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July 1, 1990

Mr. Robert B. Salter, Wildlife Biologist  
294 Ojo de la Vaca  
Santa Fe, New Mexico 87505

Dear Mr. Salter:

Thank you for affording the Department of Game and Fish (Department) the opportunity to comment on the Environmental Assessment (EA) for the Homestake Mining Company proposed uranium mill tailings disposal site in Cibola County near Milan. Based on the information in the EA, the Department anticipates no significant adverse impact to fish or wildlife or their habitat. However, we recommend the transportation corridor avoid the black-tailed prairie dog town (*Cynomys ludovicianus*) at coordinates N 1,549,500 E 489,500.

Thank you again for the opportunity to comment on the Homestake Mining project. If you have any questions, please contact Jon Klingel (827-9912) of this department.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Bill Montoya'.

Bill Montoya  
Director

BM/jtk

cc: Mike Donahoo (Assistant Field Supervisor, USFWS)  
Tim Leftwich (Director Mining and Minerals, NMNRD)  
Dan Pursley (NW Area Supervisor, NMGF)  
Randy Isler (NW Area Game Manager, NMGF)  
Mike Johnson (Albuquerque District Supervisor, NMGF)  
Greg Medina (Grants District Officer, NMGF)  
Wain Evans (Assistant Director, NMGF)  
Andrew Sandoval (HEL Division Chief, NMGF)  
Robert Jenks (Environmental Section Chief, NMGF)



**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE  
Ecological Services**

Suite D, 3530 Pan American Highway, NE  
Albuquerque, New Mexico 87107 Cons #2-22-90-I-0114

June 8, 1990

Robert B. Salter  
Wildlife Biologist  
294 Ojo de la Vaca  
Santa Fe, NM 87505

Dear Mr. Salter:

This responds to your letter dated April 9, 1990 requesting comments on the wildlife assessment for the proposed uranium mill tailings disposal area of the Homestake Mining Company. The proposed site is on private rangeland approximately 2 miles northwest of the Homestake Mill (T12N, R10W, sections 9, 10, 15 and 16). Your geographic area of interest is seven miles north of Milan, Cibola County, New Mexico.

We concur with your list of threatened or endangered species included in the assessment. Based on the lack of large prairie dog towns, black-footed ferrets are probably absent from the area. The peregrine falcon will only be a migrant or occasional visitor to the area.

We suggest you contact the New Mexico Department of Game and Fish and the New Mexico Energy, Minerals and Natural Resources Department for information on animals and plants of State concern.

If we can be of further assistance, please call Mike Donahoo at (505) 883-7877 or FTS 474-7877.

Sincerely yours,



John C. Peterson  
Field Supervisor

cc:

Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico  
Director, New Mexico Energy, Minerals and Natural Resources, Forestry  
Division, Santa Fe, New Mexico  
Regional Director, U.S. Fish and Wildlife Service, Fish and Wildlife  
Enhancement, Albuquerque, New Mexico

# Wildlife Resources in the Proposed Homestake Mining Company New Tailings Disposal Area

By: Robert B. Salter - Wildlife Biologist

## I. Introduction

The area proposed as the site for a new uranium mill tailings disposal site is located in T 12N, R 10W sections 9, 10, 15, and 16 on the Bluewater USGS 7.5 minute quadrangle map. This site is approximately 2 miles northwest of the Homestake Mill located on State Highway 605 five miles north of Milan, New Mexico in Cibola County. (See attachment A, general site map.)

The purpose of this wildlife survey was to determine whether or not state or federal threatened or endangered species would be impacted by the proposed tailings facility and to identify habitat types and resident wildlife within the study area.

The area proposed for the tailings disposal site is situated in a geo-structural and topographic basin. The entire basin covers an area of approximately 620 acres. The actual area of the basin proposed to be affected by placement of mill tailings is approximately 230 acres. In addition to the actual tailings facility a 2 mile transportation corridor would be necessary to convey the mill tailings to the basin and to facilitate vehicular access to the site. The total area disturbed by this proposed action could amount to 750 acres. The wildlife survey was conducted on adjacent areas as well as the tailings basin and transportation corridor. The total area of ground surveyed was in excess of 2000 acres.

Four general habitat types are present within the study area. These habitat types for purposes of this study will be referred to as: 1. mixed grasslands, 2. grassland-shrub, 3. juniper-grassland-shrub and 4. rock outcrop. (See attachment B, small scale area maps.) There are no natural surface water sources within the study area. Stock tanks are located 1/2 mile south and 1 1/2 northeast of the proposed tailings basin.

The methodology employed for this wildlife survey included the mapping of habitat types, walking of regular north-south transects at 300 foot intervals throughout the tailings basin, close inspection of all rock outcrop and arroyo habitat, irregular arc transects outside the basin and in the transportation corridor, pellet and track identification, live trapping and direct observation.

A total of 9 1/2 miles of foot transects were covered and 22 additional miles in a vehicle were completed in adjacent areas. This field work was conducted over a three day period from March 19-21, 1990.

Four species currently under some form of state or federal protec-

tion have been reported in this area within the last 30-50 years. Those species are: Baird's Sparrow (Ammodramus bairdii), New Mexico Endangered, 1975, Gray Vireo (Vireo vicinior), New Mexico Endangered, 1975, Peregrine Falcon (Falco peregrinus), Federal Endangered, 1970, and Black-footed Ferret (Mustela nigripes), Federal endangered, 1967. Indications of the presence of these species or their habitat requirements was a top priority of this survey.

The results of this wildlife survey indicate that the selection of this particular site for mill tailings disposal is probably the best available location within a reasonable distance from the uranium mill. No species currently under state or federal protection were found to reside or have critical habitat within the study area. Offsite impacts from the proposed tailings facility will be reduced or eliminated by design and geological factors. Most of the resident wildlife is mobile enough to retreat from construction activities and ample adjacent similar habitat exists to accommodate these animals. Some ground dwelling and burrowing animals may be lost to construction and excavation. Notable among these ground dwellers are: Ord's Kangaroo Rat (Dipodomys ordii), Banner-tailed Kangaroo Rat (Dipodomys spectabilis) and Black-tailed Prairie Dog (Cynomys ludovicianus) along a portion of the transportation corridor. None of these animals are protected or rare either statewide or in this specific location.

Therefore as will be detailed in subsequent paragraphs, it is the conclusion of this investigator that the proposed action would have no adverse impact on area wildlife resources.

## II. Effects of the Proposed Action

The proposed tailings disposal area and transportation corridor will cause surface and subsurface disturbance to approximately 750 acres of range land.

Construction activities in the basin tailings disposal area will result in the removal of a substantial portion of the existing mixed grassland and grassland-shrub communities within the basin. These communities are dominated by: Blue grama grass (Bouteloua gracilis), Alkali sacaton (Sporobolus airoides), Galleta (Hilaria jamesii), Indian ricegrass (Oryzopsis hymenoides), and Little bluestem (Schizachyrium scoparius) in the mixed grassland habitat. In the grassland-shrub areas on the gentle ridges between grass dominated wide bottom drain areas the characteristic vegetation includes Blue grama grass, Rabbitbrush (Chrysothamnus nauseosus), Snakeweed (Xanthocephalum sarothrae), a small stand of Greasewood (Sarcobatus vermiculatus), a few scattered Soap-tree yuccas (Yucca elata), and an occasional Tree cholla (Opuntia imbricata).

The basin area would be excavated to a depth below all the burrows and dens of the various animals that have adapted to this area if the proposed tailings site is constructed.

The proposed transportation corridor cuts across approximately one mile of grassland-shrub habitat and another mile of mixed grassland in an area that has been more disturbed than the basin grassland area. Because of this the transportation corridor contains a few more species of shrubs. These shrubs include Four-wing saltbush (Atriplex canescens) and Big sagebrush (Artemisia tridentata).

Construction activities in this area would include road building and burying a slurry pipeline. These activities would disrupt the burrows and dens of a variety of mammals and reptiles.

The juniper-grassland-shrub and rock outcrop habitat areas which occur above and at the western end of the basin area would not be disturbed by any of the proposed construction activities.

There are no surface water resources in the area of the proposed tailings disposal area. Ground water resources are first encountered at depths greater than 200 feet beneath the area. An impervious shale in the Chinle formation separates the surface drainage area from the ground water aquifer in this area. Diversion channels will prevent storm runoff from upslope areas of the basin watershed from entering the tailings area. Due to air and water health standards the tailings will be kept nearly saturated to prevent windblown particulates from leaving the tailings site; but standing water on the facility will be avoided. Because of this the tailings site should not prove attractive to water fowl. Due to local geology and design criteria, offsite surface water in the Rio San Jose which is several miles away would not likely be affected by the proposed tailings disposal site.

← change  
to > 10

### III. Wildlife Observations

The highest priority of this wildlife survey was to seek out any signs or sightings of the four previously mentioned species which are protected by either state or federal law. None of these species were sighted and no critical habitat was identified within the study area for any species.

The Baird's Sparrow could occur within the mixed grassland habitat though none were observed nor have any been reported in recent times in Cibola County. Even if this state protected bird is present in this area, the loss of mixed-grassland habitat in this proposed tailings basin would be insignificant in light of the tens of thousands of acres of similar habitat in adjacent areas.

The Gray Vireo, also a state protected species, could conceivably occur in the juniper-grassland-shrub habitat although this area contains only a thin stand of juniper. Nearby mesa tops offer much thicker forest cover. Regardless of the quality of this habitat type within the study area it would not be disturbed by the proposed action.

The federally protected Peregrine Falcon has been sighted during previous surveys near the large cliffs of Mt. Taylor and the various high mesas north and east of the study area. No such suitable nesting areas occur within the study area. The rock outcrop habitat area consists of boulders and ledges usually less than 10 feet high. Although Peregrine Falcons may well hunt in the mixed grassland habitat, once again the small percentage of this habitat type that would be lost if the proposed action occurs could not be considered significant.

The Black-footed Ferret is a much sought after federal endangered species. It is generally agreed that its principal prey, prairie dogs, must be available in large numbers to support any sustainable population of Black-footed Ferrets. A small prairie dog town is touched on its northeastern edge by the proposed transportation corridor. (See attachment B, sheet 2.) This small colony of Black-tailed Prairie Dogs covers an area of approximately 25 acres and consists of only 60 burrow entries. Each of these burrow entries was investigated for entry troughs, prairie dog bones, or any other signs of the Black-footed Ferret. As one might expect no such indications were observed.

This wildlife survey did yield direct observation and sign evidence of a number of mammals and birds that inhabit and or frequent the study area.

Among mammals, rodents and lagamorphs seem to have been the most successful colonists of the study area. Direct observations were made of the Desert Cottontail (Sylvilagus audubonii), Black-tailed Jack Rabbit (Lepus californicus) and Black-tailed Prairie Dogs.

Occupation of the study area by several other rodents was confirmed by scat, tracks and burrow construction. These residents included Ord's Kangaroo Rat, Banner-tailed Kangaroo Rat, Spotted Ground Squirrel (Spermophilus spilosoma), Rock Squirrel (Spermophilus variegatus), White-throated Woodrat (Neotoma albigula), and Mexican Woodrat (Neotoma mexicana). Scat and tracks of Coyote (Canis latrans) were present but not abundant in the study area. There were no signs of usage of this area by either Elk (Cervus elaphus), or Mule Deer (Odocoileus hemionus).

Several species of birds were observed hunting and foraging in the study area. The only predatory bird observed during this survey was the American Kestrel or Sparrow Hawk (Falco sparverius).

Several Western Meadowlarks (Sturnella neglecta) were observed and their song was heard frequently throughout the study area. A substantial flock of Horned Larks (Eremophila alpestris) was observed feeding in the mixed grassland habitat. The most common seed-eating bird observed in the study area was the Black-throated Sparrow (Amphispiza Gilineata).

No reptiles were observed during this survey conducted in mid-March. Although the weather was quite mild none of the swarms of rattlesnakes local residents warned me about had yet appeared. No doubt many snakes and lizards do inhabit this area. None of the native species of reptiles in the area are currently listed as rare, threatened or endangered. It is doubtful that the proposed tailings facility and transportation corridor would threaten the numbers or diversity of area reptiles.

Due to the total lack of permanent surface water resources in the study area it is doubtful that any resident amphibians exist. None of the known resident amphibians in the general Cibola or McKinley County areas are currently listed as rare, threatened or endangered. Fishes are also absent from the study area due to the lack of permanent water bodies.

A complete list of the species which have some potential for occurring on or near the study area is included as Attachment C. (This list includes aquatic species recorded in wetland areas within 30 miles of this study area.)

#### IV. Conclusions

Based on these observations it seems clear that the loss of 750 acres of mixed grassland and grassland-shrub habitat in an area with many thousands of acres of such habitat cannot be considered significant.

No protected species will be affected by the proposed action. None of the few ground dwelling species that could be affected by proposed construction activities are rare or confined to the area to be affected.

Potential adverse off-site impacts due to this facility would be effectively controlled by design and geologic factors.

Therefore it is recommended that clearance in regard to wildlife resources be granted for this proposed action.

## Bibliography

### Information Sources:

Endangered and Threatened Species of Arizona and New Mexico, 1987  
U.S. Fish and Wildlife Service, Department of the Interior

Handbook of Species Endangered in New Mexico, 1978  
New Mexico Department of Game and Fish

The Audubon Society Field Guide to North American Mammals

The Audubon Society Field Guide to North American Birds - Western Region

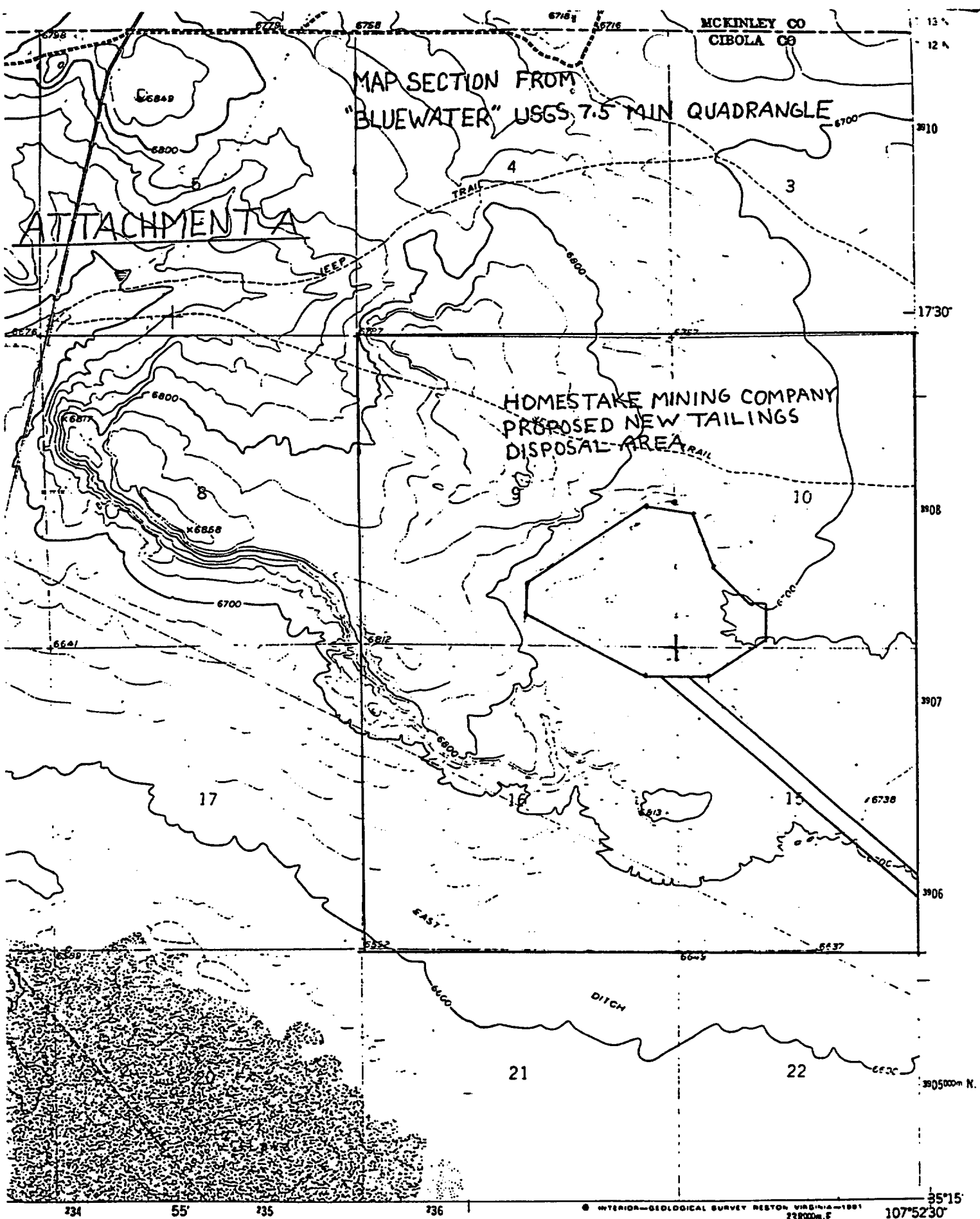
The Audubon Society Nature Guides - Deserts

Characteristics of Western Range Land Plants  
Environmental Research Inc., 1984

U.S. Geological Survey

AK GeoConsult, Inc., Alan Kuhn





ATTACHMENT A

MAP SECTION FROM  
"BLUEWATER" USGS 7.5 MIN QUADRANGLE

HOMESTAKE MINING COMPANY  
PROPOSED NEW TAILINGS  
DISPOSAL AREA

© INTERIOR—GEOLOGICAL SURVEY RESTON, VIRGINIA—1991  
238000m. E.

ROAD CLASSIFICATION

IGDAN  
445

ATTACHMENT C

| <u>Common Name</u>       | <u>Scientific Name</u>                         |
|--------------------------|--|
| <u>Birds</u>             |  |
| Canada Goose             | <u>Branta canadensis</u>                       |
| Mallard Duck             | <u>Anas platyrhynchos</u>                      |
| Gadwall Duck             | <u>Anas strepera</u>                           |
| Turkey Vulture           | <u>Cathartes aura</u>                          |
| Northern Harrier         | <u>Circus cyaneus</u>                          |
| Red-tailed Hawk          | <u>Buteo jamaicensi</u>                        |
| Swainson Hawk            | <u>Buteo swainsoni</u>                         |
| Ferruginous Hawk         | <u>Buteo regalis</u>                           |
| Golden Eagle             | <u>Aquila chrysaetos</u>                       |
| Bald Eagle               | <u>Haliaeetus leucocephalus</u>                |
| Prairie Falcon           | <u>Falco mexicanus</u>                         |
| American Kestrel         | <u>Falco sparverius</u>                        |
| Scaled Quail             | <u>Callipepla squamata</u>                     |
| Killdeer                 | <u>Charadrius vociferus</u>                    |
| Great Blue Heron         | <u>Ardea herodias</u>                          |
| Long-billed Curlew       | <u>Numenius americanus</u>                     |
| Greater Yellowlegs       | <u>Totanus melanoleucus</u>                    |
| Mourning Dove            | <u>Zenaidura macroura</u>                      |
| Great Horned Owl         | <u>Bubo virginianus</u>                        |
| Burrowing Owl            | <u>Athene cunicularia</u>                      |
| Short-eared Owl          | <u>Asio flammeus</u>                           |
| Common Nighthawk         | <u>Chordeiles minor</u>                        |
| Broad-tailed Hummingbird | <u>Selasphorus platycercus</u>                 |
| White-throated Swift     | <u>Aeronautes saxatalis</u>                    |
| Western Kingbird         | <u>Tyrannus verticalis</u>                     |
| Cassin Kingbird          | <u>Tyrannus vociferans</u>                     |
| Say's Phoebe             | <u>Sayornis saya</u>                           |
| Gray Flycatcher          | <u>Empidonax wrightii</u>                      |
| Horned Lark              | <u>Eremophila alpestris</u>                    |
| Violet-green Swallow     | <u>Tachycineta thalassina</u>                  |
| Barn Swallow             | <u>Hirundo rustica</u>                         |
| Cliff Swallow            | <u>Petrochelidon pyrrhonota</u>                |
| Common Raven             | <u>Corvus corax</u>                            |
| Bewick Wren              | <u>Thryomanes bewickii</u>                     |
| Northern Mockingbird     | <u>Mimus polyglottos</u>                       |
| Sage Thrasher            | <u>Oreoscoptes montanus</u>                    |
| Hermit Thrush            | <u>Catharus guttatus</u>                       |
| Mountain Bluebird        | <u>Sialia cirruncoides</u>                     |
| Loggerhead Shrike        | <u>Lanius ludovicianus</u>                     |
| Starling                 | <u>Sturnus vulgaris</u>                        |
| Western Meadowlark       | <u>Sturnella neglecta</u>                      |
| Yellow-headed Blackbird  | <u>Xanthocephalus</u><br><u>xanthocephalus</u> |

Common NameScientific Name

|                       |                                 |
|-----------------------|---------------------------------|
| Red-winged Blackbird  | <u>Agelaius phoeniceus</u>      |
| Brewer's Blackbird    | <u>Euphagus cyanocephalus</u>   |
| Brown-headed Cowbird  | <u>Molothrus ater</u>           |
| American Goldfinch    | <u>Carduelis americana</u>      |
| Green-tailed Towhee   | <u>Pipilo chlorurus</u>         |
| Rufus-sided Towhee    | <u>Pipilos erythrophthalmus</u> |
| Brown Towhee          | <u>Pipilo fuscus</u>            |
| Baird's Sparrow       | <u>Ammodramus bairdii</u>       |
| Vesper Sparrow        | <u>Poocetes gramineus</u>       |
| Lark Sparrow          | <u>Chondestes grammacus</u>     |
| Sage Sparrow          | <u>Amphispiza belli</u>         |
| Dark-eyed Junco       | <u>Junco hyemalis</u>           |
| Tree Sparrow          | <u>Spizella arborea</u>         |
| Brewer's Sparrow      | <u>Spizella breweri</u>         |
| White-crowned Sparrow | <u>Zonotrichia leucophrys</u>   |

Mammals

|                            |                                  |
|----------------------------|----------------------------------|
| Desert Cottontail Rabbit   | <u>Sylvilagus auduboni</u>       |
| Black-tailed Jackrabbit    | <u>Lepus californicus</u>        |
| White-tailed Antelope      |                                  |
| Squirrel                   | <u>Ammospermophilus leucurus</u> |
| Spotted Ground Squirrel    | <u>Spermophilus spilosoma</u>    |
| Gunnison's Prairie Dog     | <u>Cynomys gunnisoni</u>         |
| Silky Pocket Mouse         | <u>Perognathus flavus</u>        |
| Ord's Kangaroo Rat         | <u>Dipodomys ordii</u>           |
| Banner-tailed Kangaroo     |                                  |
| Rat                        | <u>Dipodomys spectabilis</u>     |
| Western Harvest Mouse      | <u>Reithrodontomys megalotis</u> |
| Deer Mouse                 | <u>Peromyscus maniculatus</u>    |
| Northern Grasshopper Mouse | <u>Onychomys leucogaster</u>     |
| White-throated Woodrat     | <u>Neotoma albigula</u>          |
| Coyote                     | <u>Canis latrans</u>             |
| Kit Fox                    | <u>Vulpes macrotis</u>           |
| Badger                     | <u>Taxidea taxus</u>             |
| Elk                        | <u>Cervus canadensis</u>         |
| Mule Deer                  | <u>Odocoileus hemionus</u>       |

Herpetofauna

|                         |                               |
|-------------------------|-------------------------------|
| Tiger Salamander        | <u>Ambystoma tigrinum</u>     |
| Spadefoot Toads         | <u>Scaphiopus sp.</u>         |
| Lesser Earless Lizard   | <u>Holbrookia maculata</u>    |
| Northern Plateau Lizard | <u>Sceloporus undulatus</u>   |
|                         | <u>elongatus</u>              |
| Short-horned Lizard     | <u>Phrynosoma douglassi</u>   |
| Whiptail Lizard         | <u>Cnemidophorus sp.</u>      |
| Bull Snake              | <u>Pituophis melanoleucus</u> |
| Prairie Rattlesnake     | <u>Crotalis viridis</u>       |