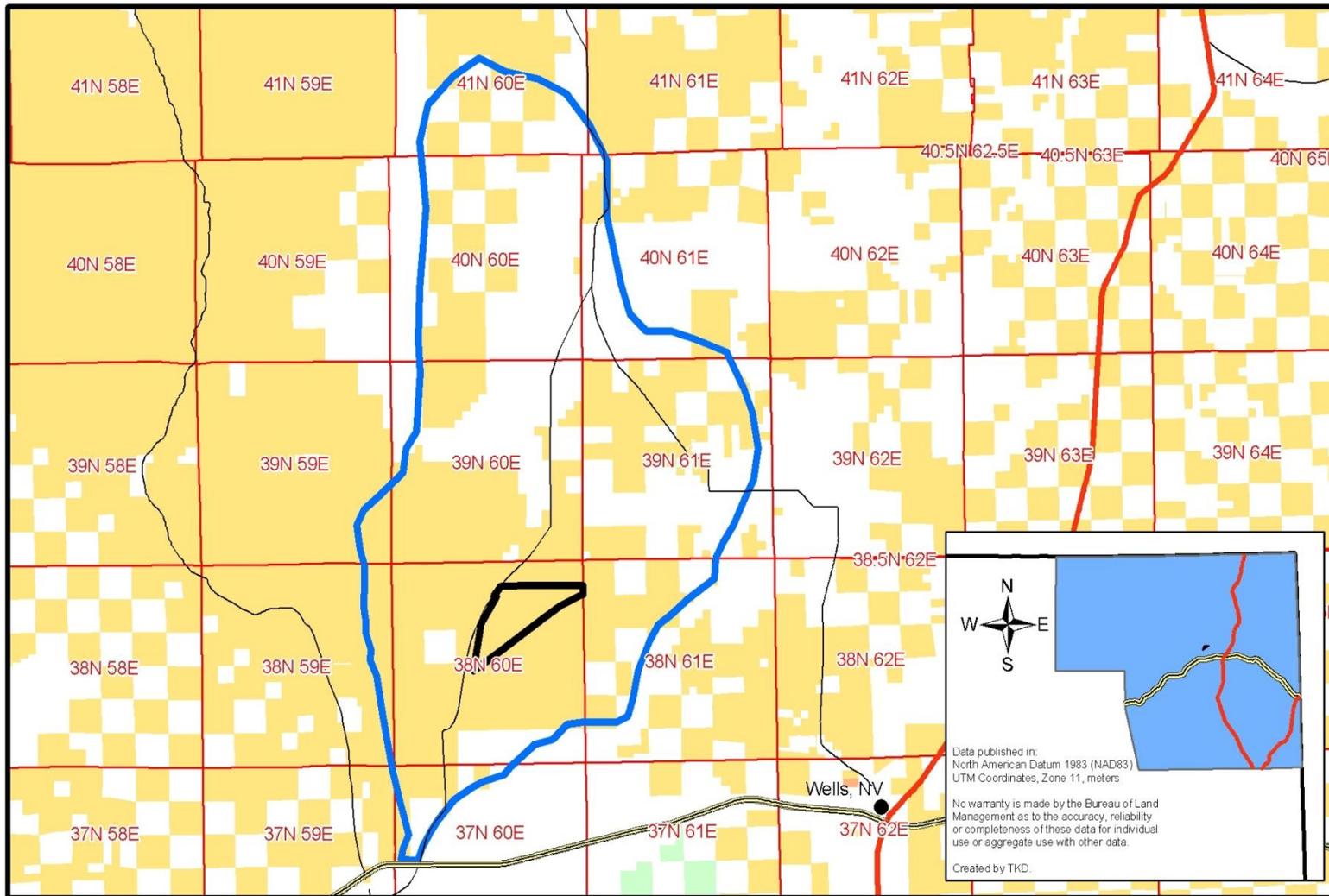
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
ELKO DISTRICT OFFICE

- Legend**
- |                    |                  |     |     |      |
|--------------------|------------------|-----|-----|------|
| Metropolis Seeding | Township & Range | BIA | DOE | NVST |
| Allotments         | Roads            | BLM | FS  | PK   |
| Pipeline           |                  | BR  | FWS | PVT  |
| Fences             |                  | DOD | NPS | WTR  |
| Trough             |                  |     |     |      |
| Well               |                  |     |     |      |

**Map 1**  
**Metropolis Seeding Allotment**  
**8/18/2011**



# Metropolis Seeding Allotment Grazing Permit Renewal EA



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 W E  
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Data published in:  
 North American Datum 1983 (NAD83)  
 UTM Coordinates, Zone 11, meters

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

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UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 ELKO DISTRICT OFFICE

- Legend**
- Metropolis Seeding Allotment
  - Tabor Flats Area
  - Township & Range
  - County Roads
  - Highway 93
  - Interstate 80
  - BIA
  - BLM
  - BR
  - DOD
  - DOE
  - FS
  - FWS
  - NPS
  - NVST
  - PK
  - PVT
  - WTR

**Map 2**  
**Metropolis Seeding Allotment**  
**and Tabor Flats Area**  
**8/18/2011**

0 1.25 2.5 5 Miles