

**ENVIRONMENTAL ASSESSMENT
OR-056-02-006**

APPLICANT: Huntington Ranch LLC

EA NUMBER: OR-056-02-006

SERIAL NUMBER: OR- 55746

BLM OFFICE: Prineville District

RESOURCE AREA: Deschutes

TYPE OF USE: Road and Utility Rights of Way

PROJECT

LOCATION: Approximately four miles southeast of the City of Redmond, in Section 16, Township 16 South, Range 13 East, Willamette Meridian, Oregon.
(See Map 1)

RIGHTS-OF-WAY LOCATION: See Description of each Alternative.

EA TEAM LEADERS: Janet Hutchison and Jean Nelson-Dean

1.0 Proposed Action and Purpose and Need

1.1 Proposed Action

The proposed action is the granting of seven rights-of-way (ROWs) within three ROW corridors across Bureau of Land Management (BLM) managed lands to Huntington Ranch LLC to allow for access and utility service to a private land parcel located in T.16S., 13 E., Section 16, Willamette Meridian, Oregon. These ROWs would allow for paved access, power, cable, telephone, water, sewer, and natural gas service to the property. Granting of the ROWs across BLM managed land to Huntington Ranch LLC would allow for the development of a destination resort on the property.

1.2 Introduction

1.2.1 Changes from the Previous EA

An environmental analysis (EA) of the proposed project (EA OR-056-01-107) was prepared and sent out for public comment in August 2001 by the Prineville BLM Deschutes Resource Area. Additional internal review of that EA and public comment on the EA determined that the EA did not provide an adequate analysis of the proposal.

This EA will have new alternatives both for the access ROW and the power, cable, and telephone ROWs and a new preferred alternative has been identified. Objectives for considering differences in the alternatives have been established and some issues have been eliminated or revised.

This EA will include new analysis and will focus on the direct and indirect impacts of the development of the paved access, power, cable, telephone, water, sewer, and natural gas lines. The impacts of the resort development will be discussed under the cumulative impact section of each discipline's environmental consequences portion (Section 4.0). In the previous EA some discipline's sections addressed the impact of the development of the access road and utilities but did not address the impacts of the resort. However, other discipline's sections only discussed the impacts of the resort development and not the impacts of the development of the access road and utilities.

In the previous EA an analysis of changing the Crenshaw allotment from horse grazing to a mixture of cattle and horse grazing was included in the environmental analysis of these ROWs. Since the development of that first analysis, the applicant has removed a request to change grazing on the allotment. Therefore, that analysis has been removed. However, because the applicant made the request, a change in the grazing on that allotment will be considered as a reasonably foreseeable action and will be considered under the cumulative impacts in the grazing portion of environmental consequences (Section 4.10) in this EA.

In addition, BLM's policy and obligation to provide the applicant a permanent secondary access to the property has been clarified. BLM has no policy or obligation to provide the applicant with a permanent secondary access and the implication in the previous EA that BLM would provide that secondary access outright was erroneous. Deschutes

County is requiring the applicant to have a second permanent access when the resort reaches 50 percent of buildout. The implication in the previous EA was that BLM would grant that access when it was requested because of the county's requirement for a permanent secondary access. In fact, all that can be stated at this time is that in 7 to 10 years, when Huntington Ranch reaches 50 percent buildout and requests a permanent secondary access, the BLM would consider the secondary access request as the agency would consider any ROW request for secondary access to property surrounded by BLM managed land, including the cumulative impacts of all proposed or pending applications in the area.

1.3 Purpose and Need

1.3.1 Need

The need for this proposed action is to respond to requested ROWs to Huntington Ranch's privately-owned property. The BLM has a need to comply with the BLM policy to provide requested ROWs for private land parcels surrounded by BLM managed lands that will allow the reasonable and enjoyable use of the private land parcel (BLM Manual 2800.06 (D)). The Prineville District Deschutes Resource Area has a need to comply with the Brothers/La Pine Resource Management Plan Record of Decision regarding the granting of ROWs (Brothers/ La Pine ROD, 1989, pg. 29, 33-34):

"...actions approved will be consistent with the objectives of the RMP(pg. 29)."

"Each right-of way shall be limited to the area necessary for operation and maintenance, will consider the protection of public safety and will do no unnecessary damage to the environment (pg. 33)."

"Each right-of-way shall contain terms and conditions requiring compliance with environmental quality standards applicable to Federal or State law (pg. 33)."

1.3.2 Purpose

The purpose of this project is to provide requested ROWs to Huntington Ranch's private land parcel surrounded by BLM managed land that will allow the reasonable and enjoyable use of the private land parcel while complying with the Brothers/La Pine Resource Management Plan. To comply with the Resource Management Plan, the proposed action will incorporate the following objectives:

- Limit the fragmentation of wildlife habitat on BLM managed lands that may be caused by the ROWs.
- Reduce disturbance to soils and vegetation on BLM managed land and limit the potential for the invasion of noxious weeds.
- Maintain current recreational uses of the BLM managed land and reduce the potential for negative influences on the enjoyment of the BLM managed land.

- Maintain or increase public safety on BLM managed land.
- Use existing ROW corridors where possible.
- Limit the potential to impact cultural resources.
- Limit impacts to and conflicts with existing permitted uses of the BLM managed land, including grazing and military activities.

1.3.3 Issues

1.3.3.1 *Wildlife:* All access alternatives would affect wildlife habitat by increasing the amount of traffic use within the area and may have cumulative effects on a resident antelope herd. Construction and use of roads could disturb wildlife nesting and reduce the amount of effective habitat area available to non-adaptive species.

1.3.3.2 *Recreation:* All access alternatives may change the amount and type of motorized and non-motorized access to the public lands in the vicinity of the proposed Huntington Ranch Resort. Improved access to an area that currently is designated as “open” to OHV/motorized use under the Brothers/La Pine RMP, which means it is available to cross-country motorized travel, could increase the amount of motorized use actually experienced in the area.

Increased traffic could also present a hazard to motorized and non-motorized users or disrupt uses of the “open” area to OHV recreationists at road crossing points.

Resort and residential development could result in increased conflicts between resort residents and visitors and public land recreationists.

1.3.3.3 *Wildfire and Public Safety:* Increased traffic to public lands could result in greater wildfire and public safety concerns. With more people accessing the area there may be opportunities for individuals to both purposely and accidentally cause wildfires. Public safety concerns include improved access for illegal dumping on public lands, which may mean increasing the likelihood of the dumping of hazardous waste on public lands.

1.3.3.4 *Existing Permittee Use:* Any new paved access through BLM managed lands would require changes to the Oregon Military Department (OMD) activities by allowing for paving and regular highway traffic into areas that have only primitive access at this time. Newly created paved access into the resort would reduce the number of acres available to the OMD for training purposes. OMD’s use could create dust, noise, and other indirect effects that conflict with resort residents and visitors.

Livestock grazing permits are also authorized on BLM managed lands in the area. BLM’s grazing permits allow “open range”

livestock grazing on public land east of Highway 97. All of the ROW action alternatives would result in a paved primary access, changing the amount and speed of traffic through the grazing permittee's use area. The increased human use of the area would increase the potential for gates being left open; livestock straying into the resort; restrictions on management practices such as weed control, burning, and predator control; loss of livestock from vehicle accidents; marauding dog problems; and increased liability (Huntington and Hopkins, 1996).

- 1.3.3.5 *Cultural Resources*: Development of utilities and access to the resort may affect historic or prehistoric properties directly through construction activities and indirectly by improved public access to the public lands adjacent to the resort development.
- 1.3.3.6 *County and State Requirements*: There is an existing BLM granted ROW (OR 49075) to the proposed resort's property, however the existing ROW does not meet Deschutes County or Oregon Department of Transportation's (ODOT) standards for resort development. The existing BLM granted ROW extends to Highway 97 (See Map 2). ODOT will not allow resort access to Highway 97 because of safety issues and ODOT policies on access control (10-31-2000 ODOT correspondence available at the BLM office in Prineville.) In addition, the BLM granted ROW does not conform to both the Deschutes County and Redmond Fire Department requirements for primary and secondary access. Although the existing ROW would accommodate power, telephone, and television service, it does not accommodate sewer, irrigation water, natural gas, and domestic water. Suitable (complying to state standards) sewer and water service are available only from the City of Bend to the south of the private land parcel, according to the Oregon Department of Environmental Quality (ODEQ) and the Oregon Water Resources Department (OWRD).
- 1.3.3.7 *Traffic, Noise and Pollution*: Public input from residents in the vicinity of Deschutes Junction indicated opposition to a primary or secondary access extending to Deschutes Junction. Residents from the Deschutes Junction area also voiced concerns about changes resulting from the proposed actions and alternatives including traffic, noise, congestion, and pollution from vehicles at Deschutes Junction.

The BLM defers to the county and state on issues of traffic, noise, and pollution, unless the county and state standards do not meet federal standards. The Deschutes County Hearings Officer, in the county's decision on the proposed resort (Decision of the Deschutes County Hearings Officer, File No. CU-00-118) found that the county and state standards would be met by the applicant in regard to traffic, noise and pollution, therefore, these issues

will not be further addressed in this EA. Deschutes County will make a decision on the applicant's Final Master Plan, following the BLM's decision on these ROWs. Deschutes County will make a final determination on whether the applicant has met the county and state standards in the Final Master Plan in regard to traffic, noise, and pollution before the county approves the development of the resort. In addition the BLM would assure that all state and federal environmental quality standards are followed in the development of any ROW corridor on BLM managed lands.

1.3.4 Background

1.3.4.1 *Huntington Ranch Proposal*: Huntington Ranch LLC is proposing the development of the private land parcel in the following manner:

- Approximately 220 acres would become managed grass land or golf course, which includes multiple water features, juniper and rock outcroppings,
- Approximately 75 acres would be consumed with residential buildings and driveways,
- Approximately 15 acres would be consumed with roads and paved areas, and
- Approximately 335 acres would be retained in native condition.

At full development the resort would have 700 dwelling units with a peak season projected population of approximately 2,000. Full buildout of the development is expected to occur within 20 to 25 years (50 percent buildout within 7 to 10 years).

1.3.4.2 *Oregon State and Deschutes County Land Use and Planning*: The applicant's property is zoned by Deschutes County for destination resort development. Deschutes County adopted a destination resort ordinance and mapped the lands available in the County for destination resort development in the early 1990s. The destination resort overlay zone was established in 1992, following a complex public process to determine which lands in Deschutes County were best suited for destination resort development. Development of the proposed Huntington Ranch Resort located in T.16S. 13 E., Section 16, Willamette Meridian, Oregon, conforms to the use intended by Deschutes County's existing overlay zone.

The process that established the overlay zone was developed to meet Oregon Statewide Planning Goal 8, which establishes procedures for siting destination resorts in Oregon. In July 1989, the Oregon Department of Land Conservation and Development issued a guide to Statewide Planning Goal 8's procedures and requirements for siting destination resorts. This guide states:

“The State supports siting new resorts. New resorts are an appropriate way to expand the State’s economy. Property sited in planned resorts can be compatible with the other objectives of Oregon’s Planning Program. This includes protecting highly valuable farm and forest lands and promoting efficient growth in urban and rural areas...State law and Statewide Planning Goal 8 implement this policy in two ways: First, by defining what qualifies as a destination resort; and second, by identifying the lands that are eligible for resort development. These rules are precisely written so resort developers and the public will know ahead of time what lands will qualify and exactly what can be built.”

Deschutes County Zoning, Title 18, (10/1998) states:

“The purpose of the DR Zone is to establish a mechanism for siting destination resorts to ensure compliance with LCDC Goal 8 and the county Comprehensive Plan. The destination resort designation is intended to identify land areas which are available for the siting of destination resorts, but which will only be developed if consistent with the purpose and intent of this chapter and Goal 8.

The DR Zone is an overlay zone. The DR Zone is intended to provide for properly designed and sited destination resort facilities, which enhance and diversify the recreational opportunities and the economy of Deschutes County. The DR Zone will ensure resort development that compliments the natural and cultural attractiveness of the area without significant adverse effect on commercial farming and forestry, environmental and natural features, cultural and historic resources and their settings and other significant resources.”

To satisfy both the State and County’s procedures for the development of a destination resort the developer participated in a pre-application conference with the Deschutes County Planning staff, followed by the filing of the Conceptual Master Plan application. The burden of proof statement for the application included a notebook of reports and exhibits to address criteria in the Deschutes County land use code. Deschutes County sent written notices to approximately 75 property owners in the vicinity of the proposed resort and published a notice of the public hearing for the Conceptual Master Plan in the Bend Bulletin. In addition, a proposed land use action sign was posted on the property. The Deschutes County land use process included a description of the pending BLM application for access and utility ROWs.

Deschutes County conducted a public hearing on December 14, 2000. Following the hearing, written testimony was accepted

from interested parties for an additional 30 days. Deschutes County approved the Conceptual Master Plan application in a decision dated March 5, 2001. Deschutes County upheld the Conceptual Master Plan approval in an appeal proceeding dated June 13, 2001. (Deschutes County Decision, available at the BLM office in Prineville.)

An additional Deschutes County land use approval will be required for the Final Master Plan for the proposed resort. Upon completion of the Final Master Plan, site plan and tentative plan land use procedures will be required for all major components or phases of the proposed resort.

- 1.3.4.3 *Deschutes County Requirements:* Deschutes County land use standards require primary and secondary access. The secondary access may initially be an all-weather surfaced or graveled roadway. Deschutes County also sets construction standards for access. The Deschutes County Conceptual Master Plan land use approval (Deschutes County Decision, available at the BLM office in Prineville) stipulates that the primary access road be constructed in conformance with the minimum standards for a rural collector road, as specified in the subdivision ordinance.

Huntington Ranch LLC's current application requests only BLM approval of an interim secondary (emergency only) access and a primary access, but excludes the permanent secondary access. A permanent paved secondary access for full buildout of the Huntington Ranch resort would be required in the future as discussed in the County Commissioner's decision dated May 23, 2001. (pg. 3, Deschutes County Decision, Permanent Secondary Access Road – Condition 31 – available at the BLM office in Prineville).

Though Deschutes County requires a permanent secondary access for the resort to reach full buildout, as was stated in the Introduction (1.2.1), BLM policy does not provide for the granting of an additional ROW access beyond the initial ROW access to the property. Any additional access ROW application would be considered in a different context than the current ROW applications.

- 1.3.4.4 *Fire Protection:* The Redmond Fire Department would provide Fire protection to the resort. The Redmond Fire Department requires primary access and a second emergency access (3/22/2001 Redmond Fire Marshall Correspondence at the BLM office) for the Huntington Ranch Resort. The Uniform Fire Code (Section 902.2.2 in Appendix III-E) allows the Fire Department to require a second emergency access when there are 25 or more dwelling units. The Fire Department has requested that points of access for the primary and second (emergency only) access be separated as widely as conditions allow.

1.3.4.5 *Utility Service*: Deschutes County Land Development Code and the Rural Fire Protection District establish standards for access and general requirements for utility service. The Oregon Health Division and ODEQ also stipulate specific requirements for sewer and water service. These standards are summarized in the land use decision (Deschutes County Decision, available at the BLM office in Prineville).

In addition, according to Pacific Power and Light (PPL), who would be providing power to the resort, the power line would need to have a road that would be accessible year-round and adjacent to the lines to allow for maintenance or repair of the lines (Hoyt, 11/26/01).

1.3.5 Conformance and Consistency

1.3.5.1 *Rights of Way (BLM Manual 2800.06(D))*: BLM Manual 2800.06 (D) states that it is the policy of the BLM to:

“Allow owners of non-Federal lands surrounded by public land managed under FLPMA (Federal Land Policy and Management Act) a degree of access across public land which will provide for the reasonable use and enjoyment of the non-Federal land. Such access must conform to rules and regulations governing the administration of the public land; keep in mind, however, that the access necessary for the reasonable use and enjoyment of the non-Federal land cannot be denied.”

1.3.5.2 *Brothers/La Pine Resource Management Plan Record of Decision and Rangeland Program Summary* (Prineville District, July 1989): *The Brothers/La Pine Resource Management Plan Record of Decision, which is the land use plan that covers the BLM managed lands in the area where the ROWs are being applied for provides the following management direction for Rights of Way and Utility and Transportation Corridors (pg. 29 and pgs. 33-34):*

“...actions approved will be consistent with the objectives of the RMP.”

“Each right-of way shall be limited to the area necessary for operation and maintenance, will consider the protection of public safety and will do no unnecessary damage to the environment.”

“Public lands will continue to be available for rights-of-way, including multiple use and single use utility/transportation corridors following existing routes, communication sites and roads.”

“All rights-of-way applications will be reviewed using the criteria of following existing corridors wherever practical and

avoiding proliferation of separate rights-of-way...All designated areas of critical environmental concern and wilderness study areas will be considered right-of-way exclusion areas. Federally designated wild and scenic rivers, as well as rivers identified as eligible as potential wild and scenic rivers, will also be considered exclusion 1 areas. All areas identified as having special status plant or animal species will be avoidance areas. Areas having high or sensitive visual qualities will be avoided or appropriate mitigation measures taken."

1.3.5.3 *Existing Grazing Permits:* Huntington Ranch LLC controls the grazing permit for the Crenshaw allotment, which completely surrounds the Huntington Ranch property. The current permit has an active preference of 631 animal unit months (AUMs). Active preference is the maximum number of AUMs available each year. An AUM is the amount of forage (dry weight) consumed by one cow with a calf in one month. Other grazing permits existing in the area include the Pipeline, Hutton, Allen and Weigand allotments.

1.3.5.4 *Existing Military Permit:* A Land Use Permit (OR 56312) was issued to the Oregon Military Department (OMD) on February 2, 2001 for a period of three years. This permit allows OMD the use of 31,310+ acres of BLM managed lands in Crook and Deschutes counties. The purpose of the permit is for conducting military maneuvers. OMD needs to provide training in desert conditions to its soldiers and the BIAK Base is the only base in Oregon that provides such training. Some of the terms and conditions of the OMD permit are as follows:

- OMD cannot carry or use live ammunition,
- OMD must take reasonable precautions for the prevention of fire during and immediately after use, and shall take immediate action to suppress any fires caused by such use,
- OMD shall not construct permanent structures or improvements without prior approval,
- Military vehicles shall not run over or otherwise damage juniper trees,
- OMD shall maintain 500-foot buffer zones to Highway 126 and the Powell Butte Highway and ¼ mile buffer zones to all private lands, and
- OMD shall conduct rehabilitation on an annual basis on all disturbed land.

BLM has written documentation that shows that the military has been in the area preparing for war or training since 1938. The OMD has been training in the area prior to 1938, although BLM does not have any written documentation of those activities.

2.0 Descriptions and Comparison of the Alternatives

2.1 Introduction

The alternatives for the ROWs have changed from the previous EA. There is a new road access ROW analyzed (Morrill Road from Deschutes Junction – Alternative E) and an additional road access ROW more fully analyzed (6585-C road with a portion of the road straightened – Alternative B).

In addition, a new power, cable, and telephone ROW corridor is analyzed in both Alternatives B and C.

Different combinations of the ROWs are analyzed in this EA from the combinations analyzed in the previous EA. Alternative B is identified as the preferred alternative because it meets the Purpose and Need and the objectives under the Purpose and Need more adequately than any of the other alternatives because it provides the best combination of limiting wildlife habitat fragmentation, soil and vegetation disturbance, impacts to current recreation, and conflicts with permitted activities in the area. Alternative B, as the preferred alternative is a different alternative than the alternative identified as the preferred in the previous EA.

2.2 Alternative A - No Action (See Map 2)

Under the No Action Alternative new ROWs would not be granted to the private property. Other activities not requiring additional ROWs and provided for under state and county planning could occur on the private property. Currently the private property (Tax Lot 800) is zoned MUA-10 (Multiple Use Agricultural with a minimum of 10 acres, Title 18 County Zoning, 10/1998). The remainder of the private land tract is zoned EFU/MUA-10 (Exclusive Farm Use/Multiple Use Agricultural with a minimum of 10 acres, Title 18 County Zoning, 10/1998). It is reasonable to predict that the owner of the property, Huntington Ranch LLC, would develop the property for its highest and best economic use under the current zoning regulations. Therefore, the intensity of use of the existing ROWs serving the property could be expected to increase under the No Action Alternative. In addition, the existing ROW leading to the property could be paved to accommodate those uses. The current ROW is approximately 2.39 miles long (9 acres of new disturbance).

It is possible that one of those uses may be residential development. Residential development could create the same needs for dual access and utility services as the resort proposal.

Other conditional uses permitted in a MUA-10 zone include: commercial activities in conjunction with farm use, dude ranch, kennel or veterinary clinic, guest house, exploration for minerals, personal use landing strip for airplanes, golf courses, processing of forest products, planned developments, cluster developments, landfills, and processing of minerals.

Some conditional uses permitted on EFU lands include: commercial activity in conjunction with farm use, exploration and extraction of geothermal resources, surface mining of mineral aggregate resources, transmission towers over 200 feet

in height, personal use landing strip for airplanes and helicopter pad, processing of forest products, storage and processing of minerals.

2.3 **Alternative B** (See Map 3)

(Preferred) Access ROW would be 6585 C road (straightened)
Power, Cable, and Telephone ROWs through existing roadbed
Water, Sewer and Natural Gas ROWs adjacent to the Pacific Gas
and Electric (PGE) Pipeline

2.3.1 Overview

Alternative B would comply with BLM's policy to provide ROWs that allow for the reasonable use and enjoyment of properties surrounded by BLM managed land by providing an adequate access route and utility services to the private property.

This alternative would limit the length of new paved access through BLM managed land more than any other access route.

By straightening the road, traffic would be reduced around the silt pond, which is used by a variety of wildlife, including pronghorn antelope. The transportation route would run primarily north-south and would be less obstructive to wildlife moving through the area (George, 11/29/2001).

The power, cable, and telephone utilities would be placed underground in an existing roadbed, which would minimize soil and vegetation disturbance. In addition, the use of the existing road for the utilities would provide a required utility maintenance road (Hoyt, 11/26/01) without additional disturbance and without providing additional road access through BLM managed lands.

The water, sewer, and natural gas utilities would be placed underground adjacent to PGE's existing pipeline ROW. By being adjacent to PGE's existing pipeline, soil and vegetation disturbance would be minimized. It would be minimized because soil removed during trenching for the new utilities could be placed on areas already disturbed by the pipeline rather than placing soil on undisturbed areas.

2.3.2 Access Route: 6585-C Road (straightened)

Under this alternative the road access ROW would follow the existing 6585-C road going northerly from Powell Butte Highway to the southeast portion (Section 21) of the private property. At the intersection of Morrill Road and the 6585-C road the route would go directly north rather than going westerly down the existing road. At this point the ROW would go through approximately 0.4 miles of relatively undisturbed BLM managed land. The ROW would be approximately 4 miles, with a 60-foot width, for a total area of 21.8 acres of new disturbance. The 60-foot ROW is proposed to accommodate the roadway section and any necessary cut and fill slopes, drainage ditches, or culverts. The 60-foot ROW is required for a rural collector road as mandated by Deschutes County.

This northerly extension of the 6585-C road would eliminate the need to construct a paved road adjacent to the existing silt pond. It would also reduce sharp corners and the potential for out-of-direction travel on the road. The extension of the 6585-C road would connect with an existing dirt road on the northern edge of the North Unit Main Canal. In order to make the connection with the existing dirt road across the canal a new bridge would be built. This bridge would be built to meet county standards, which includes having a 30-foot running surface. The existing Bailey Bridge would be removed and the bridge-crossing site would be blocked. Traffic currently using the existing Bailey Bridge on Morrill Road would be diverted north on existing roads to the new bridge crossing the North Unit Main Canal.

The new alignment of the roadway would be done to preserve trees and natural features and would use previously disturbed areas where possible to limit the disturbance of soil and vegetation, maintain wildlife habitat, and reduce the possibility of noxious weed invasions in the area.

2.3.3 Power, Cable and Telephone Route: Through Existing Roadbed

This alternative would have the power, cable, and telephone ROWs going in a common trench underground between Highway 97 and the resort. These utilities would follow the developed roadbed included in the ROW grant (OR-49075) held by Huntington Ranch LLC until the road reached the Bonneville Power Administration maintenance road in T 16S., R 13 E., Section 7. At that point the ROWs would follow the existing primitive dirt road that continues and connects to the private property. The previous owners of the property used this dirt road to access the property and never fully developed the access in the authorized ROW grant (OR-49075). The length of this ROW corridor would be approximately 3 miles (5.5 acres of new disturbance). All trenching for the placement of the power, cable, and telephone lines would occur within the existing disturbed roadbed to limit disturbance to soil and vegetation, maintain wildlife habitat, and reduce the possibility of noxious weed invasions in the area.

2.3.4 Water, Sewer, and Natural Gas Route: PGE Pipeline

This water, sewer, and gas line route would parallel the existing PGE pipeline. Water and sewer would be extended north from the City of Bend sewage treatment plant approximately five miles to the proposed resort.

The proposed ROWs would extend approximately one mile easterly along the section line through relatively undisturbed BLM lands to the existing natural gas line. The parallel water, sewer, and natural gas lines would be routed northeasterly, parallel to the existing PGE gas line to the existing Morrill Road. At Morrill Road, the sewer and water lines would follow the proposed access ROW (6585-C, straightened) northerly to the private property. This alternative would include a 40-foot wide ROW for 5.26 miles for a total of 25.5 acres of new disturbance. Approximately 5,300 lineal feet of the parallel utilities would cross relatively

undisturbed BLM managed lands between the Bend sewage treatment plant and the existing gas line. Placement of the water, sewer, and natural gas ROW corridor along the existing gas line ROW would reduce disturbance to soil and vegetation, maintain wildlife habitat and recreational opportunities, and limit the possibility of increasing noxious weeds in the area.

2.4 Alternative C (See Map 4):

Access ROW would be 6585 C road, maximizing the use of the existing ROW
Power, Cable and Telephone ROWs through existing roadbed
Water, Sewer and Natural Gas ROWs adjacent to the PGE Pipeline

2.4.1 Overview

This alternative would comply with BLM's policy to provide ROWs that allow for the reasonable use and enjoyment of properties surrounded by BLM managed land by providing an adequate access route and utility services to the private property.

This alternative minimizes new soil and vegetation disturbance more than any other action alternative by using existing ROW corridors to the greatest extent possible for both access and utility ROWs.

It maintains a north-south route for access, which has been suggested to have the least impact to wildlife (George, 11/29/2001).

2.4.2 Access Route: 6585 C, Maximize Use of the Existing ROW

Alternative C would originate on the Powell Butte Highway and follow the existing 6585-C road for most of its distance. It would intersect and follow the Morrill Road ROW for a distance of approximately one-half mile. The route would cross the North Unit Main Canal at the OMD's existing Bailey Bridge site and proceeds north adjacent to the canal in Section 28. As in Alternative B, the existing Bailey Bridge would be removed and a bridge would be constructed according to Deschutes County standards at the point where the route crosses the North Unit Main Canal. The access route would enter the resort in the southeast portion of the private property (Section 21) on the same existing dirt road as Alternative B.

This proposed ROW would be approximately 4.54 miles, with a 60-foot width, for a total of about 24.8 acres of new disturbance. The 60-foot ROW is proposed to accommodate the roadway section and any necessary cut and fill slopes, drainage ditches, or culverts. The 60-foot ROW is required for a rural collector road as mandated by Deschutes County.

Use of the existing road would limit the disturbance of soil and vegetation, maintain wildlife habitat, and reduce the possibility of noxious weed invasions in the area

- 2.4.3 Power, Cable and Telephone Route: Through Existing Roadbed
Same as Alternative B
- 2.4.4 Water, Sewer and Natural Gas Route: PGE Pipeline
Same as Alternative B except that the water, sewer, and gas lines would follow the access ROW (6585-C) to the resort property.

2.5 Alternative D (See Map 5):

Access ROW would be Morrill Road from Powell Butte Highway
Power, Cable, and Telephone ROWs through undisturbed ROW
grant (OR 49075)
Water, Sewer and Natural Gas ROWs adjacent to the North Unit
Main Canal

2.5.1 Overview

This alternative would comply with BLM's policy to provide ROWs that allow for the reasonable use and enjoyment of properties surrounded by BLM managed land by providing an adequate access route and utility services to the private property.

It would provide the most direct access route into the resort property from Powell Butte Highway for visitors or residents coming south off of Highway 126 (Redmond/Powell Butte). It also provides the most direct route from Highway 97 for the power, cable, and telephone utilities.

The water, sewer, and natural gas utilities would follow the North Unit Main Canal for nearly the entire distance to the private property. However, both the Bureau of Reclamation (BOR) and the North Unit Main Canal District have expressed concern over the alignment of the ROWs to the canal due to the fractured rock underneath the canal and the possibility of leakage from the sewer lines into the canal.

This access route is the least desirable route in terms of impacts to wildlife because not only does it run east-west it also would fragment known antelope herd areas the most (George, 11/29/01).

Morrill Road from Powell Butte Highway is considered to be the most problematic for the Oregon Military Department because it would reduce their training area by a third (12/13/2000 letter, Oregon Military Department, available at the Prineville BLM office). However, of any of the proposed access ROWs, the Morrill road alignment would maintain the greatest consistency with the current livestock grazing pastures in the allotments affected by ROWs across BLM managed lands.

2.5.2 Access Route: Morrill Road from Powell Butte Highway

This alternative would develop a primary access on the easterly segment of the existing Morrill Road from Powell Butte Highway. The proposed easterly ROW would be approximately 4.92 miles, with a 60-foot width, for a total of about 26.8 acres of new disturbance. Approximately two-thirds of this alternative would be accommodated within the Deschutes County recognized public way known as Morrill Road. This alternative

crosses at the existing Bailey Bridge site, continues adjacent to the North Unit Main Canal, and like the proposed access ROW in both Alternatives B and C, follows an existing dirt road bed the last 1.5 miles to the southeast portion of the private property (Section 21). Also like Alternatives B and C the existing Bailey Bridge would have to be removed and a new bridge would have to be constructed according to Deschutes County standards. In addition, to develop this access into the private property there would need to be a final design review by Deschutes County, to allow excavation within the Powell Butte Highway ROW and on adjacent BLM managed lands. This excavation would be necessary to provide adequate intersection sight distance at the intersection of Morrill Road and Powell Butte Highway.

Use of the existing road for the primary access ROW would limit the disturbance of soil and vegetation, maintain wildlife habitat, and reduce the possibility of noxious weed invasions in the area.

- 2.5.3 Power, Cable, and Telephone Route: Through Undisturbed Area
Power, telephone, and television lines would be installed underground in a common trench, between Highway 97 and the resort. The previous owners of the private property, the Freight Wagon Owners Association, held an existing ROW, (Grant OR-49075). This ROW has been assigned to Huntington Ranch LLC and this alternative would propose using that existing ROW grant for the utilities. Use of the existing ROW would limit the disturbance of soil and vegetation, maintain wildlife habitat, and reduce the possibility of noxious weed invasions in the area. Approximately 2.39 miles with a 20-foot width for approximately 3.3 acres would be newly disturbed for construction of these underground utilities. In addition, a year-round access road would need to be created along the entire route of these underground utilities (Hoyt, 11/26/01). This access road would need to be 20 feet wide. The development of this access road for maintenance would cause an additional disturbance of approximately 2.4 acres.

- 2.5.4 Water, Sewer, and Natural Gas Route: North Unit Main Canal
This water, natural gas, and sewer canal route alternative would parallel the existing North Unit Main Canal to the private property boundary. Underground water, natural gas, and sewer pipelines would extend underground from the City of Bend, nearly 5 miles north to the proposed resort property.

The proposed ROW would be approximately 4.92 miles with a 40-foot ROW for a total of 23.8 acres of new disturbance. The proposed alignment would parallel the North Unit Main Canal ROW grant. Discussions with Bureau of Reclamation (BOR) and the North Unit Irrigation District (NUID) have been initiated.

- 2.6 Alternative E (See Map 6):**
Access ROW would be Morrill Road from Deschutes Junction
Power, Cable, and Telephone ROWs through undisturbed ROW
grant (OR 49075)

Water, Sewer, and Natural Gas ROWs adjacent to the North Unit Main Canal

2.6.1 Overview

This alternative would comply with BLM's policy to provide ROWs that allow for the reasonable use and enjoyment of properties surrounded by BLM managed land by providing an adequate access route and utility services to the private property.

It provides for most of the ROWs coming from the west, with the access route and power, cable, and telephone ROWs coming off of or near to Highway 97.

Though this route is east-west, which is considered to be the least desirable by ODFW for wildlife populations in the area, little of the route is included in the area where antelope herds are expected to reside (George, 11/29/2001). Therefore, this route is the least impacting to antelope of all the action alternatives.

Morrill Road from Deschutes Junction is the preferred access route for the Oregon Military Department because it would have the least potential for conflicts with the military activities and it keeps the military permitted area mostly intact (McCaffery, 12/20/01). However, it would create the most disruption in the current pastures within the grazing allotments.

However, residents of the Boonesborough Subdivision, who reside near the entrance of this proposed access ROW, have expressed strong concerns in regard to traffic, noise, pollution, and congestion in the area.

Both the Bureau of Reclamation and the North Unit Main Canal District have expressed concern over the alignment of the ROWs to the canal due to the fractured rock underneath the canal and the possibility of leakage from the sewer lines into the canal.

2.6.2 Access Route: Morrill Road from Deschutes Junction, Highway 97

This alternative access route follows Morrill Road from the west going easterly toward Bailey Bridge for 4.8 miles and then like proposed access ROW in both Alternatives B, C, and D follows an existing dirt road bed the last 1.5 miles to the southeast portion of the private property (Section 21) for a total of 6.3 miles. This westerly section of Morrill Road comes from Deschutes Junction off of Highway 97, and specifically from the Boonesborough Subdivision at Deschutes Junction. The ROW would be a 60-foot width, to comply with Deschutes County standards for a rural collector road, for a total disturbed area of approximately 34.4 acres of new disturbance.

2.6.3 Power, Cable, and Telephone Route: Through Undisturbed ROW grant (OR 49075)

Same as Alternative D

- 2.6.4 Water, Sewer, and Natural Gas Route: North Unit Main Canal
Same as Alternative D

2.7 Common to All Action Alternatives and Common Design Elements

2.7.1 Wildlife Mitigations

Under all the action alternatives, mitigations stated in the Wildlife Situation Report, attached as Appendix A of this EA would be followed. The applicant also would follow mitigations required by ODFW on the private land through an agreement with ODFW (approved 12/19/2001, Wildlife Mitigation Plan, available at the BLM office in Prineville). These mitigations would include restoration and enhancement of 3,000 acres of juniper woodlands, noxious weed control, vegetation enhancement, and reductions in unauthorized off-road vehicle use, prohibitions on the feeding of wild animals, installation of nest boxes, construction of water features, preservation of existing rocky outcrops, protection of reptilian habitat, education programs, and discouragements to non-native bird populations (such as Canada geese), and the development of a High Desert Mitigation Foundation.

2.7.2 Fencing

In order to mitigate adverse impacts to soil and vegetation, protect the safety of motorized recreationists, reduce the potential for illegal or hazardous waste dumping, and limit the potential for conflicts between resort visitors and public land users on public lands, as directed by the Brothers/La Pine RMP, fencing would be placed along the primary ROW access route. The fencing would be placed at the edge of each side of the 60-foot ROW, approximately 14-feet from both edges of the 32-foot paved width of the road. The fencing would be built as a three-strand barbed wire fence to BLM specifications. The bottom wire of the fence would be a smooth wire to allow antelope to pass under the fence. Spacing between the three-strands would be 18-inches from the ground to the bottom wire of the fence, 8-inches between the bottom wire and the middle wire, and 12-inches from the middle wire to the top wire. No stays would be placed in the fence. For approximately 6 months after the fence is built white flagging would be attached to the top of every other fence post to assist wildlife in seeing the new fence. Visible signs would be attached to the fencing facing into BLM managed lands that would direct recreationists to the nearest gated entrance or exit to cross the roadway.

Openings would occur along the fence on each side of the road to accommodate county recognized public ways, the North Unit Main Canal, PGE pipeline, and any power lines. Openings at county recognized public ways would require cattle guards and gates on both sides of the road at the opening. The applicant would install and maintain either 12-foot or 14-foot metal gates with a H-brace on each side next to each cattle guard. Openings at the North Unit Main Canal, the PGE pipeline, and power lines would occur only to allow for maintenance, thus locked gates would be placed at these openings. However, a 4-foot pedestrian gate would be placed on both sides of the

paved route adjacent to the lock gates at the North Unit Main Canal and the PGE pipeline.

The fencing mitigation would reduce damage to BLM managed lands that currently occurs at a similar residential development area (Crooked River Ranch, Redmond, Oregon) surrounded by BLM managed lands. At that development no fencing was placed along the paved access route. Over a ten-year period over 26 motorized access routes have been made onto public lands off the paved road within a 4-mile section. BLM law enforcement and recreation personnel are repeatedly called to address problems of illegal dumping, shooting, and partying in the area. The proposed fencing mitigation would limit these type of problems from occurring on BLM managed lands surrounding the proposed resort area, according to BLM law enforcement and recreation staff. The fencing would make it more difficult for dumping to occur, control the creation of new user roads, and curtail the development of pullouts and parking along the paved access.

By focusing crossings along the proposed paved access route, proper safety signs could be installed and drivers and recreationists would be alerted to potential safety hazards.

To mitigate the potential for the fenceline to be cut at user created roads, those user created roads that currently exist would be camouflaged within the first 20-feet adjacent to the fence outside of the ROW with large rock and rehabilitated with vegetation. In addition, signs would direct users to where they can access an opening in the fence.

2.7.3 Recreation Information

To assist recreationists on public lands, informational bulletin boards, built to BLM specifications, with educational and instructional information as well as with maps would be placed at the entrance to the new paved access route, at the resort exit onto the paved primary access route, and near the OHV/pedestrian gate near the North Unit Main Canal maintenance road. This education and instruction would increase public safety and reduce the potential for resource damage on public lands by preventing uninformed and abusive use of BLM managed lands.

2.7.4 Visual Resources

Any earthwork treatments would attempt to reflect forms found in the landscape. Wherever possible split face rock blasting would be used to create irregular (natural looking) rock face treatment.

The ROW roads themselves should retain some of the serpentine nature around trees and rock outcrops. A feathering effect could be used to blend in remaining vegetation with the ROW disturbed areas.

If possible, where fencing blocks user created roads, rocks from the road construction could be placed to create a visual break with the fence and the road. These rocks would also stop recreationists inside of the adjacent BLM managed lands from driving into or through the fencing.

Juniper trunks, shrubs, and other natural debris from road construction activity could also be used to reduce the visual impact of the fence and road.

2.7.5 Wildfire and Public Safety

In all action alternatives, leading to the development of the Huntington Ranch Resort, both the Deschutes County Sheriff's office and Redmond Fire Department would serve the resort. The Redmond Fire Department would have a station at the resort to serve the resort and lands around the resort (August 15, 2000, Correspondence from the Redmond Fire Chief, Available at the BLM Prineville Office). The Deschutes County Sheriff would serve the resort at the same level that it serves the rest of the County, though the applicant may seek additional law enforcement for the area in the future if such enforcement is needed in the area.

The applicant would work with the BLM to obtain and maintain signs stating that patrols of the area occur and that "No Dumping, \$500 fine" is permitted along the paved roadway.

The applicant would participate in BLM's "Adopt an Open Space" program and conduct a minimum of two clean-ups of BLM managed lands adjacent to the primary access route and the resort property (12/20/2001 agreement, Huntington Ranch LLC, available in the BLM office in Prineville).

During construction of the primary access road and utilities, all work would follow basic fire safety rules as specified in the Central Oregon Fire Management Safety regulations.

These mitigations would help to maintain and increase public safety both on the primary access ROW and on BLM managed lands. In addition, these mitigations would assist in reducing illegal public dumping on BLM managed lands.

2.7.6 Livestock Grazing

The applicant would construct and maintain fencing along the entire BLM/private land boundary. The fence's design would be approved by the BLM and would be sufficient to prevent livestock from moving from the public land to the private land. The applicant would install and maintain cattle guards at all locations where resort access roads enter/exit public land. The applicant would install and maintain a 12-foot or 14-foot metal gate with an H-brace on each side next to each cattle guard, except at the entrance to the resort. The applicant would install and maintain signs (design approved by BLM) at each end of paved access roads reading "Open Range Watch for Livestock on Road". The applicant would design the road and utilities in a manner that the buried water pipeline in the Crenshaw Allotment, which serves to water livestock in the allotment, remains functional.

These mitigations would prevent livestock trespass onto the resort property and protect livestock from harassment by dogs on the resort

property. In addition, this mitigation would protect livestock forage on the BLM managed lands by limiting OHV travel from the resort property. The signing mitigation would both protect livestock from potential harm on the paved primary access road and increase the safety of the public traveling on the route.

2.7.7 Cultural Resources

An Area of Potential Effects (APE) for all the action alternatives was established in response to information provided by consulting parties. Consulting parties included representatives from the Deschutes County Historical Society, Archaeological Society of Central Oregon, Confederated Tribes of the Warm Springs Reservation, Burns Paiute Tribe, State Historic Preservation Office, Archaeological Investigations Northwest, Oregon Military Department, Huntington Ranch LLC, W & H Pacific, BLM and members of the public with an interest in historic preservation (documentation on file at the BLM office in Prineville).

As a result of those consultations, the APE for cultural resources for the project area includes the following:

- 200 meters on each side of the access and utility corridors (100 meters on the west side of the gas pipeline utility corridor).
- Portions of Sections 8, 15, 17, 20, 21, and 22 that surround the proposed resort location.
- All of the proposed resort location (Section 16).
- Additionally, because the proposed ROWs would cross a number of unevaluated historic roads, determination of eligibility (DOE) to the National Register of Historic Places would be completed for those road segments that exist on BLM managed lands.

Qualified archaeologists are conducting a cultural resource survey within the APE. Those surveys are to locate and document surface evidence of past human uses of the area. A data recovery plan is also being established in association with those surveys.

If cultural resources were found and were deemed significant standard mitigations for avoiding impacts to those cultural resources would be employed. This mitigation would protect cultural resources from being damaged by either the development of the ROW corridors or the potential for harm to cultural resources by people recreating on public land from the resort.

2.7.8 Sewer and Water Systems

The ODEQ stated a preference for regional sewage treatment facilities like the City of Bend plant to handle sewage from the resort, rather than small on-site treatment plants. Piping raw sewage from Huntington Ranch to the City of Bend would be supported by the ODEQ because of the greater reliability of a municipal wastewater treatment plant over a smaller on-site treatment plant.

Because ODEQ prefers the treatment of sewage at the City of Bend's sewage plant, Huntington Ranch has negotiated a contract to allow sewage to be pumped from the resort to the City of Bend Sewage Treatment Plant subject to BLM's approval of the ROWs. This contract also would allow Huntington Ranch LLC to use treated sewage effluent (treated to Level 4 effluent) up to 2 million gallons a day for irrigation purposes at Huntington Ranch. Level 4 effluent comes from advanced sewage treatment, which must include disinfection, clarification, biological treatment, coagulation, and filtration. Level 4 effluent may be used for agricultural purposes, including food crops, with essentially no restriction. Level 4 effluent may also be used for parks, playgrounds, and golf courses with contiguous residences.

The ability of the City to upgrade its facilities to provide this large amount of Level 4 effluent to the resort would assist the City in managing its current concerns in regard to groundwater infiltration (5/4/2000 letter, Garzini, Bend Asst. City Manager, available in the BLM Prineville Office). Huntington Ranch LLC would be responsible for assuring that the effluent met ODEQ and federal standards for irrigation use and was applied at appropriate rates to protect groundwater. State environmental quality policies encourage effluent re-use.

Huntington Ranch has a contract with Avion Water Company to provide domestic water for the resort. If a ROW were obtained from the BLM, Avion Water Company would extend a pipeline from the City of Bend northerly across BLM managed lands to the resort (See Maps 2,3,4, and 5). The water main would be sized to a 14 or 16-inch pipe to accommodate required fire protection flow rates and domestic use.

Avion Water Company would use previously authorized and valid groundwater withdrawal rights to serve the Huntington Ranch. Avion Water Company's use of these water rights would comply with all applicable State of Oregon withdrawal requirements. In order to comply with these requirements, the OWRD may require Avion to mitigate for some of the groundwater withdrawal rights they use, as OWRD would for any groundwater withdrawal rights issued after 1995 in the Deschutes Basin.

Because of the Avion Water Company contract, no additional groundwater withdrawals would occur at the Huntington Ranch.

2.7.9 Access Road Speed

Deschutes County would impose a 25 mph speed for the resort access road. Michael A. Minor & Associates report speed control as a mitigating factor for noise, particularly less than 30 miles per hour, in a technical memorandum (11/29/2000 technical memorandum, available at the BLM office in Prineville).

2.7.10 Access and Utility Construction Standards

2.7.10.1 *Access Road and Bridge Construction*: Access construction would typically be restricted to a 60-foot wide ROW to accommodate a

Deschutes County rural collector road. This would include: improvements, slopes, drainage ditches, and culverts. The proposed road would be built to a paved width of 32 feet with 12-foot travel lanes and 4-foot shoulder bikeways (appropriately striped with a 4-inch fog line), as required of a Deschutes County rural collector road. A rural collector road requires a 3-inch asphalted concrete surface course, and an 8-inch aggregate base course. The maximum grade is stipulated at 8 percent.

Under Alternatives B, C, and D, the existing Bailey Bridge would be relocated north to an existing site for temporary drop bridges used by the OMD during their maneuvers. Three relocation sites are shown on (Map 6) and would take advantage of existing roadways and approaches. Permits from the BOR would still be needed by the applicant to authorize crossing the canal with a new access road, bridge, and water, sewer, and natural gas lines.

Alternatives B, C, and D would also include construction of a north bound left turn lane and a south bound right turn deceleration lane on the Powell Butte Highway at the intersection of the Powell Butte Highway and the new resort access road.

Typical construction activities would include clearing and grubbing, earth moving for subgrade construction, placement of an aggregate base course, and paving. Bulldozers, excavators, trucks, rollers, blades, backhoes, and a paving machine would be required.

Except under Alternative B (access) and under Alternatives D and E (power, cable, and telephone ROW corridor) all action alternatives would generally follow existing dirt roadbeds and alignments. The existing disturbed areas within these proposed ROWs are typically 20-foot in width. The additional area of disturbance associated with access construction would equal 50 to 60 percent of the calculated ROW areas. Under Alternative B the straightening of the access road would require some construction outside of an existing roadbed. Under Alternatives D and E (power, cable, and telephone ROW corridors) would require the development of a utility access road in an area outside of an existing roadbed.

2.7.10.2 Utility Construction Standards: Power, cable, and telephone lines would be installed underground in a common trench, between Highway 97 and the resort. Power from Pacific Power and Light (PPL), who would service the resort, must be taken from a substation at Deschutes Junction north along Highway 97. It then would be extended east from Highway 97 into the resort (Hoyt, 11/26/01). All action alternatives would include road access to maintain these lines.

The water, sewer, effluent, and gas lines would be installed within a 40-foot ROW and would be placed at approximately 36-inch depth. The sewer, effluent, and gas lines would be placed together in a trench allowing for a 10-foot separation from the water line.

2.7.10.3 *Revegetation of Disturbed Areas*: The applicant would hydroseed areas disturbed through construction of the access road and the utilities. Following disturbance, seeding would occur as soon as possible between the established timeframes of October 1st and February 1st. The seed mixture for all sites would be 40 percent western wheatgrass, 30 percent bluebunch wheatgrass, and 30 percent bottlebrush squirreltail. All seed would be 100 percent pure live seed and certified weed-free. The applicant would provide BLM with a seed testing report before planting any seed.

2.7.10.4 *Noxious Weed Suppression*: The applicant would be required to suppress noxious weeds within the specified ROWs according to the BLM standards for noxious weed suppression for a period of three years following construction. The applicant would be required to use a licensed applicator using herbicides and application rates approved by the BLM. All construction equipment would be required to be washed before and after use. Surface and fill material used on roads would be required to be from a weed-free site.

2.7.10.5 *Tree Removal*: The applicant would mark all trees to be removed with flagging within the ROW limits for road and utility construction and contact BLM prior to cutting operations. The applicant would make the initial route selection and, at BLM request, consider reasonable modifications to avoid removal or impacts to old-growth juniper or other sensitive areas. Trees would be cut down to a stump height of no more than 8 inches, with all branches removed from the remaining stump. All snags or trees with potential nest cavities would be left if possible. Following reseeding, all cut trees would be scattered on disturbed BLM managed land within the road and utility ROWs, or other areas approved by BLM. Where possible, the placement of juniper would be used to camouflage disturbed sites either on or adjacent to the constructed ROWs.

2.7.10.6 *Hazardous Materials*: Under all action alternatives the following Resource Area ROW stipulations would apply for hazardous materials:

(1) Construction sites would be maintained in a sanitary condition at all times: waste materials at those sites would be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded material including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes and equipment.

(2) A litter-policing program would be implemented by the holder, and approved of in writing by the authorized officer, which covers all roads and sites associated with the ROW.

(3) The holder(s) of the ROW would comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, holder(s) would comply with the

Toxic Substances Control Act of 197, as amended (15 U.S.C. 2601, et seq.) with regard to any toxic substances that are used, generated by or stored on the ROW or on facilities authorized under the ROW grants. (See 40 CFR, part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.)

(4) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of reportable quantity established by 40 CFR, part 117 would be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 102b. A copy of any report required or requested by any Federal agency or State Government as a result of a reportable release or spill of any toxic substances would be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

2.7.11 Interim Secondary Access

Sheridan Road would serve as the interim secondary (emergency-only) access to the Huntington Ranch property. Sheridan Road is an existing all-weather road, extending from Morrill Road to Highway 126, adjacent to the North Unit Main Canal (See Maps 2,3,4,and 5).

Currently Sheridan Road's width varies between 14 to 24-feet, with most of its length between 18 to 20-feet wide. The ROW for Sheridan Road would be no more than a 20-foot width except in those limited areas where it already extends beyond that width.

The OMD and the public currently use Sheridan Road. As necessary for public safety, the BLM would allow turnouts to be constructed at intervals to allow visibility to oncoming vehicles and to accommodate emergency and military vehicles. These turnouts would have to be flagged and BLM would need to review these turnouts prior to construction.

2.8 **Alternatives Considered but Eliminated from Detailed Study**

Several access and utility alternatives were developed, considered and evaluated in Huntington Ranch LLC's original ROW application. Required access and utility needs were also examined in meetings with Deschutes County, BOR, and NUID. The following alternatives for access and utility service (power, cable, telephone, water, and sewer) to the resort were considered by BLM but were eliminated from detailed study (40 CFR 1502.14a):

2.8.1 Horner Road

Horner Road extends easterly from Deschutes Junction. The roadway is considered a historical road in the vicinity of Deschutes Junction and continuing east. Due to Horner Road's historical significance it does not fit with the objective of the proposed action, set forth in the Purpose and Need (1.2.3), to limit impacts to cultural resources thus would be inconsistent with the Brothers/La Pine Resource Management Plan (RMP).

In addition, this alternative would be inconsistent with the RMP's direction that "The BLM will insure that authorized land use actions do not inadvertently harm or destroy Federal or non-Federal cultural resources (Brothers/La Pine RMP, pg. 126)."

2.8.2 Existing Right-of-Way Grant OR-49075

This existing westerly ROW grant, (OR 49075), extends from the resort tract to Highway 97. Although the ROW grant has been approved by BLM, the access roadway has not been fully constructed. Previous residents of the private land used primitive roads in the area.

The use of the existing ROW grant to develop primary access to the resort does not meet ODOT criteria. This ROW grant was also considered for the secondary access required by both Deschutes County and the Redmond Fire Department on an interim basis. Use of the ROW, even on an interim emergency-only basis would require clearing and gravel surfacing. These impacts to BLM managed public lands could be avoided by using the Sheridan Road, an existing all-weather surface road.

Use of this ROW grant was considered but eliminated from detailed study because it did not fully comply with BLM's policy to provide ROWs that allow for the reasonable and enjoyable use of the property (BLM Manual 2800 (D)). This ROW also did not meet the objective of the proposed action, set forth in the Purpose and Need (1.2.3), to maintain or increase public safety on BLM managed lands. The RMP states, "Each right-of-way...will consider the protection of public safety (Brothers/La Pine RMP, pg. 33)." This alternative would be inconsistent with the Brothers/La Pine Resource Management Plan and thus it was eliminated from detailed study.

2.8.3 McGrath Road

McGrath Road extends from the Powell Butte Highway, near the Bend Airport, northwesterly to Deschutes Junction. The southern segment of McGrath Road serves the Bend sewage treatment plant. Most of McGrath Road that would be used to provide access to the resort is a dirt track that crosses public lands, but is not identified as a through route in the Deschutes County Official Road Map, 1999. McGrath Road, if taken in the most direct route possible to the resort would create 7.3 miles of paved access with much of it crossing BLM managed land.

This alternative was considered, but was eliminated from detailed study because the considerable length of the paved route into the resort property would not meet the objectives of the proposed action, set forth in the Purpose and Need (1.2.3), of limiting fragmentation of wildlife habitat, reducing disturbance to soils and vegetation, and limiting the potential for noxious weeds on BLM managed lands. Because this alternative does

not meet those objectives it would be inconsistent with the Brothers/La Pine Resource Management Plan and it was eliminated from detailed study.

2.8.4 19th Street

An extension of 19th Street, south of the City of Redmond and the Deschutes County Fairgrounds was considered by the BLM in some depth. However, the development of an extension of 19th Street to serve the resort was considered to be premature due to collaborative discussions BLM is participating in to evaluate land uses and transportation systems in the area south of the City of Redmond. This collaborative study, as a part of the Oregon Governor's Community Solutions process, involves the City of Redmond, City of Bend, Deschutes County, BLM, ODOT, and BOR. The collaborative study will conclude within the next two years and the possible extension of 19th Street south may be recommended at that time. In addition, the BLM is currently considering transportation needs in the area during the development of the Upper Deschutes Resource Management Plan (RMP). The development of the RMP will also conclude in the next two years.

In the first EA for these ROWs it was stated that the extension of 19th Street could be considered as a permanent secondary access. The BLM, as was previously stated, has no policy and is under no obligation to provide the private land any permanent secondary access. Therefore, the implication in the previous EA that an extension of 19th Street would serve as permanent secondary access to the resort was erroneous. The EA implied that the extension of 19th Street would be adequate for a secondary access but not a primary access. A decision on the applicability of extending 19th Street is not ready to be made at this time and will not be made until both the Community Solutions process and the Upper Deschutes RMP are completed.

In addition, upon further field review to consider developing the 19th Street extension into an alternative, BLM staff determined that the alternative did not meet the objectives of limiting wildlife habitat fragmentation (length of road and antelope habitat) and limiting soil and vegetation disturbance (length of route). Further, the development of an extension of 19th Street to the resort property may encourage more public access into an area that currently has more limited access than the area south of the resort property. This encouragement, would indirectly cause more disturbance, through increased OHV use, to soils and vegetation as well as bring noxious weeds into an area that is relatively free of noxious weeds. This increased use of an area that has limited use at this time may also create greater public safety and illegal dumping problems than the access routes coming from the south. By not meeting the objectives of the proposed action, set forth in the Purpose and Need (1.2.3), of

limiting wildlife habitat fragmentation, reducing the disturbance of soil and vegetation, and limiting the potential for noxious weed invasions the 19th Street alternative would be inconsistent with the Brothers/La Pine Resource Management Plan and was eliminated from detailed study.

2.8.5 On-Site Sewage Treatment

The sewer and water system master plan for the proposed Huntington Ranch Resort are available for review at the BLM office in Prineville. The master plan describes multiple alternatives for sewerage and water service, including on-site sewage treatment facilities and on-site wells.

On-site sewage treatment could be provided through construction of a package sewage treatment plant to serve the resort. Package sewage treatment plants are available and those plants can be expanded as the resort grows. Construction of an on-site sewage treatment plant would eliminate the need for a sewage forcemain connection to the Bend sewage treatment plant.

As was previously stated, ODEQ regulates sewage treatment facilities and ODEQ prefers regional sewage treatment facilities, such as the City of Bend or the City of Redmond. Smaller, on-site sewage treatment facilities can be feasible and can be permitted, but are not preferred. The ODEQ has determined that regional facilities operated by municipalities provide more consistent operation and generally are more likely to conform to ODEQ permit requirements.

The volume of sewage effluent generated by the Huntington Ranch Resort is not adequate to meet the golf course irrigation needs for the project. Another source of irrigation water would be required, even with the on-site sewage treatment plant. The Huntington Ranch Resort has executed a contract with the City of Bend to receive sewage treatment plant effluent, treated to a level four, to serve the irrigation needs of the resort. Therefore, on-site sewage treatment facilities were considered and dismissed, because a pipeline between the Bend treatment plant and the resort is likely, with or without on-site treatment facilities. The on-site facilities can be eliminated and the sewer installed in a common trench with the irrigation water supply line, without additional impacts on BLM lands.

This alternative was eliminated from detailed study because it did not fully comply with BLM's policy to provide ROWs that allow for the reasonable and enjoyable use of the property (BLM Manual 2800 (D)). This ROW alternative for access also did not meet the objective of the proposed action, set forth in the Purpose and Need (1.2.3), of maintaining public safety and thus would be inconsistent with the Brothers/La Pine Resource

Management Plan. In addition, this alternative would not meet the direction of the Brothers/La Pine RMP that states, “Each right-of-way shall contain terms and conditions requiring compliance with environmental quality standards applicable to Federal or State law (pg. 33).”

2.8.6 On-Site Water Supply

On-site wells were considered for the Huntington Ranch Resort. Construction of on-site wells would eliminate the need for the extension of an Avion Water Company main between Bend and the resort. On-site wells are under the jurisdiction of OWRD. OWRD determined water rights could not be issued without mitigation. The initial reviews were deemed “not favorable.” On-site wells were subsequently dismissed as an alternative.

Due to the OWRD’s concerns, Huntington Ranch proposes, depending upon the outcome of its ROWs application with BLM, to contract with Avion Water Company for the delivery of domestic water supplies and with the City of Bend for the delivery of irrigation water supplies.

This alternative was eliminated from detailed study because it did not fully comply with BLM’s policy to provide ROWs that allow for the reasonable and enjoyable use of the property (BLM Manual 2800 (D)). This alternative also did not meet the objective of the proposed action, set forth in the Purpose and Need (1.2.3), of maintaining public safety and thus would be inconsistent with the Brothers/La Pine Resource Management Plan. In addition, this alternative would not meet the direction of the Brothers/La Pine RMP that states, “Each right-of-way shall contain terms and conditions requiring compliance with environmental quality standards applicable to Federal or State law (pg. 33).”

2.8.7 Aerial Power Lines

Aerial power lines to the Huntington Ranch property were considered but were eliminated from detailed study. Upon field review to consider developing aerial power lines into an alternative BLM staff determined that the alternative did not meet the objectives of minimizing soil and vegetation disturbance, maintaining and increasing public safety, and using existing ROW corridors on BLM managed lands.

If aerial power lines were used it was estimated that 150 to 200 old growth juniper trees would be impacted. This impact to old growth juniper would not be in compliance with the BLM Prineville District policy to protect old growth juniper.

In addition, the Bonneville Power Administration (BPA) has a 230 KV line that runs north and south on BLM managed lands within ROW grant (OR 49075). BPA indicated that with

additional aerial power lines there is the potential for induction (which means that the electrical fields could jump over lines), which is a safety concern. BPA would prefer not to have aerial lines within their ROW boundaries (Johnson, 11/27/01).

Visual Resource Management was another concern with this alternative. Currently, there are the BPA lines running north-south. If aerial lines were used for this proposal, there would be power lines running east-west for approximately two miles in addition to the BPA lines running north-south, which would have visual impacts.

This alternative was eliminated from detailed study because it did not fully comply with BLM's policy to provide ROWs that allow for the reasonable and enjoyable use of the property (BLM Manual 2800 (D)). This alternative also did not meet the objective of the proposed action, set forth in the Purpose and Need (1.2.3), of maintaining public safety and the Brothers/La Pine RMP direction to "do no unnecessary damage to the environment (pg. 33)."

2.9 Comparison of Alternatives

The following table presents a comparison of the alternatives across the Objectives discussed in the Purpose and Need. Indicators are used to highlight differences between the Alternatives.

Table 2.9.1 Comparison of Objectives and Indicators

| Objective with Indicator | Alt. A: No Action | Alt. B |
|--|---|---|
| Fulfills Obligation to Provide Access | No | Yes |
| Fragmentation of Wildlife Habitat (primary access route orientation and mileage) Inclusion in pronghorn antelope use area. | East – West orientation (less desirable) 2.39 miles in length Approx. 1.0 mile included in antelope habitat potential area (ODFW, 2001) | North-South orientation (more desirable) 4 miles in length Fully included in antelope habitat potential area (ODFW, 2001) |
| Soil and Vegetation Disturbance (acres) Out of approx. 34,500 acres of BLM managed lands | 9 acres new disturbance | 52.8 acres of new disturbance |
| Recreation Paved Access (miles) Loss of User trails (miles) | 2.39 miles No loss of user trails | 4 miles 0.25 miles |
| Wildfire and Public Safety | Conditions remain the same. Fewer people reduces opportunity for human caused fires. | Increased potential for fire hazards with additional people in the area. Increased firebreak in the area with the development of the resort (See Deschutes County Decision, BLM Prineville Office) |
| Follows Existing ROW | Yes. Activity would remain within the existing ROW grant (OR 49075) | 0.4 miles of paved access route outside of current roadway. Power, cable, and telephone route follow existing route. Water, Sewer, and Natural Gas follow an existing ROW. |
| Impacts to Livestock Grazing Permits (pasture changes) | No change | Change in pastures, however the change would allow for better rotation of pastures due to fencing along paved access route. |
| Impacts to Military Permit (acres) | Minimal Loss of permitted area. | Loss of 7,360 acres out of approx. 31,310 acres. |
| Impacts to cultural resources | Current impacts would continue | All impacts to cultural resources would be avoided or mitigated. Additional public access may create increased impacts to cultural resources. Surveys to identify National Historic register cultural resources would limit impacts to those resources. |

Table 2.9.1 Comparison of Objectives and Indicators (Continued)

| Objectives or Indicators | Alt. C | Alt. D | Alt. E |
|--|---|--|---|
| Fulfills Obligation to Provide Access | Yes | Yes | Yes |
| Fragmentation of Wildlife Habitat (primary access route orientation and mileage) Inclusion in pronghorn antelope use area. | North-South orientation (more desirable) 4.54 miles in length Fully included in antelope habitat potential area (ODFW, 2001) *In addition takes paved route adjacent to siltation pond, which would reduce wildlife's use of the pond. | East-West orientation (less desirable) 4.92 miles in length Fully included in antelope habitat potential area *In addition takes paved route adjacent to siltation pond, which would reduce wildlife's use of the pond. | East-West orientation (less desirable) 6.3 miles in length Orientation is away from antelope habitat potential area. *Paved route would be adjacent to siltation pond, which would reduce wildlife's use of the pond |
| Soil and Vegetation Disturbance (acres) Out of approx. 34,500 acres of BLM managed lands | 55.8 acres of new disturbance | 56.3 acres of new disturbance | 63.9 acres of new disturbance |
| Recreation Paved Access (miles) Loss of user trails (miles) | 4.54 miles 0.25 miles | 4.92 miles 0.25 miles | 6.3 miles 0.33 miles |
| Wildfire and Public Safety | Same as Alternative B | Same as Alternative B | Same as Alternative B |
| Follows Existing ROW | Paved access would follow existing route. Other ROWs would be the same as Alternative B | Paved access would follow an existing route. Other ROW corridors would follow existing ROWs. | Paved access would follow an existing route. Other ROW corridors would follow existing ROWs. |
| Impacts to Livestock Grazing Permits (pasture changes) | Change in pastures, change would allow for better rotation of pastures due to fencing along paved access route. | No change | Several changes in pastures due to development of fence along paved access route. |
| Impacts to Military Permit (acres) | Same as Alternative B | Loss of 8,960 acres out of approx. 31,310 acres of permitted area. | Loss of 400 acres out of approx. 31,310 acres of permitted area |
| Impacts to cultural resources | Same as B | Same as B | Same as B |

3.0 Affected Environment, Including Existing Permits

3.1 Location and Topography

The area analyzed in this document extends north from the proposed resort to Highway 126, west to Highway 97, south to the Bend Sewage Treatment Plant, and east to the Powell Butte Highway.

The topography is generally flat. Volcanic ridges and rocky outcrops are common, but they seldom exceed 20 feet in height. The overall elevation difference between the Bend Airport and the Redmond Airport is approximately

400 feet, over a distance of approximately 11 miles, which calculates to an average grade of less than one percent.

3.2 Soils

The public land soil resources in and around the Huntington Ranch LLC property were identified and mapped as part of BLM's Soil Vegetation Inventory Method (SVIM) in 1980. These units were incorporated into the U.S. Dept of Agriculture Natural Resources Conservation Service's (NRCS) Upper *Deschutes Soil Survey* (1992). This survey identified the two major mapping units in this area. The first unit covers the Huntington Ranch property and the surrounding public lands. This unit is mapped as: Stukel-Rock outcrop-Deschutes complex, dry, 0 to 8 percent slopes. The unit is about 35 percent Stukel soil, 35 percent Rock outcrop, and 25 percent Deschutes soil. The area about a mile south of the silt pond and south of the Huntington Ranch LLC property, is mapped as: Gosney-Rock outcrop-Deskamp complex dry, 0 to 15 percent slopes. This unit consists of 59 percent Gosney soils, 25 percent Rock outcrop, and 20 percent Deskamp soils.

The Stukel soil is a well-drained sandy loam (0 to 4 inches) over a cobbly sandy loam (4 to 11 inches) over a gravelly sandy loam (11- to 18 inches) over basalt. Depth to bedrock is 10 to 20 inches. The Deschutes soil is a well-drained sandy loam 0 to 17 inches over a light grayish brown sandy loam 17 to 31 inches over basalt. Depth to bedrock is 20 - 40 inches. The Stukel soils were typed to a Lava Blisters 10-12 PZ (Precipitation Zone) and the Deschutes to a Pumice Flat 10 -12 PZ range site.

The Gosney soil is a somewhat excessively drained stony loamy sand (0 to 2 inches) grayish brown and pale brown loamy sand (2-14 inches) over basalt. Depth to bedrock is 10 to 20 inches. The Deskamp soil is a somewhat excessively drained brown loamy sand (0 to 17 inches) and a pale brown gravelly loamy sand (17 to 32 inches) over basalt. Depth to bedrock is 20 to 40 inches. The Gosney soils were typed to a Lava Blisters 8-10 PZ and the Deskamp to a Pumice Flat 8-10 PZ range site.

3.3 Vegetation

3.3.1 Vegetation

The native vegetation is typical of western juniper woodlands. Common native plants, besides juniper, include big sagebrush, bitterbrush, and green and gray rabbitbrush, with an understory of bluebunch wheatgrass, Thurber's and western needlegrasses, and bottlebrush squirreltail. Cheatgrass, an invasive non-native annual grass, is also common. The site occurs within the western juniper vegetation zone. The juniper/sagebrush/bunch grass plant community dominates the site, with plant species that are both structurally and floristically typical of vegetation of the community.

No prime or unique farmland (7 USC 4201) would be affected by the development of these ROW corridors.

3.3.2 Special Status Plants

No special status plants were expected to be on the site and none were found.

3.3.3 Noxious Weeds

Currently there are only a few, scattered noxious weed sites in the general area. The primary species are spotted knapweed, diffuse knapweed, and an occasional Dalmatian toadflax. Other weedy species, which are not classified as noxious, include annual mustards, cheatgrass, mullein, and teasel.

The area surrounding the proposed project is periodically monitored for the existence of noxious weeds and where infestations are found and treatment is warranted, control activities are initiated by the BLM. These monitoring and treatment activities would continue on BLM managed lands regardless of the development of these ROWs.

3.4 **Water Quality and Quantity**

There are no natural streams, lakes, or natural water bodies of any kind within several miles of the proposed ROWs. No floodplains (Executive Order 11988; 10 CFR 1022) or wetlands (Executive Order 11990; 10 CFR 1022) exist within the project area. No surface erosion or other signs of surface runoff are apparent within the proposed ROWs. The North Unit Main Canal runs within one-half mile of the proposed resort property.

The groundwater aquifer underlying the project area is derived primarily from precipitation that falls in the Cascade Range located to the west of the project area. Groundwater that originates in the Cascade Range is the major source of streamflow for the Lower Deschutes, Lower Crooked River, and Lower Squaw Creek (Gannett, et al, 2001).

3.5 **Wildlife**

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 of 50-60 pronghorn antelope occupies the area year-round (George 11/29/2001, Ferry, 11/28/2001).

3.5.1 Special Status Wildlife Species

The only federally listed threatened, endangered proposed or candidate species (CEQ 1508.27 9[b] [9]) 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 ROWs (Table 3.5.1). 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 although no sightings have been reported

in or near the project area. The northern goshawk, normally common to coniferous forests, has been reported occasionally nesting in juniper woodlands. No active goshawk nest sites have been 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-steppe and juniper woodlands. However, there are no known nests in the project area.

Table 3.5.1 Special Status Wildlife Species Occurring or Potentially Occurring the Project Area*

| Common Name | Scientific Name | Federal/Bureau Status | Presence in Project Area | Affects Determination |
|---------------------------|---|------------------------------|---------------------------------|---|
| 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

3.5.2 Big Game

In the area directly south of Redmond, and between U.S. Highway 97 and the Powell Butte highway, a herd of 50 to 60 antelope reside year round and use the area for breeding, fawning, and foraging (Upper Deschutes AMS; Tetra Tech, 2001; Ferry, 11/28/2001). 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, 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 ODFW (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 or near the proposed project area (George, 11/29/2001); however, animals from established herds in the Powell Butte and Mayfield Pond/Alfalfa areas occasionally cross into this area (Upper Deschutes AMS, October, 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.

3.6 **Recreation**

The area of BLM managed lands affected by the proposed ROWs is located near the communities of Bend, Redmond, Prineville, and Powell Butte. Two existing subdivisions, Boonesborough (to the southwest), and Cimmaron City (to the south), border this large block of BLM managed lands. In addition, a new subdivision, Powell Butte Estates (to the north), is being developed near these public lands.

Residents in these neighboring subdivisions are the primary users of these BLM managed lands. However, some residents of Bend, Redmond, Prineville and Powell Butte use the area for recreation.

Major recreational use occurs at the siltation pond, the canal maintenance road, fringes areas along paved roadways, and the gas pipeline.

The area attracts daily use by horseback riders from local subdivision. Other recreational activities in the area include: off-highway vehicle use, mountain biking, running, hiking, hunting, target shooting, paint ball, and sled dog training.

This tract of BLM land is one of the largest contiguous tracts in Central Oregon with an “open” designation for OHV travel. This open designation allows OHV use both on and off roads throughout the BLM managed lands. Although this area is not as popular for OHV riding as others in the area, it is one of few remaining large tracts of BLM land with an “open” designation.

When compared to other BLM managed lands in the Bend-Redmond area, the size of the block and its proximity to urban areas offers some relatively unique opportunities for day-long rides and greater dispersal of motorized users throughout the area. Because the landscape features little elevation gain or loss, novice riders are expected to be the primary users of the area (Moore, 12/19/02).

It is expected that Central Oregon will experience a 20 percent increase in motorized use (Eckles, 12/19/2001).

3.7 Visual Resources

The area of BLM managed land that would be affected by the proposed ROWs is geographically flat (400 foot rise in 11 miles). It is characterized by low and big sage brush, green and gray rabbit brush, occasional bitterbrush, assorted bunch grasses, juniper trees, some small low growing forbs, rocky volcanic basalt blisters that rise from the sandy soil approximately 20 feet at fractured piles. There is some slight undulation of the land surface but nothing that gives a vantage point from the surrounding area. The project area is identified in the Brothers/La Pine RMP as an area not having high or sensitive visual qualities.

Currently two sets of double power lines cross the proposed project area; one is a metal lattice and the other is wooden. The existing gas pipeline ROW is a wide swath of low growing seeded bunch grasses with no juniper trees and few shrubs with hard edges and does not blend well into the landscape. The canal is typically a straight canal with little vegetation and no meanderings in its shoreline. In contrast, the siltation pond has a more natural edge and high grasses, though repeated resource damage from vehicle use at the shoreline has created a hard, unvegetated edge close to the water line.

The proposed resort would be located more than 2 miles from any existing paved road. The view from these roads into the resort site is screened by vegetation and landforms. Due to the rough roads leading to the area, and relatively few access points (when compared to other BLM lands in Central Oregon), the project area is relatively free from large scale dumping of garbage and abandoned vehicles.

3.8 Cultural Resources (Executive Order 11593)

3.8.1 History and Prehistory

Huntington Ranch, LLC has retained the services of Archaeological Investigations Northwest, Inc. (AINW) to perform certain tasks (i.e., Class I Literature Search and on-the-ground-surveys within the Area of Potential Effect - APE) to assist the BLM in meeting federal cultural resource requirements pertaining to the proposed action. Approximately 54 percent (1,475 acres) of the proposed project area has been surveyed for cultural resources by AINW, including most of the areas that would be directly affected by construction activities. Surveys on the remaining 46 percent (1,275) are expected to be completed by the end of January 2002. The completed surveys have resulted in the recording of 40 archaeological isolates (occurrences of less than 10 artifacts) and 57 archaeological sites. Of those, 31 cultural resources (16 archaeological isolates, 4 prehistoric archaeological sites, 7 historic archaeological sites, 3 blazed trees, and 1 rock feature) have been identified within the area of direct effects and 66 in the indirect effects area.

In their December 28, 2001 Cultural Resources Survey Status Report, AINW recommends that no further study of the isolates and historic archaeological sites is necessary. They also state that, in their professional opinion, the rock feature and seven historic archaeological sites are unlikely to be significant (i.e., National Register eligible) cultural resources.

The four prehistoric archaeological sites in the area of direct effects are surface scatters containing lithic debris. One of these sites exhibits characteristics (i.e., density of artifacts and evidence of sufficient depth) enough to warrant consideration as a potential candidate for further investigations (i.e., test excavations). This site is situated in Section 16 on Huntington Ranch development property.

The blazed trees are all associated with the historic Bend-Prineville Road and are contributing features to its historic alignment. AINW is tentatively, based on field data, recommending the segment of the Bend-Prineville Road within the APE as eligible for the National Register of Historic Places. This recommendation corroborates others made as a result of previous surveys.

The literature search conducted by AINW states that one-third of the area surrounding the resort area has been previously surveyed for cultural resources in the past 23 years. According to the report, “These previous surveys identified 164 cultural resources...14 have been recommended as potentially eligible for listing [to the National Register of Historic Places], and the National Register eligibility of another 15 resources is unknown. The remaining 128 previously identified resources have not been recommended or determined not eligible for the National Register.”

Previous surveys also “recommended that intact segments of the Bend-Prineville Road be incorporated into the proposed National Register district nomination that would have also included Huntington’s Wagon Road, the Prineville-Deschutes Road, Horner Road, Morrill Road, and the Alfalfa-Redmond Road.” Reports by Chappel (1997) and Oetting (1997) concluded “the remaining road segments in the...project area lacked character and integrity except Horner Road (Reference pg. 25; Ellis/Mills 2001).”

3.8.2 Wagon Road Area of Critical Environmental Concern (ACEC)

The Wagon Road ACEC consists of three segments of the historic Huntington Road. Those segments are in the following locations:

- Section 1, Township 17 S., Range 12 E (Segment A - Map 7)
- Section 21, Township 16 S., Range 13 E (Segment B – Map 7)
- Section 33, Township 15 S., Range 13 E (Segment C – north of Segment B on Map 7, not on Map 7 due to distance from project)

Because of its distance from the proposed resort (three air miles), monitoring by BLM and Deschutes County Historical Society personnel,

a fenced perimeter, and interpretation at the site, Segment A is a well-preserved and protected segment of the historic Huntington Road. Inclusion of Segments B and C, located to the south and north of the proposed resort, in the Wagon Road ACEC has for some time been considered potentially inappropriate. ACEC designation of those two segments will be reassessed in the development of the current Upper Deschutes Resource Management Plan (RMP) and Environmental Impact Statement (EIS).

Current policy from the Brothers/LaPine RMP for the Wagon Road ACEC is to restrict OHVs and horses from traveling on the historic road segments. That policy would continue until it is revisited in the Upper Deschutes RMP/EIS and a Record of Decision is signed for that RMP/EIS.

3.9 Wildfire and Public Safety

Illegal activities such as dumping, people living on public lands, firewood cutting without permits, and drug manufacturing have been witnessed on BLM managed lands in the vicinity. Wildfire and public safety are concerns of the current residents in the vicinity and potential threats to wildlife habitat, recreation, and visual resources.

Current management problems in this BLM managed tract are illegal activities such as dumping, itinerant camping, abandoned cars, late night parties and bonfires, mudbogging, poaching and unsafe target practice.

The interior portions of this large tract, due to extremely primitive and confusing road system and the long rough drive into some of these areas, are relatively untouched by the dumping and resource damage that is evident on the fringe of this larger tract. The illegal dumping activities seem to be focused adjacent to paved roadways with easy access off the pavement and entering public lands only about 0.1 miles or out of sight from the paved roadway.

3.10 Livestock Grazing

BLM managed lands surrounding the proposed Huntington Ranch Resort currently are used for both horse and cattle grazing. Huntington Ranch LLC, developer of the Huntington Ranch Resort, currently holds the grazing permit for the 12,254-acre Crenshaw allotment, which completely surrounds the proposed resort. The four other allotments in the area are the 8,227-acre Pipeline allotment to the east, and the 3,910-acre Hutton allotment to the southeast, the 3,554-acre to the northeast, and the 2,651-acre Weigand allotment also to the northeast of the proposed resort.

3.11 Military Permit

The BIAK training center surrounds much of the Huntington Ranch resort property. Map 6 is a map of the BIAK training area. The Oregon Military Department (OMD) holds a BLM permit to conduct training exercises in the vicinity of the proposed Huntington Ranch Resort. The OMD training site boundary extends from Highway 126 on the north to the 6585-C road intersection on the Powell Butte Highway to the south. Several large land tracts, including the private Huntington Ranch Resort ownership, are not included in OMD's

permit. OMD training operations include an outdoor small arms firing range, administrative offices, storage buildings and equipment maintenance facilities. The OMD operates Abrams Tanks, Bradley Fighting Vehicles, and Armored Personnel Carriers on the training site.

4.0 Environmental Consequences and Effects on Existing Permits

4.1 Introduction

Changes in the Environmental Consequences portion of the document have been made to more clearly delineate the difference between the direct and indirect effects of the development of the road and utilities in the ROWs while addressing the effects of the resort development under cumulative impacts. Therefore, some analysis has been added while other analysis has been changed to more clearly make the distinction between direct and indirect effects and cumulative effects.

4.2 Soils

The public land soil resources in and around the Huntington Ranch LLC would be both directly and indirectly affected by the proposed construction of access roads and utilities along the proposed or alternative ROWs.

The acres affected by the construction and use of the road accesses; power, cable and telephone; and the water, sewer, and natural gas lines by all alternatives are summarized in Table 4.2.1.

Table 4.2.1 Acres of New Disturbance on Public Lands*

| Alternatives | Road Access | Power, Cable, and Telephone | Water / Sewer / Treated Effluent and Natural Gas | Total Acres of new disturbance Out of approx. 34,500 BLM managed acres |
|----------------------|---|--|---|---|
| No Action | If current ROW grant is developed 9 acres of new disturbance | 0 acres unless future ROWs are granted | 0 acres unless future ROWs are granted | 9 acres /34,500 BLM acres |
| Alternative B | 21.8 acres of new disturbance | 5.5 acres of new disturbance | 25.5 acres of new disturbance | 52.8 acres/34,500 BLM acres |
| Alternative C | 24.8 acres of new disturbance | 5.5 acres of new disturbance | 25.5 acres of new disturbance | 55.8 acres /34,500 BLM acres |
| Alternative D | 26.8 acres of new disturbance | 5.7 acres of new disturbance | 23.8 acres of new disturbance | 56.3 acres /34,500 BLM acres |
| Alternative E | 34.4 acres of new disturbance | 5.7 acres of new disturbance | 23.8 acres of new disturbance | 63.9 acres /34,500 BLM acres |

*Wherever possible existing and unimproved dirt access roads were used to limit new construction across undisturbed lands, ditches associated with underground utilities, natural gas, water and/or sewer lines would involve ripping into the basalt bedrock. Undisturbed acreages were calculated by determining length X width (currently undisturbed) ÷ acreage in feet.

It is expected that at least 50 percent of the material removed from the trenches for the placement of the utilities underground would be large rock. The placement of this rock on adjacent areas would compact soils where it is placed. Hauling the rock from the area would compact the soils. Alternatives B and C would reduce new soil compaction and disturbance if the rock removed from the trenches was placed on the adjacent pipeline area that is already disturbed and compacted. Alternatives D and E would increase disturbance and compaction of soils because much of the large rock removed during trenching would need to be placed in areas that are currently undisturbed or minimally disturbed and not compacted.

The existing Sheridan Road would serve as the interim secondary (emergency only) access road for all Alternatives connecting with Hwy 126 to the north. There may be some limited expansion of this road from its current average of 18 to 20 foot width to a consistent width of 20-feet with the potential development of some additional pullouts. This limited expansion would cause new disturbance of soil adjacent to the current road. If the resort were not developed, Sheridan Road would continue to be used by the OMD and other users in the area and would continue to be compacted. However, additional expansion of the roadway would probably not occur.

4.2.1 Alternative A: No Action

Direct and Indirect: Under Alternative A: No Action would change the current impacts to soil because, in the absence of a destination resort development, Huntington Ranch LLC would be likely to develop the current ROW grant to the private property and conduct a variety of activities allowed under the MUA-10 zoning. The development of this granted ROW (OR 04075) would cause 9 acres of new disturbance. New activities allowed under the MUA-10 zoning would occur on the private land causing varying levels of disturbance depending upon the development scenario chosen. Current uses of other primitive roads would not change and current impacts to soil would continue. Existing uses including off-road vehicle use would continue to impact soil. In time, more user-created roads could be expected to occur in the area under the current “open” designation, which would increase disturbance to soils over what currently exists in the area.

No disturbance would occur from the development of new utilities or water or sewer lines, because these lines would not be built. However, in time ROWs to provide utility service may be granted to serve the private property under another development scenario.

Under Alternative A: No Action blowing dust and continuing widening of the primitive roads would continue and increase with the expected increased recreational use of the area (related to increases in population in Central Oregon). The lack of maintenance on these dirt roads would cause increased compaction and road width due to people driving around ruts and rocks in the roads.

4.2.2 Alternative B: 6585 C straightened/existing roadbed/pipeline

Direct and Indirect: Under Alternative B there would be 49.39 acres of direct, new soil disturbance. About 37 percent of this disturbance would be from the construction of a paved access road off Powell Butte Highway along the current 6585 C access dirt road (21.8 acres). The power, telephone, cable lines would all be buried under an existing dirt road, but would cause approximately 5.5 acres of

new disturbance. The water, sewer, and gas lines would cause new disturbance (25.5 acres) within the 40-foot ROW by digging either a 12-foot ditch or by digging two 3-foot ditches with a 10-foot separation. This ditching work would require going through rock outcrops as well as bedrock below the shallow soils (10-20 inches) and the moderately deep soils (20-40 inches). This would involve blasting or mechanical ripping of the underlying basalt bedrock. This material would be temporarily placed on adjacent BLM managed lands for the power, cable, and telephone line trench and on the disturbed areas of the PGE pipeline for the water, sewer, and gas lines.

The indirect impacts would be temporary blowing dust during construction and while the disturbed areas lacked protective vegetative cover. Water erosion is not expected to be a factor due to relative flat slopes and sandy soils, but minor erosion would occur down straight compacted access roads or off paved access road shoulders. Mitigations as described in Sections 2.7.2 Fencing and 2.7.10 Access and Utility Construction standards would reduce the amount of soil disturbance and the length of time the soil remained unvegetated. These mitigations would limit impacts to the soil resource on BLM managed lands.

4.2.3 Alternative C: 6585 C/existing roadbed/pipeline

Direct and Indirect: The impacts to the soil resources under Alternative C would be the same as discussed in Alternative B. However, the longer access road under Alternative C would result in 3 acres more soil disturbed initially and 2.1 more acres of soil permanently removed from production.

Impacts to the soil resources would be mitigated as described under Alternative B.

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

Direct and Indirect: The impacts to the soil resources under Alternative D would be similar to those discussed in Alternative B. However, under Alternatives D the greater length of the access road from Alternative B would cause 5 acres more initial disturbance and 3.6 acres more soil permanently removed from production over Alternative B. The power, cable and telephone ROW would cause an additional 0.2 acres of new soil disturbance and 2.4 acres permanently removed from production due to the development of the access road adjacent to the utilities.

Impacts to the soil resources would be mitigated as described under Alternative B.

4.2.5 Alternative E: Morrill Rd from Deschutes Junction/undisturbed/canal

Direct and Indirect: The impacts to the soil resources under Alternative E would be similar to those discussed in Alternative B. However, the road access in Alternative E is the longest of any of the alternatives and would have an initial disturbance of 12.6 acres and 8.9 acres of soil permanently removed from production than Alternative B. The power, cable and telephone ROW would cause an additional 0.2 acres of new soil disturbance and 2.4 acres permanently removed from production due to the development of the access road adjacent to the utilities.

Impacts to the soil resources would be mitigated as described under Alternative B.

4.2.6 Cumulative Impacts

The development of the Huntington Ranch resort, continuing activities by the military, livestock grazers, and recreationists, particularly OHV enthusiasts, would continue to cause soil disturbance in the area both on private and public land. These activities would cause direct displacement, compaction, removal of protective vegetation and disturbances to the soil biological crusts (micro and macro biotic crusts resulting in increased susceptibility to wind and water erosion).

Though no soil disturbance is currently occurring on the private land, some impacts to soils may occur on the private land even if the ROWs are not granted. The amount of soil disturbance would depend upon the type of activities that are developed on the private property in the absence of the destination resort and the manner in which the existing ROW grant held by Huntington Ranch LLC is developed.

4.3 **Vegetation**

4.3.1 Alternative A: No Action

Direct and Indirect: Under Alternative A: No Action the current ROW grant to the private property would probably be developed and possibly paved. The development of this granted ROW (OR 04075) would cause 9 acres of new disturbance. It would be expected that some type of development activity would occur on the private land causing varying levels of disturbance to vegetation depending upon the development scenario chosen. Current uses of other primitive roads would not change and current impacts to vegetation would continue. Existing uses including off-road vehicle use and livestock grazing would continue to impact vegetation. In time, more user-created roads could be expected to occur in the area under the current “open” management system, which would cause increased disturbance to vegetation on BLM managed lands.

4.3.2 Alternative B: 6585 C straightened/existing roadbed/pipeline

Direct and Indirect: All vegetation would be removed in sections identified for construction. The proposed access route would follow existing roadbeds; approximately 21.8 acres of vegetation would be disturbed on the proposed access route. Combined with the development of the power, cable, and telephone lines in the existing roadbed (5.5 acres) and the water, sewer, and natural gas lines in the pipeline corridor (25.5 acres) the total disturbed area would be 52.8 acres.

Impacts to vegetation would be mitigated through revegetation of disturbed areas, avoidance of trees, and by the fencing to reduce increased user created roads. Mitigations described in Section 2.7.2 Fencing and 2.7.10 would be used to limit impacts to vegetation.

4.3.3 Alternative C: 6585 C/existing roadbed/pipeline

Direct and Indirect: All vegetation would be removed in sections identified for construction. The proposed access route would follow existing roadbeds; approximately 24.8 acres of vegetation would be disturbed on the 6585-C access route. Combined with the power, cable

and telephone lines in the existing road bed (5.5 acres) and the water, sewer, and natural gas lines in the pipeline corridor (25.5 acres) the total disturbed area would be 55.8 acres.

Mitigations described under Alternative B to limit impacts to vegetation would be the same under this alternative.

- 4.3.4 Alternative D: Morrill Rd from Powell Butte Hwy/undisturbed area/canal
Direct and Indirect: All vegetation would be removed in sections identified for construction. The proposed road would follow the existing roadbeds, approximately 26.8 acres of vegetation would be disturbed. Combined with the power, cable, and telephone lines being placed through the undisturbed area and the maintenance road adjacent to these utilities (5.7 acres) and water, sewer, and natural gas lines along the canal (23.8 acres), the total disturbed area of vegetation would be approximately 56.3 acres.

Mitigations described under Alternative B to limit impacts to vegetation would be the same under this alternative.

- 4.3.5 Alternative E: Morrill Rd from Deschutes Junction/undisturbed/canal
Direct and Indirect: All vegetation would be removed in areas identified for construction. The proposed road would follow the existing roadbeds; approximately 34.4 acres of vegetation would be disturbed. Combined with the power, cable, and telephone lines being placed through the undisturbed area and the maintenance road adjacent to these utilities (5.7 acres) and water, sewer, and natural gas lines along the canal (23.8 acres), the total disturbed area of vegetation would be approximately 63.9 acres.

Mitigations described under Alternative B to limit impacts to vegetation would be the same under this alternative.

- 4.3.6 Special Status Plants
No Special Status Plants have been found in the area, therefore there is no expected impact on any Special Status Plants from any of the alternatives (Botanical Evaluation 00022, available at the Prineville BLM office).

- 4.3.7 Noxious Weeds
Construction disturbance on proposed access and utility service routes would be high probability areas for invasion and establishment of noxious weed species. If proper noxious weed control efforts are not exercised to prevent the establishment of noxious weeds in disturbed areas within the private parcel, those disturbed areas on the private land would be sources of noxious species that may spread onto neighboring public land.

Mitigations described in Section 2.7.10.4 Noxious Weed Suppression would limit invasions of noxious weeds onto BLM managed lands.

4.3.8 Cumulative Impacts

The development of the resort may have several effects on the surrounding vegetation. Increased human use may result in the loss of vegetation due to user created roads and trails being developed. These additional roads and trails may be created because a paved road would provide greater public access into the area than the current primitive access. The fencing of the primary access route may enable the closing and rehabilitation of many user created roads and trails. If some user created roads and trails are closed and rehabilitated through the development of the access route this would have some beneficial effects to vegetation on the BLM managed public land. Rehabilitation would involve re-seeding the area and rest from livestock use for one year following seeding.

Increased use of the area could lead to the introduction of noxious weeds or other non-native plants into the area.

Removal of juniper trees within the private property and on surrounding public lands for resort development would increase the availability of groundwater for native plant use and storage. Trees cut on public lands would be left down to allow for increased nutrient cycling, improved soil organics, and increased ground cover, all of which would benefit plant health.

Some of the same impacts to vegetation may also occur on the private land depending upon the type of activities developed on the private property if the destination resort is not built.

4.4 Water Quality and Quantity

4.4.1 Alternative A: No Action

Direct and Indirect: Under Alternative A: No Action there would be no effect on any natural water bodies in the vicinity.

4.4.2 All Action Alternatives

Direct and Indirect: There are no natural streams, lakes, or waterbodies in the vicinity of the ROWs that would be affected. Therefore, no impact to water resources would occur from the development of ROWs across BLM lands through implementation of Alternative B.

4.4.3 Cumulative Impacts

No Action: Under the No Action Alternative, more intense agricultural uses may occur on the property being considered for resort development. A number of individual groundwater wells on the private land have been constructed and are typically pumped by generators to serve domestic needs. Water use currently is limited because there is no on-site power to operate pumps. In the future, power may be extended to the proposed project area and pumping increased to support agricultural uses. Pumping for irrigation would consume groundwater. However, mitigation would be required to offset any commercial use of groundwater, such as irrigation for agricultural use. Pumping for agricultural uses would require water rights, which are administered by

OWRD. The OWRD and the US Geological Service recently completed an extensive groundwater study for the Upper Deschutes Basin. The study determined that an extensive groundwater supply exists, and that supply is interconnected with Deschutes River and Crooked River surface waters. Due to probable impacts to surface flows with groundwater extraction, obtainment of water rights would require mitigation to offset the impact of groundwater development.

In addition, the more intense agricultural use on the property could increase the potential for water carried contaminants from standard agricultural operations. The probability of contaminating any surface or groundwater is slight due to the flat terrain, the underlying lithology, groundwater well construction standards, and non-existence of streams. The flat terrain and the permeable native soils reduce any potential for runoff.

All Action Alternatives: The applicant proposes that, depending upon BLM's approval of ROWs, domestic and fire protection water supplies would be piped from the Avion Water Company. Avion Water Company would use its existing water rights to provide this water to the resort. No groundwater withdrawals, beyond those that would occur due to Avion Water Company's existing water right withdrawals, would occur through on-site wells on the resort property. The groundwater removed by Avion Water Company is directly tied to the surface water coming from precipitation falling in the Cascade Range, which serves as streamflow for the Deschutes River, Lower Crooked River, and Squaw Creek. Removal of groundwater through Avion Water Company's use of their existing groundwater rights may diminish streamflow in these rivers.

The OWRD, which has jurisdiction over water rights in the State of Oregon, is currently undergoing rulemaking to establish mitigation criteria for extraction of groundwater. BLM has no control over the types of mitigations measures the OWRD will establish. Some of OWRD's proposed mitigation projects have the potential to negatively affect streamflows in the federally designated Wild and Scenic Rivers of the Lower Crooked and Middle Deschutes Rivers.

Avion's withdrawals and their sale of water from their existing water rights to serve the resort, or to serve any other use, may require implementation of mitigation projects. The BLM is concerned about these withdrawals and mitigations reducing streamflows in the Crooked and Deschutes Wild and Scenic Rivers, though as was stated in the previous paragraph, OWRD determines appropriate mitigation measures associated with the use of water rights in the State of Oregon. BLM does not have any jurisdiction over what mitigation measures would be employed by OWRD.

It is difficult to quantify the actual impact to streamflows in the Lower Crooked and Middle Deschutes rivers because the location and type of mitigation that may be used has not been determined by the OWRD, and

there is limited amount of streamflow data available. However, streamflow reductions resulting solely from this consumptive use may be calculated and may be real, but would likely be immeasurable due to the large groundwater aquifer supplying flow to the Lower Crooked and Middle Deschutes segments of the Crooked and Deschutes rivers. Conversely, if mitigation is employed for this project, and depending on the type, location, and amount of mitigation, there may be no net change in calculated streamflows. It is the use of water by Avion for this project in combination with all other new and future uses of groundwater that may result in reduced streamflows, again depending upon the type, location, and amount of mitigation determined by the OWRD.

Chemicals, including herbicides, pesticides, and fungicides may be used on the golf course or landscaped areas. Use of these chemicals on the private land is under the jurisdiction of the ODEQ and would be used at a rate that would reduce the potential for flushing contaminants through the soil profile. The resort would retain professionally trained superintendents to manage all chemical applications. The layered volcanic lithology of the Deschutes Basin, the flat terrain, revegetation of disturbed areas, and carefully designed golf course grading would minimize the potential for run off of chemicals or contamination of water.

4.5 Wildlife

4.5.1 Threatened and Endangered Species

The proposed actions would not affect the only threatened or listed species in the area, bald eagles (See 3.5.1). Bald eagles would not be affected because they 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 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 minimal potential for affecting nesting habitat through the removal of western juniper trees. Alternatives D and E would remove the greatest number of juniper trees (approximately 450) due to the placement of the power, cable and telephone ROWs corridor along 1.1 miles (2.7 acres) of a previously undisturbed site and the water, sewer, and natural gas ROWs corridor along the canal. Alternative C would remove the fewest number of juniper trees (approximately 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 the area does not have typical nesting habitat for the goshawk. 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 will use 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 trees, see description under Northern Goshawk), 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 no 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 and 0.4 miles of new road (4 miles total). 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.

4.5.2 Big Game

4.5.2.1 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 new 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 by the developers to allow for activities under the MUA-10 zoning on the private property. This may result in some loss of pronghorn antelope habitat. Big game species, especially pronghorn, would continue

to be impacted by recreational use of the area, particularly off-road vehicle use.

4.5.2.2 Alternative B: 6585 C 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 road ROW, this alternative could result in the loss of approximately 320 acres of pronghorn habitat (George, 11/29/2001). Pronghorn moving through the area would collide with the fence until they behaviorally adjusted 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 approximately 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.

4.5.2.3 Alternative C: 6585 C/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 ROW, this alternative could result in the loss of approximately 352 acres of pronghorn habitat.

Other impacts would be the same as those discussed under Alternative B.

4.5.2.4 Alternative D: Morrill Rd 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 ROW, this alternative could result in the loss of approximately 394 acres of pronghorn antelope 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, 11/29/2001).

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.

4.5.2.5 Alternative E: Morrill Rd from Deschutes Junction/undisturbed/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 primary access road ROW, this alternative would result in the loss of approximately 220 acres of pronghorn habitat.

Other impacts to wildlife would be the same as discussed under Alternative D.

4.5.2.6 Comparison Table of Alternatives for Pronghorn Antelope

The following table compares the environmental consequences of each alternative on pronghorn antelope.

Table 4.5.2.6 Comparison of Alternatives for Pronghorn Antelope

| Alternative | Road Access - miles constructed | Miles of pronghorn habitat disturbed | Acres of pronghorn habitat lost* |
|--|---|---|--|
| A - No Action | 2.39 miles if existing ROW grant is developed | 1.0 mile | 80 acres out of 45,000 acres available in the area of potential habitat |
| B - 6585C Straightened | 4 miles 60 ft. width | 4 miles | 290 acres out of 45,000 acres available in the area of potential habitat |
| C - 6585C | 4.54 miles 60 ft. width | 4.54 miles | 363 acres out of 45,000 acres available in the area of potential habitat |
| D - Morrill Rd. from Powell Butte hwy. | 4.92 miles 60 ft. width | 4.92 miles | 394 acres out of 45,000 acres available in the area of potential habitat |
| E - Morrill Rd. from Deschutes Jct. | 6.3 miles 60 ft. width | 2.75 miles | 220 acres out of 45,000 acres available in the area of potential habitat |

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

4.5.2.7 Cumulative Impacts

Other activities affecting the habitats in the proposed project area include the Redmond Airport, the Oregon Military Department, 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 limits airplane-wildlife conflicts, it also reduces the amount of available habitat for big game, especially pronghorn antelope.

The Oregon Military Department operates a training center adjacent to the Redmond Airport. The OMD has developed an Integrated Natural Resources Management Plan, which has mitigated impacts to wildlife over the past three years through extensive rehabilitation efforts, and big game populations have remained stable in the area (McCaffery, 12/20/01). However, the training center may have 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 could 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 also 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 will 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. OHV enthusiasts, hikers, bikers and horseback riders, currently use the area. 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 would 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 will become unsuitable, less suitable or altered as wildlife habitat in some way. The entire resort will 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. These mitigation measures are required by the Wildlife Mitigation Plan Huntington Ranch LLC has developed, and which has been approved by ODFW in December, 2001.

4.6 Recreation

4.6.1 Alternative A: No Action

Direct and Indirect: Under Alternative A: No Action the current ROW grant (OR 04075) is likely to be developed and paved to allow the private property to accommodate uses under the MUA-10 zoning (2.39 miles). The paving of this northwesterly ROW would have similar impacts as paving the proposed primary access ROW for the resort. Increased illegal dumping and vandalism would occur in the northwestern portion of the tract rather than in the southeastern portion of the BLM tract. However, no mitigations, as included in the development of the ROWs in this EA (such as fencing, signage, clean-ups, informational boards) would be done. Current recreational uses would continue and would increase at a rate relative to population increases in the nearby communities of Bend, Redmond, Prineville, and Powell Butte.

New recreational uses and increased use of the area for OHVs, bicycling, hiking, roller blading, roller skiing, and horseback riding would occur in the northwestern portion rather than the southeastern portion of the BLM managed lands.

4.6.2 Alternative B: 6585 C straightened/existing roadbed/pipeline

Direct and Indirect: Paving 3.25 miles of road through BLM lands would increase motorized and non-motorized use along the length of the ROW and on adjacent BLM managed lands.

With improved access into the BLM “open” lands for OHV use there would be an expected increase in user created trails, compaction of existing road beds, and cross country travel. OHV use has an impact on other non-motorized use of the same areas and thus, user conflicts are expected to increase. Fencing along the entire ROW except at designated road crossings and maintenance roads would limit areas where OHV’s would be able to cross the road and would block some current user created trails. In some cases, user roads would be dead-ended at the fence and new user roads would form parallel to the fence.

Easier access to the BLM land would be expected to increase the amount of trash dumped on public lands. There would be visual and recreational impacts from piles of refuse, abandoned cars and appliances along recreational corridors. However, the fencing along the primary access ROW would limit those impacts to areas near the openings in the fence. The increased amount of traffic along the paved roadway may also discourage illegal activities.

The paved shoulder of the ROW (28-foot roadway and 4-foot paved shoulder bikeway on each side) provides bikeway travel for the recreational road cyclist either from the resort or from the surrounding communities of Bend, Redmond and Prineville. The lands adjacent to the ROW have only a slight 400-foot increase in elevation in 11 miles, and would provide easy riding for novice through advanced riders. Cross-country mountain bike travel would be limited due to the sandy and non-compacted nature of the surrounding soils. Winter cross-country mountain bike travel may occur when the soils are frozen and more compacted.

The paved road could allow for roller blading and roller skiing because these activities require good road surface and a relatively mild elevation gain and loss. The local communities support an avid skiing public who train year round for alpine and cross-country skiing. This use currently does not occur in the area.

The paved access would allow horse trailers to go further into the interior of the BLM managed lands making the 1-3 hour typical ride for the recreational horse rider more interesting by allowing for varied loops (Beardsley, 11/02/01 and 11/27/01). Currently, most riding occurs at the fringes of the larger BLM managed land within a 1-5 mile ride of the residential developments and private parcels along the borders. However, some horseback riders may find the paved access road a barrier because they do not want to have their horses cross roads that are paved.

There would be little direct impacts to either motorized or non-motorized use of BLM lands adjacent to the power, cable, and telephone line ROWs.

The existing maintenance road along the pipeline ROW is a well-used access point for recreational OHV use. There would be some direct impact to motorized and non motorized users throughout construction along the pipeline as a number of user roads would be blocked by heavy equipment and trenching. However, afterwards, it is expected that recreational uses would continue as before. Any improvements of the maintenance road for the pipeline would also increase recreational OHV use of the road as well.

All action alternatives (B, C, D, and E) include development of a paved access route near the North Unit Main Canal. This paved access may

increase recreational use of the canal. Recreational use of the canal is considered to be trespass according to the BOR and the NUID. It is likely BOR and the NUID may need to increase patrols of the canal and the canal maintenance road to manage trespass problems.

Under Alternative B there would be approximately 4.25 miles (4 miles of primary paved access road and 0.25 miles of user trails off of the road due to fencing) lost to OHV and horseback riding trail opportunities within the 34,500 acres of the surrounding BLM managed lands. However, the new paved access route would provide 4 miles of paved recreational opportunities (activities such as bike riding and rollerblading) in the area.

4.6.3 Alternative C: 6585 C/existing roadbed/pipeline

Direct and Indirect: Paving this 4.54 mile access ROW would increase motorized and non-motorized use along the length of the ROW and on adjacent BLM managed lands. Alternative C would have the same indirect and direct impacts as Alternative B. However, Alternative C crosses at the existing Bailey Bridge site and would proceed past the siltation pond, which may encourage increased use of this area for mudbogging activities and thus increased damage to the pond. Mudbogging is not considered an appropriate recreational use of the public land, and is not encouraged.

Wildlife habitat and associate wildlife related recreation, such as wildlife viewing and bird hunting, which occurs at the pond and in wetland sites, would be impacted by this increased motorized activity.

Under Alternative C there would be approximately 4.79 miles (4.54 miles of paved primary access road and 0.25 miles of user trails off of the road due to fencing) lost to OHV and horseback riding opportunities within the 34,500 acres of the surrounding BLM managed lands. However, the new paved access route would provide 4.54 miles of paved recreational opportunities (activities such as bike riding and rollerblading) in the area.

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

Direct and Indirect: Paving this 4.92 mi. ROW would increase motorized and non-motorized use along the length of the ROW and in the surrounding BLM managed lands. The direct and indirect impacts would be similar to those of Alternative B. However, like Alternative C this route would cross at the existing Bailey Bridge site and would have the same impacts as Alternative C to the siltation pond.

Under Alternative D there would be approximately 5.17 miles (4.92 miles of paved primary access road and 0.25 miles of user trails off of the road due to fencing) lost to OHV and horseback riding opportunities within the 34,500 acres of the surrounding BLM managed lands. However, the new paved access route would provide 4.92 miles of paved recreational opportunities (activities such as bike riding and rollerblading) in the area.

- 4.6.5 Alternative E: Morrill Rd from Deschutes Junction/undisturbed/canal
Direct and Indirect: Paving this 6.3 miles would increase motorized and non motorized use along the length of the ROW by making access to the interior portions of BLM land easier, and have the most impact on recreational users on the surrounding BLM managed lands. There are more user roads, trails and access points along this section of Morrill Road from the Boonesborough development to the North Unit Main Canal than any other alternative. Much of the activity that occurs within 1-3 miles of the Boonesborough subdivision, is from Boonesborough residents using horses, ATV's, dirt bikes and 4 wheel-drive cars and trucks. However, there is also more dumping activity and resource vandalism along the first mile of this route than any other alternative's route. Thus, the fence installation along the ROW may have the biggest impact on users and their freedom to travel on BLM, but may also positively decrease persistent illegal dumping activity in the first mile.

The open designation for cross country travel would be most impacted by this alternative because it is the longest of all the access routes and more user trails would be blocked by the fencing of the access route.

Other direct and indirect impacts of the access road in Alternative E would be similar to Alternative B. This Alternative would have the same impacts as Alternative C in regard to impacts to the siltation pond.

Under Alternative E there would be approximately 6.63 miles (6.3 miles of paved primary access road and 0.33 miles of user trails off of the road due to fencing) lost to OHV and horseback riding opportunities within the 34,500 acres of the surrounding BLM managed lands. However, the new paved access route would provide 6.3 miles of paved recreational opportunities (activities such as bike riding and rollerblading) in the area.

4.6.6 Cumulative Impacts

The proposed access and utility ROWs, development of the resort, continued OMD operations and livestock grazing, and the development of nearby planned and permitted subdivisions may limit the ability of the area to maintain its designation as "open" to OHV travel. Large tracts of BLM managed lands designated as "open" for OHV activity are generally being diminished in Central Oregon.

The increase in public access due to the paved primary access road to the proposed Huntington Ranch resort and the presence of resort residents and visitors would likely increase the recreational use of BLM managed lands near the resort. It is likely that the North Unit Main Canal and the siltation pond would receive more public use than is currently occurring. Uninformed or abusive use of the public lands would be mitigated by the fencing along the paved access route, by the public information boards in the area, and through signing of exit and entrance routes into BLM managed lands.

The mitigations discussed in section 2.7.2 Fencing, 2.7.3 Recreation Information, 2.7.5 Wildfire and Public Safety, and 2.7.9 Access and Utility Construction Standards would mitigate impacts to recreation on BLM managed lands.

4.7 Visual Resources

4.7.1 Alternative A: No Action

Direct and Indirect: The potential development of the current granted ROW would involve soil and vegetation removal. This soil and vegetation removal would change the visual resources, however, due to the level topography, these changes would not be very visible.

4.7.2 All Action Alternatives

Direct and Indirect: The density of juniper trees is sufficient to block views into the BLM lands from the proposed alternative ROWs. All alternative ROW access routes currently serpentine around rocky outcrops and trees, which would help mitigate visual impacts.

The construction of the road access and the utilities would involve ripping into shallow basalt bedrock with considerable rock debris as a result. This rock debris would be used to construct the road or utility projects, to camouflage user created roads adjacent to the fencing along the primary access route, or be removed from the area. Therefore, large piles of rock should not be left causing visual impacts to the surrounding areas.

In Alternatives D and E the additional development of a maintenance road adjacent to the power, cable, and telephone ROWs would also disturb vegetation and soil in the area. Therefore, the proposed power, cable, and telephone ROWs in Alternatives D and E would cause more visual impacts than the power, cable and telephone ROWs proposed in Alternatives B and C.

All water, sewer, and natural gas alternatives involve expanding the existing ROWs for either the pipeline or the canal. The placement of the water, sewer, and natural gas lines along the canal route may have more visual impacts because more juniper trees are expected to be removed to place the lines along the canal route than the pipeline route (Taylor, 11/8/01).

The mitigations discussed in section 2.7.2 Fencing, 2.7.3 Recreation Information, 2.7.4 Visual Resources, 2.7.5 Wildfire and Public Safety, and 2.7.9 Access and Utility Construction Standards would mitigate many of the visual impacts of the development and use of the ROW corridors.

Mitigations described in Section 2.7.2 Fencing, 2.7.3 Recreation Information, 2.7.4 Visual Resources, and 2.7.10 Access and Utility Construction Standards would limit impacts to visual resources.

4.7.3 Cumulative Impacts

The development of the proposed resort, the continued use of the area for military training and livestock grazing, and the continued status of the area as “open” to OHV use could impact the visual resources of the area through soil and vegetation disturbance and through the potential increase of illegal dumping and vandalism on the BLM managed lands.

Clean-ups of illegal dumping adjacent to the primary access route and on BLM managed lands adjacent to the private land parcel through the resort’s participation in BLM’s “Adopt an Open Space” program would alleviate some of the potential increase in illegal dumping and vandalism on BLM managed lands.

4.8 Cultural Resources

4.8.1 Cultural Resource Surveys

Because on-the-ground cultural resource surveys have not been completed within the APE, the direct and indirect impacts to those resources cannot be fully analyzed. However, previous surveys and the preliminary results of the current surveys show that prehistoric and historic cultural resources exist within the proposed project area. It is expected that the types and numbers of sites identified during the current surveys will replicate those discovered during previous surveys. That is, the cultural resources identified will likely include some or all of the following: prehistoric archaeological sites and isolates (i.e., occurrences of less than 10 artifacts), rock features, historic road alignments (some with associated features), historic archaeological sites and isolates, military training features, and the North Unit Main Canal.

Previous and current investigations have identified 221 cultural resource sites in and around the proposed project area. Of those sites identified, approximately 3 percent (7 sites) have been recommended as eligible for listing on the National Register of Historic Places, 6 percent (14 sites) have been recommended as potentially eligible for listing, and the eligibility of another 7 percent (16) is unknown. The remaining 83 percent (184 sites) of cultural resources previously identified have been recommended or determined not eligible for the National Register. It is conceivable that the newly discovered sites will fall into similar percentages of National Register eligibility. In fact, of the 31 cultural resources identified in the area of direct effects only two (6 percent) are recommended as either eligible for listing on the National Register or warrant further investigation to determine National Register eligibility.

4.8.2 Direct and Indirect Impacts

The BLM is responsible for evaluating the cultural resources identified against National Register of Historic Places criteria to determine which cultural resources within the APE are eligible for the Register and thus subject to Section 106, of the National Historic Preservation Act, review. Those cultural resources found eligible for the National Register are considered historic properties (i.e., “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places . . . [36 CFR 800.16.(1)]. To

bring the identification and evaluation process to closure, the agency makes and documents a formal finding as to whether historic properties may be affected by the proposed action. Effect means altering the characteristics of a historic property that qualify it for inclusion in or eligibility for the National Register. [36 CFR 800.16(i)] If the agency finds that no historic properties are present or affected, it provides documentation to the State Historic Preservation Office/Tribal Historic Preservation Office and, barring any objection in 30 days, proceeds with its proposed action.

If the agency finds that historic properties are present, it proceeds to assess possible adverse effects. Consultation to resolve adverse effects involves consideration of alternative ways to accomplish the purposes of a proposed action, which could avoid unnecessary damage to historic properties or minimize or mitigate unavoidable damage.

4.8.2.1 Direct Impacts: The survey parameters of the ROW corridors have been expanded to include buffer zones so that if cultural resources are identified, construction activities would be adjusted to avoid direct impacts to those resources. In addition, Huntington Ranch, LLC has indicated that they would have flexibility in their site design within the resort to also avoid unnecessary damage to historic properties. However, in the event that cultural resource sites cannot be avoided any impacts to them would be minimized or mitigated.

The preferred route for the primary access right-of-way would cross the historic Bend-Prineville Road at some point. In order to avoid any impacts to the three blazed trees identified along the historic road, AINW recommends the ROW be designed/engineered to bypass those features where they occur. They also recommend that the historic road alignment be formally documented in the vicinity of proposed construction activities prior to implementation. Formal documentation should also be conducted on any other features or resources associated with the Bend-Prineville Road that cannot be avoided.

For the prehistoric archaeological site situated in Section 16 AINW recommends that the proposed development avoid that site, treating it as a significant resource. They also suggest that the data for this site be reviewed to determine if test excavations and further studies should be conducted to evaluate the site's National Register eligibility.

4.8.2.2 Indirect Impacts: Increased numbers of users and dispersed recreational activities have the potential to encounter cultural resources. All cultural resources identified will be evaluated for National Register eligibility and if they are determined significant (i.e., eligible for the National Register) effects to those properties would likely be minimized or mitigated through such measures as documentation or data retrieval prior to the proposed action being authorized.

AINW has not yet provided any detailed information regarding National Register eligibility or site treatment for the 66 cultural resources

identified to date in the areas of indirect effects. These results should be better known by the end of January 2002.

4.8.3 Cumulative Impacts

Approximately 56 percent of the proposed project area has been surveyed for cultural resources by AINW. Another 30% of the area was previously surveyed in association with other projects. As a result of these surveys, 221 cultural resource sites have been identified. Of these sites, approximately 10 percent (21) are eligible or may be eligible for listing on the National Register of Historic Places. Another 7 percent (16) are of unknown significance but a portion of those may also be found eligible when evaluated. Current surveys have also identified 66 cultural resources in the areas of indirect effects - their status is unknown at this time.

Approximately 30 percent of the project area has been previously surveyed for cultural resources and 164 sites have been identified as a result. Of the sites identified, approximately 13 percent (21) are eligible or may be eligible for listing on the National Register of Historic Places. Another 9 percent (15) are of unknown significance but a portion of those may also be found eligible when evaluated.

These historic properties and cultural resource sites exist in an area where a number of authorized activities have been permitted and unauthorized activities occur. In addition, more activities are being planned on the surrounding private lands (e.g., Powell Butte Estates) where no cultural resource investigations have been conducted but where similar resources likely exist. As a result of carrying-out federal requirements associated with these activities, information has been gained regarding the prehistoric and historic use of the area, a context in which sites can be evaluated and their status and future treatment determined.

4.8.4 Wagon Road Area of Critical Environmental Concern (ACEC)

None of the proposed ROWs are within segments of the Wagon Road ACEC; therefore, no direct impacts are expected to occur. The BLM would be acting consistently with the Brothers/La Pine RMP by not permitting any ROW within the Wagon Road ACEC (pg. 70, Brothers/La Pine RMP). In addition, the BLM, if the ROWs are granted, would follow the existing policy: "All forms of non-motorized, primitive recreation will be permitted with the exception of horseback riding and non-motorized vehicle use along the route. ORV use is prohibited (pg. 70, Brothers/La Pine RMP). The Wagon Road ACEC would continue to be monitored in accordance with the Brothers/La Pine RMP.

4.9 Wildfire and Public Safety

4.9.1 Alternative A: No Action

Without the development of the road and utilities across BLM managed lands wildfire, public safety, and law enforcement concerns in the area would remain the same. The current problems with illegal dumping and partying on the public lands would be expected to continue and increase as the population in the communities of Bend, Redmond, Prineville and Powell Butte increases. If a paved road was developed within the current ROW grant, impacts, similar to those discussed under 4.9.2 All Action

Alternatives would occur northwest of the private parcel without the mitigations included in this EA.

4.9.2 All Action Alternatives

Increased access to the area may subsequently increase the possibility for wildfire or public safety hazards due to greater numbers of people visiting the area. The presence fire department staff stationed in the immediate area would reduce response times to fire, life, and safety situations and mitigate the increased possibility of wildfire and public safety hazards. If additional law enforcement personnel are not patrolling the area, who could address issues on the BLM managed lands, it may be difficult to handle increased illegal dumping and conflicts between different users of the public lands with the new paved access into the area.

Of particular concern is an increase in nighttime access to BLM lands along the paved ROW. BLM and Deschutes County Law Enforcement have identified nighttime as the predominant period when dumping and illegal activities occur.

4.10 **Livestock Grazing**

4.10.1 Alternative A: No Action

Direct and Indirect: Under the No Action Alternative, livestock grazing would continue in accordance with the Brothers/La Pine Resource Management Plan.

4.10.2 Alternative B: 6585 C straightened/existing roadbed/pipeline

Direct and Indirect: This alternative would create three new pastures in the Hutton, Pipeline, and Crenshaw allotments, allowing the most flexibility for varying grazing strategies and opportunities to rest pastures. Water availability would remain the same throughout the allotments. Placement of the dry utilities in the existing roadbed in the Crenshaw allotment, and wet utilities in the pipeline corridor would not affect the grazing in this area.

Mitigation described in 2.7.2 Fencing and 2.7.6 Livestock Grazing would limit impacts to livestock grazing in Alternative B.

4.10.3 Alternative C: 6585 C/existing roadbed/pipeline

Direct and Indirect: This alternative would create two new pastures in the Hutton and Crenshaw allotments, allowing some flexibility for varying grazing strategies and opportunities to rest pastures. Water availability would remain the same throughout the allotments. Placement of the dry utilities in the existing roadbed in the Crenshaw allotment, and wet utilities in the pipeline corridor would not affect the grazing in this area.

Mitigation described in 2.7.2 Fencing and 2.7.6 Livestock Grazing would limit impacts to livestock grazing in Alternative B.

- 4.10.4 Alternative D: Morrill Rd from Powell Butte Hwy/undisturbed area/canal
Direct and Indirect: This alternative would create one new pasture in the Crenshaw allotment, allowing little flexibility for varying grazing strategies and opportunities to rest pastures. Water availability would remain the same throughout the allotments. Placement of the dry utilities in the undisturbed site within the Crenshaw allotment, and wet utilities along the canal would not affect the grazing in this area.

Mitigation described in 2.7.2 Fencing and 2.7.6 Livestock Grazing would limit impacts to livestock grazing in Alternative B.

- 4.10.5 Alternative E: Morrill Rd from Deschutes Junction/undisturbed/canal
Direct and Indirect: This alternative would create 2 new pastures within the Crenshaw allotment, allowing some flexibility for varying grazing strategies and opportunities to rest pastures. Water would need to be provided to the southern portion of the South Railroad pasture in the Crenshaw allotment. The existing water pipeline in this pasture would be tapped to supply two troughs. Placement of the dry utilities in the undisturbed site within the Crenshaw allotment, and wet utilities along the canal would not affect the grazing in this area.

Mitigation described in 2.7.2 Fencing and 2.7.6 Livestock Grazing would limit impacts to livestock grazing in Alternative B.

4.10.6 Cumulative Impacts

There will be effects on livestock grazing in the area with any of the action alternatives. The increased human use in the area would increase the potential for gates being left open and livestock straying into the resort or onto the surrounding highways, increasing the probability of accidents involving livestock. Landscaping (lawns, flowerbeds, etc.) will attract livestock to the resort and increase probability of damage occurring to surrounding fences and structures. Permittees would encounter an increase in costs associated with more fence and gate patrols, and the gathering of loose cattle.

A reasonably foreseeable future action is a change in the type of livestock allowed in the Crenshaw allotment from only horses to horses and cattle. There would be no impacts associated with this action; any differences in use patterns would be mitigated by the BLM modifying season or duration of grazing use.

4.11 **Military Permit**

4.11.1 Alternative A: No Action

A No Action Alternative could include private land activities under the existing Deschutes County MUA-10 and EFU zoning. Residential development could occur on MUA-10 lands, providing the potential for conflicts with OMD operations. Residential development would require dual access and utility services, similar to the requirements for the Huntington Ranch. Even the No-Action alternative could impose restrictions on current OMD operations because of increased private land activities, the associated traffic, and need for improved access. However,

access to private lands on the existing ROW (OR-49075) would impose fewer impacts on OMD operations than any of the four action alternatives.

4.11.2 Alternative B: 6585 C straightened/existing roadbed/pipeline

In a letter dated December 13, 2000, from Colonel William R. Spores of the OMD, stated that use of the 6585-C Road would minimize the civilian/military interface. Colonel Spores explained use of the 6585-C Road for primary access would require modification of training practices, while a northern access (toward Highway 126/ Sheridan Road) is clearly problematic for present and future OMD operations.

The paving of the primary access ROW would cause a loss of 7,360 acres of training area for the OMD out of approximately 31,310 acres permitted to them in the area.

The 6585-C Road alternative requires the relocation of the Bailey Bridge, owned by the OMD, to the north (See Map 6). The applicant would then construct a new bridge to Deschutes County standards over the North Unit Main Canal near or at the existing Bailey Bridge site.

Several sites are currently used for temporary bridge crossings by the Oregon Military during their maneuvers and operations, the Bailey Bridge would be moved to one of these sites. These sites currently provide access approaches to the canal from routes followed by the military vehicles. Relocation of the existing Bailey Bridge would then meet the needs for the Oregon Military's training and separate potentially conflicting uses between the military and the resort.

The Deschutes County land use decision also addressed operations of the OMD. The Hearing's Officer quoted correspondence from Colonel Spores, dated December 13, 2000 (available at the BLM office in Prineville), which included: "We stand committed to working with the developer in support of this project and believe both our interests, and land use requirements can be met... We believe, with some planning to appropriately separate potentially conflicting uses and the installation of buffers on BLM land by the developers, the development can be accomplished in conformance with our operations on the BLM owned property." The Hearing's Officer concluded, "It is feasible to develop the resort in a manner that is compatible with the OMD's activities." Approval conditions were imposed through the County's land use decision that requires continued cooperation between the developer and the OMD.

Though the OMD and the applicant can discuss buffers between the resort and OMD's use of the BLM managed lands, and OMD can voluntarily agree to those buffers, OMD's permitted use of BLM managed lands would not change. OMD and the applicant cannot establish buffers on public lands; only BLM can determine those buffers during the OMD's future requests for permitted use of BLM managed land.

- 4.11.3 Alternative C: 6585 C/existing roadbed/pipeline
The impacts of Alternative C on OMD operations would be similar to the impacts of Alternative B.
- 4.11.4 Alternative D: Morrill Rd from Powell Butte Hwy/undisturbed area/canal
An eastern access via Morrill Road from the Powell Butte Highway would reduce the available training area by 8,960 acres out of approximately 31,310 acres permitted to the OMD.
- 4.11.5 Alternative E: Morrill Rd from Deschutes Junction/undisturbed/canal
A western access via Morrill Road from Deschutes Junction would reduce the available training area by approximately 400 acres out of approximately 31,310 acres permitted to the OMD.

4.11 Environmental Justice (Executive Order 12898 and Executive Order 13007)

According to Executive Order 12898, each federal agency shall analyze the environmental effects including human health, economic and social effects of federal actions including the effects on minority populations. The area affected by the proposed action is located in Deschutes County, OR and is adjacent to Crook County, OR.

According to the 2000 Census, the population of Deschutes County by race and origin is: 94.8 percent white, 0.2 percent black or African American, 0.8 percent American Indian or Alaska Native, 0.7 percent Asian, 0.1 percent Native Hawaiian or Pacific Islander, and 1.4 percent some other race. The population of Crook County, according to the 2000 Census by race and origin is: 93 percent white, 0 percent black or African American, 1.3 percent American Indian or Alaska Native, 0.4 percent Asian, 0 percent Native Hawaiian or Pacific Islander, and 3.8 percent some other race. The population of Jefferson County, which is located close to the project area, according to the 2000 Census by race and origin is: 69 percent white, 0.3 percent black or African American, 15.7 percent American Indian or Alaska Native, 0.3 percent Asian, 0.2 percent Native Hawaiian or Pacific Islander, and 11.3 percent some other race. According to the same census the demographic information for the State of Oregon is: 86.6 percent white, 1.6 percent black or African American, 1.3 percent American Indian or Alaska Native, 3 percent Asian, 0.2 percent Native Hawaiian or Pacific Islander, and 4.2 percent some other race. There are no known unique or special resources in the project area that would attract minority or low-income populations for religious, employment, subsistence or recreation. Employment at the proposed resort or for the construction of the resort may create opportunities for low-income populations in the area. However, the local area has many similar service-oriented jobs in the area and the resort would not create any unique opportunities for these low-income populations.

Consistent with Executive Order 13007, tribes and tribal members have been consulted and involved in the determination of cultural resource surveys in the proposed project area and consulted on proposed action of this environmental assessment.

There are no impacts to low-income or minority populations that have been identified by the BLM internally or through public comment in the process.

4.13 Monitoring

The use of these ROWs for the development of road access and utility development to the private property would be monitored in compliance with the Brothers/La Pine RMP, 1989.

5.0 No Impact Items

The following critical elements were considered, but will not be addressed because they would either not be affected or do not exist in the project area:

1. Agricultural Lands, Prime or Unique
2. Air Quality
3. Floodplains
4. Riparian/Wetlands
5. Wild and Scenic Rivers
6. Wilderness

6.0 Preparers, People, Agencies, and Organizations Consulted

6.1 Preparers (BLM)

| Name | Contributions | Title |
|------------------|---|---|
| Ron Halvorsen | Botany | Botanist |
| Robert Towne | Coordination | Field Manager Deschutes RA |
| Ron Gregory | Cultural Resources | Archaeologist |
| Sue Stewart | Fire | Fire Ecologist |
| Steve Castillo | Forestry Practices | Forester |
| Teal Purrington | Grazing | Rangeland Mgmt. Specialist |
| Cody Vavra | Grazing and Vegetation | Rangeland Mgmt. Technician |
| Michelle McSwain | Hydrology | Hydrologist |
| Bill Pieratt | Noxious Weeds | Weed Program Coordinator |
| Marci Todd | Planning and Coordination and Cultural Resources | Assistant Field Manager Deschutes RA |
| Jean Nelson-Dean | Planning, Writing and Editing | Planning and Environmental Coordinator |
| Ron Wortman | Realty | Realty Specialist |
| Janet Hutchison | Realty, Team Leader | Realty Specialist |
| Greg Currie | Recreation | Outdoor Rec. Planner |
| Robin Snyder | Recreation | Outdoor Rec. Planner |
| Larry Thomas | Soils, Hazardous Materials | Soil Scientist |
| Bill Dean | Wildlife | Wildlife Biologist |
| Lisa Clark | Wildlife | Wildlife Technician |
| Paul Schmidt | Wildlife | Wildlife Biologist |
| Jan Hanf | Wildlife | Wildlife Biologist (T&E) |

W & H Pacific

| | | |
|------------|----------------------------|-----------------------|
| Tom Walker | Hydrology, Engineering | Vice-President |
| Ron Hand | Writer/Editor, Engineering | Lead Project Engineer |

6.2 Persons, Agencies, and Organizations Consulted

1. George Kolb, Deschutes County Public Works
2. Bob Bryant, Oregon Department of Transportation
3. Julie Kuhn, Kittelson & Associates
4. Lynn Sharp, URS Griener, Woodwood, Clyde
5. Larry Zakrajsek, BOR
6. Robert Latimer, PG&E National Energy Group
7. George Reed, Deschutes County Planning
8. Randy Davis, Redmond Fire District
9. Sally Bird, Confederated Tribes of the Warm Springs Reservation of Oregon
10. Scott Freshwaters, Deschutes County Road Department
11. Sgt. Major Gerald E. Elliot, Oregon Military Department
12. Maj. Bill McCaffrey, Oregon Military Department
13. Terry Campos, National Heritage Program, State of Oregon
14. Chuck Schonkeker, North Unit Irrigation District
15. David Ellis, Archeological Investigations Northwest, Inc.
16. Gary Hostick, Ecological Services, Inc.
17. Ed Styskel, Ecological Services, Inc.
18. Scott Denney, Huntington Ranch LLC
19. Kate Beardsley, Oregon Equestrian Trails
20. Bob Chamberland, Bend Truck Toyz
21. Terry Eckles, State of Oregon Parks and Recreation
22. Brian Ferry, Oregon Department of Fish and Wildlife
23. Steven George, Oregon Department of Fish and Wildlife
24. Jill Hoyt, Pacific Power and Light
25. Hap Taylor, Taylor Construction

NEPA Requirements met:

Marci Todd, Deschutes Resource Area Environmental Coordinator

Date