

# **Late-Successional Reserve 261 Density Management Environmental Assessment**

South River Field Office, Roseburg District  
EA# OR-105-05-08

## **Power Wagon Density Management Decision Document**

Prepared: August 17, 2006

### **Decision:**

It is my decision to authorize the Power Wagon Density Management project, partially implementing Alternative Two described in the Late-Successional Reserve 261 Density Management EA (pp. 5-15). Three units, totaling approximately 59 acres in area, will be treated. The unit numbers and the corresponding EA designation are as follows: 1 (A); 2 (C); 3 (B). The units are located in Section 17 of T. 28 S., R. 8 W., W.M., on lands allocated to Late-Successional Reserves (LSRs). The density management will result in an estimated 1,036 thousand board feet of timber to support local and regional manufacturers and economies. This volume is not chargeable towards the annual allowable sale quantity (ASQ).

Harvesting will be accomplished utilizing a combination of ground-based and cable systems. The use of ground-based equipment will be limited to the dry season, generally between May 15 and the onset of regular autumn rains in mid-to-late October. Cable yarding equipment will be capable of maintaining a minimum of one-end log suspension

Variable density treatments designed to develop late-successional forest conditions will consist of light, moderate, and heavy thinning densities, gaps no more than one-quarter acre in size, and unthinned areas. The heavy thinning and gaps meet the *South Coast-Northern Klamath Late-Successional Reserve* (LSRA, p. 82) recommended desired condition having three to ten percent of the stand in heavily thinned patches of less than 50 trees per acre, or in openings up to 0.25 acres in size to maximize individual tree development and initiate structural diversity by encouraging conditions that enhance the potential for understory initiation and growth. This also follows the Regional Ecosystem Office (REO) exemption criteria for silvicultural treatments in LSRs. Conifer seedlings would be planted in the heavy thinning areas and openings to establish an understory in the absence of natural vegetation. As noted in the EA (p. 6-7) trees will primarily be removed from the suppressed and intermediate canopy classes, although some co-dominant and dominant trees could be removed where necessary to meet specific density objectives. It is also anticipated that additional cutting of individual trees will be required to clear yarding corridors, provide tailhold trees and guyline anchors, and provide a safe working space at landings.

Felling and yarding of timber, other than clearing rights-of-way, is seasonally restricted from April 15 to July 15 during the bark slip period. This is the time of year when active cambial growth can result in the bark being less firmly attached and young trees are more susceptible to mechanical damage. Circumstances may exist, however, where it would be practical to waive

this restriction, such as in the use of harvesters and forwarders that are capable of severing trees, setting them aside, and transporting them to landings without damaging nearby trees.

Access will be provided by existing roads, supplemented by the construction of five temporary spur roads totaling approximately 3,035 feet (about 0.57 miles) in length. As discussed in the EA (p. 13) the intent is to construct, use, and decommission temporary roads within the same operating season. If temporary roads are constructed but cannot be utilized and decommissioned in the same operating season, because of events, such as an extended summer fire closure, the roads will be winterized and held over for use the following year. Winterizing will employ erosion control measures, in conjunction with blocking the roads to vehicular use during the wet season. Winterizing will be implemented during the dry season, to the extent practicable. The roads would then be decommissioned after use the following operating season.

### **Rationale for the Decision:**

The Roseburg District *Record of Decision and Resource Management Plan* (ROD/RMP) directs that silvicultural treatments be planned and implemented in LSRs that are beneficial to the creation of late-successional habitat (p. 29). The ROD/RMP (p.29) also specifies that thinning operations should be conducted in forest stands up to 80 years of age, if needed to create and maintain late-successional forest conditions. This would be accomplished by precommercial or commercial thinning of stands regardless of origin (e.g., planted after logging or naturally regenerated after fire or blowdown). Implementation of Alternative Two, the proposed action, is consistent with these ROD/RMP objectives and would meet the purpose and need identified in the Late-Successional Reserve 261 Density Management EA (pp. 1-3), whereas Alternative One, the no action alternative, would not.

The *South Coast-Northern Klamath LSRA* provides guidance for determining what forest stand conditions warrant silvicultural treatment and the types of treatments that would be appropriate to achieve desired forest stand conditions. Although the *South Coast-Northern Klamath LSRA* identified stands less than 30 years old as high priority for treatment (pp.68 and 97), it also states on p. 66 that the guidelines are not intended to preclude a specific treatment where a management action would benefit late-successional species and their habitat and meet the objectives for management in the LSRs. The *South Coast-Northern Klamath LSRA* listed LSR 261, which encompasses the analysis area, as a high priority for management actions based on its large size, key links to the LSR network, and its land ownership pattern. Management priorities identified in the *South Coast-Northern Klamath LSRA* for LSR 261 include enlarging existing interior late-successional habitat blocks, maintaining and improving habitat connections between LSRs and within the LSR, and creating late-successional habitat where absent (LSRA, pp. 63-66 and Map #6). Density management treatment of the Power Wagon units would meet the *South Coast-Northern Klamath LSRA* objective to create late-successional habitat, enlarge existing interior late-successional habitat blocks, and maintain and improve habitat connections between LSRs and within the LSR.

## Public Comments

Comments on the Late-Successional Reserve 261 Density Management EA were received from two organizations. These comments were considered in the preparation of this decision. None of the comments identified issues or concerns that would constitute information not already considered and addressed in the EA, or that are not addressed in this decision. Following is a summary of some of the comments received and reference to how and where they are addressed in the Late-Successional Reserve 261 Density Management EA.

- The density management may remove older, remnant trees along road rights-of-way.

As discussed in the EA (p. 7) some older, remnant trees could be removed for roads, but only where no feasible alternative access routes are available. Thinning would not remove any older, remnant trees. Thinning is to be conducted from below, removing trees predominantly from the suppressed and intermediate canopy layers (EA, pp. 6 and 7). Harvest of remnant overstory trees would not be consistent with density management objectives because of the potential damage to the residual stand that would be caused by felling and yarding large trees. About 36 trees larger than 19 inches DBH will be removed during construction of five temporary spur roads providing access to landing areas in the Power Wagon Density Management units. All of the trees are smaller than 25 inches DBH and are not older, remnant trees.

- Don't agree that it would be necessary to sell trees greater than 20 inches DBH cut for operational purposes. These trees should be left to help fill in the missing stand components in these wildlife reserves.

It is acknowledged that trees larger than 20 inches may be cut to achieve stand density objectives. However, trees selected for retention would generally be from the dominant and co-dominant crown classes. The marking prescriptions were to retain trees larger than 19 inches. Cruise data from Power Wagon units show six trees larger than 19 inches DBH, outside of road rights-of-way, would be cut during density management operations. All of these trees are smaller than 25 inches. Leaving these six trees would have a negligible effect on the availability of snags for wildlife when viewed at the project scale of 59 acres. Table 21 in the EA shows between 40 and 90 trees per acre would remain to provide future snag recruitment for wildlife. Also the selection of trees for retention included trees with broken tops or other defects that will provide future nesting structure for wildlife. It is also expected that mechanical damage during the density management operations will create snags and coarse woody debris. In addition, snags larger than 16 inches DBH and 16 feet tall and expected to survive the density management and existing coarse woody debris have been retained. As shown in Table 7 on p. 21 of the EA surveys for coarse woody debris (CWD) were conducted and the Power Wagon units meet the *South Coast-Northern Klamath* LSRA recommendations for CWD.

- Before creating things like canopy gaps, new roads, or other project features, the BLM should consider the cumulative effects of a proposed natural gas pipeline.

The natural gas pipeline is in the initial planning stage and not enough information is available to permit a meaningful consideration of the pipeline in a cumulative effects discussion. Without a

final route a discussion of cumulative effects of the natural gas pipeline would be speculative. Also, the cumulative effects of earlier actions, including the Late-Successional Reserve 261 Density Management, would be analyzed during the NEPA process for the pipeline.

In a recent ruling, the Ninth Circuit Court of Appeals (EPIC v. U.S. Forest Service (Knob Case), No. 04-15931, 9<sup>th</sup> Cir., June 23, 2006) held that the government did not need to do the “impractical” because not enough information was available on another timber sale to permit meaningful consideration. Furthermore, once the future project becomes a formal proposal, it would also require a NEPA analysis that would take into account the effects of the earlier actions, including the one being challenged.

## *Wildlife*

### Special Status Species

The Power Wagon Density Management project will thin approximately 59 acres of northern spotted owl dispersal habitat. It was determined that disturbance associated with the density management “may affect” but is not likely to adversely affect spotted owls. No known nest sites and no activity centers occur within the appropriate disruption threshold distances. Operations in two acres in the western portion of unit 1 (A) that is within 65 yards of unsurveyed suitable habitat (EA, Tables 9 and 10 on p. 25) will be subject to seasonal operating restrictions from March 1 through June 30, unless surveys indicate spotted owls were not present, not attempting to nest, or nesting attempts failed (EA, p.54). Waiver of the seasonal restriction is valid until March 1 of the following year. Surveys conducted in 2006 did not detect any spotted owls.

The density management would occur in northern spotted owl dispersal habitat, would maintain at least 40 percent canopy closure (EA, p. 53), and would not remove primary nesting and roosting habitat constituents. Within 10-15 years canopy closure will return to pre-thinning levels (EA, p. 46), and use by owls for dispersal and foraging is expected to rise as the greater structural and vegetative complexity will support more abundant prey. As a consequence, the BLM has made a determination of “may affect, not likely to adversely affect” for habitat modification.

The U.S. Fish and Wildlife Service (Service) concluded in the June 24, 2005 Letter of Concurrence (File No. 1-15-05-F-0511, p. 19) that the density management activities are not likely to adversely affect spotted owls because canopy cover will not fall below 40 percent, a value widely used as dispersal function threshold (Thomas et al. 1990), the units would continue to provide sufficient primary constituent elements for spotted owl dispersal, there would be adequate dispersal habitat available in the project area pre-harvest and post-harvest, and projects will not occur within 65 yards of unsurveyed suitable habitat from March 1 through June 30, unless current calendar year surveys indicate: 1) spotted owls not detected, 2) spotted owls present, but not attempting to nest, or 3) spotted owls present, but nesting attempt has failed. Waiver of the seasonal restriction is valid until March 1 of the following year.

The Late-Successional Reserve 261 Density Management EA (p. 24) incorrectly stated none of the treatment units are within Critical Habitat Units designated for the survival and recovery of

the spotted owl. The Power Wagon Density Management units are within Critical Habitat Unit (CHU) OR-61, however, and although dispersal habitat will be modified, a minimum average canopy closure of 40-60 percent will be maintained in addition to the structural elements needed to support spotted owl dispersal. The Service concluded that density management activities are not likely to adversely affect spotted owl critical habitat (File No. 1-15-05-I-0511, p. 28) or preclude the intended function of Critical Habitat because the primary constituent elements will persist post-treatment, canopy cover will not fall below 40 percent, and there would be adequate dispersal habitat available in the project area pre-harvest and post-harvest.

The Power Wagon Density Management project area is located in the Marbled Murrelet Inland Management Zone 2 and outside of the Roseburg BLM District seasonal restriction corridors. This project will not affect marbled murrelets because these units do not contain suitable habitat and surveys conducted in adjacent suitable habitat determined murrelets were not present. As a consequence, the BLM determined that the project would have “no effect” on marbled murrelets.

The units are within Critical Habitat Unit OR-06-d designated for the survival and recovery of the marbled murrelet. The Service concurs that density management activities are not likely to adversely affect marbled murrelet critical habitat (File No. 1-15-05-I-0511, p. 16) because primary constituent elements will be maintained and protected. In the long term, the development of additional nesting structure and stand characteristics preferred by nesting murrelets will benefit this species.

Surveys were conducted for the spotted tailed dropper, and Oregon shoulderband, Chace sideband, and green sideband snails. None of these mollusk species were located in the Power Wagon Density Management units.

#### Survey and Manage Species

As described in Appendix C of the EA, the Power Wagon Density Management units are outside the range of the Crater Lake tightcoil snail.

The project area was evaluated for the presence of suitable habitat for great gray owls. Suitable nesting habitat for the great gray owl is characterized by: (1) large diameter nest trees, (2) forest canopy providing roosting cover, and (3) proximity [within 200 meters] to openings ten acres or larger in size that could be used as foraging areas. No habitat fitting this description is present.

The BLM has fulfilled survey requirements consistent with the direction of the 2001 *Record of Decision for Amendment to the Survey and Manage, Protection Buffer, and Other Mitigation Measures Standards and Guidelines*, as amended or modified through March 21, 2004.

#### *Fish and Essential Fish Habitat*

There are no fish species in the Power Wagon Density Management project area listed as threatened or endangered or currently proposed for listing under the Endangered Species Act. The closest stream reaches designated as Essential Fish Habitat are more than 1.4 miles from any of the Power Wagon Density Management units (EA, p. 37). Large woody debris, pool habitat,

sediment, substrate, and streambank stability will not be affected because vegetated, unthinned buffers will be maintained on all streams adjacent to or within the Power Wagon Density Management units. As a consequence, the density management is not likely to adversely affect Special Status Fish Species or Essential Fish Habitat.

### *Botany*

#### Special Status and Survey and Manage Species

Clearances and surveys were conducted for all Special Status and Survey and Manage botanical species with a reasonable likelihood of being present in the Power Wagon Density Management project area. The surveys found no Special Status Plant Species (EA, p. 14) that could be affected. The surveys included those Category B species designated for equivalent-effort surveys in BLM Instructional Memorandum 2006-038 as documented in Attachment A of this decision. The BLM has fulfilled survey requirements consistent with the direction of the 2001 *Record of Decision for Amendment to the Survey and Manage, Protection Buffer, and Other Mitigation Measures Standards and Guidelines*, as amended or modified as of March 21, 2004.

As described in the EA (p. 40), surveys for most Survey and Manage fungi species are not considered practical, so their presence cannot be substantiated. If any of these species are present in the Power Wagon Density Management units, a loss of sites would likely result as a consequence of the removal of substrate and modification of microclimate, as described in the *Final Supplemental Environmental Impact Statement to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines* (pp. 150-154). Thinning would retain a large number of potential hosts trees, however, so loss of all sites would be unlikely. The remaining host trees can serve as refugia allowing fungi to persist until stand conditions such as canopy closure, soil moisture, and relative humidity return to pre-thinning levels. Even though a temporary reduction in fruiting would be expected, as stand conditions return to pre-thinning levels over the next 10 to 15 years, mycorrhizal fungi communities will also recover.

#### Noxious Weeds

All equipment will be pressure washed or steam cleaned prior to mobilization in and out of the project area to minimize the risk of introducing soil from outside the project area that may be contaminated with noxious weed seed or other propagative materials. Any equipment removed during the life of the contract must be cleaned before being returned to the project area.

#### Port-Orford-Cedar

The project area is located within the natural range of Port-Orford-cedar (POC) and was evaluated for the presence of healthy and diseased POC. Power Wagon Density Management Unit 1 (A) contains scattered small POC. Two small trees were found dead near the ridgetop in the unit, away from roads and streams that would be an obvious source of infection. It is unknown if this mortality was caused by *Phytophthora lateralis*. Port-Orford-cedar was not found in Power Wagon Density Management Units 2 (C) and 3 (B). There is no POC along the haul route, which includes a paved county road within one-half mile of the units.

The risk of spreading POC root disease was determined to be low, using the Port-Orford-cedar Risk Key described in the *Record of Decision for Management of Port-Orford-Cedar in Southwest Oregon, Coos Bay, Medford, and Roseburg Districts* (POC ROD). Regardless, measures described in the EA (p. 14) will be implemented to further reduce the risk of spreading the disease. These include: equipment washing as previously described; sanitizing water drawn from sources in the sale area to be used for road construction and dust abatement with a solution containing Clorox bleach (with the Clorox bleach being added after leaving the water source); restricting ground-based harvesting, road construction, and hauling on unsurfaced roads to the dry season (May 15 to October 15); and decommissioning and blocking unsurfaced roads upon completion of density management operations.

**Monitoring:**

Monitoring will be conducted in accordance with provisions contained in the ROD/RMP, Appendix I (pp. 84-86, 190-193, and 195-199). Monitoring efforts will focus on consideration of the following resources: Late-Successional Reserves; Water and Soils; Wildlife Habitat; Fish Habitat; and Special Status and SEIS Special Species Habitat.

**Protest Procedures:**

As outlined in 43 CFR § 5003 – Administrative Remedies at § 5003.3 (a) and (b), protests may be filed within 15 days of the publication date of the timber sale notice. Publication of such notice on August 22, 2006, in *The News-Review*, Roseburg, Oregon, constitutes the decision date from which such protests may be filed. Protests shall be filed with the authorized officer and contain a written statement of reasons for protesting the decision.

43 CFR 5003.3 subsection (b) states that: “Protests shall be filed with the authorized officer and shall contain a written statement of reasons for protesting the decision.” This precludes the acceptance of electronic mail or facsimile protests. Only written and signed hard copies of protests that are delivered to the Roseburg District Office will be accepted.

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John Royce  
Acting Field Manager  
South River Field Office

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Date

## Attachment A

### 2001 ROD Compliance Review: Survey & Manage Botany Species (vers. 04-11-2006)

**Project Name:** Power Wagon  
**Project Type:** Density Management  
**Location:** T28S, R8W, Section 17

**Prepared By:** Gary Basham  
**Date:** August 3, 2006  
**S&M List Date:** December 29, 2003

**Table A. Survey & Manage Species Known or Suspected on the Roseburg District Bureau of Land Management.**

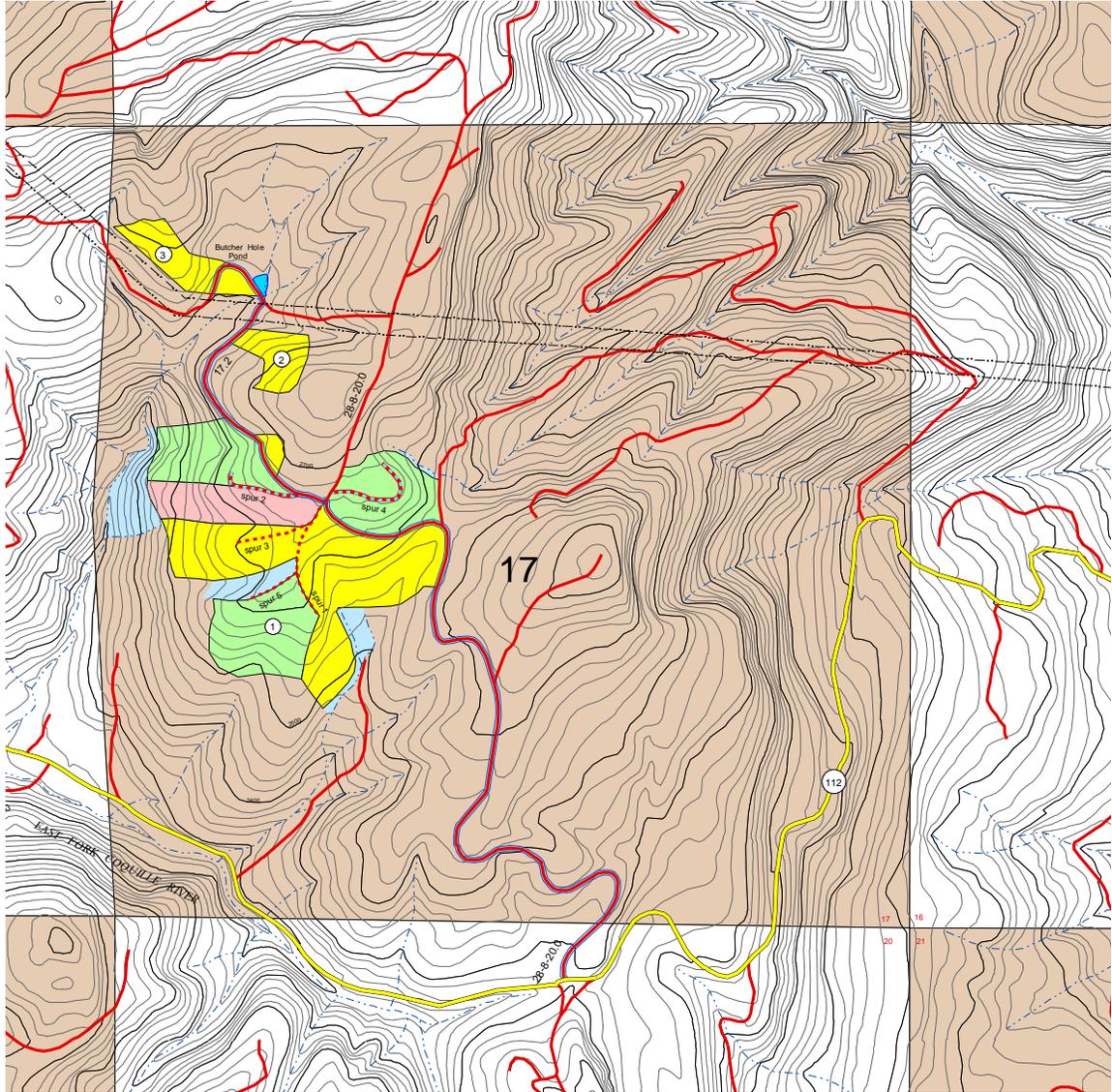
Species listed below were compiled from the 2003 Annual Species Review (IM-OR-2004-034) and includes those botanical species whose known or suspected range includes the Roseburg District according to: *Protection Buffer Bryophytes v2.0* (1999), *Survey and Manage Survey Protocol-Lichens v2.1 Amendment* (2003), *Survey Protocols for Survey & Manage Strategy 2 Vascular Plants v2.0* (1998), *Survey Protocols for Bridgeoporus nobilissimus v2.0* (1998), and *Survey Protocol Guidance for Conducting Equivalent Effort Surveys Under the Northwest Forest Plan Survey and Manage Standard and Guidelines* (2006).

Species	S&M Category	Survey Triggers			Survey Results			Site Management
		Within Range of the Species?	Project Contains Suitable habitat?	Project May Negatively Affect Species/Habitat?	Surveys Required?	Survey Date (month and year)	Sites Known or Found?	
<b>Fungi</b>								
Bridgeoporus nobilissimus	A	Yes	No <sup>1</sup>	No	No	N/A	No	No
<b>Lichens</b>								
Bryoria pseudocapillaris	A	No <sup>2</sup>	No	No	No	N/A	No	No
Bryoria spiralis	A	No <sup>2</sup>	No	No	No	N/A	No	No
Bryoria subcana	B	Yes	No <sup>3</sup>	No	No	No	No	No
Hypogymnia duplicata	C	Yes	Yes	Yes	Yes	June 2005	No	No
Leptogium cyanescens	A	Yes	Yes	Unknown	Yes	June 2005	No	No
Lobaria linita	A	Yes	No <sup>4</sup>	No	No	No	No	No
Nephroma occultum	A	Yes	No <sup>4</sup>	No	No	No	No	No
Niebla cephalota	A	No <sup>2</sup>	No	No	No	N/A	No	No
Pseudocyphellaria perpetua	A	No <sup>2</sup>	No	No	No	N/A	No	No
Pseudocyphellaria rainierensis	A	Yes	No <sup>4</sup>	No	No	No	No	No
Teloschistes flavicans	A	No <sup>2</sup>	No	No	No	N/A	No	No
Tholurna dissimilis	B	No <sup>5</sup>	No	No	No	N/A	No	No
<b>Bryophytes</b>								
Kurzia makinoana	B	No <sup>6</sup>	No	No	No	N/A	No	No
Marsupella emarginata var. aquatica	B	No <sup>7</sup>	No	No	No	N/A	No	No
Orthodontium gracile	B	No <sup>8</sup>	No	No	No	N/A	No	No
Schistostega pennata	A	Yes	Yes	Yes	Yes	June 2005	No	No
Tetraphis geniculata	A	Yes	Yes	Yes	Yes	June 2005	No	No
Tritomaria exsectiformis	B	Yes	No <sup>9</sup>	No	No	No	No	No
<b>Vascular Plants</b>								
Botrychium minganense	A	Yes	No <sup>10</sup>	No	No	N/A	No	No
Botrychium montanum	A	No <sup>10</sup>	No	No	No	N/A	No	No
Coptis asplenifolia	A	No <sup>10</sup>	No	No	No	N/A	No	No
Coptis trifolia	A	No <sup>10</sup>	No	No	No	N/A	No	No
Corydalis aquae-gelidae	A	No <sup>10</sup>	No	No	No	N/A	No	No
Cypripedium fasciculatum	C	Yes	Yes	Yes	Yes	June 2005	No	No
Cypripedium montanum	C	Yes	Yes	Yes	Yes	June 2005	No	No
Eucephalis vialis	A	Yes	Yes	Yes	Yes	June 2005	No	No
Galium kamtschaticum	A	No <sup>11</sup>	No	No	No	N/A	No	No
Plantanthera orbiculata var. orbiculata	C	No <sup>11</sup>	No	No	No	N/A	No	No

- <sup>1</sup> This species is associated with a host species which is absent from the project area (Survey Protocols, Version 2.0, T.E. O'Dell *et al.*, May 1998).
- <sup>2</sup> Known sites of the species only occur in coastal habitat (Survey Protocols for Category A and C Lichens, Version 2.0, C. Derr *et al.*, Sept. 2002).
- <sup>3</sup> This species occurs within 80 miles of the coast in the 200 cm precipitation zone with greater than 170 days of measurable precipitation (Survey Protocol Guidance for Conducting Equivalent Effort Surveys Under the Northwest Forest Plan Survey and Manage Standard and Guidelines, USDA Forest Service regions 5 and 6, USDI Bureau of Land Management, Oregon and California, March 2006).
- <sup>4</sup> This species is associated with old growth forests (Macrolichens of the Pacific Northwest, B. McCune, L. Geiser, OSU Press, 1997; Management Recommendations for Survey and Manage Lichens, Version 2.0, C. Derr *et al.*, March 2000).
- <sup>5</sup> Species is mostly known from north of Oregon with only three sites in Oregon. The southern-most sites are at Iron Mtn. and Carpenter Mtn. (both with elevations greater than 5000 feet) on the Willamette National Forest. These sites are noted for their stunted condition which suggests they are near the southern-most extent of the species' range (Survey Protocol Guidance for Conducting Equivalent Effort Surveys Under the Northwest Forest Plan Survey and Manage Standard and Guidelines, USDA Forest Service regions 5 and 6, USDI Bureau of Land Management, Oregon and California, March 2006).
- <sup>6</sup> Known sites of the species only occur in coastal habitat within 25 miles of the coast (Survey Protocol Guidance for Conducting Equivalent Effort Surveys Under the Northwest Forest Plan Survey and Manage Standard and Guidelines, USDA Forest Service regions 5 and 6, USDI Bureau of Land Management, Oregon and California, March 2006).
- <sup>7</sup> Species known from only two sites in the western U.S. on submerged rocks in cold, perennial streams: on Willamette National Forest and on the Mt. Baker-Snoqualmie National Forest (Survey Protocol Guidance for Conducting Equivalent Effort Surveys Under the Northwest Forest Plan Survey and Manage Standard and Guidelines, USDA Forest Service regions 5 and 6, USDI Bureau of Land Management, Oregon and California, March 2006).
- <sup>8</sup> Known in the Pacific Northwest only from the coast redwood area of northern California and southwestern Oregon (Koch 1951, 1952; Lawton 1971, as cited in Survey Protocol Guidance for Conducting Equivalent Effort Surveys Under the Northwest Forest Plan Survey and Manage Standard and Guidelines, USDA Forest Service regions 5 and 6, USDI Bureau of Land Management, Oregon and California, March 2006).
- <sup>9</sup> This species occurs in direct contact with water in low-volume, very cold, perennial streams within an elevational range of 3200-5200 feet. It is usually associated with lodgepole pine and other high elevation tree species (Survey Protocol Guidance for Conducting Equivalent Effort Surveys Under the Northwest Forest Plan Survey and Manage Standard and Guidelines, USDA Forest Service regions 5 and 6, USDI Bureau of Land Management, Oregon and California, March 2006).
- <sup>10</sup> This species is associated with perennially moist areas along streams, and wet shaded meadow edges in mature to old growth forests (Survey Protocols for Survey and Manage Strategy 2 Vascular Plants, Version 2.0, L. Whiteaker *et al.*, December 1998).
- <sup>11</sup> Douglas County is outside of the known range for this species (Survey Protocols for Survey and Manage Strategy 2 Vascular Plants, Version 2.0, L. Whiteaker *et al.*, December 1998; [www.oregonflora.org/oregonplantatlas.html](http://www.oregonflora.org/oregonplantatlas.html)).

# POWER WAGON

LSR Density Management



T28S, R8W  
 Willamette Meridian, Douglas Co., OR.



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- Paved County Road
- Existing Road
- Access/Haul Route
- Optional Operator Spur, Decommission
- Construct, Decommission
- Stream
- 100' Contour
- 20' Contour
- Powerline Right-Of-Way
- Heavy Thinning Area
- Moderate Thinning Area
- Light Thinning Area
- No Treatment Area
- BLM (Coos Wagon Rd.) Land
- Non-BLM Land