

**Bureau of Land Management
Deschutes Resource Area
Wildlife Situation Report**

Project Title: Huntington Ranch L.L.C. Project, EA# OR-056-01-107

Proposed Action and Alternatives

The proposed action is to provide a requested right-of-way (public access and wet/dry utility line access) to a private parcel of land surrounded by BLM managed public lands. This may include construction and/or upgrade of a permanent road, the creation of fence-borders along the access road with several access points with cattle guards/gates for public use, and installing/burying dry utility lines and burying wet utility lines.

Policy and Implementation Strategies

The Endangered Species Act (ESA) of 1973, as amended, 16 U.S.C. 1531 et seq.:

- Requires all Federal agencies to seek to conserve endangered and threatened species and utilize applicable authorities in furtherance of the purposes of the Endangered Species Act (Sec. 1531 (c) (1), Policy).
- Requires all Federal agencies to avoid jeopardizing the continued existence of any species that is listed or proposed for listing as threatened or endangered or destroying or adversely modifying its designated or proposed critical habitat (Sec. 1536 (a), Interagency Cooperation).

The Brothers/LaPine Resource Management Plan requires that:

- All areas “identified as having special status plant or animal species will be avoidance areas” with respect to utility and transportation corridors (page 29).
- “New fences will be constructed to allow wildlife passage and existing fences will be modified as appropriate” (page 85).
- “Areas disturbed during project construction will be reseeded with a mixture of grasses, forbs and shrubs to meet site specific needs or habitat requirements” (page 85).
- “Seasonal restrictions will be applied to mitigate the impacts of human activities on important seasonal wildlife habitat...[including] crucial deer winter range, sagegrouse nesting habitat and raptor nesting habitat” (page 86).

Issues and Concerns

- Loss of year-round habitat for pronghorn antelope due to habitat fragmentation from road and fence construction, as well as increased human activity.
- Loss of big game hiding cover due to juniper removal along utility and transportation corridors.
- Loss of potential nesting habitat for northern goshawks and burrowing owls, and wintering habitat for northern pygmy owls.

Affected Environment

The proposed project area is located on BLM administered lands in Deschutes County, bounded by U.S. Highway 97 on the west, the Powell Butte Highway on the east/southeast, and the city of Redmond/Redmond airport on the north. Public lands extend several miles south of the proposed project area. The BLM administered land is only lightly developed, containing unimproved dirt roads, several miles of barbed-wire fences, and public utility corridors. The Central Oregon

Irrigation District's North Unit Main Canal runs north-south through the project area as well. Although the canal only holds water from mid-April through mid-October, a 3-acre silt pond (located in Section 28) contains water year-round. The canal-bank and pond edge contain a narrow riparian zone with a variety of low-growing wetland vegetation. The pond and canal are the primary sources of water for wildlife in the project area.

The proposed project area consists of sparse to dense juniper woodlands with a mixed brush and bunchgrass understory. Vegetative data collected at the Biak Training Center indicate that juniper canopy cover ranges between 4-25 percent, with a mean density of 17 trees per acre. Approximately 50 percent of the juniper present area classified as pre-settlement (older than 120 years). Herbaceous understory vegetation is variable and is generally less than five percent due to juniper induced undergrowth productivity (Tetra Tech 2001, Johnson and O'Neil 2001). The area is generally level, with occasional basalt outcroppings, small hills and depressions.

The proposed project area provides habitat for nearly 100 species of vertebrates, including mule deer, black-tailed jackrabbits and western fence lizards (Styskel, 2001). Pronghorn antelope also use this habitat and, as a result of the canal/silt pond, one resident herd (50-60 animals) occupies the area year-round (George, 2001).

The proposed project area includes four transportation routes (Morrill Road from Deschutes junction, Morrill Road from Powell Butte highway, BLM 6585C straightened, and BLM 6585C), two dry utility routes (existing roadbed, undisturbed area), and two wet utility routes (pipeline, canal). These options, in various combinations, comprise all but the "no action" alternative.¹

Morrill Road from Deschutes junction consists of an existing dirt road that runs approximately 6.3 miles through moderately dense juniper woodlands. Approximately 1/3-1/2 of the juniper trees in the area would be considered pre-settlement. Due to juniper densities and low precipitation (8.7 inches annually), there are frequent patches of bare ground and sparse understory vegetation. The road circles around several basalt outcroppings and parallels two separate allotment fences. Of the 6.3 miles of road, approximately 2.75 miles would run through habitat occupied year-round by a resident pronghorn herd.

Morrill Road from the Powell Butte highway consists of an existing dirt road that traverses approximately 0.5 miles of open sage-brush steppe habitat before continuing another 4.42 miles through sparse to dense juniper woodlands. The area is mostly flat with occasional small basins or short rock outcrops, which provide hiding cover for the big game. Understory vegetation is comprised of a mixture of bunchgrasses and forbs. The entire length of this road runs, primarily east-west, through habitat identified as being used year-round by a resident herd of pronghorn. *BLM Road 6585C straightened* consists of an existing dirt road that runs approximately four miles through moderate to dense juniper woodlands with a bunchgrass/shrub understory of varying densities. Terrain is primarily flat with big game hiding cover provided by small rock outcrops and western juniper trees. In order to straighten the 6585C road to avoid routing around the silt pond, approximately 0.4 miles would be new disturbance through an area of juniper woodlands with a mix of pre- and post-settlement trees. The entire length of this road runs,

¹Although no new action will be taken under this alternative, an ROW grant (OR-04075) already exists. In order to allow for activities under MUA-10 zoning on the private resort property, the current ROW could be paved.

primarily north-south, through pronghorn habitat.

BLM Road 6585 consists of an existing dirt road that runs approximately 4.54 miles through moderate to dense juniper woodlands with a bunchgrass/shrub understory of varying densities. Terrain is primarily flat with big game hiding cover provided by small rock outcrops and western juniper trees. The entire length of this road runs, primarily north-south, through pronghorn habitat.

The *existing roadbed dry utility* route uses three miles of an existing dirt road that extends through juniper woodlands east from U.S. Highway 97 at the Quarry road intersection. Terrain is primarily flat with big game hiding cover provided by small rock outcrops and western juniper trees. Approximately 0.8 miles of this corridor runs east-west through pronghorn habitat at the extreme west side of this herd's range.

The *undisturbed dry utility* route uses approximately 1.4 miles of an existing dirt road that extends east from U.S. Highway 97 at the Quarry road intersection (same as above). An additional mile of this route runs through an intact section of juniper woodland. Terrain is primarily flat with big game hiding cover provided by small rock outcrops and western juniper trees. The last mile also runs east-west through existing pronghorn habitat.

The *pipeline wet utility* route would involve installing and burying water and sewer lines adjacent to the existing pipeline. The existing pipeline route is an already disturbed area of land that has been cleared of western juniper. Terrain is flat with few rock outcrops and little or no hiding cover. Vegetation includes some native grasses and forbs, as well as weeds that have invaded the disturbed sections. Outside of the immediate pipeline corridor, the western juniper woodland habitat continues with moderately dense juniper trees from pre- and post-settlement periods.

The *canal wet utility* route would construct approximately 4.92 miles of water and sewer lines along the existing irrigation canal. The canal is immediately bounded by access roads and short, steep banks that rise above the existing terrain. The vegetation is comprised of a mix of native shrubs/grasses, opportunistic weed species, and minimal riparian vegetation. Near the center of Section 28, there is an artificially created silt pond that contains water year-round. The silt pond has a narrow band of riparian vegetation and serves as a water source for a variety of wildlife. The area outside the canal is comprised of western juniper woodlands with a sparse to moderate understory.

Big Game, including Pronghorn Antelope

Although juniper woodlands are not considered ideal habitat, pronghorn antelope will expand into this habitat if suitable foraging opportunities exist. Within an environment, pronghorn are usually found close to water, which is sparsely distributed throughout the high desert. In the project area, water sources are primarily confined to the silt pond and the canal. In the area directly south of Redmond, and between U.S. Highway 97 and the Powell Butte highway, a herd of 50 to 60 pronghorn reside year round and use the area for breeding, fawning, and foraging (Upper Deschutes AMS 2001, Tetra Tech 2001, Ferry 2001). These animals mix with another group of approximately 90 animals southeast of the project area in the Mayfield Pond and Alfalfa region (Upper Deschutes AMS 2001, Hostick 2001). This herd moves primarily north-

south with a general range of approximately 70 square miles. No specific winter ranges, key fawning areas or important foraging areas have been designated by the Oregon Department of Fish and Wildlife (Hostick 2001).

Although juniper woodlands are not considered ideal habitat, elk have adapted to this environment and have been observed using the proposed project area. No herds of elk have been identified by ODFW in/near the proposed project area (George 2001); however, animals from established herds in the Powell Buttes and Mayfield Pond/Alfalfa areas occasionally cross into this area (Upper Deschutes AMS 2001).

Mule deer currently use the proposed project area and are most likely a part of a migratory herd that uses the North Paulina Winter Range approximately 6 miles east of the proposed Huntington Ranch, and 4 miles east of the Powell Butte highway.

Special Status Wildlife Species

The only federally listed threatened, endangered proposed or candidate species occurring within the project area is the northern bald eagle (threatened). This area does not contain habitat preferred by the bald eagle and there are no known nest sites or key foraging habitat located near (within 1.0 mile) any of the proposed transportation or utility corridors. No BLM records exist of bald eagle sightings in the proposed project site (Hanf 2001), although the possibility exists of observing a winter migrant passing through the analysis area.

Twelve Bureau designated wildlife species inhabit, or have the potential to occur within the area of influence of the Huntington Ranch access and utility rights-of-way (Table 1). Although many of these are considered incidental to juniper woodlands, three species have some potential to be residents. The northern pygmy owl has been known to make use of juniper stands during the winter (Csuti et al. 1997), although no sightings have been reported in or near the project area. The northern goshawk, normally common to coniferous forests, has been occasionally reported nesting in juniper woodlands (Hanf 2001). No active goshawk nest sites are currently located in the project area. The western burrowing owl has been documented nesting along roadsides in sagebrush-steppe ecosystems and in the transition area between sagebrush-stepped and juniper woodlands. However, there are no known nests in the project area.

**Table 1
Special Status Wildlife Species Occurring or Potentially Occurring the Project Area***

Common Name	Scientific Name	Federal/Bureau Status	Presence in Project Area	Affects Determination
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**Table 1
Special Status Wildlife Species Occurring or Potentially Occurring the Project Area***

Northern bald eagle	<i>Haliaeetus leucocephalus</i>	Threatened	P	No affect because suitable habitat would not be affected and disturbance would not occur.
Northern goshawk	<i>Accipiter gentilis</i>	Sensitive	P	Would not contribute to the need to list. See analysis for explanation.
Northern pygmy owl	<i>Glaucidium gnoma</i>	Sensitive	P	Would not contribute to the need to list. See analysis for explanation.
Western burrowing owl	<i>Athene cunicularia hypugea</i>	Sensitive	P	Would not contribute to the need to list. See analysis for explanation.
Oregon Spotted Frog	<i>Rana pretiosa</i>	Fed. Candidate	U	No affect because no suitable habitat is present.
Ferruginous hawk	<i>Buteo regalis</i>	Sensitive	P	No affect because their habitat is not affected.
American peregrine falcon	<i>Falco peregrinus anatum</i>	Sensitive	P	No affect because their habitat is not affected.
Greater sage grouse	<i>Centrocercus urophasianus phaios</i>	Sensitive	P	No affect because their habitat is not affected.
Pygmy nuthatch	<i>Sitta pygmaea</i>	Sensitive	C	No affect because their habitat is not affected.
Yellow rail	<i>Coturnicops novebroacensis</i>	Sensitive	C	No affect because their habitat is not affected.
Townsend's Big-eared bat	<i>Corynorhinus townsendii</i>	Sensitive	P	No affect because their habitat is not affected.
Bufflehead	<i>Bucephala albeola</i>	Assessment	C	No affect because their habitat is not affected.
Pygmy rabbit	<i>Brachylagus idahoensis</i>	Assessment	P	No affect because their habitat is not affected.

* includes species migrating through, seasonal users or visitors
Presence Key (From Reiher et al. 2000, Styskel, E. B.E. Huntington Ranch Resort, 2001): P - Potentially occurring, C - Confirmed, U - Unlikely
Source: ONHP 2001/Csui et al. 2001, Atlas of Oregon Wildlife

Environmental Consequences

Special Status Wildlife Species

The proposed actions would not affect bald eagles because bald eagles do not typically nest or frequent this area, and the removal of juniper trees along existing transportation or utility corridors would not impact any key habitat component. There are currently no nest or roost trees in or near the project area (within 1.0 mile). This species will not be analyzed further in this document.

Of the ten Bureau designated sensitive species that could potentially occur in the analysis area, three will be analyzed because their habitat could be impacted by the proposed action.

Northern goshawk - The goshawk is primarily associated with coniferous forests, however, they have been occasionally documented nesting in juniper woodlands on the Prineville District (Hanf 2001). The action alternatives would have a small chance of eliminating potential nesting habitat by removing western juniper trees. Alternatives D and E would remove the greatest number of juniper trees (approx. 450) due to the placement of the dry utility corridor along 1.1 miles (2.7 acres) of a previously undisturbed site and the wet utilities along the canal. Alternative C would remove the fewest number of juniper trees (25). Alternative B (the preferred alternative), would remove only slightly more trees (approximately 73) than Alternative C due to the placement of a small section of a transportation corridor through 0.4 miles (2.9 acres) of undisturbed area. However, there are no known goshawks using the project area and this is not typical nesting habitat. Due to the availability of other western juniper trees, and the small amount of woodland habitat removed (25-450 trees), none of the action alternatives would contribute to the need to list the northern goshawk. This species will not be analyzed further in this document.

Northern pygmy owl - This owl is found primarily in both coniferous and mixed coniferous-deciduous forests, riparian woodlands, and ponderosa pine woodlands. However, in eastern Oregon, this owl has been documented wintering in juniper woodlands or aspen groves (Csuti et al. 1997). It uses abandoned woodpecker holes in juniper snags and forest practices that remove snags containing old woodpecker holes may reduce available nest sites. Although the proposed action alternatives would remove western juniper trees (25 - 450, see above description), very few or none of these trees would be snags with suitable nesting holes. There are currently no documented pygmy owls in the project area and there is no typical pygmy owl habitat along any of the proposed transportation or utility corridors. Therefore, none of the alternatives would contribute to the need to list the northern pygmy owl and this species will not be analyzed further in this document.

Western burrowing owl - This owl is mainly associated with open deserts, grasslands, fields, and pastures. Although found more commonly in the sagebrush steppe of southeastern Oregon, potential habitat exists in Deschutes county (Csuti et al. 1997). This owl nests in burrows made by squirrels and other animals, and has been known to occupy areas near roadsides and even airports. Although no

burrowing owls have been documented in the planning area, surveys indicate the presence of main prey species such as deer mice, pinon mice, and sagebrush voles. All action alternatives have the potential to temporarily impact this owl's nesting habitat as the selected road is widened and paved. Alternative B (preferred) would impact the least amount of potential habitat by constructing a paved access along 3.6 miles of existing road. Alternatives C, D, and E would construct a paved access along 4.54, 4.92, and 6.3 miles respectively. Once action was completed, roadside habitat would again become available for future nesting. Therefore, none of the alternatives would contribute to the need to list the western burrowing owl, and this species will not be analyzed further in this document.

Big Game, Including Pronghorn Antelope

Alternative A: No Action

Direct and Indirect: The No Action alternative would not change existing impacts and conditions for big game (pronghorn, elk, and mule deer). No roads would be paved or fenced and there would be no acres of pronghorn habitat lost. However, the current ROW grant (OR-04075) may be paved to allow for activities under the MUA-10 zoning on the private resort property. This could result in the loss of approximately 1.0 mile of pronghorn antelope habitat. Big game species, especially pronghorn, would continue to be impacted by off-road vehicle use.

Alternative B: 6585C straightened/existing roadbed/pipeline

Direct and Indirect: This alternative would construct 4 miles of paved and fenced road through pronghorn antelope habitat. Based on a general "avoidance" area surrounding the road of 300 feet on either side of the right-of-way, this alternative could result in the loss of approximately 320 acres of pronghorn habitat (George, 2001). Pronghorn moving through the area would collide with the fence until they behaviorally adjust to the presence of the fence. Pronghorn, however, have been documented moving primarily north-south in this area and the fence would parallel their movement, rather than bisect their movement (George, 2001).

No identified herds of elk or deer use this area; however, individual and small groups of these species are occasionally observed. In the short-term, big game (including pronghorn) would be impacted by construction noise and traffic along the existing roadbed and pipeline. Western juniper trees would be removed along the pipeline to allow utility construction, reducing the amount of hiding cover by 24 trees (25.5 acres). Re-seeding projects to rehabilitate the pipeline utility corridor would provide increased forage for big game in the long-term. Long-term impacts

would also include increased mortality as a result of increased vehicular traffic along this access road.

Alternative C: 6585C/existing roadbed/pipeline

Direct and Indirect: This alternative would construct 4.54 miles of paved and fenced road through pronghorn antelope habitat. Based on a general “avoidance” area surrounding the road of 300 feet on either side of the road right-of-way, this alternative could result in the loss of approximately 352 acres of pronghorn habitat. Pronghorn moving through the area would collide with the fence until they behaviorally adjust to the presence of the fence. Pronghorn, however, have been documented moving primarily north-south in this area and the fence would parallel their movement, rather than bisect their movement.

No identified herds of elk or deer use this area, however, individual and small groups of these species are occasionally observed. In the short-term, big game (including pronghorn) would be impacted by construction noise and traffic along the existing roadbed and pipeline. Western juniper trees would be removed along the pipeline to allow utility construction, reducing the amount of hiding cover by 24 trees (25.5 acres). Re-seeding projects to rehabilitate the pipeline utility corridor would provide increased forage for big game in the long-term. Long-term impacts would also include increased mortality as a result of increased vehicular traffic along this access road.

Alternative D: Morrill Road from Powell Butte Hwy/undisturbed area/canal

Direct and Indirect: This alternative would construct 4.92 miles of paved and fenced road through pronghorn antelope habitat. Based on a general “avoidance” area surrounding the road of 300 feet on either side of the road right-of-way, this alternative would result in the loss of approximately 394 acres of pronghorn habitat. Pronghorn moving through the area would collide with the fence until they behaviorally adjust to the presence of the fence. Pronghorn have been documented moving primarily north-south in this area and this alternative would construct an east-west fence that could bisect their habitat and limit movement (George, 2001).

No identified herds of elk or deer use this area, however, individual and small groups of these species are occasionally observed. In the short-term, big game (including pronghorn) would be impacted by construction noise and increased traffic along the utility corridors. Western juniper trees would be removed along the undisturbed area and the canal to allow utility corridor construction, reducing the amount of hiding cover by 400 trees (23.9 acres). Re-seeding projects to rehabilitate the utility corridor along the canal would provide increased native

forage for big game in the long-term. Long-term impacts would also include increased mortality as a result of increased vehicular traffic along this access road.

Alternative E: Morrill Road from Deschutes Junction/undisturbed area/canal

Direct and Indirect: This alternative would construct 2.75 miles of paved and fenced road through pronghorn antelope habitat. Based on a general “avoidance” area surrounding the road of 300 feet on either side of the road right-of-way, this alternative would result in the loss of approximately 220 acres of pronghorn habitat. Pronghorn moving through the area would collide with the fence until they behaviorally adjust to the presence of the fence. Pronghorn have been documented moving primarily north-south in this area and this alternative would construct an east-west fence that would bisect their habitat and limit movement (George, 2001).

No identified herds of elk or deer use this area, however, individual and small groups of these species are occasionally observed. In the short-term, big game (including pronghorn) would be impacted by construction noise and increased traffic along the utility corridors. Western juniper trees would be removed along the undisturbed area and canal to allow utility corridor construction, reducing the amount of hiding cover by 400 trees (23.9 acres). Re-seeding projects to rehabilitate the utility corridor along the canal would provide increased native forage for big game in the long-term. Long-term impacts would also include increased mortality as a result of increased vehicular traffic along this access road.

**Table 2
Pronghorn Antelope Environmental
Consequences**

Alternative	Road Access - miles constructed	Miles of pronghorn habitat disturbed	Acres of pronghorn habitat lost*

**Table 2
Pronghorn Antelope Environmental
Consequences**

Alternative	Road Access - miles constructed	Miles of pronghorn habitat disturbed	Acres of pronghorn habitat lost*
A - No Action	0	1.0	XX acres out of approximately 30,000
B - 6585C Straightened	4 miles 60 ft. width	4 miles	320 acres out of approximately 30,000
C - 6585C	4.54 miles 60 ft. width	4.54 miles	352 acres out of approximately 30,000
D - Morrill Rd. from Powell Butte hwy.	4.92 miles 60 ft. width	4.92 miles	394 acres out of approximately 30,000
E - Morrill Rd. from Deschutes Jct.	6.3 miles 60 ft. width	2.75 miles	220 acres out of approximately 30,000

* Calculation derived from road length and width, plus 300 ft. of "avoidance" on either side of the road.

Cumulative Impacts

Other activities affecting the habitats in the proposed project area include the Redmond Airport, the Oregon Military Department - Biak Training Center, residential developments including Powell Butte Estates, existing recreation uses, and the actual Huntington Ranch Resort.

Development from the city of Redmond has been expanding in all directions, including south/southeast toward the proposed project area. The Redmond airport lies directly north of the analysis area and has recently fenced the entire airport perimeter with a fence designed to exclude big game from the property. While this action eases airplane-wildlife conflicts, it also reduces the amount of available habitat for big game, especially pronghorn.

The Oregon Military Department operates a training center adjacent to the Redmond Airport. The OMD has developed an Integrated Natural Resource Management Plan, which has mitigated impacts to wildlife over the past three years through rehabilitation efforts. As a result, big game populations have remained stable in the area (McCaffrey 2001). The training center has either made habitats unsuitable, less suitable or changed the type of use available for wildlife in the area. Permanent structures have removed available habitat, and training exercises remove sections of habitat permanently or temporarily depending on the type and scale of the operation. For big game, these operations can remove hiding cover, foraging habitat, access to water, and harass the animals.

In addition to city- and military-owned facilities in and around the project area, the number of private residences and subdivisions is increasing. This also affects the condition and extent of available wildlife habitat. The newest subdivision, Powell Butte Estates, is a fenced community just northeast of the project area and adjacent to the military facility. While not yet fully developed, homes built on 20-acre parcels would remove available hiding cover and foraging habitat.

With the introduction of a paved access into this area of the high desert, the potential exists for increased recreational activities on public land around the resort. The area is currently used by off-road vehicle enthusiasts, hikers, bikers and horse-back riders. Increased use by these types of recreationists has the potential to add stress to wildlife already experiencing shrinking ranges. However, by fencing this access route, habitat lost as a result of motorized vehicle use may be reduced. Fewer roads would be available to travel, and the number of access points through the fence will funnel activity to specific areas. In addition, illegal use by people dumping garbage is anticipated to decrease.

Finally, the Huntington Ranch resort development would affect wildlife habitat by developing 220 acres as managed grasslands or golf courses, 75 acres as buildings, 15 acres of roads and/or paved areas. These acres would become unsuitable, less suitable or altered as wildlife habitat in some way. The entire resort would be fenced, limiting, at least in the short-term, access by big game to the property and

reducing available forage and habitat. However, the resort proposes to develop in a manner that protects and enhances wildlife habitat, including maintaining rock outcroppings, constructing ponds and water features, installing bat boxes, maintaining big game access to forage opportunities and retaining 335 acres as native vegetation. Pursuant to the decision of the Deschutes County Hearing Officer, the High Desert Development Partners LCC submitted a wildlife habitat mitigation plan written in cooperation with the Oregon Department of Fish and Wildlife. The plan provides measures to mitigate wildlife impacts from the resort in order to ensure no net loss or net degradation of wildlife resources (High Desert Development Partners LCC, 2001)

Wildlife Mitigations

In order to minimize or eliminate impacts of the proposed action, the following are recommended:

- If a northern goshawk nest is discovered before or during construction, developers would cease all construction activity within 1/4 mile of the nest and apply a noise/construction buffer around the nest (30 ac. nest core buffer) with a seasonal restriction of March 1 - July 31 (BLM Instruction Memo, 1999). No goshawks currently exist in the analysis area, and although this species has been observed nesting in juniper woodlands, this habitat is not typical. BLM administered lands around the proposed resort encompass well over 30,000 acres. According to average juniper densities (approximately 17 trees/ac.), the number of western juniper trees is approximately 500,000. A loss of 25 - 450 trees (see Environmental Consequences, wildlife), is unlikely to reduce tree densities to the point that habitat becomes unsuitable for northern goshawks.
- Although no formal conservation recommendations have been established, care should be taken to avoid destroying or damaging any western burrowing owl burrows. If an owl burrow is discovered before or during construction, a 200 meter buffer should be placed around the burrow to avoid damaging both primary and secondary entrances and any potential tunnels. This owl is extremely territorial around the burrow entrance and it is likely that, if present, it would be observed. These activities will prevent short-term impacts to current habitat. Once the direct impacts from construction have ceased (noise, heavy equipment, damage to potential burrows), the burrowing owl is one of the few avian species that could benefit from disturbance as it is often found at sites where the soil/vegetation

has been altered (Marshall 1996).

- In order to avoid removing key nesting habitat for a variety of small mammals and birds, including the northern pygmy owl, all old-growth juniper snags and juniper with cavities should be left in place. The analysis area does not contain typical habitat for northern pygmy owls, however, they have been documented (infrequently) using juniper woodlands as wintering habitat. By mitigating the loss of dead/decaying trees in the project area, potential habitat would be preserved and appropriate conservation measures taken (Marshall 1996).
- Fences, especially those composed of woven wire, have been shown to form barriers that limit, at least temporarily, pronghorn movement (Spillet et al. 1967, O’Gara and Yoakum 1992)). However, management planning for multiple use areas that provide for pronghorn and livestock can minimize the adverse affects to pronghorn. In order to minimize impacts to pronghorn, all fences constructed along the transportation and utility corridors should be constructed according to the BLM Manual Handbook H-1741-1. Fences constructed to the following specifications should maintain the habitat at 90 percent of optimum (no fences being 100 percent optimum) and minimize short and long term impacts (Kindschy, et al. 1982):
 1. A three-strand fence should be constructed, with the bottom strand made of smooth wire.
 2. Wires should be placed at 18" from the ground, 26" from the ground and 36" from the ground.
 3. White flagging should be attached to the top wire between each post to help antelope see and adapt to the fence.
 4. No stays should be used to allow the wire to remain somewhat flexible to animals crawling underneath.
 5. Fence openings should be constructed with cattle guards or other pass structures available to pronghorn.
 6. Metal fence posts should be white-topped to increase overall fence visibility.
 7. Fences should contain openings, including permanent openings with cattle guards and seasonal openings when livestock are not present, to facilitate herd movement.

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12/07/01

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**SPECIAL STATUS AFFECTS DETERMINATIONS
SUMMARY TABLES (11/27/01)**

Federally Listed Species (Threatened, Endangered, or Proposed)

SPECIES	SCIENTIFIC NAME	IN RANGE YES/NO	HABITAT PRESENT	AFFECTS DETERMINATION
Canada lynx	<i>Lynx canadensis</i>	Yes	No	No affect because the project area is not in their current range
Northern Bald Eagle	<i>Haliaeetus leucocephalus</i>	Yes	No	No affect because habitat not affected
Northern Spotted Owl	<i>Strix occidentalis</i>	No	No	No affect because the project area is not in their current range

Federal Candidate Species

SPECIES Common Name	SCIENTIFIC NAME	IN RANGE YES/NO	HABITAT PRESENT	AFFECTS DETERMINATION
Oregon Spotted Frog	<i>Rana pretiosa</i>	Yes	No	No affect because habitat not affected
Columbia Spotted Frog	<i>Rana lutrens</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.

SPECIES Common Name	SCIENTIFIC NAME	IN RANGE YES/NO	HABITAT PRESENT	AFFECTS DETERMINATION
Oregon Spotted Frog	<i>Rana pretiosa</i>	Yes	No	No affect because habitat not affected
Washington Ground Squirrel	<i>Spermophilus washingtoni</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.

Bureau Sensitive Species

SPECIES	SCIENTIFIC NAME	IN RANGE YES/NO	HABITAT PRESENT	AFFECTS DETERMINATION
BIRDS				
Northern Goshawk	<i>Accipiter gentilis</i>	Yes	Yes	Would not contribute to the need to list, see analysis for explanation.
Upland Sandpiper	<i>Bartramia longicauda</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
Ferruginous Hawk	<i>Buteo regalis</i>	Yes	No	No affect because no suitable habitat is present.

SPECIES	SCIENTIFIC NAME	IN RANGE YES/NO	HABITAT PRESENT	AFFECTS DETERMINATION
BIRDS				
Yellow Rail	<i>Coturnicops noveboracensis</i>	Yes	No	One incidental observation, however, suitable habitat does not exist and the project area is not in their normal range. No affect.
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	Yes	No	No affect because no suitable habitat is present.
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
Northern Pygmy Owl	<i>Glaucidium gnoma</i>	Yes	Yes	Would not contribute to the need to list, see analysis.
Lewis' Woodpecker	<i>Melanerpes lewis</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
Flammulated Owl	<i>Otus flammeolus</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
White-headed Woodpecker	<i>Picoides albolarvatus</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
Black-backed Woodpecker	<i>Picoides arcticus</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.

SPECIES	SCIENTIFIC NAME	IN RANGE YES/NO	HABITAT PRESENT	AFFECTS DETERMINATION
BIRDS				
Three-Toed Woodpecker	<i>Picoides tridactylus</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
Purple Martin	<i>Progne subis</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
Pygmy Nuthatch	<i>Sitta pygmaea</i>	Yes	Yes	No affect because their habitat is not affected.
Burrowing Owl	<i>Athene cunicularia</i>	Yes	Yes	Would not contribute to the need to list, see analysis for explanation.
Harlequin Duck	<i>Histrionicus histrionicus</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
MAMMALS				
Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>	Yes	No	No affect because no suitable habitat is present.
Fisher	<i>Martes pennanti</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
REPTILES/AMPHIBIANS				

SPECIES	SCIENTIFIC NAME	IN RANGE YES/NO	HABITAT PRESENT	AFFECTS DETERMINATION
BIRDS				
Northern Leopard Frog	<i>Rana Pipiens</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
Painted Turtle	<i>Chrysemys picta</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
Western Pond Turtle	<i>Chrysemys marmorata</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.

Bureau Assessment Species

SPECIES	SCIENTIFIC NAME	IN RANGE YES/NO	HABITAT PRESENT	AFFECTS DETERMINATION
REPTILES AND AMPHIBIANS				

SPECIES	SCIENTIFIC NAME	IN RANGE YES/NO	HABITAT PRESENT	AFFECTS DETERMINATION
REPTILES AND AMPHIBIANS				
Cope's Giant Salamander	<i>Dicamptodon copei</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
BIRDS				
Tricolored Blackbird	<i>Agelaius tricolor</i>	Yes	No	No affect because habitat not affected
Bufflehead	<i>Bucephala albeola</i>	Yes	No	No affect because habitat not affected.
Western Sage Grouse	<i>Centrocercus urophasianus</i>	No	No	No affect because no suitable habitat is present and the project area is not in their current range.
MAMMALS				
Pygmy Rabbit	<i>Bachylagus idahoensis</i>	Yes	Yes	No affect because project is not in their current range.
Brazilian Free-tailed Bat	<i>Tadarida brasiliensis</i>	No	No	No affect because no suitable habitat is present and the project area is not in their range.
Spotted Bat	<i>Euderma maculatum</i>	No	No	No affect because no suitable habitat is present and the project area is not in their range.