

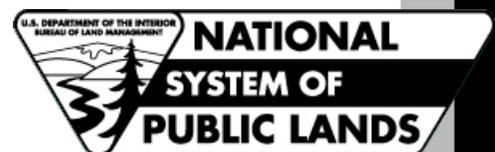
BUREAU OF LAND MANAGEMENT

**ELKO DISTRICT
Wells Field Office**

Metropolis Seeding Allotment

**FINAL DETERMINATIONS
OF
NORTHEASTERN GREAT BASIN
STANDARDS AND GUIDELINES FOR
RANGELAND HEALTH ASSESSMENT**

**Wells Field Office
November 2011
4130 (NVE03000)**



It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

**Bureau of Land Management
Elko District
3900 E. Idaho Street
Elko NV 89801
(775) 753-0200
www.blm.gov/rv5c**

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I. Introduction

The Bureau of Land Management (BLM) grazing regulations at 43 CFR 4130.3-1(c) require that grazing permits issued by the BLM contain terms and conditions that ensure conformance with BLM regulations at 43 CFR 4180, which are the regulations under which the Northeastern Great Basin Resource Advisory Council developed the *Northeastern Great Basin Standards and Guidelines for Grazing Administration* (RAC, 1997). Recently, the Wells Field Office completed an assessment of the achievement of these standards on the Metropolis Seeding Allotment. The results of this assessment are presented in this report. This assessment will serve to inform the BLM's determination as to whether these standards are being met, and, if they are not met, whether existing grazing management practices contribute to their lack of attainment. The approved standards for rangeland health are as follows:

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

Standard 2. Riparian and Wetland Sites: Riparian and wetland areas exhibit a properly functioning condition and achieve state water quality criteria.

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.

Standard 5. Healthy Wild Horse and Burro Populations: Wild horses and burros exhibit characteristics of a healthy, productive, and diverse population. Age structure and sex ratios are appropriate to maintain the long term viability of the population as a distinct group. Herd management areas are able to provide suitable feed, water, cover, and living space for wild horses and burros and maintain historic patterns of habitat use.

This assessment does 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 on public lands, and there are no wild horse herd management areas in this allotment.

II. Allotment Description, Resource Values, and Uses

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.

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In 1985, the Wells Resource Management Plan (BLM, 1986) categorized the Metropolis Seeding Allotment as a class “I”, or Improve, allotment. Characteristics of Category I allotments were:

- Existing range improvements are inadequate. Redesign and/or removal of existing projects and development of new ones is required.
- The potential is moderate to high for a positive economic return on public investment for potential new range improvements and vegetative manipulations. There is potential for high cost effectiveness.
- There are one or more major resource conflicts present and they are responsive to or correctible through management.
- The land ownership objective states that when called for in the planning system, the public lands will be retained/consolidated to meet future management goals.
- Livestock distribution is poor to fair. Not all of the areas are being used proportionately. The current level of use by all grazing animals may exceed what the resource can support.
- The present activity plan if implemented is deficient and requires modification to resolve resource conflicts such as range improvements. There are physical problems that inhibit implementation of a new plan at the present time if one is required.
- The current ecological range and watershed condition is unsatisfactory. The primary concern is with stabilizing any downward trends and improving them where cost effective. The average climax potential is moderate to high.

The Metropolis Seeding Allotment was placed into the “I” category due to poor livestock distribution caused by a lack of available water, especially in the southwest portion of the allotment.

The allotment has no interior pasture fences. See Map 1. The entire allotment was seeded to crested wheatgrass 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 in the allotment is found at a well and a trough on a pipeline that extends into Metropolis Seeding from an adjacent allotment, both of which are located toward the northern part of the allotment. See Map 1 for the location of water developments.

The BLM completed the Metropolis Seeding Allotment Evaluation in 1990 (BLM, 1990). The findings of the evaluation resulted in an agreement (BLM, 1992) that governed livestock grazing management on the allotment. The agreement called for the construction of a cross fence and additional water sources, after which the following grazing system would be implemented:

Year	# Cattle	Pasture A	Pasture B
1	413	April 1- May 10	May 11- June 22
2	413	May 11- June 22	April 1- May 10
3	Repeat Cycle		

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However, the projects specified in the agreement have not been implemented. Therefore, the permittee has grazed the entire allotment as a single pasture during the time period specified on the permit (April 16 - August 1) annually since 1990.

Total permitted use amounts to 1,126 Animal Unit Months (AUMs). The allotment is utilized by one permittee.

The key species in the Metropolis Seeding Allotment is crested wheatgrass. The utilization objective for crested wheatgrass in the Metropolis Seeding Allotment is set at a maximum annual utilization level of 60%.

The Metropolis Seeding Allotment in association with the surrounding habitat may provide habitat for a multitude of bird, mammal, reptile, amphibian, and invertebrate species that commonly or occasionally inhabit sagebrush communities throughout northeastern Nevada. Species that potentially inhabit the allotment are presented in Appendices A through G. The BLM developed these lists from multiple sources and considers them to be a representation of the species most likely to be present on or transitory through this allotment.

Big Game Species

The entire allotment is mule deer (*Odocoileus hemionus*) intermediate habitat. Additionally, the southern 2/3 of the allotment is identified as pronghorn (*Antilocapra americana*) crucial winter range (see Map 2).

Federally Listed and Candidate Species

There are no Threatened or Endangered species known to be present in the Metropolis Seeding Allotment.

On July 9, 2007, the bald eagle (*Haliaeetus leucocephalus*) was removed (“de-listed”) from the list of threatened and endangered species. Bald and golden (*Aquila chrysaetos*) eagles continue to receive protection under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act, and both species are classified as Sensitive by Nevada BLM. Both of these laws prohibit killing, selling or otherwise harming eagles, their nests, or their eggs. The Service 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 Service’s website: (<http://www.fws.gov/midwest/eagle/protect/DraftBAEAPDM.pdf>; <http://www.fws.gov/migratorybirds/baldeagle.htm>).

Bald eagles are not expected to heavily use the habitat types found in this allotment, but transient foraging could occur during winter. Additionally, bald eagles may use areas surrounding the allotment which contain quality winter foraging areas. Suitable habitat on uplands, irrigated lands and riparian areas is widely dispersed over tens of thousands of acres throughout the Elko District.

Special Status Species

There are 30 bird, mammal and reptile species designated as Nevada BLM Sensitive Species that potentially use the habitat types present in this allotment. See Appendix G for a complete list of these species.

Greater Sage-Grouse

The allotment is within the O'Neil Basin Sage-Grouse Population Management Unit (PMU). The western third of the allotment lies within greater sage-grouse (*Centrocercus urophasianus*) nesting and early brood-rearing habitat, and the entire allotment lies within late summer and winter sage-grouse habitat (see Map 3a – 3c). There are no sage-grouse leks within the Metropolis Seeding Allotment boundary. The nearest known lek is approximately 3.4 miles northeast of the allotment.

Pygmy rabbits

Pygmy rabbits (*Brachylagus idahoensis*) were petitioned for listing under the Endangered Species Act. On September 30, 2010, the US Fish and Wildlife Service issued a 12-month finding that listing of the pygmy rabbit was not warranted. However, there is still a need to conserve, enhance, and/or protect pygmy rabbit habitat. Pygmy rabbits are found in a variety of vegetation types, including sagebrush, greasewood, and salt desert scrub habitats, provided that the soils are appropriate for constructing burrows. No formal surveys have been completed on the Metropolis Seeding Allotment, but pygmy rabbits have been reported by BLM personnel approximately 2.8 miles away in the Tabor Flats area. The sites were within stands of big sagebrush.

Bats

Sixteen BLM sensitive bat species have been documented in the Elko District. The Metropolis Seeding Allotment has the potential to provide habitat for a variety of these species (Appendices B through D). Although no surveys for bats have been conducted, the potential exists for bats to use the allotment for roosting and foraging. Bats occur in a variety of habitats in eastern Nevada, which include spring riparian areas, canyons, coniferous forests, and deciduous forests. Wetlands and surface water associated with springs, sagebrush rangelands, and aspen stands provide habitat for some or all of these species. The Metropolis Seeding Allotment lacks most of these habitat components, and therefore is not high quality foraging or roosting habitat. There are numerous structures and homesteads throughout the greater Metropolis area where bats can roost on a temporary or permanent basis. Foraging areas are provided on the native uplands and in riparian areas located in the general area, particularly along Tabor Creek. Bats could forage throughout the area.

Improvement or maintenance of range conditions, including maintenance or increases in sagebrush cover, would improve foraging habitat conditions for bats because a variety of insects are associated with sagebrush habitats.

Raptors

Ten diurnal raptor and owl species are present in the Elko District with the potential to occur in the Metropolis Seeding Allotment, based upon habitat types present. The following are known

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to breed within the District: turkey vulture (*Cathartes aura*), northern harrier (*Circus cyaneus*), Cooper's hawk (*Accipiter cooperii*), northern goshawk (*Accipiter gentilis*), ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos*), American kestrel (*Falco sparverius*), prairie falcon (*Falco mexicanus*), and burrowing owl (*Athene cunicularia*). Rough-legged hawks (*Buteo lagopus*) winter in the allotment.

Migratory Birds

On January 11, 2001, President Clinton signed the Migratory Bird Executive Order 13186 entitled "Responsibilities of Federal Agencies to Protect Migratory Birds." It directs executive departments and agencies to take certain actions to further implement the Migratory Bird Treaty Act and to conserve migratory birds. Pursuant to this act, special attention is given to birds, both migratory and resident, that may occupy habitat in this allotment.

According to the BLM Elko District Bird List, there are approximately 246 species that could inhabit the District area of jurisdiction on a seasonal or yearlong basis. Review of the Nevada Breeding Bird Atlas and widely accepted range maps revealed additional species that may occur on the District. The Metropolis Seeding Allotment includes habitat for many of these bird species on a seasonal or yearlong basis. Bird species likely to use the Metropolis Seeding Allotment and the habitat(s) where they are likely to be found are included in Appendix A. This listing is modified from the Nevada Partners in Flight Bird Conservation Plan (2006).

Recreational Use

No established recreational areas exist on the Metropolis Seeding Allotment. However, the allotment does receive dispersed recreational use due to the close proximity to the community of Wells. Most of this recreational activity consists of off road vehicle use (all terrain vehicles, dirt bikes, and four wheel drive vehicles) and target practice.

III. Summary of Available Monitoring Data

A. Key Area Utilization

A key area is a representative site within a use area selected to monitor trends in the plant community or soil. A key area is monitored to determine how management and natural factors are affecting similar areas in the allotment. The use levels summarized below represent the highest levels off annual use on the key forage species at the key areas in the allotment. In years not listed utilization data was not collected.

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Key Area #1	
Key Species: crested wheatgrass	
Year	Utilization
1988	46%
1989	46%
1990	40%
1992	37%
1995	15%
1997	10%
1998	27%
2006	13%

Key Area #2	
Key Species: crested wheatgrass	
Year	Utilization
1988	43%
1990	41%
1992	44%
1995	14%
1997	12%
1998	27%
2006	13%

B. Actual Use

Actual use data is provided annually by the permittee by allotment to determine the amount of AUMs used by livestock during each grazing year. Actual use data is summarized by year in the table below.

Actual Use: Metropolis Seeding	
Year	Actual use (AUMs)
1986	842
1987	713
1988	792
1989	749
1990	697
1991	560
1992	501
1993	509
1994	603
1995	687
1996	279
1997	318
1998	376
1999	379
2000	559
2001	540
2002	380
2003	348
2004	408
2005	644
2006	552
2007	325

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C. Weight-Estimate Production

Weight-estimate production data measures the vegetative production at a site in relation to its site potential. The total dry weight production for crested wheatgrass at Key Area 1 in 1986 was 879 lbs./acre.

D. Point Sampling Cover

Point sampling cover is a method for measuring the percentage of ground surface covered by vegetation and other site components. The point sampling cover collected at the key areas in the allotment in 2000 is summarized below.

Point Sampling Cover								
Key Area	Basal Cover (%)	Canopy Cover (%)	Total Vegetative Cover (%)	Litter (%)	Bare Ground (%)	Rock (%)	Cryptogrammic Crust (%)	Total Observations
KA #1	15	11	26	6	66	1	1	500
KA #2	14	18	32	4	64	0	0	500

E. Wildlife Studies

No wildlife key areas have been set up in the Metropolis Seeding Allotment. Visual observations were made throughout the allotment to estimate sagebrush and herbaceous canopy cover. Sagebrush canopy cover, where it occurs, was estimated to average 10-15%, and up to 25% in the thickest areas, based on data collected in 2002 and field observations in 2006, 2008, and 2011. These areas are adequate to provide sage-grouse with the suitable sagebrush cover and nutritional requirements for at least some seasonal needs.

IV. Conclusions and Determinations

This section draws conclusions and makes determinations regarding:

- A. Progress towards or attainment of the standards for rangeland health, and
- B. Whether livestock management is in conformance with the guidelines, and
- C. Whether existing grazing management or levels of grazing use are significant factors in failing to achieve the standards or conform to the guidelines.

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

Rationale: Landforms present are predominately low rolling hills. The Metropolis Seeding Allotment lies in the valley floor off the west side of the Snake Mountains Range. During the 1960's, the native plant community was converted to crested wheatgrass seedings. Crested wheatgrass was seeded for the purpose of providing forage for livestock and to increase flexibility in grazing management options in other areas. The dominant ecological site within the crested wheatgrass seedings in the Metropolis Seeding Allotment is Loamy 8"-10" precipitation zone. The site characteristics and the average annual precipitation associated with

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this ecological site are suitable for producing healthy and vigorous crested wheatgrass plant communities. These plant communities have the potential to achieve favorable site stabilization characteristics associated with the attainment of this standard.

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, and 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 from 20% to 30%.

Recent monitoring information, including cover data accompanied by field observations, indicates that sufficient vegetative cover, litter and rock fragments are present to meet the requirements of this standard given the potential of the sites monitored. The vegetative cover required to stabilize soils and ensure appropriate infiltration and permeability rates is being maintained in the allotment.

B. 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. **Met.**

Rationale: The evaluation of existing data indicates that this standard is being met in the uplands.

The upland habitat values within the allotment were altered in the 1960s when the native plant community was seeded with crested wheatgrass. Crested wheatgrass seedings were commonly established during this time period to provide additional spring forage for livestock on range sites that exhibited low productivity. Although this practice was negative from a wildlife standpoint, one benefit of establishing these seedings was to relieve livestock grazing pressure on higher elevation range sites which were more productive and diverse. Although the plant community in Metropolis Seeding continues to be dominated by crested wheatgrass, some native species such as Wyoming big sagebrush, Douglas rabbitbrush (*Chrysothamnus viscidiflorus*), rubber rabbitbrush (*Ericameria nauseosa*), lupine (*Lupinus* spp.), and Sandberg's bluegrass (*Poa secunda*) have re-established. The upland habitat has been evaluated against Standard 3. Based on the potential of crested wheatgrass and other existing upland species to provide suitable feed, water, cover and living space for animal species and to maintain ecological processes within the allotment, the upland habitat was found to be meeting the Standard.

Production estimates provide insight into plant vigor and take into account vegetation attributes such as height, basal diameter, number of stems or leaf whorls and volume. These attributes are reflected in the biomass, or production, of plants. Although production is affected by annual precipitation, inferences can be made regarding the expected productivity of a site in relation to its potential. Recent field visits and review of monitoring information, including key area

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photographs, shows no indication that the productive capacity of the Metropolis Seeding has been reduced since the production estimate in 1986.

The primary vegetative component within the Metropolis Seeding remains crested wheatgrass. However, sagebrush, other native shrubs, and native forbs and grasses have begun to establish themselves within the seeding. This indicates an increase in plant species diversity and significant progress toward meeting the diversity component of Standard 3.

Recorded utilization levels have been below maximum allowable use levels and have resulted in sufficient residual herbaceous vegetation to provide cover and forage for wildlife. Specifically, sage-grouse values have improved concurrently with plant diversity and sagebrush cover increases. The utilization objectives established have been achieved, which has resulted in healthy and vigorous seeded and native grass plants able to provide forage for wildlife over the long-term. The presence of these vegetative attributes indicates that upland habitat values, given the present capability of the allotment, are meeting this Standard.

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

Rationale: Based on the evaluation of existing information pertaining to range improvements and grazing, cultural resources are being recognized within the context of multiple use management in the Metropolis Seeding Allotment.

Determination

Based on information provided in this assessment, I have determined that all standards are being met and current livestock grazing is in conformance with the standards.

/s/

11/04/2011

Bryan K. Fuell
Manager, Wells Field Office

Date

References

- Bradley, P. V., M. J. O'Farrell, J. A. Williams, & J. E. Newmark. (Eds.). (2006). *The Revised Nevada Bat Conservation Plan*. Nevada Bat Working Group: Reno, NV.
- Bernard, S. R. & K. F. Brown. (1977). *Distribution of mammals, reptiles, and amphibians by BLM physiographic regions, and A. W. Kuchler's associations for the eleven western states*. Tech. Note 301. Denver, CO: U. S. Department of the Interior, Bureau of Land Management.
- 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. (1992a). *BLM Nevada Elko District Bird List*. U.S. Department of the Interior, Bureau of Land Management, Elko District Office. Elko, Nevada.
- BLM. (1992b). *BLM Nevada Elko District Mammal List*. U.S. Department of the Interior, Bureau of Land Management, Elko District Office. Elko, Nevada.
- BLM. (1992c). *BLM Nevada Elko District Reptile and Amphibian List*. U.S. Department of the Interior, Bureau of Land Management, Elko District Office. Elko, Nevada.
- Floyd, T., C. S. Elphick, G. Chisholm, K. Mack, R. Elston, E.M. Ammon & J.D. Boone. (2007). *Atlas of the Breeding Birds of Nevada*. Reno, NV: University of Nevada Press.
- Hall, R. E. (1995). *Mammals of Nevada*. University of Nevada Press: Reno, NV.
- NRCS. (1987 and 2002). *Nevada Site Descriptions, Major Land Resource Area 28B (1987) and Soil Survey of Elko County, Southeast Part (2002)*. U.S. Department of Agriculture, Natural Resource Conservation Service, Washington D.C.
- NDEP. (2000). *Water Quality Regulations*. Nevada Division of Environmental Protection, Bureau of Water Quality Planning, Carson City, Nevada.
- NDOW. (2005). *April 2005 Master Species List*. State of Nevada, Nevada Department of Wildlife, Reno, NV.

Metropolis Seeding Allotment Standards and Guidelines Assessment

Nevada Partners in Flight Working Group. (2006). Nevada Partners in Flight Bird Conservation Plan. Nevada Partners in Flight: Reno, NV.

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.

Sibley, D. A. (2003). *The Sibley Field Guide to Birds of Western North America*. Alfred A. Knopf: New York, NY.

Wildlife Action Plan Team. (2006). Nevada Wildlife Action Plan. Nevada Department of Wildlife, Reno, NV.

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Appendix A: Birds by Habitat Type

This list was developed for the Metropolis Seeding Allotment utilizing the BLM Nevada Elko District Bird List (BLM, 1992a), the *Atlas of the Breeding Birds of Nevada* (Floyd et al., 2007), the range maps in *The Sibley Field Guide to Birds of Western North America* (Sibley, 2003), the April 2005 NDOW Master Species List (NDOW, 2005), and the maps in the Nevada Wildlife Action Plan Range (Wildlife Action Plan Team, 2006), as well as local knowledge of birds known to exist in the Elko District. Habitat information is from the Nevada Partners in Flight Bird Conservation Plan (Nevada Partners in Flight Working Group, 2006).

Species	Sagebrush
Turkey Vulture	F
Northern Harrier	M
Cooper's Hawk	F
Northern Goshawk	F
Ferruginous Hawk	B
Rough-legged Hawk	F
Bald Eagle	
Golden Eagle	F
American Kestrel	F
Prairie Falcon	F
Gray Partridge	B
Chukar	B
Columbian Sharp-tailed Grouse	B
Greater Sage-Grouse	B
Mountain Quail	B
California Quail	B
Burrowing Owl	B
Common Nighthawk	B
Common Poorwill	B
Rufous Hummingbird	M
Gray Flycatcher	B
Loggerhead Shrike	B
Horned Lark	B
Bushtit	B
Mountain Bluebird	F
Sage Thrasher	B
Black-throated Sparrow**	B
Sage Sparrow	B
Brewer's Sparrow	B
Vesper Sparrow	B
Lark Sparrow**	B
Snow Bunting***	I
Western Meadowlark	B
Brown-headed Cowbird	B
Black Rosy-Finch	W
American Goldfinch	M

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* B = Breeding, F = Feeding, I = Incidental, M = Migration, W = Wintering.

** These were not on the BLM Elko Field Office Bird List but were documented as breeding in the district by the Great Basin Bird Observatory in their Atlas of the Breeding Birds of Nevada.

*** This species was not on the BLM Elko Field Office Bird List but is shown in the Sibley Guide to Birds as having a winter range that overlaps the Elko District.

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Appendix B: Mammals by Life Zone

This list was developed for the Metropolis Seeding Allotment utilizing the BLM Elko Mammal List (BLM, 1992a), the April 2005 NDOW Master Species List (NDOW, 2005), and the maps in the Nevada Wildlife Action Plan Range (Wildlife Action Plan Team, 2006), as well as local knowledge of mammals known to exist in the Elko District. Data on life zones are from *Mammals of Nevada* (Hall, 1995).

Species	Upper Sonoran (Sagebrush)
Merriam's Shrew	X
Vagrant Shrew	X
Water Shrew	X
Preble's Shrew	X
Pallid Bat	X
Townsend's big-eared Bat	X
Big Brown Bat	X
Spotted Bat	X
Silver-haired Bat	X
Western Red Bat*	X
Hoary Bat	X
Western Small-footed Myotis	X
Little Brown Bat	X
Fringed Myotis	X
Long-legged Myotis	X
Yuma Myotis*	X
Western Pipistrelle*	X
Black-tailed Jack Rabbit	X
Nuttall's Cottontail	X
Desert Cottontail	X
Pygmy Rabbit	X
Yellow-bellied Marmot	X
Townsend's Ground Squirrel	X
Wyoming Ground Squirrel	X
Belding's Ground Squirrel	X
White-tailed Antelope Squirrel	X
Least Chipmunk	X
Townsend's Pocket Gopher	X
Botta's Pocket Gopher*	X
Southern Pocket Gopher*	X
Little Pocket Mouse	X
Great Basin Pocket Mouse	X
Dark Kangaroo Mouse	X
Ord's Kangaroo Rat	X
Chisel-toothed Kangaroo Rat	X
Western Harvest Mouse	X
Canyon Mouse	X
Deer Mouse	X
Brush Mouse**	X
Pinon Mouse	X
Northern Grasshopper Mouse	X

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Species	Upper Sonoran (Sagebrush)
Desert Woodrat	X
Montane Vole	X
Sagebrush Vole	X
Muskrat	X
Beaver	X
Black Rat	X
House Mouse	X
Porcupine	X
Coyote	X
Red Fox	X
Gray Fox	X
Kit Fox	X
Raccoon	X
Ringtail	X
Long-tailed Weasel	X
Mink	X
River Otter	X
Badger	X
Western Spotted Skunk	X
Striped Skunk	X
Mountain Lion	X
Bobcat	X
Mule Deer	X
Pronghorn	X
Bighorn Sheep	X
Elk	X

* These were not on the BLM Elko Field Office Mammal List but were on the April 2005 NDOW Master List.

** This species was not on the BLM Elko Field Office Mammal List but is potentially on the District according to Nevada Wildlife Action Plan.

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Appendix C: Mammals by Vegetation Association

This list was developed for the Metropolis Seeding Allotment utilizing the BLM Nevada Elko District Mammal List (BLM, 1992a), the April 2005 NDOW Master Species List (NDOW, 2005), and the maps in the Nevada Wildlife Action Plan Range (Wildlife Action Plan Team, 2006), as well as local knowledge of mammals and vegetation known to exist in the Elko District. Data on plant communities is from *Distribution of Mammals, Reptiles, and Amphibians by BLM Physiographic Regions and A.W. Kuchler's Associations for the Eleven Western States* (Bernard & Brown, 1977). X = Habitat Association was listed. Y = Habitat Association not actually listed, but referred to in the narrative for the species.

Species	Great Basin Sagebrush (38)	Sagebrush Steppe (55)
Merriam's Shrew	X	X
Preble's Shrew		X
Pallid Bat		X
California Myotis*		X
Yuma Myotis*		X
Western Pipistrelle*	X	
Brazilian Free-tailed Bat	X	
White-tailed Jackrabbit	X	
Black-tailed Jackrabbit	X	X
Nuttall's Cottontail	X	X
Desert Cottontail	X	
Pygmy Rabbit	X	X
Townsend's Ground Squirrel	X	X
Wyoming Ground Squirrel	X	X
Least Chipmunk	X	X
Townsend's Pocket Gopher	X	X
Little Pocket Mouse	X	
Great Basin Pocket Mouse	X	X
Dark Kangaroo Mouse	X	
Ord's Kangaroo Rat	X	X
Chisel-toothed Kangaroo Rat	X	
Western Harvest Mouse		X
Canyon Mouse	X	
Deer Mouse		Y
Pinon Mouse		X
Northern Grasshopper Mouse		X
Desert Woodrat	X	
Bushy-tailed Woodrat		X
Montane Vole		X
Long-tailed Vole		X
Sagebrush Vole	X	X
Porcupine		X
Gray Wolf*		X
Coyote	Y	Y
Gray Fox	X	
Kit Fox	X	
Western Spotted Skunk	Y	Y

Metropolis Seeding Allotment Standards and Guidelines Assessment

Species	Great Basin Sagebrush (38)	Sagebrush Steppe (55)
Striped Skunk	Y	Y
Bobcat	Y	Y
Mule Deer	Y	Y
Pronghorn		X
Bison*		X

* These were not on the BLM Elko Field Office Mammal List but were on the April 2005 NDOW Master List.

** This species was not on the BLM Elko Field Office Mammal List but is potentially on the District according to Nevada Wildlife Action Plan.

Appendix D: Bats by Vegetation Type

This list was compiled for the Metropolis Seeding Allotment from species information in the Nevada Bat Conservation Plan (Bradley et al., 2006) and may not be a complete list of potential habitats.

Species	Sagebrush	Comments
Pallid Bat	X	
Townsend's big-eared Bat	X	
Big Brown Bat	X	
Spotted Bat	X	
California Myotis*		Variety of habitats
Western Small-footed Myotis	X	
Long-eared Myotis	X	
Long-legged Myotis	X	
Yuma Myotis*	X	
Western Pipistrelle*	X	
Brazilian Free-tailed Bat		Variety of habitats

* These were not on the BLM Elko Field Office Mammal List but were on the April 2005 NDOW Master List.

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Appendix E: Reptiles and Amphibians by Vegetation Association

This list was developed for the Metropolis Seeding Allotment utilizing the BLM Nevada Elko District Reptiles and Amphibians List (BLM, 1992c), the April 2005 NDOW Master Species List (NDOW, 2005), and the maps in the Nevada Wildlife Action Plan Range (Wildlife Action Plan Team, 2006), as well as local knowledge of reptiles and amphibians known to exist in the Elko District. Data on plant communities is from *Distribution of Mammals, Reptiles, and Amphibians by BLM Physiographic Regions and A.W. Kuchler's Associations for the Eleven Western States* (Bernard & Brown, 1977). X = Habitat Association was listed. Y = Habitat Association not actually listed, but referred to in the narrative for the species.

Species	Great Basin Sagebrush (38)	Sagebrush Steppe (55)
Tiger Salamander		X
Great Basin Spadefoot	X	X
Western Toad	X	X
Woodhouse's Toad		X
Pacific Treefrog	X	X
Great Basin Collared Lizard*	X	
Desert Collared Lizard	X	
Long-nosed Leopard Lizard	X	X
Western Fence Lizard	X	
Sagebrush Lizard	X	X
Side-blotched Lizard	X	X
Desert Horned Lizard	X	
Short-horned Lizard		X
Greater Short-horned Lizard**	X	
Western Skink	X	X
Western Whiptail	X	X
Racer	X	X
Striped Whipsnake	X	X
Great Basin Gopher Snake**	X	X
Common Kingsnake**	X	
Gopher Snake	X	X
Long-nosed Snake	X	
Common Garter Snake		X
Western Terrestrial Garter Snake	Y	Y
Ground Snake	X	X
Night Snake	X	X
Western Rattlesnake		X

* This species was not on the BLM Elko Field Office Reptile and Amphibian List but is potentially on the District according to Nevada Wildlife Action Plan.

** These were not on the BLM Elko Field Office Reptile and Amphibian List but were on the April 2005 NDOW Master List.

Metropolis Seeding Allotment Standards and Guidelines Assessment

Appendix F: Vertebrates by Key Habitats

This list was developed for the Metropolis Seeding Allotment utilizing the Nevada Wildlife Action Plan (Wildlife Action Plan Team, 2006), local knowledge of vertebrates known to inhabit the Elko District, as well as the BLM Nevada Elko District Lists (BLM, 1992a, 1992b, 1992c), the April 2005 NDOW Master Species List (NDOW, 2005), and widely accepted range maps. Key habitat types are from the Nevada Wildlife Action Plan (Wildlife Action Plan Team, 2006).

Species	Sagebrush
Great Basin Collared Lizard*	X
Long-nosed Leopard Lizard	X
Pygmy Short-horned Lizard	X
Desert horned Lizard	X
Greater Short-horned Lizard**	X
Merriam's Shrew	X
Preble's Shrew	X
Western Small-footed Myotis	X
Pygmy Rabbit	X
Wyoming Ground Squirrel	X
Dark Kangaroo Mouse	X
Sagebrush Vole	X
Kit Fox	X
Mule Deer	X
Greater Sage Grouse	X
Columbian Sharp-tailed Grouse	X
Mountain Quail	X
Ferruginous Hawk	X
Western Burrowing Owl	X
Short-eared Owl	X
Loggerhead Shrike	X
Brewer's Sparrow	X
Sage Sparrow	X

* These were not on the BLM Elko Field Office Species Lists but are potentially on the District according to Nevada Wildlife Action Plan.

** These were not on the BLM Elko Field Office Species Lists but were on the April 2005 NDOW Master List.

*** These were not on the BLM Elko Field Office Species Lists but were documented as breeding in the district by the Great Basin Bird Observatory in their Atlas of the Breeding Birds of Nevada.

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Appendix G: Nevada BLM Sensitive Terrestrial Vertebrate Species

This list was developed for the Metropolis Seeding Allotment by selecting those species in the previous appendices that are on the current BLM Sensitive Species List.

Birds

Common Name	Genus	Species
Northern Goshawk	<i>Accipiter</i>	<i>gentilis</i>
Ferruginous Hawk	<i>Buteo</i>	<i>regalis</i>
Golden Eagle	<i>Aquila</i>	<i>chrysaetos</i>
Prairie Falcon	<i>Falco</i>	<i>mexicanus</i>
Columbian Sharp-tailed Grouse	<i>Tympanuchus</i>	<i>phasianellus</i>
Greater Sage-Grouse	<i>Centrocercus</i>	<i>urophasianus</i>
Mountain Quail	<i>Oreortyx</i>	<i>pictus</i>
Burrowing Owl	<i>Athene</i>	<i>cunicularia</i>
Loggerhead Shrike	<i>Lanius</i>	<i>ludovicianus</i>
Juniper Titmouse	<i>Baeolophus</i>	<i>ridgwayi</i>
Vesper Sparrow	<i>Pooecetes</i>	<i>gramineus</i>
Black Rosy Finch	<i>Leucosticte</i>	<i>atrata</i>

Mammals

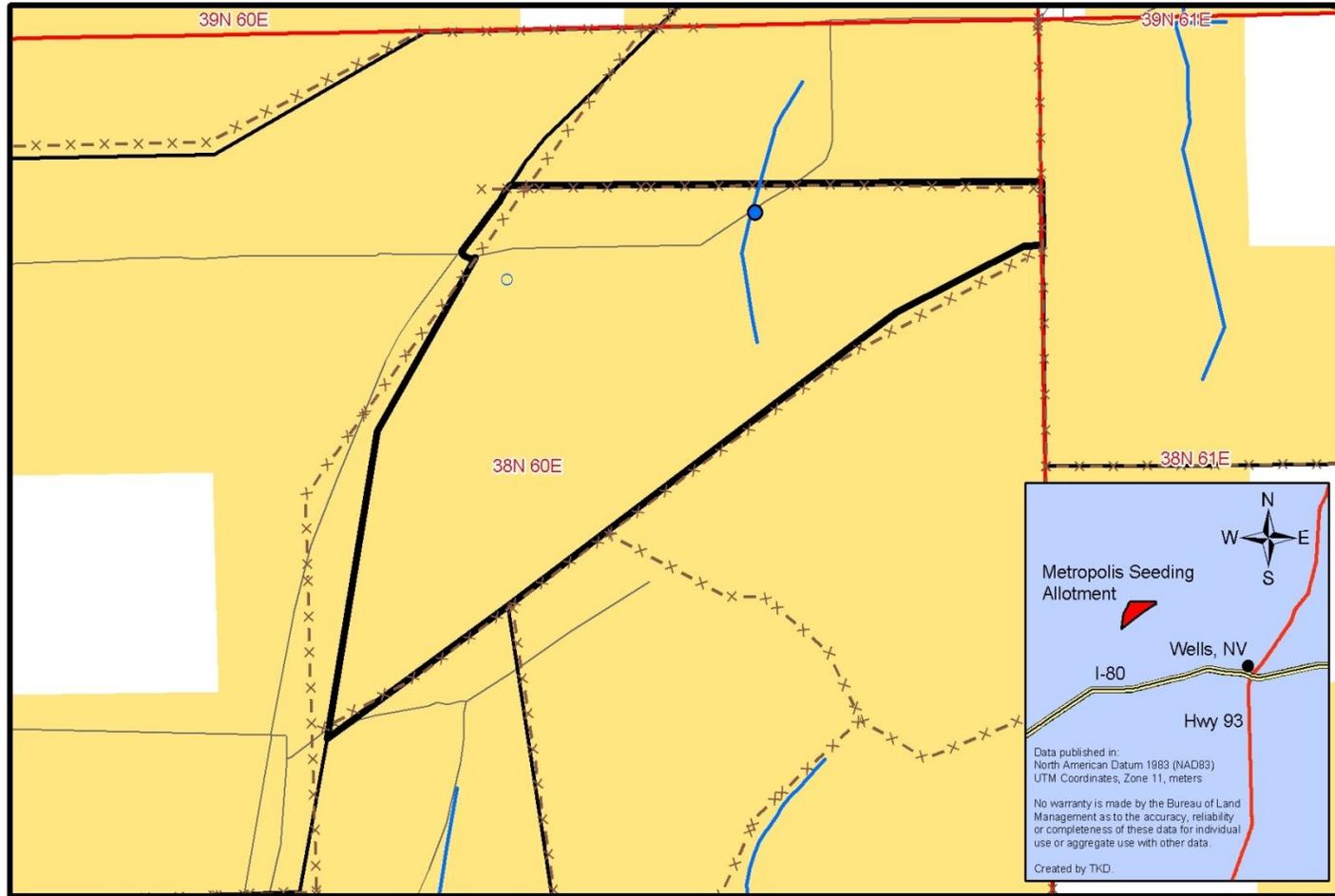
Common Name	Genus	Species
Preble's Shrew	<i>Sorex</i>	<i>preblei</i>
Pallid Bat	<i>Antrozous</i>	<i>pallidus</i>
Townsend's big-eared Bat	<i>Corynorhinus</i>	<i>townsendii</i>
Big Brown Bat	<i>Eptesicus</i>	<i>fuscus</i>
Spotted Bat	<i>Euderma</i>	<i>maculatum</i>
Silver-haired Bat	<i>Lasionycteris</i>	<i>noctivagans</i>
Western Red Bat	<i>Lasiurus</i>	<i>blossevillii</i>
Hoary Bat	<i>Lasiurus</i>	<i>cinereus</i>
California Myotis	<i>Myotis</i>	<i>californicus</i>
Western Small-footed Myotis	<i>Myotis</i>	<i>ciliolabrum</i>
Little Brown Myotis	<i>Myotis</i>	<i>lucifugus</i>
Fringed Myotis	<i>Myotis</i>	<i>thysanodes</i>
Long-legged Myotis	<i>Myotis</i>	<i>volans</i>
Yuma Myotis	<i>Myotis</i>	<i>yumanensis</i>
Western Pipistrelle	<i>Pipistrellus</i>	<i>hesperus</i>
Brazilian Free-tailed Bat	<i>Tadarida</i>	<i>brasiliensis</i>
Pygmy Rabbit	<i>Sylvilagus</i>	<i>idahoensis</i>

Reptiles

Common Name	Genus	Species
Short-horned Lizard	<i>Phrynosoma</i>	<i>douglassi</i>

Metropolis Seeding Allotment Standards and Guidelines Assessment

Maps

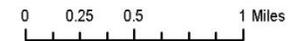


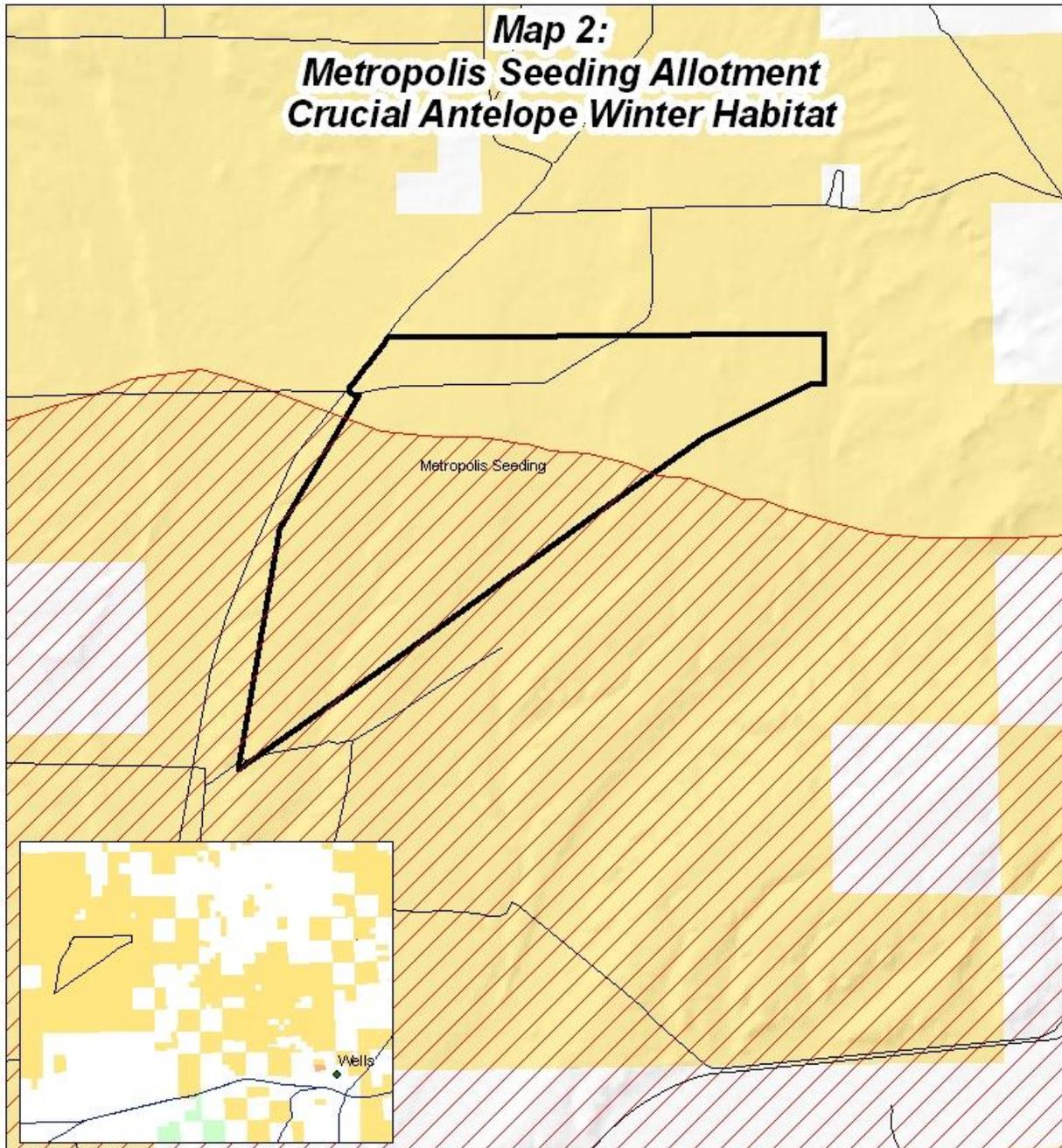
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ELKO DISTRICT OFFICE

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





1 in = 6 miles
 Miles
 0.5 2 3 4

Matt Murphy
 4/28/2009

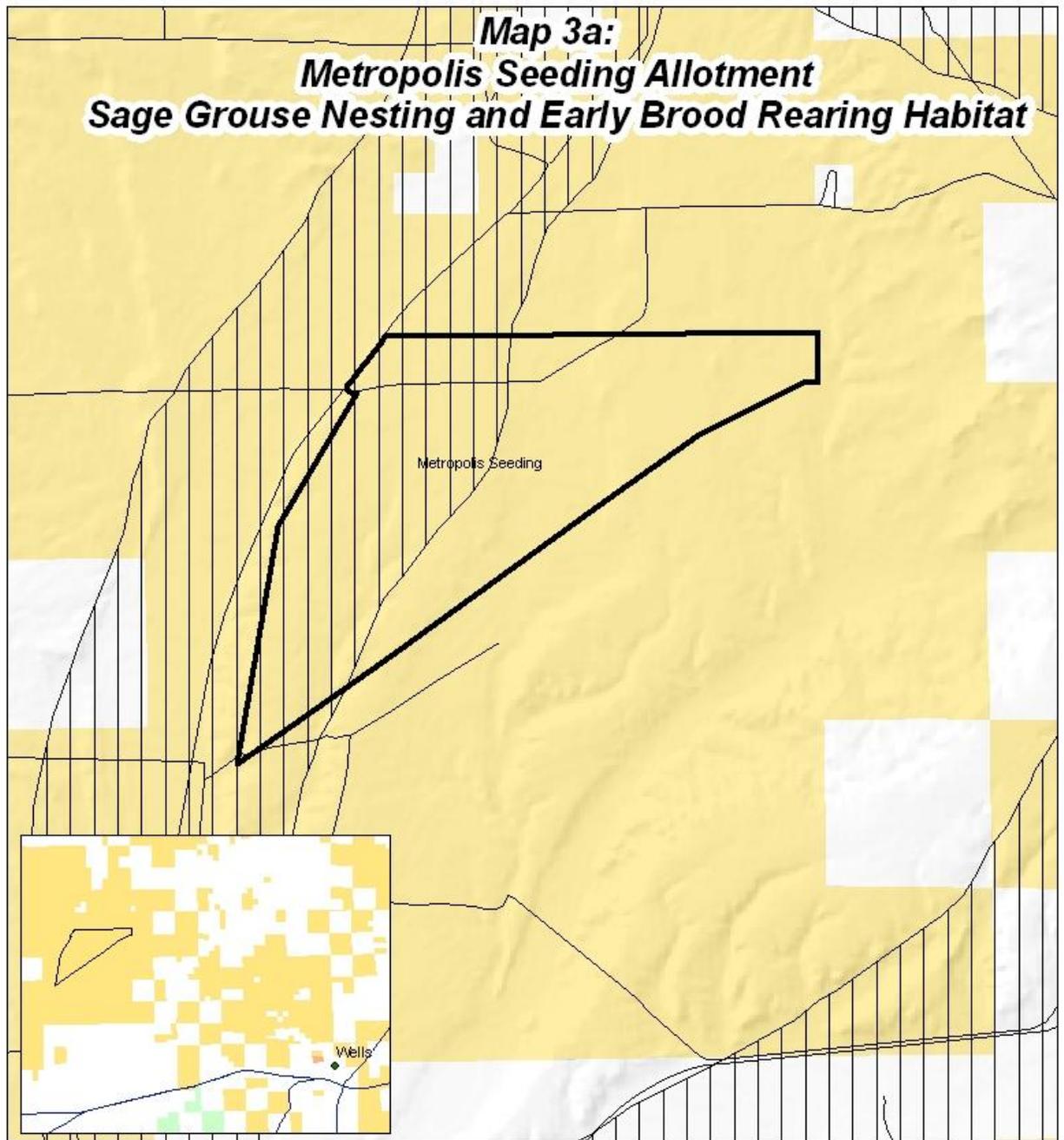


Data published in:
 North American Datum 1983 (NAD83)
 UTM coordinates, Zone 11, meters

"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."

Legend

-  Antelope Crucial Winter Use
-  Roads
-  Metropolis Seeding Allotment
-  Bureau of Land Management
-  Private Land



1 in = 6 miles
 Miles
 0.5 2 3 4

Matt Murphy
 4/28/2009

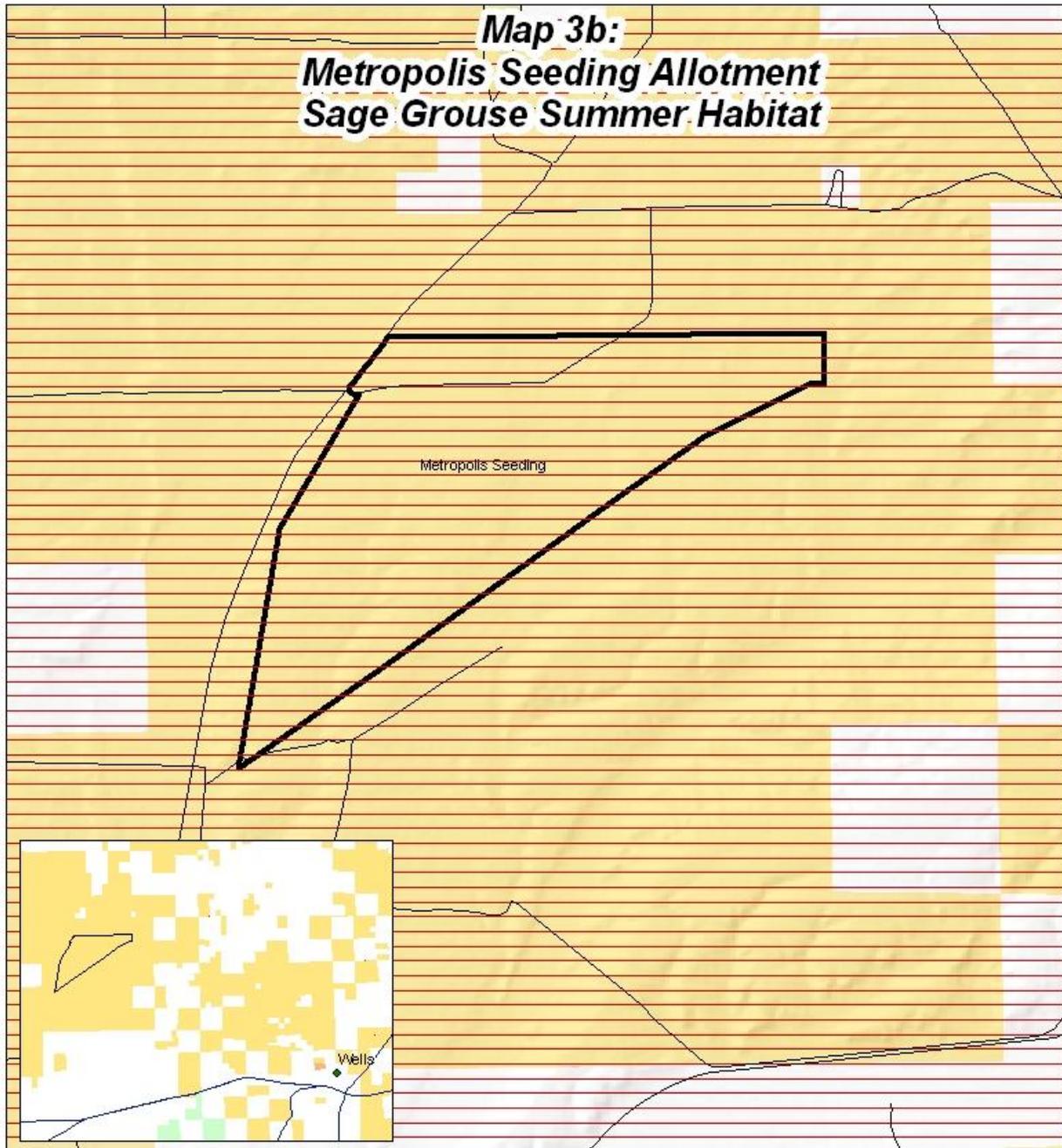


Legend

-  Sage Grouse Nesting and Early Brood Rearing Habitat
-  Roads
-  Metropolis Seeding Allotment
-  Bureau of Land Management
-  Private Land

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1 in = 6 miles
0.3 2 3 4 Miles

Matt Murphy
4/28/2009

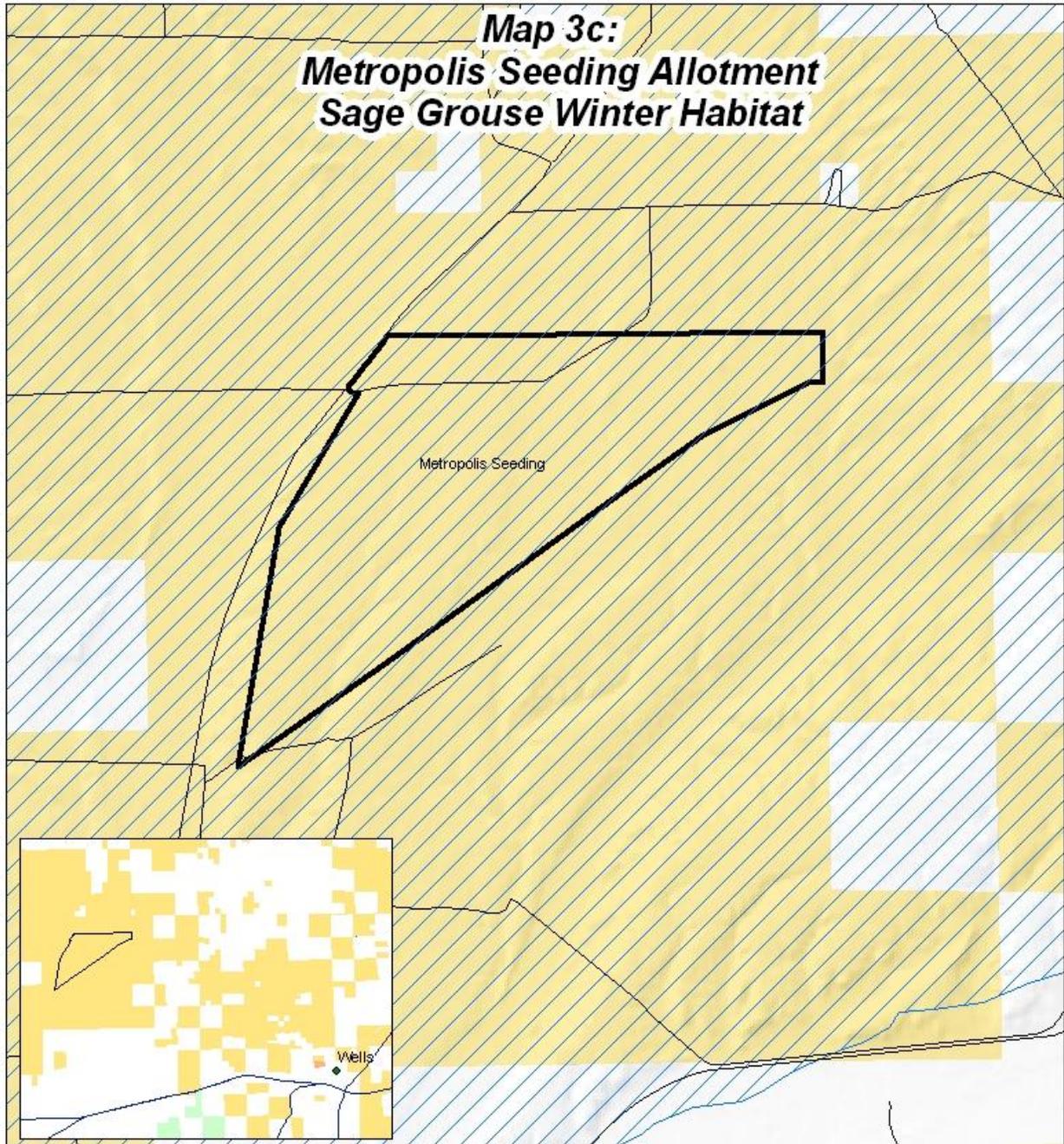


Legend

- Sage Grouse Summer Habitat
- Roads
- Metropolis Seeding Allotment
- Bureau of Land Management
- Private Land

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1 in = 6 miles
0.5 2 3 4 Miles

Matt Murphy
4/28/2009



Legend

- Sage Grouse Winter Habitat
- Roads
- Metropolis Seeding Allotment
- Bureau of Land Management
- Private Land

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