

**Fruit Growers Supply Company
Reciprocal Right-of-Way
Environmental Assessment**

South River Field Office
Environmental Assessment No. OR-105-07-02

U.S. Department of the Interior, Bureau of Land Management
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Roseburg, Oregon 97470

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CHAPTER ONE

PURPOSE AND NEED FOR ACTION

This chapter provides a brief description of the purpose and need for the proposed action being analyzed in this environmental assessment (EA).

I. Background

Fruit Growers Supply Company (Fruit Growers) submitted a request to the Bureau of Land Management (BLM) to enter into a new Reciprocal Right-of-Way Agreement for accessing three parcels of land under their ownership and management in Section 36, T. 29 S., R. 5 W., Willamette Meridian (W.M.), Section 5, T. 31 S., R. 5 W., W.M. and Section 22, T. 29 S., R. 6 W., W.M. The agreement would secure long term access rights for Fruit Growers across BLM-administered land and allow the BLM to acquire long term legal access across Fruit Growers lands.

Pursuant to the issuance of the requested Reciprocal Right-of-Way Agreement, Fruit Growers has submitted an application to renovate approximately 700 feet of road and construct approximately 300 feet of new road across BLM-administered land in Section 31, T. 29 S., R. 4 W. to access their lands in Section 36, T. 29 S., R. 5 W., W.M.

The Roseburg District *Record of Decision and Resource Management Plan* ((ROD/RMP) USDI, BLM 1995a) directs the District to acquire access to public lands by entering into new reciprocal right-of-way agreements (p. 71). Reciprocal agreements were developed to resolve problems created by the checkerboard ownership pattern of BLM-administered lands in Western Oregon. Prior to 1950 many private landowners would not grant access rights to the United States across their lands, so most BLM-administered lands had no legal access. The reciprocal agreements provided the mechanism for both parties to simultaneously secure long-term access rights they need to reach and manage their intermingled lands. A second goal of reciprocal agreements was to avoid duplicate road systems by providing the mechanism for both parties to share roads.

Regulations governing reciprocal agreements for the “O. and C. and Coos Bay Revested Lands” are set forth in 43 Code of Federal Regulations (CFR) Subpart 2812. Reciprocal agreements are composed of two separate authorizing documents. The first document is the Right-of-Way and Road Use Agreement. This is a form of non-exclusive easement (the United States does not have exclusive access rights) granting rights to the United States and its licensees to use roads controlled by the private landowners (Permittees) and to construct new roads over land owned by the Permittee for the purpose of reaching public (BLM) land. The second document is the Logging Road Right-of-Way Permit, which grants rights to the Permittee to use roads controlled by the United States and to construct new roads over public land administered by BLM for the purpose of accessing Permittee lands. The roads and lands over which rights have been granted are specifically listed in land schedules which are attached to the Agreement and Permit documents.

II. Proposed Action

The proposed action is the issuance of a new Reciprocal Right-of-Way Agreement to Fruit Growers by the Roseburg District BLM, South River Field Office. The new agreement would permit Fruit Growers to use roads controlled by the United States and to construct new roads over public land administered by the BLM for the purpose of accessing their lands. The agreement would also grant rights to the United States to use roads controlled by Fruit Growers and to construct new roads over land owned by Fruit Growers for the purpose of accessing public (BLM-administered) land. The rights would be granted in perpetuity.

This EA considers the environmental consequences of the no action and proposed action alternatives in order to provide sufficient evidence and analysis for determining whether there would be impacts exceeding those considered in the Roseburg District *Proposed Resource Management Plan/Environmental Impact Statement* (PRMP/EIS (USDI, BLM 1994)) that would require preparation of a Supplemental Environmental Impact Statement (SEIS). In addition to the PRMP/EIS, this analysis is tiered to and incorporates by reference the assumptions and analysis of consequences provided by:

- The *Final Supplemental Environmental Impact Statement (FSEIS) on Management of Habitat for Late-Successional and Old-Growth Related Species Within the Range of the Northern Spotted Owl* (USDA and USDI 1994a); and
- The *FSEIS for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (USDA and USDI 2001a).

Implementation of the proposed action would conform to all pertinent requirements of the ROD/RMP, which incorporates as management direction the standards and guidelines of the *Record of Decision for Amendments (ROD) to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (USDA and USDI 1994b), as amended by the: *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (USDA and USDI 2001b).

III. Objectives

The objectives of the proposed action are to provide Fruit Growers legal access to their lands through the granting of rights of access across BLM-administered lands and over BLM-controlled roads, while securing for the BLM access to public lands that allows for the safe, economical, and environmentally responsible accomplishment of the management objectives of various BLM programs.

IV. Decision Factors

Factors to be considered when selecting among alternatives would include:

- The degree to which the objective(s) previously described would be achieved;
- The nature and intensity of environmental impacts that would result from implementing the alternative and the nature and effectiveness of measures to mitigate impacts to resources including, but not limited to, wildlife and wildlife habitat, soil productivity, and water quality;
- Compliance with applicable management direction from the ROD/RMP; and
- Compliance with applicable laws including but not limited to, the Clean Water Act and the Endangered Species Act.

CHAPTER TWO

DESCRIPTION OF THE ALTERNATIVES

This chapter describes the basic features of the alternatives being analyzed.

I. Alternative One – No Action

Under this alternative, the Reciprocal Road Right-of-Way Agreement would be denied to Fruit Growers. Fruit Growers would not be granted legal access across BLM-administered land and the BLM would not gain legal access across Fruit Growers lands in the aforementioned areas. Fruit Growers would need to seek other means to access their lands, which might include new road construction on steeper slopes requiring multiple stream crossings or reconstruction of primitive roads located on private lands.

II. Alternative Two – Proposed Action

A. New Reciprocal Right-of-Way Agreement

Under the proposed action, the BLM would enter into a new Reciprocal Right-of-Way Agreement with Fruit Growers. Three parcels owned by the Fruit Growers in Section 36, T. 29 S., R. 5 W., W.M. Section 5, T. 31 S., R. 5 W., W.M. and Section 22, T. 29 S., R. 6 W., W.M. would be included in the agreement allowing the BLM to use existing roads and construct new roads across these parcels. The locations of these parcels are shown on maps in Appendix A.

The existing access routes to Fruit Growers lands consist of graveled roads, except for the parcel in Section 36, T. 29 S., R. 5 W., W.M. which is accessed by natural surface roads beginning in Section 31, T. 29 S., R. 4 W., W.M. Approximately six miles of BLM controlled roads would be included in the agreement and are shown on the maps in Appendix A.

The right-of-way permit would grant rights to Fruit Growers to use the following BLM-controlled roads for the purpose of accessing their lands:

- The 29-4-31.0 beginning in the SW¹/₄NW¹/₄, Section 31, T. 29 S., R. 4 W., W.M. and ending in the NW¹/₄SW¹/₄, Section 31, T. 29 S., R. 4 W., W.M.
- The 30-5-31.0 road beginning in the N¹/₂, Section 6, T. 31 S., R. 5 W., W.M. and ending in the SE¹/₄, Section 5, T. 31 S., R. 5 W., W.M.
- The 29-6-21.0 road beginning in the S¹/₂, Section 21, T. 29 S., R. 6 W., W.M. and ending in the SW¹/₄, Section 22, T. 29 S., R. 6 W., W.M. and
- The 29-6-22.0 road beginning in the SW¹/₄, Section 22, T. 29 S., R. 6 W., W.M. and ending in the NW¹/₄, Section 22, T. 29 S., R. 6 W., W.M.

Use of the existing BLM roads would require Fruit Growers to conduct necessary road renovation and maintenance utilizing BLM Best Management Practices (ROD/RMP, pp. 136-138), such as, but not limited to:

- Identifying ditch line and outlet erosion caused by excessive flows and adding necessary drainage facilities and armoring;
- Providing the basic care required for protecting the road and ensuring that damage to adjacent land and resources is held to a minimum;
- Carrying out blading and shaping in such a manner as to conserve existing surface material, retain the original crowned or out-sloped self-drainage cross section, prevent or remove rutting berms (except those designed for slope protection) and other irregularities that retard normal surface runoff. Avoid wasting loose ditch or surface material over the shoulder where it will cause stream sedimentation or weaken slump prone areas. Avoid undercutting of back-slopes; and
- Keeping road inlet and outlet ditches, catch basins, and culverts free of obstruction, particularly before prolonged winter rainfall. However, hold routine machine cleaning of ditches to a minimum during wet weather.

The agreement would also allow either party to use tailhold, guyline, and tieback trees on lands of the other party. Large, late-seral trees on BLM-managed lands to be used as tailhold, guyline, or tieback trees would not be cut unless approved by the BLM.

1. Environmental Stipulations

Fruit Growers would comply with all provisions of the State and Federal Water Quality Standards as they may apply to any waterway, stream, lake, or reservoir, on or near the permit area, together with all applicable State and Federal laws and regulations.

Fruit Growers would comply with applicable Federal and State laws and regulations concerning the use of pesticides (i.e., insecticides, herbicides, fungicides, rodenticides, and other similar substances) in all activities and operations under the permit.

If Fruit Growers, in connection with operations under the permit, encounters or becomes aware of any objects or sites of cultural value, such as historic or prehistoric ruins, graves, grave markers, fossils, or artifacts, all operations would be immediately suspended in the vicinity of the cultural value and the Authorized Officer would be notified of the findings.

2. Wildlife Operational Restrictions

Two seasonal restrictions would be incorporated into the Reciprocal Right-of-Way agreement to reduce potential effects to spotted owls. The use of chainsaws and heavy equipment within 65 yards of any unsurveyed northern spotted owl suitable habitat or spotted owl nest site would be prohibited from March 1 through June 30 to reduce the possibility of disrupting nesting spotted owls. Modification or removal of suitable northern spotted owl habitat, in association with road construction and renovation, would be seasonally restricted within one-quarter mile of known spotted owl activity centers, nest sites, or unsurveyed suitable habitat. This restriction would extend from March 1 through September 30. This restriction may be waived, as early as July 1, if surveys determine that owls are not present, not nesting, or the nesting attempt failed. The waiver would be valid until March 1 of the following year.

B. New Road Construction Requests Under the New Reciprocal Right-of-Way Agreement

Fruit Growers would be granted rights to construct new roads over public land administered by the BLM in:

- W $\frac{1}{2}$ W $\frac{1}{2}$, Section 31, T. 29 S., R. 4 W., W.M.
- N $\frac{1}{2}$ NW $\frac{1}{4}$, Section 1, T. 30 S., R. 5 W., W.M.
- S $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, Section 5, T. 31 S., R. 5 W., W.M.
- E $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 5, T. 31 S., R. 5 W., W.M., and
- E $\frac{1}{2}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 5, T. 31 S., R. 5 W., W.M.

These BLM parcels total 206 acres of which 107 acres are allocated as Matrix and the remaining 99 acres as Riparian Reserves.

The sole new road construction, by Fruit Growers, under the agreement would be approximately 300 feet to extend the 29-4-31.2 road on BLM-managed land in Section 31, T. 29 S., R. 4 W., W.M. Pursuant to approval of any future road construction requests by Fruit Growers, an analysis of the environmental consequences of such action would be undertaken, consistent with the requirements of the National Environmental Policy Act.

Prior to the construction of a road on the lands of the other party, a map shall be filed with the landowner. Such map shall be prepared in accordance with 43 CFR 2812.1-2(c) and shall show the route and specifications of the road intended to be constructed. Construction may be commenced after the expiration of a sixty (60) day period following the filing of such map unless in the intervening period the landowner shall object to such construction. The landowner may object to the proposed construction only if: (1) it does not constitute the most reasonably direct route for the removal of forest products from the lands of the road builder, taking into account the topography of the area, the cost of road construction and the safety of use of such road;

(2) the proposed road will substantially interfere with planned or existing facilities or improvements on the lands of the landowner; (3) would result in excessive erosion to lands of the landowner; (4) an existing road is available and suitable for removal of timber tributary to the proposed road; or (5) may affect a species listed as threatened or endangered under the Endangered Species Act. In the event an objection is made on the basis that a threatened or endangered species is affected, construction of the road will be delayed until consultation with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act has been completed on the proposed road. Based on the biological opinion received from the Fish and Wildlife Service, the objection may be withdrawn, modified, conditioned, or continued.

Best Management Practices for road construction (ROD/RMP, pp. 131-138) would include but not be limited to:

- Roads would be located on stable positions (e.g. ridges, natural benches, and flatter transitional slopes near ridges or valley bottoms).
- Permanent natural surface roads would be blocked after use.
- Road construction would be limited to the dry season, generally between May 15 and the onset of regular autumn rains in mid-to-late October. When conditions permit operations outside of the dry season, erosion control measures would be kept current with ground disturbance, to the extent that the affected area can be rapidly closed or blocked and weatherized if weather conditions warrant.
- Road construction would be completed and bare soil protected and stabilized prior to fall rains. If construction and use could not be accomplished during the first dry season because of events such as extended fire closure, the road would be winterized for use the following year. Winterization would involve erosion control in conjunction with blocking the road from vehicle use during the wet season.

III. Resources That Would Remain Unaffected by Either Alternative

The following resources or critical elements of the human environment would not be affected under either alternative because they are not present in the project areas (see Appendix E): Areas of Critical Environmental Concern; prime or unique farmlands; floodplains; hazardous or solid waste; Wild and Scenic Rivers; and wilderness.

No prescribed burning would be undertaken in association with the proposed action, so there would be no effects to air quality. No registered domestic, surface water rights have been identified within a mile downstream of the proposed road renovation and construction, so no effect to drinking or ground water quality is anticipated.

The proposed action is consistent with Executive Order 12898 which addresses Environmental Justice in minority and low-income populations. The BLM has not identified any potential impacts to low-income or minority populations, either internally or through the public involvement process.

No Native American religious concerns were identified by the team or through correspondence with local tribal governments.

As discussed in Chapter Three (p. 18), cultural resources would not be affected because none are documented in the project area. No measurable increase or decrease in the introduction or rate of spread of noxious weeds is anticipated (pp. 17-18).

There are no energy transmission lines, transport facilities, and/or utility rights-of-way in the immediate project area. No commercially usable energy facilities or resources are known to exist in the vicinity. The proposed route of a natural gas pipeline through the Middle South Umpqua River, Myrtle Creek, and South Umpqua River fifth-field watersheds would not pass through the proposed reciprocal right-of-way agreement area or cross any of the roads to be included in the agreement. As a consequence, no adverse effect on energy resources would be anticipated.

CHAPTER THREE

AFFECTED ENVIRONMENT

This chapter summarizes the specific resources that are present or potentially present, and which could be affected by the proposed action.

I. Vegetation

The forested stands on BLM-managed land to be included in the proposed reciprocal right-of-way agreement range from about 20 to 230 years old (see Table 1).

Table 1. Vegetation Age Classes of BLM Managed Land to be Included in the Proposed Reciprocal Right-of-Way Agreement with Fruit Growers.

| Legal Description | Acres by Age Classes | | | Total Acres |
|-------------------------------|----------------------|--------------------|-----------------------|-------------|
| | 0 to 30 Years Old | 30 to 80 Years Old | At Least 80 Years Old | |
| Section 31, T. 29 S., R. 4 W. | 0 | 5 | 80 | 85 |
| Section 1, T. 30 S., R. 5 W. | 16 | 21 | 50 | 87 |
| Section 5, T. 31 S., R. 5 W. | 10 | 13 | 11 | 34 |
| Total Acres | 26 | 39 | 141 | 206 |

Fruit Growers harvested approximately 180 acres of timber in Section 36, T. 29 S., R. 5 W., W.M., in 2006. Timber on the remainder of the Fruit Growers lands to be included in the proposed Reciprocal Right-of-Way Agreement is approximately 40 to 60 years old and is anticipated to be harvested within the next 15 years.

II. Soils

The soils within the proposed agreement area are mainly derived from sandstone, siltstone, and metamorphic rock (Johnson 2004, Walker 1991, Wells, et al. 2000, Wert 1977). The bedrock types on the moderate side slopes are generally soft, which means the bedrock can be excavated with equipment commonly used for road construction. On steeper slopes the bedrock is predominantly hard and road construction may require blasting or the use of special equipment.

Generally, the moderate slopes (30 to 60 percent) contain somewhat deeper and less gravelly soils (up to 35 percent gravels) than the steeper slopes, which contain from 35 to 80 percent gravels and cobbles. Soil depths range from shallow (10 to 20 inches), moderately deep (20 to 40 inches) to deep (40 to 60 inches). Soil textures range from loams, silt loams to clay loams.

Soil textures range from loams to clay loams. The soils are generally well drained; however, permeability is moderately slow on the moderate slopes with clay loam textures low in gravels. Consequently, proper road drainage design and culvert placement, especially in draws, would be needed to help control surface runoff and erosion.

An analysis using aerial photographs taken in 1953, 1978, 1999, and 2004 did not identify any areas of instability in the proposed agreement area from road construction and timber harvesting. Very little or no soil erosion is occurring along the existing road prisms because most of the cut banks and fill slopes are vegetated.

Along the proposed new road construction in Section 31, T. 29 S., R. 4 W., W.M., the side slopes range from 30 to 65 percent on smooth, convex slopes, with some concave slopes. The parent bedrock on these moderate slopes is generally soft. The proposed route crosses three ephemeral draws. At one of the ephemeral draws, an old, stable skid road runs about 50 feet up slope from the proposed new road construction route.

No signs of instability were found during the field investigation or analysis using aerial photographs taken in 1964, 1978, 1983, 1999, and 2004. The existing road prism is stable, however one old, small (8 feet wide and 15 feet long), fully-vegetated, and duff-covered slope failure was found 20 feet down slope from the road fill slope. The failed material did not travel any distance down slope.

There is very little soil erosion along the current road prism because the cut banks and fill slopes are vegetated. The road surface is covered with duff, organic material, and small diameter conifers.

III. Water Resources

A. Stream Flow

The project area has a climate characterized by cool, wet winters and hot, dry summers. The majority of precipitation is in the form of rain, which is concentrated between the months of November and March.

Stream flow volumes closely parallel the precipitation pattern. Peak stream flows occur from November to March, and low stream flows occur from July to October.

Peak Flows and Roads

Existing roads that would be utilized by Fruit Growers under the proposed Right-of-Way Agreement are located in the Myrtle Creek, South Umpqua River, Lower Cow Creek, and Middle South Umpqua Watersheds (fifth-field watershed).

Roads may alter the natural drainage characteristics of channels and subsequently change the runoff characteristics of watersheds (Furniss, et al. 1991). Roads can increase the drainage density of a watershed, acting as a preferential pathway for surface water runoff, resulting in a decrease in the volume of overland flow that infiltrates into the ground water or soil water storage. Increased drainage density increases the rate runoff leaves a basin, resulting in higher peak flows in times of snow melt or rainfall and reduced stream flows in late summer.

Jones (2000) found a 13 to 36 percent increase in peak flows (with greater than one-year return period) related to the density of midslope roads in seven of eight small basins studied. The magnitude of peak flow enhancement also depends on whether or not road segments drain directly into stream channels. Roads not connected to stream channels, such as ridge-top roads, or those with drainage that efficiently directs surface flow to the forest floor where it can infiltrate, would have a negligible effect on flow magnitude and timing.

Roads may modify peak flows by reducing infiltration on compacted surfaces, allowing rapid surface runoff, or by intercepting subsurface flow and surface runoff, and channeling it directly into streams (Ziemer 1981). Peak flows have been shown to increase substantially when roads occupy more than 12 percent of the watershed (Watershed Professionals Network 1999, IV-15). It is likely that midslope forest roads have marginally increased the magnitude of peak flows by intercepting subsurface flow and surface runoff, extending the drainage network, and channeling water into streams; however, roads occupy less than three percent of the land within the affected watersheds. Therefore, it is unlikely peak flows are being measurably affected by the current amount of roads in the watersheds.

B. Water Quality

Water quality standards are determined for each waterbody by the Oregon Department of Environmental Quality (ODEQ). Water bodies that do not meet water quality standards are placed on the states' 303(d) list as Water Quality Limited (ODEQ 2003). The sole water quality parameter with the potential for being affected by the proposed action is sediment.

Sediment

Site specific sediment data are not available for the streams in the immediate project area but there are no streams within the Myrtle Creek, South Umpqua River, Lower Cow Creek, and Middle South Umpqua watersheds on the Oregon 303(d) list for sedimentation. However, studies by Reid (1981), and Reid and Dunne (1984) have shown that forest roads can be a major contributor of fine sediment to streams. Excess fine sediment can reduce water quality for domestic use and can cause detrimental change to the stream and its inhabitants (Castro and Reckendorf 1995).

Roads may directly alter streams by increasing sedimentation, which in turn may result in altered stream channel morphology. Roads can serve as a link between sediment source areas and streams, and often account for most of the sediment problems in a watershed. Water, sediment, and chemical runoff generated from the road prism can enter the natural stream channel network when the road is hydrologically connected to the stream channel. Some of the ways roads are hydrologically connected to the stream channel are where roads cross streams, discharge is sufficiently high to erode the inboard ditch, and the fillslope of the road encroaches on the stream. The BLM roads that would be included in the Reciprocal Right-of-Way Agreement do not show evidence of surface erosion.

IV. Fisheries and Aquatic Resources

A. Aquatic Habitat Conditions

Road related activities, such as renovation, construction, and timber hauling, can contribute sediment to streams and affect substrate quality. Using existing roads would not affect the availability of large wood for in-stream recruitment, pool habitat, or fish access to habitat. Roads to be included in the reciprocal right-of-way agreement include BLM controlled segments that parallel fish-bearing streams and cross several non-fish bearing perennial and intermittent streams. These road segments occur in the Myrtle Creek, Lower Cow Creek, and Middle South Umpqua River fifth-field watersheds.

In the Myrtle Creek Watershed, road segments (29-4-31.0 and 29-4-31.2) to be included in the right-of-way agreement and the proposed road renovation and new construction do not cross any streams. Consequently, there would be no affect on the availability of large wood for in-stream recruitment, pool habitat, fish access to habitat, or sediment in streams.

In the Lower Cow Creek Watershed, the BLM controlled road segments (30-5-31.0) parallel Mitchell Creek where it is fish-bearing and cross several intermittent non fish-bearing tributaries. Coho salmon, steelhead trout, and cutthroat trout are present in Mitchell Creek. Coho salmon is designated as a Bureau Sensitive Species.

In the Middle South Umpqua River Watershed, one segment of the road (29-6-21.0) crosses a non fish-bearing tributary of West Willis Creek and several intermittent streams. Another road segment (29-6-22.0) is located on a ridge with no stream crossings.

B. Essential Fish Habitat

Essential Fish Habitat is designated for fish species of commercial importance by the Magnuson-Stevens Fishery Conservation and Management Act of 1996 (Federal Register 2002, Vol. 67/No. 12). Streams and habitat that are currently or were historically accessible to Chinook and coho salmon are designated Essential Fish Habitat. Streams designated as Essential Fish Habitat and near roads to be included in the reciprocal right-of-way agreement include West Willis Creek and Mitchell Creek.

V. Wildlife

A. Special Status Species

Twenty-six special status animal species are documented or suspected in the South River Resource Area (USDI 2005). Twenty-two species are eliminated from discussion because the project is outside of the species range, habitat is not present, or the species or their habitats are not expected in the proposed reciprocal right-of-way agreement area (see Table B-1 in Appendix B). The remaining four species that could be affected by the proposed reciprocal right-of-way agreement, road renovation, and new road construction are discussed below.

1. Threatened and Endangered

Suitable nesting, roosting, and foraging (NRF) habitat for the **northern spotted owl** (*Strix occidentalis caurina*) is typically late-successional forests consisting of large conifers with large diameter limbs, crown deformities, broken tops, or cavities that provide nest sites, moderate to high canopy closure (60 to 80 percent), and a multi-layered, multi-species canopy (Forsman, et al. 1984, Thomas, et al. 1990, Hershey 1995, Forsman and Giese 1997). The three Fruit Growers parcels to be included in the reciprocal right-of-way agreement are early seral (less than 30 years old) and mid-seral (30 to 60 years old), single story stands. They are not considered to be NRF habitat but are dispersal habitat for the spotted owl.

The Fruit Growers parcel in Section 36, T. 29 S., R. 5 W., W.M. is located within the home range (daily activity area) of one spotted owl site (Packard Gulch). Suitable nesting, roosting, and foraging habitat occurs on BLM-managed land in Section 31, T. 29 S., R. 4 W., W.M. and Section 1, T. 30 S., R. 5 W., W.M., adjacent to the Fruit Growers parcel. A spotted owl home range in the Klamath Physiographic Province, in which the right-of-way agreement area is located, is represented by a 1.3-mile radius circle centered on an owl activity center (area of concentrated activity of either a pair of spotted owls or a territorial single owl). The activity center for this site has been occupied by a single spotted owl or pair since 1995. Birds from this site have been observed using the stands and in 2006 a single bird responded during surveys in the vicinity of the proposed new road construction. There are 362 acres of suitable NRF habitat, on BLM-managed land, within the home range of this site.

The Fruit Growers parcel in Section 5, T. 31 S., R. 5 W., W.M. is located within the home range of two spotted owl sites but is not within one-quarter mile of any known activity center. There are 1,674 acres of suitable habitat within the home range of the Mitchell Creek owl site and 1,567 acres of suitable habitat within the home range of the Tellurium Peak site. The suitable habitat within the home ranges of these sites is on BLM-managed land. The BLM-managed land to the east of the Fruit Growers parcel to be included in the agreement contains suitable nesting, roosting, and foraging habitat, however, the BLM-managed land to the south does not.

The Fruit Growers parcel and BLM-managed land in Section 5, T. 31 S., R. 5 W., W.M., to be included in the agreement, are in Critical Habitat Unit OR-CHU-63, designated for the survival and recovery of the spotted owl (USDI 1992).

The Fruit Growers parcel in Section 22, T. 29 S., R. 6 W., W.M. is not within the home range of any known spotted owl site. This parcel is located more than three miles from known northern spotted owl activity centers and home ranges.

2. Bureau Sensitive Species

The **northern goshawk** (*Accipiter gentilis*) generally nests in large, mature stands with large trees, a high degree of canopy closure (60 to 90 percent), and a relatively open understory. Goshawks forage below the forest canopy for a variety of birds and small mammals (Reynolds, et al. 1982; Daw, et al. 1998; Squires and Reynolds 1997; Daw and DeStefano 2001). More than

a dozen goshawk observations have been made at various locations throughout the South River Resource Area. The nearest known nesting pair is more than ten air miles from the reciprocal right-of-way agreement area.

Potential northern goshawk nesting habitat occurs on BLM-managed lands to be included in the reciprocal right-of-way agreement in Section 31, T. 29 S., R. 4 W., W.M., where new road construction is proposed, Section 1, T. 30 S., R. 5 W., W.M., and Section 5, T. 31 S., R. 5 W., W.M. The stands in Section 1, T. 30 S., R. 5 W., W.M., and Section 5, T. 31 S., R. 5 W., W.M. generally do not constitute suitable goshawk habitat because they do not contain mature, closed-canopy forest or provide enough habitat to support nesting (Reynolds et al. 1982, Daw and DeStefano 2001). Suitable goshawk habitat within one-quarter mile of the proposed new road construction in Section 31, T. 29 S., R. 4 W., W.M. would be surveyed in 2007.

The **Oregon shoulderband snail** (*Helminthoglypta hertleini*) is associated with rocky habitats, such as talus and rock outcrops. Habitat for this snail may be present in unsurveyed portions of the agreement area, however, surveys along the proposed new road construction route in Section 31, T. 29 S., R. 4 W., W.M., determined Oregon shoulderband snail habitat is not present (Appendix B).

The **Chace sideband snail** (*Monadenia chaceana*) is a Bureau Sensitive and Survey and Manage species. Talus and rock outcrops are considered to be habitat for this snail species. Habitat for this snail may be present in unsurveyed portions of the agreement area, however, surveys along the proposed new road construction route in Section 31, T. 29 S., R. 4 W., W.M., determined Chace sideband snail habitat is not present (Appendix B).

B. Survey and Manage Species

The Bureau of Land Management (BLM) is aware of the August 1, 2005, U.S. District Court order in Northwest Ecosystem Alliance et al. v. Rey et al. which found portions of the *Final Supplemental Environmental Impact Statement to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines* (January, 2004) (EIS) inadequate. Subsequently in that case, on January 9, 2006, the Court ordered:

- set aside the 2004 *Record of Decision To Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern spotted Owl* (March, 2004) (2004 ROD), and
- reinstated the 2001 *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines* (January, 2001) (2001 ROD), including any amendments or modifications in effect as of March 21, 2004.

The BLM is also aware of the November 6, 2006, Ninth Circuit Court opinion in Klamath-Siskiyou Wildlands Center et al. v. Boody et al., No. 06-35214 (CV 03-3124, District of Oregon). The court held that the 2001 and 2003 Annual Species Reviews (ASRs) regarding the red tree vole are invalid under the Federal Land Policy and Management Act (FLPMA) and National Environmental Policy Act (NEPA) and concluded that the BLM's Cow Catcher and Cotton Snake timber sales violate federal law.

This court opinion is specifically directed toward the two sales challenged in this lawsuit. The case was mandated back to the District Court on December 29, 2006, and the Court issued an *Order Regarding Permanent Injunctive Relief* on February 12, 2007. The Court ORDERED that the Decision Records for the Cow Catcher and Cotton Snake timber sales are SET ASIDE in accordance with 5 U.S.C. § 706 and further ORDERED that defendants are ENJOINED from implementing the Cow Catcher and Cotton Snake timber sales until such time that either sale conforms to the 2001 Survey & Manage Record of Decision ("ROD") or, in the alternative, a resource management plan that satisfies the FLPMA and NEPA deficiencies found by the Ninth Circuit in this case. At this time, the ASR process itself has not been invalidated, nor have all the changes made by the 2001-2003 ASR processes been vacated or withdrawn, nor have species been reinstated to the Survey and Manage program, except for the red tree vole.

The proposed road renovation and construction is within the range of four Survey and Manage species documented or suspected to occur on the Roseburg District when the 2001 *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* was implemented (see Table B-1 in Appendix B). The Chace sideband snail was previously discussed (p.14) because it is also a Bureau Sensitive Species.

Based on the literature, old-growth habitat provides optimum conditions for **Oregon red tree vole** (*Arborimus longicaudus*) populations, although, active nests have been found in remnant older trees in younger stands indicating the importance of legacy structural characteristics. Large branches in the older trees provide stable support for nests, protection from storms, and travel routes. Sites with large numbers of nests tend to occur in stands with large trees, multiple layered canopies, and more canopy structure based on Interagency Species Management System data, field observations, and administrative reports.

Habitat for the red tree vole is present in Section 31, T. 29 S., R. 4 W., W.M., in the vicinity of the proposed new road construction, Section 1, T. 30 S., R. 5 W., W.M., and Section 5, T. 31 S., R. 5 W., W.M. No red tree vole nests were located in trees identified for removal by the proposed road renovation and new construction in Section 31, T. 29 S., R. 4 W., W.M.

The **Crater Lake tightcoil snail** (*Pristiloma arcticum crateris*) has been documented in the Roseburg District but the reciprocal right-of-way agreement area is outside of the species range. Consequently, the Crater Lake tightcoil snail is not expected in the agreement area and will not be discussed further in this analysis.

Suitable nesting habitat for the **great gray owl** (*Strix nebulosa*) is characterized by: (1) large diameter nest trees, (2) forest canopy providing roosting cover, and (3) proximity [within 200 meters] of natural meadows or openings ten acres or larger in size that could be used as foraging areas (USDA and USDI 2004a). Although large diameter trees are present, there are no natural meadows or openings more than 10 acres in size within 200 meters of the proposed new road construction. Consequently, the great gray owl is not expected in the agreement area and will not be discussed further in this analysis.

VI. Botany

A. Special Status Species

1. Vascular Plants

Based upon geographic range, there are 45 Special Status Species that might be expected in the proposed reciprocal right-of-way agreement area. Surveys would be conducted for Bureau Special Status Species of vascular plants, bryophytes, and lichens that are considered practical, as indicated in Table C-1 in Appendix C whose ranges overlap the Roseburg District and might be expected in the proposed reciprocal right-of-way agreement area.

Surveys for vascular plant Special Status Species were conducted in Section 31, T. 29 S., R. 4 W., W.M. in June 2005. One Bureau Sensitive Species, **wayside aster** (*Eucephalis vialis*), was located. The site would be avoided by new road construction.

2. Fungi

Bureau Sensitive fungi species documented in the South River Resource Area include *Dermocybe humboldtensis*, *Phaeocollybia californica*, *P. olivacea*, and *Ramaria spinulasa* var. *diminutiva*. Four other species (*Arcangeliella camphorata*, *P. gregaria*, *P. oregonensis*, and *Rhizopogon chamaleontinus*) are suspected based on the habitat and host species present.

One known occurrence of *Dermocybe humboldtensis* in the Myrtle Creek Watershed is more than six miles from the nearest BLM-managed land to be included in the proposed reciprocal right-of-way agreement in Section 31, T. 29 S., R. 4 W., W.M.

One occurrence of *Phaeocollybia californica* is documented in the Upper North Myrtle Creek subwatershed, more than six miles from the nearest BLM-managed land to be included in the proposed reciprocal right-of-way agreement in Section 31, T. 29 S., R. 4 W., W.M.

There is one occurrence of *Ramaria spinulasa* var. *diminutiva* in the North Myrtle Area of Critical Environmental Concern/Research Natural Area. It is more than five miles northeast of the nearest BLM-managed land to be included in the proposed reciprocal right-of-way agreement in Section 31, T. 29 S., R. 4 W., W.M.

All of these Bureau Sensitive fungi species are primarily associated with members of the *Pinaceae* family, principally Douglas-fir and western hemlock. Important habitat components include dead, down wood; standing dead trees; live, mature trees; many shrub species; a broad range of microhabitats; and for many, a well-distributed network of late-successional forest with moist and shaded conditions (USDA and USDI 2004b p. 148).

Most Special Status fungi species are highly isolated in their occurrence. They produce short-lived, ephemeral sporocarps or fruiting bodies that are seasonally and annually variable in occurrence (USDA and USDI 2004b p. 148). Richardson (1970) estimated that sampling every two weeks would fail to detect about 50 percent of macrofungal species fruiting in any given season. In another study, less than ten percent of species were detected in each of two consecutive years at any one of eight sites (O'Dell, et al. 1999).

B. Survey and Manage Species

Nine Survey and Manage species compiled from the 2003 Annual Species Review (IM-OR-2004-034) and the 2006 list of species requiring equivalent-effort surveys (IM OR-2006-038) are known or suspected to occur in the Roseburg District. Surveys, that are considered practical, would be conducted for Survey and Manage Species whose ranges overlap the Roseburg District.

VII. Noxious Weeds

A comprehensive roadside weed inventory has been completed in the sections to be included in the reciprocal right-of-way agreement. **Himalayan blackberry** (*Rubus discolor*), **Scotch broom** (*Cytisus scoparius*), and **rush skeletonweed** (*Chondrilla juncea*) are the most common noxious weeds inventoried.

Actions taken to contain, control, and eradicate existing infestations of noxious weeds are undertaken through implementation of the *Roseburg District Integrated Weed Control Plan and Environmental Assessment* (USDI, BLM 1995b). Activities include inventorying weed infestations, assessing risk for spread, and applying control measures in areas where management activities are planned. Control measures may include releasing biological agents, mowing, hand-pulling, and the use of approved herbicides. Noxious weed treatments would be undertaken independent of and regardless of whether or not the proposed action is implemented.

Management practices that would be implemented in conjunction with the proposed action would be focused on preventing the introduction of new infestations or the spread of existing ones. Prevention measures would include:

- steam cleaning or pressure washing of heavy equipment used in logging and road construction to remove soils and other materials that could transport weed seed or root fragments;
- scheduling work in uninfested areas prior to working in infested areas;

- using native seed when mulching and seeding; or
- revegetating with native plant species where natural regeneration is unlikely to prevent weed establishment.

As a consequence there would be negligible changes in noxious weed populations under either alternative, and no further discussion of noxious weeds is necessary in this analysis.

VIII. Cultural and Historical Resources

Resources thought to exist on the lands to be included in the proposed reciprocal right-of-way agreement are segments of historic-era trails and wagon roads gleaned from General Land Office cruise books, dating to the second decade of the twentieth century. Most of these resources have been incorporated into the modern road system and, therefore, lack integrity. Consequently, cultural and historical resources on the lands to be included in the proposed reciprocal right-of-way agreement are not considered important enough to warrant listing on the National Register of Historic Places.

Inventories did not discover evidence of prehistoric use in the vicinity of the proposed road renovation and new road construction in Section 31, T. 29 S., R. 4 W., W.M. Further inventory is not required according to Appendix A of the 1998 Protocol for Managing Cultural Resources on Lands Administered by the Bureau of Land Management in Oregon. The BLM has completed its Section 106 responsibilities under the 1997 Programmatic Agreement between the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers regarding the manner in which BLM meets its responsibilities under the National Historic Preservation Act (the National Programmatic Agreement). Consequently, there would be no anticipated effects on cultural or historical resources and no further discussion is necessary in this analysis.

CHAPTER FOUR

ENVIRONMENTAL CONSEQUENCES

This chapter discusses specific resource values that may be affected, the nature of the short-term and long-term effects, including those that are direct, indirect, and cumulative, that may result from implementation of the proposed action. An alternative of “no action” is analyzed in comparison to determine if there would be any effects of the proposed action that would exceed the scope of those considered and addressed by the Roseburg District PRMP/EIS. The discussion is organized by the individual resources. It addresses the interaction between the effects of the proposed action with the current environment, describing effects that might be expected, how they might occur, and the incremental effects that could result. This discussion does not address minor effects, focusing instead on those that could actually result in cumulative effects.

The Council on Environmental Quality (CEQ) provided guidance on June 24, 2005, as to the extent to which agencies of the Federal government are required to analyze the environmental effects of past actions when describing the cumulative environmental effect of a proposed action in accordance with Section 102 of the National Environmental Policy Act (NEPA). CEQ noted the “[e]nvironmental analysis required under NEPA is forward-looking,” and “[r]eview of past actions is only required to the extent that this review informs agency decision making regarding the proposed action.” This is because a description of the current state of the environment inherently includes effects of past actions. Guidance further states that “[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historic details of individual past actions.”

The cumulative effects of BLM management programs in western Oregon have been described and analyzed in the PRMP/EIS and FSEIS, which are incorporated herein by reference.

Although the new Reciprocal Right-of-Way Agreement would permit Fruit Growers to construct new roads over BLM-administered land, the sole new road construction identified by Fruit Growers would be to extend the 29-4-31.2 road in Section 31, T. 29 S., R. 4 W. W. M. Therefore, the following effects analysis is based on the assumption this would be the only new road construction requested by Fruit Growers under the agreement. The BLM has no plans to construct roads across Fruit Growers land at this time. If Fruit Growers or the BLM propose to construct roads in the future, the effects would be analyzed in a subsequent NEPA document.

I. Vegetation

A. Alternative One – No Action

Under this alternative, the BLM and Fruit Growers would not enter into a new reciprocal right-of-way agreement. Fruit Growers would not be able to construct new roads across the BLM-managed lands to access near their three parcels identified in Chapter 2 (p. 4). No vegetation

would be removed or disturbed in association with the proposed renovation and extension of Road No. 29-4-31.2 in Section 31, T. 29 S., R. 4 W. W. M.

B. Alternative Two – Proposed Action

Under this alternative, Fruit Growers would be authorized to use BLM-controlled roads and submit requests to construct roads across the BLM-managed lands identified in the agreement. Subsequent to an analysis of effects of the requested road construction authorization, requests could only be denied for the reasons stated in the agreement (also identified in Chapter 2 on pages 6-7). The construction of any such new roads would remove the vegetation and permanently remove the land from the timber harvest base.

Under the existing request to extend Road No. 29-4-31.2 by 300 feet, approximately two-tenths of an acre of vegetation would be removed, consisting of three bigleaf maple and 20 Douglas-fir trees ranging from eight to 20 inches in diameter at breast height.

In 2005, aerial photographs were used to evaluate the vegetative condition of private forest lands in the Myrtle Creek fifth-field watershed. There were approximately 7,668 acres of early seral forest, 23,981 acres of mid-seral forest, and 1,298 acres of mature forests. The analysis determined approximately 32 acres of mature forest were harvested from private lands annually from 2001 to 2005.

It is anticipated that approximately 320 acres of mature forest would be harvested on private lands in the Myrtle Creek fifth-field watershed over the next decade. This would reduce the acreage of mature forests on privately managed lands by almost 25 percent. When combined with the 583 acres of regeneration harvest proposed on BLM-managed lands, the estimated harvest of 32 acres of late-seral forest on BLM-managed land for construction of the proposed Williams Connector Natural Gas Pipeline, and the two-tenths acre of vegetation removed by the proposed road construction in Section 31, T. 29 S., R. 4 W. W. M. this would reduce the amount of mature forest in the Myrtle Creek fifth-field watershed by approximately five percent over the next decade.

II. Soils

A. Alternative One – No Action

Absent the issuance of a reciprocal right-of-way agreement and permission to construct an extension of Road No. 29-4-31.2 across BLM-managed land, there would be no soil compaction, displacement, erosion, or loss of organic matter. In the absence of a disturbance, changes to the soil resource would include the accumulation of organic matter and litter. No changes in slope stability would be expected because the current road prism and surrounding slopes are stable.

If Fruit Growers is forced to build roads in less desirable areas, such as on steep side slopes, situations could arise where slope failures occurred with potential mass wasting and landslides.

B. Alternative Two – Proposed Action

Limited and localized soil displacement, erosion, compaction, and loss of organic matter could be expected as the result of road renovation and construction allowed by the right-of-way agreement.

The level of soil disturbance associated with road renovation would generally be low as brushing would not involve the removal of all vegetation of cut and fill slopes. New construction would expose bare soil within the road prism, however. In order to minimize erosion potential, all road renovation and construction activities would be limited to the dry season, typically between mid-May and mid-October. Disturbed or cleared cut and fill slopes would be seeded and mulched to protect exposed soils and hasten their revegetation so that the risk for erosion is lessened.

No changes in slope stability would be expected from the road renovation and new road construction, in Section 31, T. 29 S., R. 4 W. W. M., because the existing road prism and surrounding slopes are stable. Trees along the road route are straight and no signs of failing slopes or tension cracks were found. Proper road drainage design and culvert installation would maintain slope stability within the concave areas and draws and allow surface and ditch runoff to be directed off the road surface, away from fill, and onto stable slopes.

With application of the Best Management Practices described above and listed in Appendix D of the ROD/RMP (pp. 132-137), the effects to the soil are expected to be within the scope of those considered and addressed in the PRMP/EIS (USDI 1994, Chapter 4, pp. 12-16).

No cumulative effects to the soils would be anticipated, as effects would remain confined to the proposed road prism and the immediate area. These effects would not exceed the level and scope of effects considered and addressed in the Proposed Resource Management Plan/Environmental Impact Statement (USDI 1994).

III. Water Resources

A. Alternative One – No Action

Current road densities and drainage would remain the same within the affected watersheds. There would be no direct effect to the water resources because there would be no change in road density and drainage network. Consequently, there would be no additional contribution by roads to potential changes in peak flows and sediment.

B. Alternative Two – Proposed Action

The existing roads Fruit Growers would be authorized to use are primarily gravel roads with adequate drainage. Use of these roads by Fruit Growers would not increase sedimentation to stream channels.

New road construction would increase the road density within the Cedar Hollow Drainage (seventh-field watershed) from 8.94 miles to 8.99 miles, an increase of 0.03 miles per square mile. The percentage of the drainage occupied by roads would increase from 2.45 percent to 2.5 percent. Changes of this small magnitude would not be sufficient to cause a measurable increase in peak flows from roads (Watershed Professionals Network 1999, IV-15).

Both the road renovation and road construction would be situated on stable slopes. The new road construction would cross three ephemeral draws that would require sufficient drainage for storm events; however, these draws are not streams and would not deliver run-off to any streams. As a consequence, drainage from the road would not be connected to the stream network and would not have the potential to increase the amount of sediment reaching stream channels.

No cumulative effects to the water resources would be anticipated because the new construction would not measurably increase road density, peak flows, or hydrologically connect the road to the stream network, which would not increase the amount of sediment reaching streams.

IV. Fisheries and Aquatic Resources

A. Alternative One – No Action

Absent issuing of the road right-of-way permit, there would be no added effects from the use of existing roads to fish and aquatic habitat or Essential Fish Habitat. Construction to extend the 29-4-31.2 road would not take place. There would be no additional road use associated with the proposed road renovation and construction and therefore no potential to increase sediment in streams. Roads currently contributing sediment would continue to add negligible amounts of sediment to streams.

B. Alternative Two – Proposed Action

Effects to fish and aquatic resources are derived from the potential for sediment to enter stream channels affecting fish and fish habitat downstream. New road construction and ridge top road segments would not affect fish or fish habitat downstream because the roads do not cross streams and without a connection between the road and a stream there is no mechanism for sediment to enter streams or affect fish directly or indirectly.

Where existing roads cross streams there is little potential for additional sediment to reach streams because the crossings occur on relatively low gradient rocked roads with flat approaches. This concentrates road derived sediment in ditches and cross drains above stream crossings where it is rerouted onto the forest floor. This allows run-off to quickly infiltrate and deposit sediment on the forest floor rather than transport it into streams. Consequently, there would be a negligible amount of sediment delivered to adjacent streams at these crossings.

Essential Fish Habitat

Timber hauling on existing roads could deliver sediment to streams, but would be limited to a distance of approximately 100 feet downstream from crossings. Any increase in sediment and affects to spawning substrate would be negligible because the application of Project Design Features and Best Management Practices described in Chapter Two (pp. 5-7) would prevent adverse effects from road related activities. The proposed reciprocal right-of-way agreement would not adversely affect Essential Fish Habitat for coho or Chinook salmon for the following reasons:

- There would be no affect to large woody debris or its source areas because the use of existing roads would not remove any large woody debris, the proposed road construction and would be on stable side slopes without stream crossings where large wood debris might be removed.
- Stream channels are stable and have riparian vegetation sufficient to prevent erosion caused by high stream flow. Using existing roads and the proposed road renovation or construction would not remove riparian vegetation or affect stream channel stability. Consequently, there would be no measurable increase in stream flow that could affect channel geometry.
- Fish access to streams would remain unaffected because there would be no new roads crossing fish-bearing streams.
- There would be no alteration of vegetation along streams and stream substrate by using the existing roads or by the proposed road renovation or construction; therefore, aquatic invertebrate populations that provide forage for coho and Chinook salmon would be unaffected.

V. Wildlife

A. Alternative One – No Action

Barring any natural disturbance, the existing condition of the forest stands managed by the BLM would be maintained and their present function as wildlife habitat would remain unchanged.

Effects to wildlife would be limited to those caused by the management of adjoining private lands for the production of timber. As it is anticipated that these private lands would be intensively managed on a rotation of 50 years or less, they are not expected to provide other than structurally simplified early and mid-seral habitat before the next harvest.

B. Alternative Two – Proposed Action

1. Special Status Species

a. Threatened and Endangered

Northern Spotted Owl

The use of existing roads would not affect northern spotted owls because suitable or dispersal habitat would not be removed and potential disturbance activities would not occur within prescribed distances of any known spotted owl nest site during the critical breeding season from March 1 to June 30.

Disturbance to spotted owls in unsurveyed suitable habitat within prescribed distances of road use is not likely to adversely affect because:

- These types of projects last for short durations, typically less than a few hours on any quarter-mile road segment, which limits the time of disturbance,
- The effects are spatially limited because they occur along road systems, therefore the area subject to disturbance is limited, and
- The forest roads are already well-traveled by the public and private timber operators for activities that may be as loud as or louder than the proposed activity. Habituation to noise has previously been reported for other raptors (Lee 1981) and recently Delaney et al. (1999) observed that Mexican spotted owls (*Strix occidentalis lucida*) habituate to noise, although the result was not statistically significant due to the small sample size. Delaney et al. (1999) also concluded that gradual increases in noise levels of helicopters reduced the response rates of Mexican spotted owls as compared to a stationary disturbance. Road use is similarly a gradual onset of noise, such that a startle response is not likely.

Based on this combination of limited temporal exposure, limited spatial exposure, and baseline exposure to noise disturbance, it is expected that road use activities would not likely cause any spotted owls in unsurveyed suitable habitat to flush from their nest, abandon a nest, cause juveniles to prematurely fledge, interrupt foraging activity or result in increased nesting vulnerability due to adult flushes during the critical nesting season.

The proposed new road construction in Section 31, T. 29 S., R. 4 W., W.M. would remove about 0.2 acres of NRF habitat on BLM-managed land. The removal of suitable habitat or disturbance from noise during road construction would have a negligible effect on spotted owls because the new road construction is located outside of known northern spotted owl activity centers or home ranges, the stand is expected to continue to function as NRF and dispersal habitat, and road construction would not occur between March 1 and September 30 unless surveys indicate spotted owls are not present, not nesting, or nesting attempts failed.

The proposed new road construction would remove three trees with suitable nesting characteristics, but as described in Chapter Three (p. 13), this would not change the function of the forest stand. The existing road does not pass near any known owl site and would not pose a disturbance to nesting owls. Consequently, the proposed new road construction is not likely to adversely affect the northern spotted owl.

Construction of the proposed road would not prevent the long-term use of this stand by spotted owls in the future. Short-term effects would include decreased canopy closure and the removal of potential nest trees, but displacement of spotted owls and disturbance from noise during road construction or use are not expected for the following reasons:

- The road construction is more than one-quarter mile from any known spotted owl activity center,
- Surveys conducted in 2006 did not find any spotted owl nest sites within one-quarter mile of the proposed road construction,
- Use of the existing roads for hauling timber would not remove or modify any suitable spotted owl habitat or disturb nesting owls,
- Stipulations in the right-of-way agreement would require written notification from Fruit Growers to the BLM, prior to February 1, stating the intent to conduct work in the ensuing operating season, so the BLM may schedule surveys to determine if owls are present. If surveys determine owls are present and nesting within one-quarter mile of the project area, seasonal restrictions would be implemented between March 1 and September 30, otherwise the restrictions would be waived.

The U.S. Fish and Wildlife Service in a letter of concurrence (LOC) dated March 1, 2007 concluded the reciprocal right-of-way agreement, road renovation, and new road construction were not likely to adversely affect the northern spotted owl because the stands on BLM-managed land would retain the ability to provide nest sites, a moderate to high canopy closure (60 to 80 percent), and multi-layered and multi-species canopy with large overstory trees. The stands would retain the ability to provide for nesting, roosting, foraging, and dispersal of spotted owls. Therefore, the overall function of NRF habitat would not change.

Effects to Critical Habitat are not expected because suitable spotted owl habitat removal on BLM-managed land would be outside of critical habitat units designated for the survival and recovery of the spotted owl (USDI 1992).

b. Bureau Sensitive

i. Northern Goshawk

The use of existing roads would not affect northern goshawks because suitable habitat would not be removed and potential disturbance activities would not occur within one-quarter mile of any known goshawk nest site between March 1 and July 30, or until it is determined that the young have dispersed.

Displacement of a nesting goshawk, or disturbance to nesting birds from noise during road construction would not be expected for the following reasons:

- Stipulations in the right-of-way agreement would require written notification from Fruit Growers to the BLM, prior to February 1, stating the intent to conduct work in the ensuing operating season, so the BLM may schedule surveys to determine if goshawks are present,
- If nesting goshawks are located during surveys, seasonal restrictions would be applied to prevent disturbance within one-quarter mile of nest sites between March 1 and July 30, or until it is determined that the young have dispersed.

The proposed new road construction in Section 31, T. 29 S., R. 4 W., W.M. would remove about 0.2 acres of suitable goshawk habitat, decreasing the canopy closure, but would not change the function of the forest stand or alter the nature of the suitable goshawk habitat.

ii. Oregon Shoulderband and Chace Sideband Snails

There would be no effects to these snail species from the use of existing roads because suitable habitat would not be removed. Surveys along the proposed new road construction route in Section 31, T. 29 S., R. 4 W., W.M., determined habitat is not present. Since no other habitat disturbing activities would occur on BLM-managed lands under the agreement no effects to these species are anticipated.

2. Survey and Manage

Oregon Red Tree Vole

There would be no effects to the red tree vole from the use of existing roads because suitable red tree vole habitat would not be removed.

The removal of 0.2 acres of suitable red tree vole habitat associated with new road construction in Section 31, T. 29 S., R. 4 W., W.M. in the Myrtle Creek Watershed would not adversely affect the persistence of this species, either at the stand or watershed level. Surveys were conducted to determine the presence of red tree vole nests in trees identified for removal. No nests were located; therefore no direct effects to this species are anticipated.

While the new road construction would remove 0.2 acres of mature forest, it would not affect the overall stand age stand or the current availability of late-seral forest habitat in the Myrtle Creek fifth-field watershed. Watershed analysis (USDI 2002, p. 68) projected that with implementation of management direction from the ROD/RMP, the amount of late-seral forest present in the Myrtle Creek fifth-field watershed in the year 2025 would be the same as presently exists even following regeneration harvest authorized by the ROD/RMP. This indicates that there would be no cumulative effects to the continued availability and functionality of late-seral habitat in the Myrtle Creek watershed.

VI. Botany

A. Alternative One – No Action

Special Status Species

a. Vascular Plants

No effects to Special Status plant species would be anticipated as a result from this alternative. No loss of sites would be expected because the habitat and conditions would be maintained and remain intact and undisturbed.

b. Fungi

Under this alternative, forest stands in the proposed reciprocal right-of-way agreement area would continue to function as fungi habitat and no loss of sites would be expected because microclimatic conditions of temperature and humidity would be maintained by retention of present forest canopy, and soil organic matter, forest litter and large woody debris would remain intact and undisturbed.

B. Alternative Two – Proposed Action

Special Status Species

a. Vascular Plants

No effects to Special Status plant species would be anticipated as a result of the proposed reciprocal right-of-way agreement. In the event that species identified in Table C-1 in Appendix C are located during surveys, sites would be protected in accordance with management recommendations designed to maintain habitat conditions favorable for their persistence.

b. Fungi

The proposed action would not affect any known sites of Bureau Sensitive fungi species described on page 17, because they are all outside of the proposed reciprocal right-of-way agreement area.

The presence of these species in the proposed reciprocal right-of-way agreement area is unknown as surveys are not considered practical for reasons described on page 16. If any of these species are present in the proposed reciprocal right-of-way agreement area, a loss of sites would likely result as a consequence of the removal of substrate and modification of microclimate during road construction, as described in the *Final Supplemental Environmental Impact Statement to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines* (USDA and USDI 2004b, pp. 150-154). It is anticipated, however, that the network of late-successional forest managed by the BLM in the watersheds, and much of it in land use allocations reserved from regeneration harvest, would continue to provide in excess of 51,000 acres of potential habitat for these species. Consequently, no cumulative effects to these species are anticipated.

VII. Monitoring

Monitoring would be conducted in accordance with the ROD/RMP, Appendix I (pp. 84-85, 190-191, 193, 195-199). Specific Resources to be monitored would include: Matrix; Riparian Reserves; Water and Soils; Wildlife Habitat; Fish Habitat; and Special Status Species Habitat.

CHAPTER FIVE

LIST OF AGENCIES AND PERSONS CONTACTED AND PREPARERS

This project was included in the Roseburg BLM Project Planning Update (Winter 2006). If a decision is made to implement the proposed action, a notice of decision would be published in *The News-Review*, Roseburg, Oregon.

I. Persons Contacted:

Adjacent Landowners

II. Agencies, Organizations, and Individuals to be Notified of the Completion of the EA:

American Forest Resource Council
Cascadia Wildlands Project
Cow Creek Band of Umpqua Tribe of Indians
Douglas Timber Operators, Robert Ragon, Executive Director
Klamath Siskiyou Wildlands Center
National Marine Fisheries Service
Oregon Department of Environmental Quality
Oregon Department of Fish and Wildlife
Oregon Natural Resources Council
Ronald S. Yockim, Attorney-at-Law
Pacific Northwest 4-Wheel Drive Association
U.S. Fish and Wildlife Service
Umpqua Valley Audubon Society
Umpqua Watersheds, Inc.

III. List of Preparers:

| | |
|---------------|---------------------------|
| Don Scheleen | Team Leader |
| Paul Meinke | Writer/Editor |
| Nancy Duncan | Wildlife |
| Mike Anderson | Engineering |
| Isaac Barner | Archaeology |
| Cory Sipher | Fisheries |
| Ward Fong | Soils |
| Gary Basham | Botany |
| Jill Ralston | Hydrology |
| Joe Ross | Management Representative |

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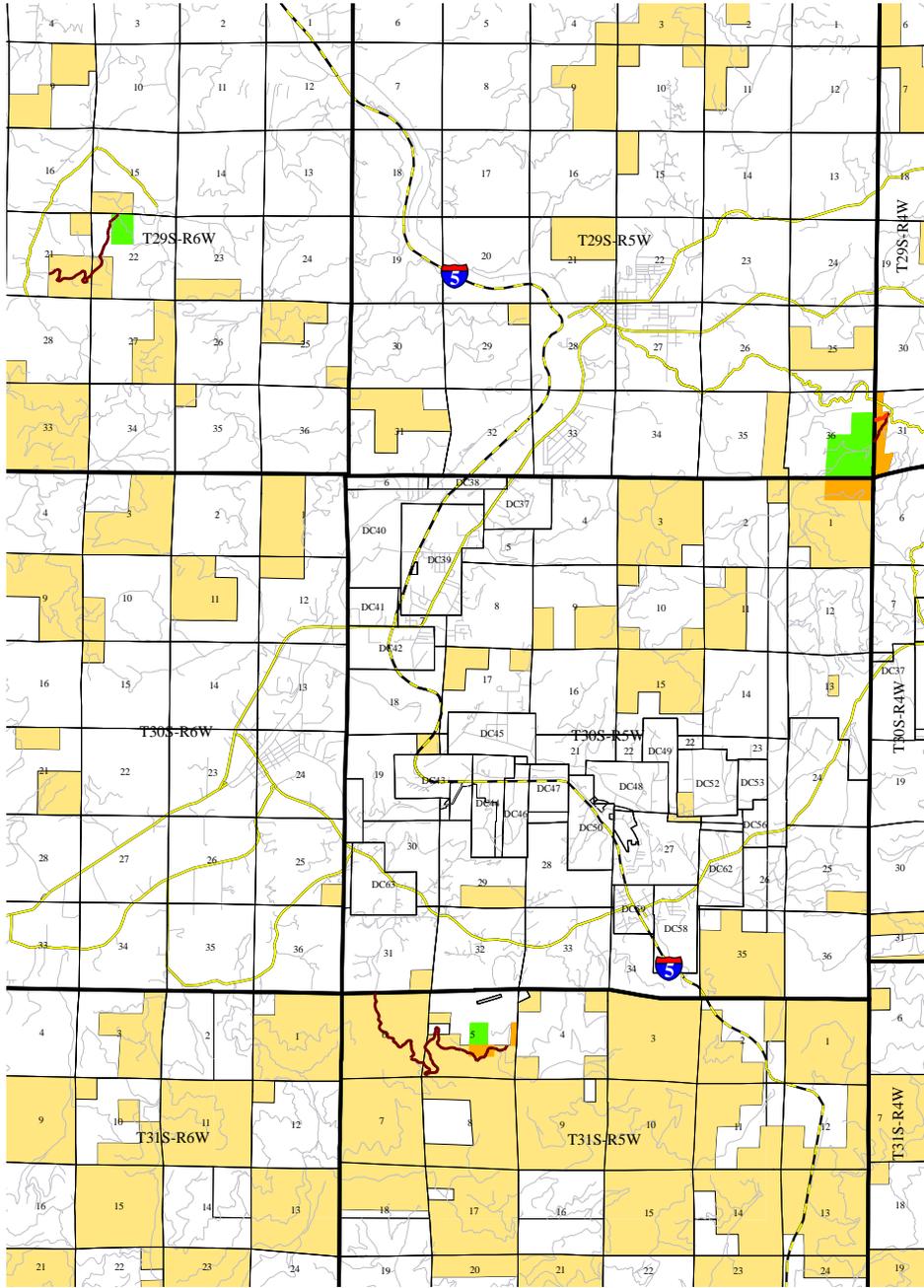
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Appendix A

Maps

Fruit Growers Reciprocal Right-of-Way Agreement



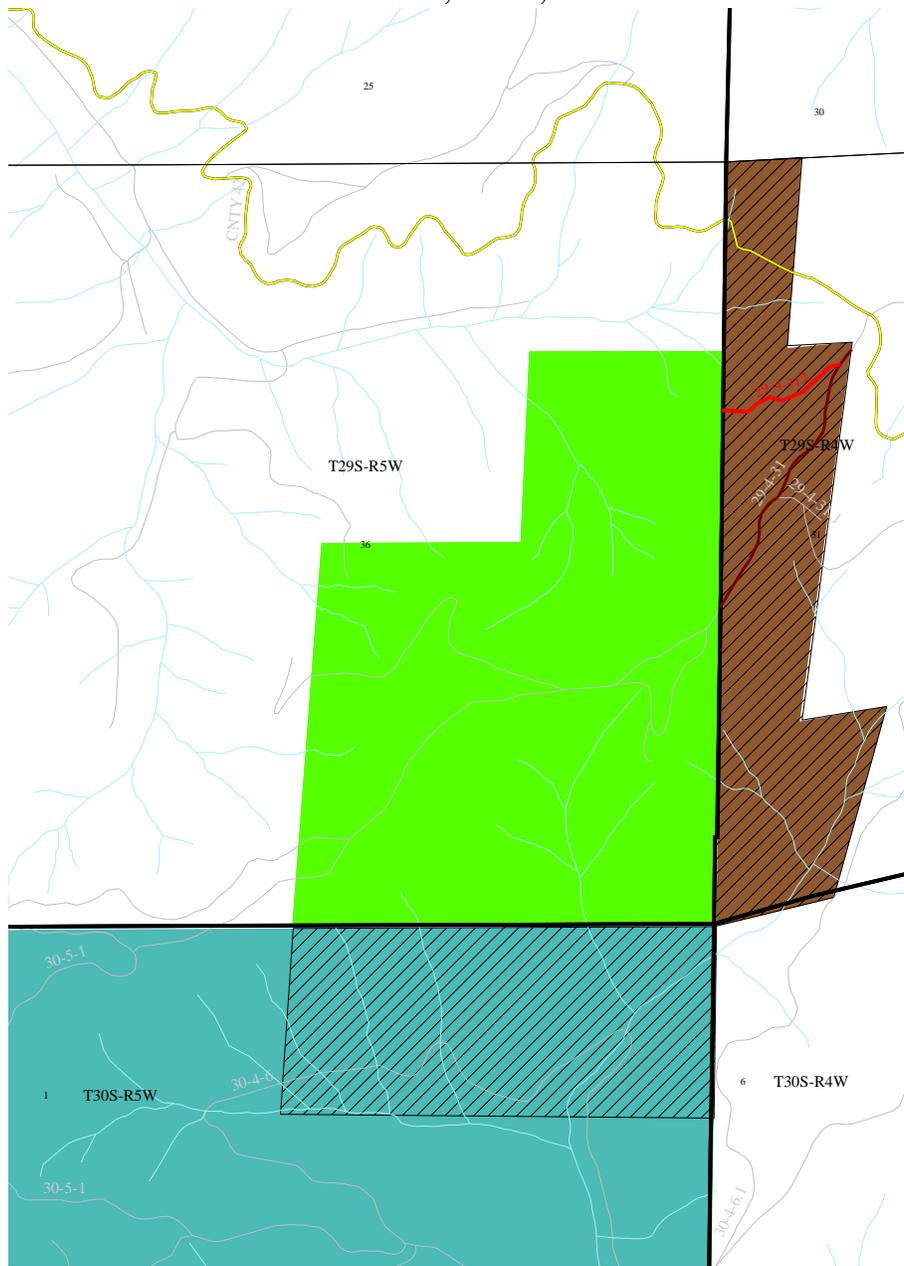
- Legend**
- Fruit Growers Supply Company Lands
 - BLM Administered Land to be Included in Right-of-Way Agreement
 - BLM Controlled Roads to be Included in Right-of-Way Agreement
 - Proposed Road Renovation and Construction
 - Main Roads
 - Roads
 - Section Lines
 - Township Lines
 - BLM Administered Land
 - Non-BLM Land



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.



Fruit Growers Reciprocal Right-of-Way Agreement Parcel in T29S, R5W, Section 36



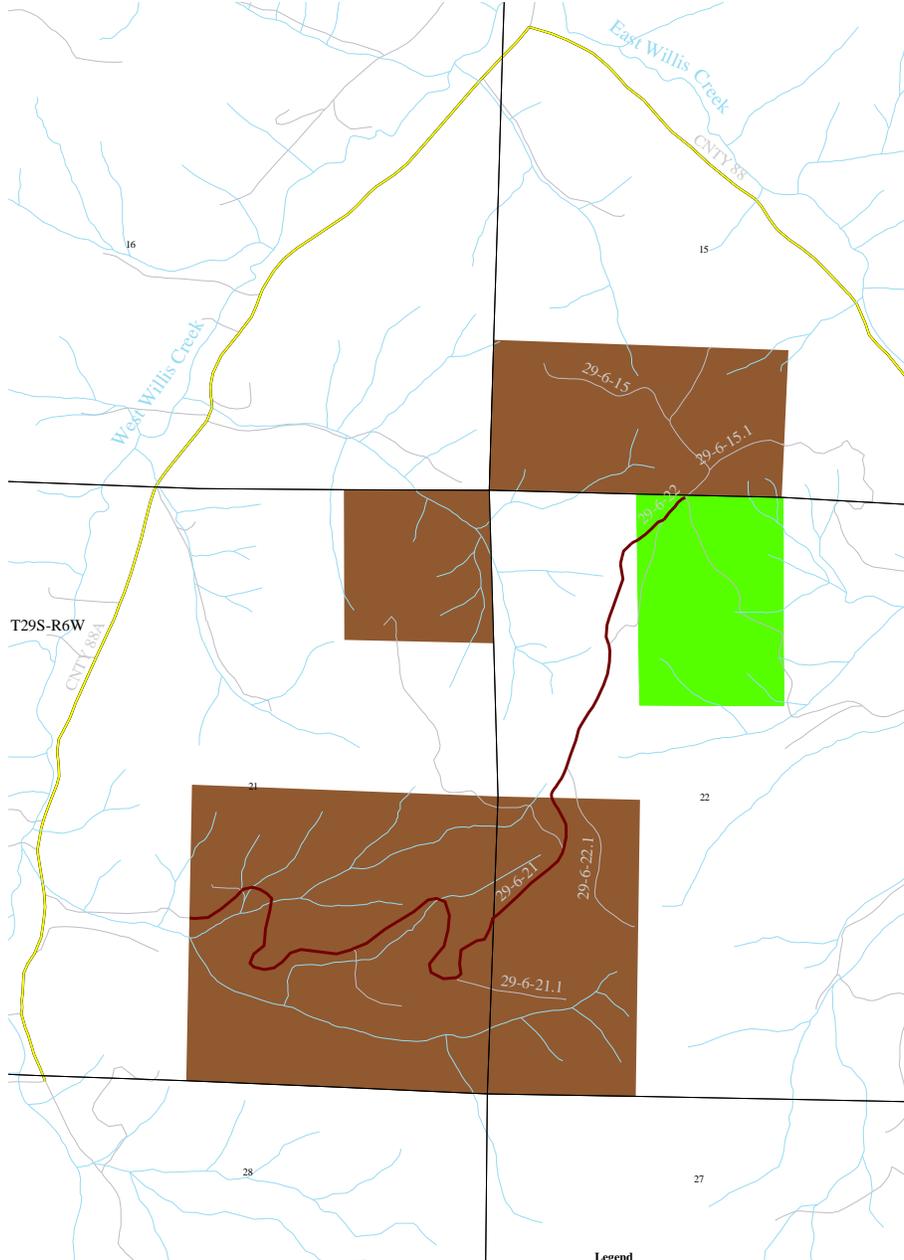
- | | |
|---|--|
| Legend | |
| Fruit Growers Supply Company Lands | BLM Land Use Allocation |
| BLM Administered Land to be Included in Right-of-Way Agreement | Connectivity |
| Proposed Road Renovation and Construction | District Defined Reserve |
| BLM Controlled Roads to be Included in Right-of-Way Agreement | General Forest Management Area |
| Main Roads | Late Successional Reserve |
| Roads | Section Lines |
| | Township Lines |



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.



Fruit Growers Reciprocal Right-of-Way Agreement Parcel in T29S, R6W, Section 22



0 1,000 2,000 3,000 Feet



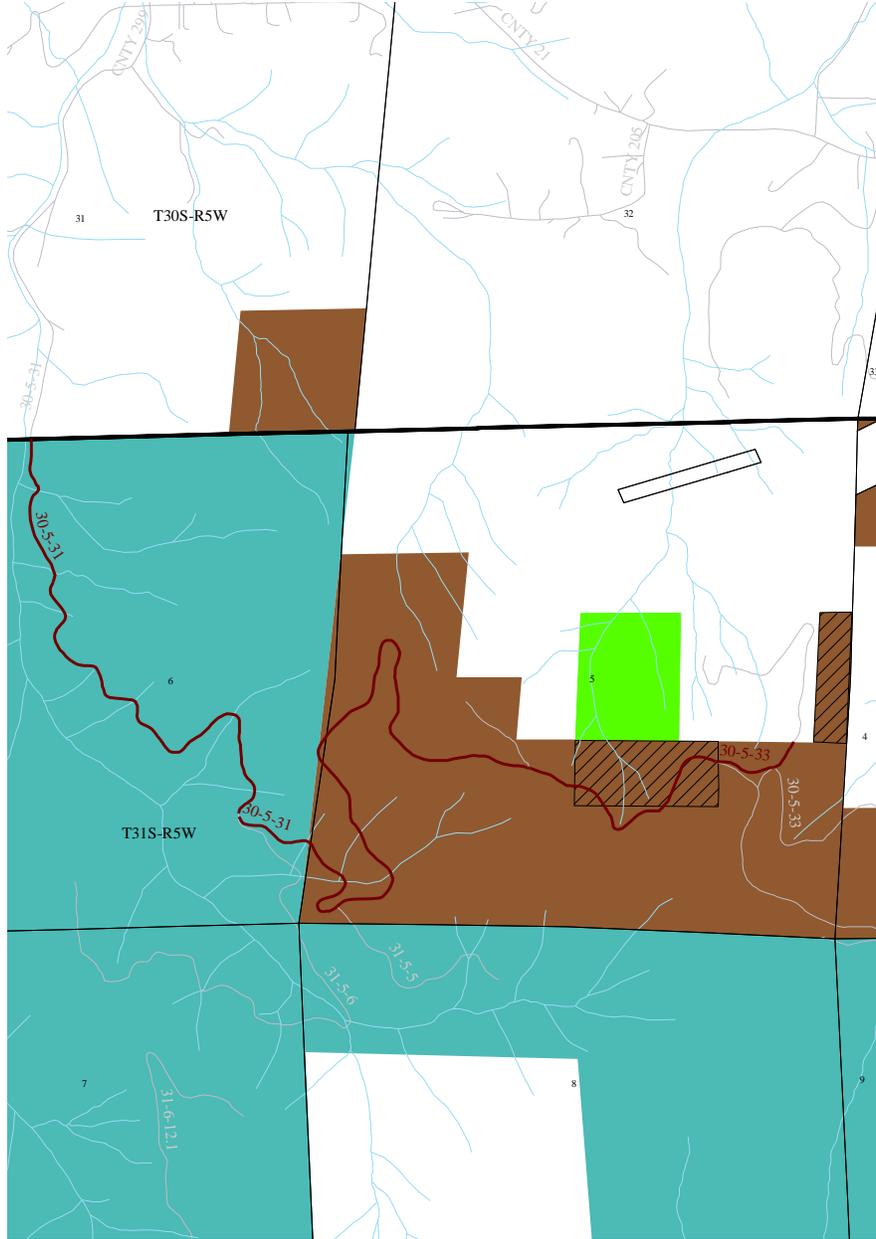
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.



Legend

- | | |
|--|--|
|  Fruit Growers Supply Company Lands |  BLM Land Use Allocation |
|  BLM Administered Land to be Included in Right-of-Way Agreement |  Connectivity |
|  BLM Controlled Roads to be Included in Right-of-Way Agreement |  District Defined Reserve |
|  Main Roads |  General Forest Management Area |
|  Roads |  Late Successional Reserve |
|  Streams |  Section Lines |
| |  Township Lines |

Fruit Growers Reciprocal Right-of-Way Agreement Parcel and Roads in T31S, R5W, Sections 5 and 6



0 1,000 2,000 3,000 4,000 Feet



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.



Legend

- | | |
|--|--|
|  Fruit Growers Supply Company Lands |  BLM Land Use Allocation |
|  BLM Administered Land to be Included in Right-of-Way Agreement |  District Defined Reserve |
|  BLM Controlled Roads to be Included in Right-of-Way Agreement |  General Forest Management Area |
|  Roads |  Late Successional Reserve |
|  Streams |  Section Lines |
| |  Township Lines |

Appendix B

Wildlife

Table B-1. Special Status Wildlife Species Preferred Habitat and Reason for Inclusion or Elimination from Analysis.

| Scientific Name | Common Name | Preferred Habitat | Within Range | Habitat Presence | Reason Eliminated From Analysis |
|--|-----------------------------|--|--------------|------------------|--|
| Federally Threatened | | | | | |
| <i>Strix occidentalis caurina</i> | Northern Spotted Owl | Typically mature to old-growth stands of Douglas fir forest. Occasionally found in younger forest stands that have remnant trees (Marshall et al. 1996). | Yes | Yes | See Text |
| <i>Brachyramphus marmoratus</i> | Marbled Murrelet | Nests in large conifers that have deformed branches and mistletoe in mature to old-growth forests (Marshall et al. 1996). | No | No | Outside of Habitat Zone |
| <i>Haliaeetus leucocephalus</i> | Bald Eagle | Nests in large conifers in mature to old-growth stands within 1-2 miles from major rivers, lakes, and reservoirs (Marshall et al 1996). | Yes | No | Outside of known eagle concentrations and more than 2 miles from major river |
| Bureau Sensitive - Oregon | | | | | |
| <i>Falco peregrinus anatum</i> | American Peregrine Falcon | Natural shelves, ledges, and potholes in rocky cliffs or outcrops in open or forested areas (Marshall et al. 1996). | Yes | No | No Habitat |
| <i>Odocoileus virginianus leucurus</i> | Columbian White-tailed Deer | Known breeding population restricted to Roseburg and vicinity lowlands, riparian in oak savannah, and grasslands (Marshall et al. 1996). | No | No | No Habitat |
| <i>Pristiloma arcticum crateris</i> | Crater Lake Tightcoil Snail | Wet meadows and down woody debris in western Cascade Province above 2,000 feet (Duncan et al. 2003). | No | No | Out of Range No Habitat |
| <i>Monadenia chaceana</i> | Chase Sideband Snail | Rocky areas and talus deposits in Klamath Province. Large down woody material in Cascade Province (Duncan et al. 2003). | Yes | Unknown | See Text |
| <i>Monadenia fidelis beryllica</i> | Green Sideband Snail | Deciduous trees and brush, western side of South River Resource Area. Associated with forest floor litter, in wet undisturbed low elevations riparian areas, seeps, and springs (Duncan 2004). | No | No | Out of Range |
| <i>Prophysaon</i> sp. nov. | Klamath Tail-dropper | Not officially described in the literature. Found in moist open areas associated with floodplains and spring margins in ponderosa pine and Douglas-fir forests (Duncan 2004). | No | No | Out of Range |
| <i>Melanerpes lewis</i> | Lewis' Woodpecker | Riparian areas with large cottonwoods; logged or burned over ponderosa pine forests; or open oak or oak-conifer woodlands (Marshall et al. 1996). | No | No | No Habitat |

Table B-1. Special Status Wildlife Species Preferred Habitat and Reason for Inclusion or Elimination from Analysis.

| Scientific Name | Common Name | Preferred Habitat | Within Range | Habitat Presence | Reason Eliminated From Analysis |
|-------------------------------------|-----------------------------|---|--------------|------------------|---|
| <i>Accipiter gentilis</i> | Northern Goshawk | Forest stands generally 80+ years, mature deciduous and evergreen forest stands. Nests on largest trees of stand, often near water (Marshall et al. 1996). | Yes | Yes | See Text |
| <i>Clemmys marmorata</i> | Northwestern Pond Turtle | Larger mountain and valley streams with deep pools, soils high in clay or silt fraction, south-southwest aspects and slope about 25% (range 0-60%, egg laying mostly June and July, incubation time average 70-80 days) (Holland 1994). | Yes | No | No Habitat |
| <i>Helminthoglypta hertleini</i> | Oregon Shoulderband Snail | Basalt talus, under rocks and woody debris in moist forests and shrubby riparian corridors (Duncan et al. 2003). | Yes | Unknown | See Text |
| <i>Poecetes gramineus affinis</i> | Oregon Vesper Sparrow | Open grassland areas (Marshall et al. 1996). | No | No | No Habitat |
| <i>Progne subis</i> | Purple Martin | Along rivers, other water bodies, old burns in forest stands generally 80+ years, nest in abandoned woodpecker cavities, nest boxes (Copley et al. 1999; Marshall et al. 1996). | Yes | No | No Habitat |
| <i>Lanx subrotundata</i> | Rotund Lanx Snail | Aquatic snail, large river systems (Duncan personal communication). | Yes | No | No Habitat |
| <i>Allomyia scotti</i> | Scotts Appatanian Caddisfly | Lives in small cold mountain streams, often at high elevation, turbulent waters, vertical rock faces in a thin layer of water (Wiggins 1977). | Yes | No | No Habitat |
| <i>Corynorhinus townsendii</i> | Townsend's Big-eared Bat | Abandoned or natural caves or bridges. Trees with hollows and other cavities (Marshall et al. 1996). | Yes | No | No Habitat |
| <i>Prophyaon vanattaie pardalis</i> | Spotted Tail-dropper | Leaf litter under bushes in mature conifer forests in the Coast Range and the east side of the Coast Range (Duncan 2004). | No | Yes | Out of Range |
| Bureau Assessment – Oregon | | | | | |
| <i>Rana boylei</i> | Foothill Yellow-legged Frog | Deep slow moving water in larger streams (Marshall et al. 1996). | Yes | No | No Habitat |
| <i>Myotis thysanodes</i> | Fringed Myotis | Roost under loose bark of large diameter snags, colonies in caves, mines, and buildings (Marshall et al. 1996). | Yes | Yes | Large diameter snags would not be removed |

Table B-1. Special Status Wildlife Species Preferred Habitat and Reason for Inclusion or Elimination from Analysis.

| Scientific Name | Common Name | Preferred Habitat | Within Range | Habitat Presence | Reason Eliminated From Analysis |
|-------------------------------------|----------------------|--|--------------|------------------|---------------------------------|
| <i>Histrionicus histrionicus</i> | Harlequin Duck | Clean fast flowing streams with abundant riffles, rapids, gravel, coble, and boulders. Nests in riparian zone and often hidden in rock cavities, on the ground, on logs, in hollow trees, snags, undercut stream banks, or under woody debris (Dowlan 1996; Marshall et al. 1996). | Yes | No | No Habitat |
| <i>Antrozous pallidus pacificus</i> | Pacific Pallid Bat | Associated with rocky dry areas near water. Known to occur in dry forests like ponderosa pine and oak forests (Marshall et al. 1996). | Yes | No | No Habitat |
| <i>Elanus leucurus</i> | White-tailed Kite | Open grassy areas, marshes, riparian woodlands, and meadows for foraging. Nests on trees or tall shrubs (Csuti et al. 1997). | Yes | No | No Habitat |
| Survey and Manage | | | | | |
| <i>Arborimus longicaudus</i> | Oregon Red Tree Vole | Douglas-fir and other conifer forests, late seral habitat provides best conditions. | Yes | Yes | See Text |
| <i>Strix nebulosa</i> | Great Gray Owl | Suitable nesting habitat characterized by 1) large diameter trees, 2) forest canopy providing roosting cover, and 3) natural meadows or openings 10 acres or larger in size within 200 meters. | Yes | No | No Habitat |

Appendix C

Botany

Table C-1. Botanical Special Status Species and Survey Requirement.

| Scientific Name | Taxon | Status | Survey Requirement |
|---|----------------|--------------------|--------------------------------|
| <i>Plagiobothrys hirtus</i> | Vascular Plant | Federal Endangered | No Habitat |
| <i>Lupinus sulphureus</i> ssp. <i>kincaidii</i> | Vascular Plant | Federal Threatened | Surveyed, Not Present |
| <i>Arabis koehleri</i> var. <i>koehleri</i> | Vascular Plant | Bureau Sensitive | No Habitat |
| <i>Bensoniella oregana</i> | Vascular Plant | Bureau Sensitive | Surveyed, Not Present |
| <i>Calochortus coxii</i> | Vascular Plant | Bureau Sensitive | No Habitat |
| <i>Calochortus umpquaensis</i> | Vascular Plant | Bureau Sensitive | No Habitat |
| <i>Cimicifuga elata</i> | Vascular Plant | Bureau Sensitive | Surveyed, Not Present |
| * <i>Corydalis aquae-gelidae</i> | Vascular Plant | Bureau Sensitive | No Habitat |
| * <i>Cypripedium fasciculatum</i> | Vascular Plant | Bureau Sensitive | Habitat Present, Survey Needed |
| <i>Epilobium oreganum</i> | Vascular Plant | Bureau Sensitive | No Habitat |
| * <i>Eucephalis vialis</i> | Vascular Plant | Bureau Sensitive | Habitat Present, Survey Needed |
| <i>Festuca elmeri</i> | Vascular Plant | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Frasera umpquaensis</i> | Vascular Plant | Bureau Sensitive | Habitat Present, Survey Needed |
| <i>Horkelia congesta</i> ssp. <i>congesta</i> | Vascular Plant | Bureau Sensitive | Habitat Present, Survey Needed |
| <i>Horkelia tridentata</i> ssp. <i>Tridentata</i> | Vascular plant | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Kalmiopsis fragrans</i> | Vascular Plant | Bureau Sensitive | Habitat Present, Survey Needed |
| <i>Lathyrus holochlorus</i> | Vascular plant | Bureau Sensitive | Habitat Present, Survey Needed |
| <i>Limnanthes gracilis</i> var. <i>gracilis</i> | Vascular Plant | Bureau Sensitive | Habitat Present, Survey Needed |
| <i>Perideridia erythrorhiza</i> | Vascular Plant | Bureau Sensitive | Surveyed, Not Present |
| <i>Perideridia howellii</i> | Vascular Plant | Bureau Sensitive | Habitat Present, Survey Needed |
| <i>Romanzoffia thompsonii</i> | Vascular Plant | Bureau Sensitive | Habitat Present, Survey Needed |
| <i>Sisyrinchium hitchcockii</i> | Vascular Plant | Bureau Sensitive | No Habitat |
| <i>Adiantum jordanii</i> | Vascular Plant | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Asplenium septentrionale</i> | Vascular Plant | Bureau Assessment | Habitat Present, Survey Needed |
| * <i>Botrychium minganense</i> | Vascular Plant | Bureau Tracking | No Habitat |
| * <i>Botrychium montanum</i> | Vascular Plant | Bureau Assessment | No Habitat |

Table C-1. Botanical Special Status Species and Survey Requirement.

| Scientific Name | Taxon | Status | Survey Requirement |
|---|----------------|-------------------|--------------------------------|
| <i>Carex brevicaulis</i> | Vascular plant | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Carex comosa</i> | Vascular Plant | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Carex gynodynamis</i> | Vascular Plant | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Carex serratodens</i> | Vascular Plant | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Cicendia quadrangularis</i> | Vascular Plant | Bureau Assessment | No Habitat |
| * <i>Coptis trifolia</i> | Vascular Plant | Bureau Assessment | No Habitat |
| * <i>Cypripedium montanum</i> | Vascular Plant | Bureau Tracking | Habitat Present, Survey Needed |
| <i>Eschscholzia caespitosa</i> | Vascular Plant | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Iliamna latibracteata</i> | Vascular Plant | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Mimulus tricolor</i> | Vascular Plant | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Pellaea andromedaefolia</i> | Vascular Plant | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Polystichum californicum</i> | Vascular Plant | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Sedum laxum</i> ssp. <i>heckneri</i> | Vascular Plant | Bureau Assessment | No Habitat |
| <i>Romanzoffia thompsonii</i> | Vascular plant | Bureau Sensitive | Habitat Present, Survey Needed |
| <i>Scirpus subterminalis</i> | Vascular plant | Bureau Assessment | No Habitat |
| <i>Utricularia gibba</i> | Vascular Plant | Bureau Assessment | No Habitat |
| <i>Utricularia minor</i> | Vascular Plant | Bureau Assessment | No Habitat |
| <i>Wolffia borealis</i> | Vascular Plant | Bureau Assessment | No Habitat |
| <i>Wolffia columbiana</i> | Vascular Plant | Bureau Assessment | No Habitat |
| <i>Chiloscyphus gemmiparus</i> | Bryophyte | Bureau Sensitive | No Habitat |
| <i>Trematodon boasii</i> | Bryophyte | Bureau Sensitive | No Habitat |
| <i>Crumia latifolia</i> | Bryophyte | Bureau Assessment | No Habitat |
| <i>Diplophyllum plicatum</i> | Bryophyte | Bureau Assessment | No Habitat |
| <i>Funaria Muhlenbergii</i> | Bryophyte | Bureau Assessment | No Habitat |
| * <i>Kurzia makinoan</i> | Bryophyte | Bureau Assessment | No Habitat |
| <i>Pseudoleskeella serpentiniensis</i> | Bryophyte | Bureau Assessment | No Habitat |
| * <i>Schistostega pennata</i> | Bryophyte | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Tayloria serrata</i> | Bryophyte | Bureau Assessment | Habitat Present, Survey Needed |
| * <i>Tetraphis geniculata</i> | Bryophyte | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Tetraplodon mnioides</i> | Bryophytes | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Tripterocladium leucocladulum</i> | Bryophyte | Bureau Assessment | Habitat Present, Survey Needed |
| * <i>Tritomaria exsectiformis</i> | Bryophyte | Bureau Assessment | No Habitat |
| * <i>Bryoria pseudocapillaris</i> | Lichen | Bureau Sensitive | No Habitat |

Table C-1. Botanical Special Status Species and Survey Requirement.

| Scientific Name | Taxon | Status | Survey Requirement |
|--|--------|-------------------|---|
| <i>*Bryoria spiralifera</i> | Lichen | Bureau Sensitive | No Habitat |
| <i>*Bryoria subcana</i> | Lichen | Bureau Assessment | No Habitat |
| <i>Calicium adpersum</i> | Lichen | Bureau Assessment | Unknown if Habitat Present, Survey Needed |
| <i>*Hypogymnia duplicata</i> | Lichen | Bureau Tracking | Habitat Present, Survey Needed |
| <i>*Leptogium cyanescens</i> | Lichen | Bureau Tracking | Habitat Present, Survey Needed |
| <i>*Lobaria linita</i> | Lichen | Bureau Assessment | Habitat Present, Survey Needed |
| <i>*Niebla cephalota</i> | Lichen | Bureau Assessment | No Habitat |
| <i>*Nephroma occultum</i> | Lichen | Bureau Tracking | Habitat Present, Survey Needed |
| <i>Pannaria rubiginosa</i> | Lichen | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Pilophorus nigricaulis</i> | Lichen | Bureau Assessment | No Habitat |
| <i>*Pseudocyphellaria perpetua</i> | Lichen | Bureau Tracking | No Habitat |
| <i>*Pseudocyphellaria rainierensis</i> | Lichen | Bureau Tracking | Habitat Present, Survey Needed |
| <i>Sulcaria badia</i> | Lichen | Bureau Assessment | Habitat Present, Survey Needed |
| <i>Stereocaulon spathuliferum</i> | Lichen | Bureau Assessment | Habitat Present, Survey Needed |
| <i>*Teloschistes flavicans</i> | Lichen | Bureau Assessment | No Habitat |
| <i>*Tholurna dissimilis</i> | Lichen | Bureau Assessment | No Habitat |
| <i>Arcangeliella camphorata</i> | Fungi | Bureau Sensitive | Habitat Present, Surveys Not Practical |
| <i>*Bridgeoporus nobilissimus</i> | Fungi | Bureau Sensitive | No Habitat |
| <i>Dermocybe humboldtensis</i> | Fungi | Bureau Sensitive | Habitat Present, Surveys Not Practical |
| <i>Phaeocollybia californica</i> | Fungi | Bureau Sensitive | Habitat Present, Surveys Not Practical |
| <i>Phaeocollybia gregaria</i> | Fungi | Bureau Sensitive | Habitat Present, Surveys Not Practical |
| <i>Phaeocollybia olivacea</i> | Fungi | Bureau Sensitive | Habitat Present, Surveys Not Practical |
| <i>Phaeocollybia oregonensis</i> | Fungi | Bureau Sensitive | Habitat Present, Surveys Not Practical |
| <i>Ramaria spinulosa</i> var. <i>diminutiva</i> | Fungi | Bureau Sensitive | Habitat Present, Surveys Not Practical |
| <i>Rhizopogon chamalelontinus</i> | Fungi | Bureau Sensitive | Habitat Present, Surveys Not Practical |
| <i>Rhizopogon exiguus</i> | Fungi | Bureau Sensitive | Habitat Present, Surveys Not Practical |

*Indicates list of species compiled from the 2003 Annual Species Review (IM-OR-2004-034) and the 2006 list of species requiring equivalent-effort surveys (IM OR-2006-038).

Appendix D

Consistency of the Proposed Action with the Aquatic Conservation Strategy

Use of existing roads is not expected to have any effect on the existing condition of the watersheds in which the lands covered by the proposed reciprocal right-of-way agreement are located. The sole action considered to have potential effects would be approval of the request to construct a 300-foot extension of Road No. 29-4-31.2. Subsequently, the discussion of the consistency of the proposed action with the Aquatic Conservation Strategy is limited to the construction of this road in the Myrtle Creek fifth-field watershed.

The proposed road construction does not pass through or within any **Riparian Reserves**.

The Myrtle Creek fifth-field watershed is not designated under the Northwest Forest Plan as a **Key Watershed**. Consequently, standards and guidelines applicable to Key Watersheds are not applicable to this proposed action.

There would not be any recommendations in **Watershed Analysis** relevant to a proposed action of such small scale and anticipated effect.

The project is not a **Watershed Restoration** project, per se, but would be more consistent with Aquatic Conservation Strategy objectives than a denial of the Fruit Growers request. Denying the application by Fruit Growers could necessitate the construction of roads across their lands and other private lands under conditions with a demonstrable risk of degrading watershed conditions and impacting aquatic habitat. This could arise from: the placement of roads adjacent to streams where road use could generate and transmit sediments into the streams; construction of stream crossings that could deliver sediment directly into streams and potentially act as barriers to passage by aquatic organisms; and road construction on steep side slopes that may be unstable and present the risk of landslides that may travel down slope into streams.

Appendix E

CRITICAL ELEMENTS OF THE HUMAN ENVIRONMENT

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order.

These resources or values are either **not present** or **would not be affected by the proposed action or alternative**, unless otherwise described in this EA. This negative declaration is documented below by individuals who assisted in the analysis preparation.

| ELEMENT | NOT PRESENT | NOT AFFECTED | IN TEXT |
|---|----------------|-----------------|---------|
| Air Quality | | X | X |
| Areas of Critical Environmental Concern | X | | |
| Cultural Resources | | | X |
| Environmental Justice | X | | |
| Farm Lands (prime or unique) | X | | |
| Floodplains | X | | |
| Native American Religious Concerns | X | | |
| Non-Native and Invasive Species | | X | X |
| Threatened or Endangered Wildlife Species | | | X |
| Threatened or Endangered Plant Species | | | X |
| Wastes, Hazardous or Solid | X | | |
| Water Quality Drinking/Ground | | X | |
| Wetlands/Riparian Zones | | X | X |
| Wild & Scenic Rivers | X | | |
| Wilderness | X | | |
| Visual Resource Management | | X | |