K-Line Late Successional Reserve Enhancement Project

Final Decision and Decision Rationale for K-Line Late Successional Reserve Enhancement Project

Environmental Assessment Number OR080-05-08

May 2006

United States Department of the Interior
Bureau of Land Management
Oregon State Office
Salem District
Marys Peak Resource Area

Township 7 South, Range 7 West, Section 31, Willamette Meridian
Upper Siletz River and Rickreall Creek 5th field Watersheds.
Polk County, Oregon

Responsible Agency:	USDI - Bureau of Land Management
Responsible Official:	Brad Keller, Field Manager Marys Peak Resource Area 1717 Fabry Road SE Salem, OR 97306 (503) 375-5968
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BLM
Salem District

As the Nation's principal conservation agency, the Department of Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering economic use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interest of all people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

BLM/OR/WA/PL-06/004+1792

I. Introduction

The Bureau of Land Management (BLM) has conducted an environmental analysis for the K-Line Late Successional Reserve (LSR) Enhancement project, which is documented in the K-Line Late Successional Reserve Enhancement environmental assessment (K-Line EA, # OR080-05-08) and the associated project file. The Proposed Action of the K-Line EA is to thin 40-50 year old mixed conifer stands on 304 acres within Late Successional Reserve and Riparian Reserve Land Use Allocations (LUA's). A Finding of No Significant Impact (FONSI) was signed on March 2, 2006 and the EA and FONSI were then made available for public review.

The decision documented in this Decision Rationale (DR) is based on the analysis documented in the EA. This decision authorizes the implementation of only those activities directly related to and included within the timber sale.

II. Decision

I have decided to implement the K-Line Late Successional Reserve Enhancement Project as described in the proposed action (EA pp. 6-11) hereafter referred to as the "selected action". The selected action is shown on the map attached to this Decision Rationale. This decision is based on site-specific analysis in the K-Line Late Successional Reserve Enhancement Project Environmental Assessment (EA # OR080-05-08), the supporting project record, management recommendations contained in the *Upper Siletz Watershed Analysis and Rowell Creek, Mill Creek, Rickreall Creek, and Luckiamute River Watershed Analysis*; as well as the management direction contained in the Salem District Resource Management Plan (May 1995), which are incorporated by reference in the EA.

The following is a summary of this decision.

1. ***Timber Harvest:*** Approximately 304 acres of 40 to 50 year old mixed-conifer stands will be thinned to a variable density (basal area ranging from 80 to 120 sq. ft/acre). Generally, the largest trees will be left. Average canopy closure will be no less than 40 percent after harvest. Approximately 73 percent of the project area will be harvested using conventional ground-based logging equipment and approximately 27 percent will be harvested using skyline yarding systems.

2. ***Road Work***
   - Approximately 1.1 mile of new road construction and reconstruction will occur to access Units 31A and Unit 31B. Up to 2.8 acre of vegetation will be cleared for the road rights-of-way, which includes the area needed for adjacent landings.
   - Total miles of existing roads to be renovated under BLM control to accommodate log-hauling will be 1.3 miles. This will include brushing, blading, drainage structure improvement or replacement, and spot rocking at deficient locations. Four culverts will be replaced (EA Section 2.2.1).
   - Following harvest, all of the new construction and reconstruction will be decommissioned and blocked to vehicular traffic.

3. ***Fuels Treatments***
   - Light accumulations of debris cleared during road construction and along roads that will remain in drivable condition following the completion of the project will be scattered along the length of rights-of-way.
   - Large accumulations of debris on landings and along existing roads that will remain in drivable condition will be machine piled. At least 90% of the slash in the ¼" to 6" diameter range within 20 feet of the road edge will be piled for burning.
   - During the late summer before the onset of fall rains, all machine and hand piles to be burned, will be covered at least 80% with 4 mil polyethylene plastic.

4. ***Protection of the Residual Stand:*** Five noble fir trees selected for their superior genetic quality will be protected, by reserving adjacent trees around them.

All design features and mitigation measures described in the EA (pp. 8 - 11) will be incorporated into the timber sale contract.

III. Compliance with Direction:

The analysis documented in the K-Line Late Successional Reserve Enhancement EA is site-specific and supplements analyses found in the *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement*, September 1994 (RMP/FEIS). This project has been designed to conform to the *Salem District Record of Decision and Resource Management Plan***,** May 1995 (RMP) and related documents which direct and provide the legal framework for management of BLM lands within the Salem District (EA pp. 1 &-2). All of these documents may be reviewed at the Marys Peak Resource Area office.

Survey and Manage Species Review

Marys Peak RA 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. The Marys Peak RA is also aware of the recent January 9, 2006, Court order which:

- 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
- reinstate 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 order further directs "Defendants shall not authorize, allow, or permit to continue any logging or other ground-disturbing activities....unless such activities are in compliance with the provisions of the 2001 ROD (as amended or modified as of March 21, 2004)".

The litigation over the amendment that eliminated the Survey & Manage mitigation measure from the Northwest Forest Plan does not affect the K-Line Late Successional Reserve Enhancement project.

Pre-disturbance surveys and management of known sites required by protocol standards to comply with the *2001 Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines* (as the 2001 ROD was amended or modified as of March 21, 2004) were completed for K-Line Commercial Thinning Project. The K-Line Commercial Thinning Project also complies with any site management for any Category B, D, and E species as identified in the 2001 ROD (as modified).

The following survey and manage special attention species were located in May and November, 2004 during intuitive controlled surveys; *Cudonia monticola*, *Gomphus kaufmannii*, *Ramaria cyaneigranosa* and *Rickenella swartzii*. The management direction is to protect known sites and to minimize soil disturbance. All of the sites will be protected as a result of this decision by excluding the known site location from any harvest consideration, and providing a 60 foot minimum protection zone. All of the sites except for the *Rickenella* site will be further protected by incorporating the known site protection zones into an adjacent riparian reserve.

I have attached the documentation of the wildlife and botany compliance reviews undertaken by resource area staff with my concurrence and signature. Therefore, based on the preceding information regarding the status of surveys for Survey & Manage wildlife and botany species and the results of those surveys, it is my determination that the K-Line Late Successional Reserve Enhancement project complies with the provisions of the 2001 ROD, as amended or modified as of March 21, 2004. For the foregoing reasons, this decision is in compliance with the 2001 ROD as stated in Point (3) on page 14 of the January 9, 2006, Court order.

The Salem District is also aware of ongoing litigation Pacific Coast Federation of Fishermen's Associations et al. v. National Marine Fisheries Service et al. (W.D. Wash.) related to the 2004 supplemental environmental impact statement for the Aquatic Conservation Strategy (ACS). The Magistrate Judge issued findings and recommendations to the court on March 29, 2006. The court has not found this amendment to be "illegal," nor did the Magistrate recommend such a finding. Given the court has not yet adopted the findings and recommendations we will appropriately continue to follow the current direction in the 2004 ROD, until ordered otherwise. The K-Line Late Successional Reserve Enhancement environmental analysis tiers to this document as the clarification of how to address the ACS. Since it was only a clarification, and did not alter any of the on-the-ground components of the standards and guidelines designed for achieving the ACS objectives, whether the court upholds the amendment or not should have little practical effect at the project level.

IV. Alternatives Considered

The EA analyzed the effects of the proposed action and the no action alternatives. No unresolved conflicts concerning alternative uses of available resources (section 102(2) (E) of NEPA) were identified. No action alternatives were identified that will meet the purpose and need of the project and have meaningful differences in environmental effects from the proposed action (EA Section 2.1). Complete descriptions of the "action" and "no action" alternatives are contained in the EA, pages 17-39.

V. Decision Rationale

Considering public comment, the content of the EA and supporting project record, the

management recommendations contained in the *Upper Siletz* and *Rowell Creek, Mill Creek, Rickreall Creek, and Luckiamute River Watershed Analyses*, and the management direction contained in the RMP, I have decided to implement the selected action as described above. The following is my rationale for this decision.

1. The selected action:
   - Meets the purpose and need of the project (EA section 1.5), as shown in *Table 1*.
   - Complies with the *Salem District Record of Decision and Resource Management Plan***,** May 1995 (RMP) and related documents which direct and provide the legal framework for management of BLM lands within the Salem District (EA pp. 1 & 2).
   - The K-Line Late Successional Reserve Enhancement project is in full and complete compliance with the 2001 Survey and Manage FSEIS and ROD, as modified by the 2003 Annual Species Review (ASR). This project is in compliance with Judge Marsha Pechman's January, 2006 ruling on the 2004 Record of Decision for Survey and Manage Standards and Guidelines, as stated in Point (3) on page 14 of the January 9, 2006, Court order in Northwest Ecosystem Alliance et al. v. Rey et al. (DR Appendix B and C – Compliance with Survey and Manage Direction). No additional surveys are planned for the area as currently designed.
   - Will not have significant impact on the affected elements of the environment (EA FONSI pp. i-iii) beyond those already anticipated and addressed in the RMP EIS.
   - Has been adequately analyzed.

Table 1: Comparison of the Alternatives with Regard to the Purpose of and Need for Action (EA section 1.5)

Purpose and Need (EA section 2.1)	***No Action***	***Selected Action***
To manage developing forest stands and wildlife habitat in the LSR LUA so that: Late-successional forest conditions, which serve as habitat for late-successional forest species, can be developed, accelerated, and enhanced (LSRA p. 2); plan and implement silvicultural treatments inside Late-Successional Reserves that are beneficial to the creation of late successional habitat (RMP p. 16). This implementation will be accomplished through a timber sale that can be successfully offered to the market place.	Does not fulfill.	Fulfills by accelerating changes in some parts of some stands to develop more elements of diversity faster (*EA sections 3.2.1.1, 3.2.4.1 & 3.2.5.1).*
To manage early to mid-seral stands in RR LUA (RMP pp. 9-15) so that: growth of trees can be accelerated to restore large conifers to Riparian Reserves (RMP p. 7); habitat [(e.g. coarse woody debris (CWD), snag habitat, in-stream large wood)] for populations of native riparian-dependent plants, invertebrates, and vertebrate species can be enhanced or restored (RMP p. 7); structural and spatial stand diversity can be improved on a site-specific and landscape level in the long term (RMP p. 11, D-6).	Fulfills by maintaining current trends that develop diversity slowly (*EA sections 3.2.1.1, 3.2.4.1 & 3.2.5.1).*	Fulfills by accelerating changes in Riparian Reserves to promote elements of diversity and enhance habitat faster (*EA sections 3.2.1.1, & 3.2.5.1).*

Purpose and Need (EA section 2.1)	*No Action*	*Selected Action*
To maintain and develop a safe, efficient and environmentally sound road system (RMP p. 62) that: provides appropriate access for timber harvest and silvicultural practices used to meet the objectives above; provides for fire vehicle and other management access; reduces environmental effects associated with identified existing roads within the project area.	Partially fulfills. Would delay maintenance on feeder roads, making access for silvicultural practices more difficult. Main routes would be maintained under both alternatives. Would not preclude future maintenance for management activities. No change. Maintain existing road densities. Replacing culverts that are not up to standards would not take place.	Fulfills. Will implement maintenance on feeder roads, allowing continued access for management activities. Constructs approximately 5700 feet of new roads. All new roads will be decommissioned. Replacing culverts will reduce the environmental effects associated with existing roads.

2. The No Action alternative was not selected because it does not meet the Purpose and Need directly, or delays the achievement of the Purpose and Need (*EA sections 1.5*), as shown in *Table 1*.

VI. Public Involvement/ Consultation/Coordination

Scoping: A description of the proposal was included in the Salem Bureau of Land Management Project Update which was mailed to more than 1070 individuals and organizations. A letter asking for scoping input on the proposal was mailed on February 27, 2004 to adjacent landowners and individuals who expressed an interest in management activities in the resource area as a whole or in this area. Letters were also sent to the Confederated Tribes of Grande Ronde; Confederated Tribes of the Siletz; Federal, State, County and local government organizations; and Special Interest groups. One letter was received during the scoping period. A summary of the responses received was included in EA Appendix 2 – Response to Scoping Comments.

Comment Period and Comments:
The original EA and/or notice of availability of EA were mailed to approximately twenty-six agencies, individuals and organizations on March 3, 2006. A legal notice was placed in a local newspaper soliciting public input on the action from March 15 to April 15, 2006. Two comment letters (Oregon Natural Resources Council and Cascadia Wildlands Project) were received. Responses to their comments can be found in Appendix A of the Decision Rationale.

Consultation/Coordination:
The K-Line Late Successional Reserve Enhancement timber sale was submitted for Formal Consultation with the U.S. Fish and Wildlife Service (USFWS) as provided in Section 7 of the Endangered Species Act (ESA) of 1973 (16U.S.C. 1536 (a)(2) and (a)(4) as amended).

Consultation was completed on November, 2004 [(Biological Opinion (BO) reference #1-7-2005-F-0005; USDI-FWS 2004)]. As a result of consultation, the USFWS concluded that the FY 2005-2006 Habitat Modification Projects in the Coast Range Province (including K-Line Late Successional Reserve Enhancement) are not likely to jeopardize the continued existence of the spotted owl and is not likely to destroy or adversely modify designated critical habitat for the spotted owl. The proposed action is considered to be a may affect, not likely adverse affect to spotted owl critical habitat, because it will modify a small amount (1.3%) of the available dispersal habitat within CHU OR-44. The short-term reduction in canopy closure may slightly diminish the quality of dispersal habitat for owls, but since the entire project area will average

more than 40% canopy closure, the treated stands are anticipated to retain their function as dispersal habitat for spotted owls in the short-term and will likely achieve suitable habitat quality for spotted owls in the long-term at a faster rate than if left untreated.

Upper Willamette River (UWR) steelhead trout, UWR Chinook salmon and Oregon chub are listed as threatened under the Endangered Species Act. The proposed actions associated with the K-Line LSR Enhancement Project are not expected to cause any effects to the listed fish or listed critical habitat in the Rickreall Creek or Luckiamute River Watersheds. A determination has been made that this proposed project will have 'no effect' on UWR steelhead trout and Chinook salmon and Oregon chub. This 'no effect' determination is based on the distance upstream of the project area from ESA listed fish habitat (approximately 7 and 24 miles downstream) and project design criteria that include no harvest activity within Stream Protection Zones, dry season timber hauling and post-project leave tree densities of 46-80 trees per acre. Due to the "no effect" determination this project was not consulted upon with the National Marine Fisheries Service (NMFS).

Protection of Essential Fish Habitat (EFH) as described by the Magnuson/Stevens Fisheries Conservation and Management Act and consultation with NMFS is required for all projects which may adversely affect EFH of Coho or Chinook salmon. The proposed K-Line project is not expected to affect EFH due to distance of all activities associated with the K-Line project from occupied habitat.

The project will have no effect on designated Critical Habitat for the same reasons in that the project will have no effect on the ESA listed fish species.

Conclusion

I have determined that change to the Finding of No Significant Impact (FONSI – March 2006) for the K-Line Late Successional Reserve Enhancement Project is not necessary because I've considered and concur with information in the EA and FONSI. The comments on the EA were reviewed and no information was provided in the comments that lead me to believe the analysis, data or conclusions are in error or that the proposed action needs to be altered. There are no significant new circumstances or facts relevant to the proposed action or associated environmental effects that were not addressed in the EA.

Protests: In accordance with Forest Management Regulations at 43 CFR 5003.2, the decision for this timber sale will not become effective or be open to formal protest until the Notice of Sale is published "in a newspaper of general circulation in the area where the lands affected by the decision are located". Protests of this sale must be filed within 15 days of the first publication of the notice. For this project, the Notice of Sale will be published in the *Polk County Itemizer Observer* newspaper on or around January 31, 2007. The planned sale date is February 28, 2007.

Contact Person: For additional information concerning this decision, contact Gary Humbard (503) 315-5981, Marys Peak Resource Area, Salem BLM, 1717 Fabry SE, Salem, Oregon 97306.

Approved by: _____ May 20, 06

Brad Keller — Date

Marys Peak Resource Area Field Manager

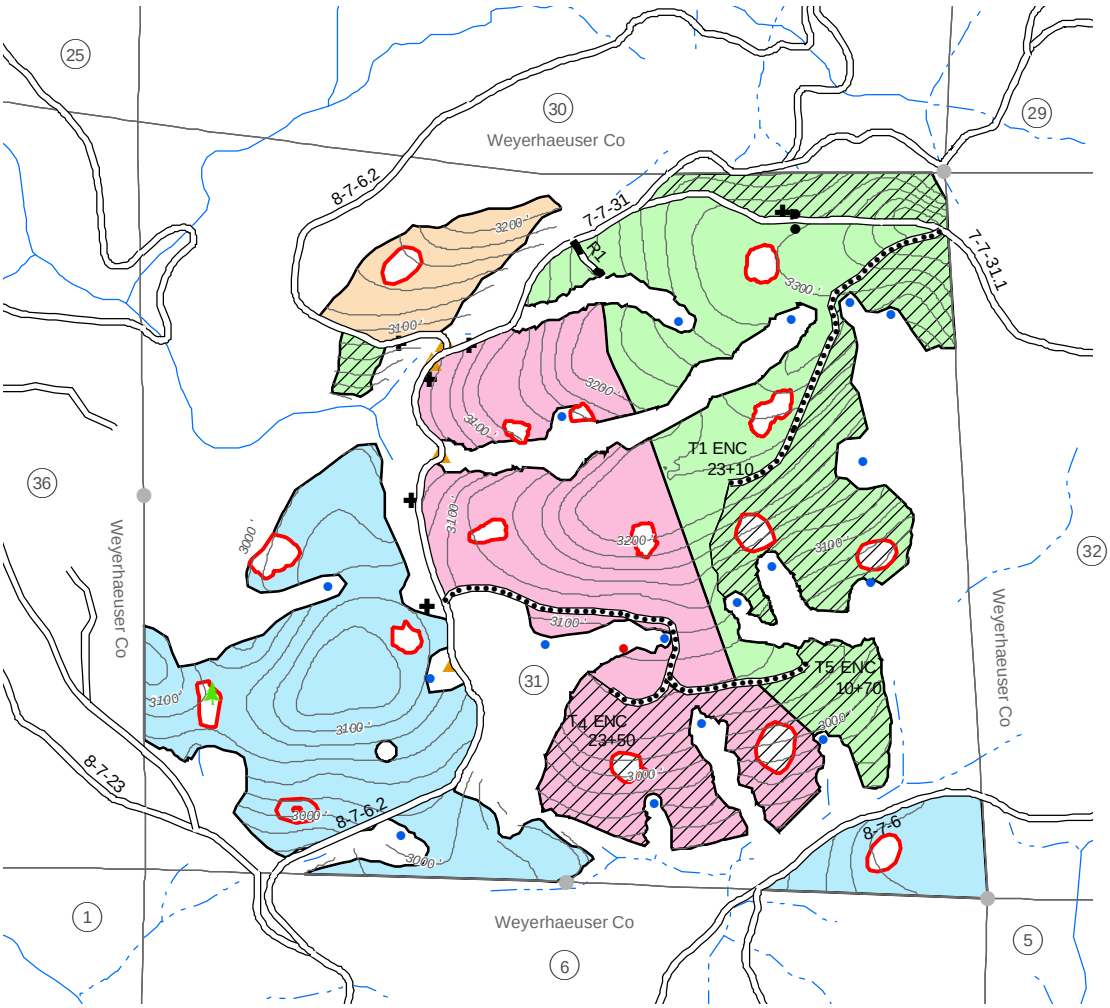
May 21, 2006

United States Department of the Interior - BUREAU OF LAND MANAGEMENT

Selected Action

K-LINE PROJECT MAP

T. 7 S., R.7 W., Section 31, W. M. - SALEM DISTRICT - OREGON



LEGEND

- Found Corner
- Inventory Plot
- EA Plus Trees
- White Pine Tree
- Culvert to br Replaced
- Stream Origin
- Gate
- 20' Contours
- Stream - Non-fishbearing
- Stream - Fishbearing
- New Construction
- Reconstruction
- Existing Road
- EA Unit Boundary
- 31A - 90 acres
- 31B - 107 acres
- 31C - 102 acres
- 31D - 17 acres
- Ground-Based Yarding
- Skyline Yarding
- Patch Cut Boundary

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Original data was compiled from multiple source data and may not meet U.S. National Mapping Accuracy Standard of the Office of Management and Budget.

0 250500 1,000 Feet

N

VII. Appendix A: Response to Public Comments Received on the K-Line Late Successional Reserve Enhancement Project (EA#OR080-05-08)

Note: This section addresses comments on the K-Line Late Successional Reserve Enhancement Project received during the public comment period, which ended April 15, 2006. Two comment letters were received from Cascadia Wildlands Project (3/9/06) and Oregon Natural Resource Council (4/12/06). The comments, (in italics type), may have been paraphrased for clarity or conciseness, but the complete text of the comment was available to the Interdisciplinary Team (IDT) making the response. The full text of the comment letters is available in the K-Line Late Successional Reserve Enhancement Project NEPA file.

Cascadia Wildlands Project

1. Road Construction within LSR

Create an alternative that doesn't build roads into the LSR. Even "temp" roads have long-lasting impacts to hydrology, species and overall function of an ecosystem. The spread of noxious weeds with road building is also a real threat that must be addressed.

Response: Due to local soil conditions, there is a relatively small potential for new roads to intercept (re-route) surface and near-surface flow; few legacy logging roads in the area are intercepting flow. Thoroughly decommissioning the roads will help in alleviating the resulting compaction and help diffuse surface flow during storm events (EA p.28).

There is a paucity of data in the scientific literature concerning specific cause-effect impacts of logging roads on terrestrial wildlife species in the central Oregon Coast Range. The impacts logging roads have on terrestrial wildlife in the Marys Peak Resource Area are expected to be short-term due to high soil productivity, the diversity of fast-growing vegetation, the narrow road widths, and the overall low intensity of human use.

All road construction, reconstruction, renovation and decommissioning operations will disrupt areas of duff and expose mineral soil. Non-native species may become established in any exposed mineral soil areas. These non-native species often persist for several years but soon decline as native vegetation increases within the project areas. The risk rating for the long-term establishment of noxious weed species and consequences of adverse effects on this project area is low and adverse effects from noxious weeds within the project area are not anticipated for the following reasons: The K-Line project design feature of revegetating exposed soil areas by sowing with Oregon Certified (blue tagged) red fescue (*Festuca rubra*), and/or sowing with a wildlife vegetation mix and applied at a rate equal to 40 pounds per acre or sowing/planting with other native species as approved by the resource area botanist are expected to abate the establishment of noxious weeds (EA pp. 19 & 20).

2. Helicopter Yarding Alternative

Ground-based and skyline yarding operations can be extremely disturbing to soil structure. Consider analyzing an alternative that utilizes helicopter yarding. If you think helicopter logging would be financially prohibitive for potential purchasers, keep in mind that the Siskiyou NF recently sold a plantation thinning project for $800/thousand. Presumably, the market today

doesn't prohibit more expensive logging, like with helicopters, to occur.

Response: In tractor skid trails, a moderate amount of top soil displacement and moderate to heavy soil compaction could occur depending on the amount of use. In harvester/forwarder skid trails, soil displacement will be minimal and soil compaction will be light to moderate. Yarding corridors could compact about 3.5% of the skyline units or a total of approximately 3 acres, (as a percentage of the total project area approximately 0.9%). Impacts from skyline yarding usually result in light compaction of a narrow strip less than 4 feet in width (EA p. 22). Impacts from ground-based and skyline yarding will be within the impacts discussed on pp. 4-12 and 13 of the RMP/FEIS (1994).

We are not aware of the Siskiyou NF timber sale that was recently sold for $800.00/MBF however, we are aware that helicopter yarding is a viable tool to utilize in areas that are inaccessible to conventional harvesting methods, located within sensitive soil areas and to minimize road construction within close proximity to municipal water intakes. None of these factors are relevant to the K-Line LSR Enhancement project. In addition, the cost of helicopter yarding relatively low-value timber (small size DBH western hemlock and Douglas-fir) will be approximately double the cost of skyline yarding. The savings from not constructing roads will offset 11 percent of the additional cost of helicopter yarding, but there will still be a considerable risk of the timber sale being economically infeasible. Consequently, this alternative was not analyzed.

3. Thinning prescriptions:

Include extensive variation in your prescriptions. Include gaps (1/4-1/2 acre), clumps (unlogged patches), and plant absent species (ie wr cedar, hemlock, etc).

Response: We agree that variable density thinning is a valuable tool in creating future late successional forest conditions. The entire density management area will be thinned to a variable density (basal area ranging from 80 to 120 sq. ft/acre). Trees will be removed in a variable spacing; providing both openings for understory tree/shrub development and areas of higher density. Canopy gaps will be created over the project area which will equal approximately 5% of the treatment area, and small unthinned areas (clumps) will also be left (EA p.6). The clumps and gaps will range from approximately .25 to 1 acre, as recommended by several researchers cited in the EA. Patches and other appropriately large areas would be planted with western hemlock, noble fir and western red cedar. The K-Line Marking Guide (EA Appendix 3) will incorporate variable density thinning.

4. Legacy Features

Retain or create legacy structures (snags) and adequate coarse woody debris in proposed logging units.

Response: Coarse woody debris (CWD) enhancement would be achieved by following strategy #2 as described in the *Late Successional Reserve Assessment for Oregon's Northern Coast Range Adaptive Management Area* (1998). Existing snags and coarse woody debris will be reserved, except within road rights of way, yarding corridors/skid trails or for safety reasons. New inputs of CWD will be achieved by: indirect harvest activities (e.g. breakage, limbs and tops, trees felled but not harvested), post-harvest wind throw, bark beetle kill in response to new accumulations of

slash and wind throw, and post-harvest CWD creation. At least 2 green trees/acre intended to be part of the residual stand will be felled/girdled/topped to function as CWD at the completion of harvest operations. Trees to be utilized for CWD creation will be stand average diameter breast height outside bark (DBHOB) or larger (EA p.7).

5. Road Decommissioning

With KV money, close, decommission and re-contour unnecessary roads in the LSR. The reasons are obvious. Roads and LSR's are generally not compatible for wildlife. Pre-commercially thin as much plantation forest as possible.

Response: Unlike the U.S. Forest Service**,** Bureau of Land Management regulations do not allow collection and use of KV funding, however, the BLM timber sale contract (K-Line LSR Enhancement) will require the decommissioning and blocking of all new road construction and reconstruction following harvest operations (EA p.6). Drain dips will be installed where cross drainage is necessary and all locations where mineral soil is exposed (roads to be constructed and reconstruction) will be sown with Oregon Certified (blue tagged) red fescue (*Festuca rubra*), and/or sown with a wildlife vegetation mix and applied at a rate equal to 40 pounds per acre or sown/planted with other native species as approved by the resource area botanist. The re-contouring of roads is not recommended at this site because of the additional disturbance to top soil, which could further reduce the soil's limited nutrient capacity.

There is a paucity of data in the scientific literature concerning specific cause-effect impacts of logging roads on terrestrial wildlife species in the central Oregon Coast Range. The most significant impacts roads appear to have on wildlife in the Coast Range are illegal hunting/fishing and garbage dumping. Since the road(s) are controlled or closed through the utilization of gates these impacts are not expected to occur.

During the next 4 years approximately 1800 acres of LSR and RR LUA lands are scheduled for pre-commercial density management within the Marys Peak RA.

Oregon Natural Resource Council

6. Northern Spotted Owl

Efforts should be taken to avoid impacts to spotted owls by surveying and avoiding occupied sites, maximizing habitat for owls and owl prey which will require retaining significantly higher amounts of coarse wood and snags.

Response: As stated on page 35 of the EA, "no spotted owl surveys were required for this project evaluation. However, extensive spotted owl surveys were completed in this vicinity in the early 1990s, with no spotted owls being detected in the project area. Since then, private timber companies have also surveyed much of their lands surrounding the project area, without finding any resident spotted owls. The nearest active spotted owl site is 3.5 miles northeast, in the Mill Creek drainage."

See response #4 regarding CWD and snag enhancement.

7. Red tree voles

Red tree voles might be present. They might even be the rare dusky subspecies. We hope that efforts are taken to survey and protect the voles.

Response: In the Salem District, pre-disturbance surveys are required for red tree voles in the North Mesic Zone which includes the project area. However, since the proposed treatment units do not contain any mature or old-growth forest patches, nor do they have 2 or more "predominant" conifer trees per acre, surveys are not required (EA Appendix 4 p. 53).

8. Variable Density Thinning

Make sure that the thinning prescriptions are highly variable within and between stands (variable density with large skips and small gaps)

Response: See response #3.

9. Soil Impacts

Soil impacts should be minimized by requiring use of equipment with the least ground impact. Dozers should be limited to roads.

Response: Ground-based equipment will be limited to designated skid trails. If yarding is done using crawler tractors for all the proposed ground-based units, the percentage of total tractor unit area impacted by surface disturbance and soil compaction will be approximately 6 to 8% (approximately 14-19 ac.), or approximately 4.4% of the entire project area. If a harvester/forwarder system is used for the entire proposed ground-based area, the percentage of total ground based unit area impacted by surface disturbance and soil compaction as a result of skid trails will be approximately 2 to 5% (approximately 5-12 ac.). Both ground based yarding systems are within RMP guidelines (Appendix C-2) for limiting the areal extent of compaction to no more than 10 percent of the ground-based unit (EA p.22). Purchasers always have the option to use alternate equipment or logging systems if they will result in fewer impacts (for example skyline yarding proposed ground based units). The EA analyzed the impacts for traditional tractor yarding in order to analyze for the greatest anticipated impacts. As mentioned in response #2, impacts from ground-based and skyline yarding will be within the impacts discussed on pp. 4-12 and 13 of the RMP/FEIS (1994).

10. Road Construction within Riparian Reserves

Page 32 of the EA says there could be 1200 feet of road construction in the riparian reserves. We assume that should read "reconstruction." no new roads should be constructed in riparian reserves, and old roads should be removed as much as possible.

Response: As discussed on p. 11 of the RMP minimize roads and landing locations within Riparian Reserves. To enhance approximately 109 acres of 40 to 50 year old forests, approximately 1200 feet of road will be constructed in the Riparian Reserve LUA of the Rickreall Creek watershed.

Road construction effects will be limited by restricting work to periods of low rainfall and runoff. Road construction will occur along moderate gradients (approximately 3-10%) and generally follow along contour or mid-slope. The proposed roads are unlikely to increase drainage network in the watershed as the majority of new construction is outside riparian reserves. There will be no new stream crossings and all of the new construction will be decommissioned following harvest, so some recovery back to a forested condition will occur in the area over time. Thus road construction and reconstruction is unlikely to increase sediment or stream flows which may affect stream channels and fish over the long term (EA p. 32).

11. Tree Species Retention

Non-Doug-fir and non-conifers should be selected for retention.

Response: In Units 31A, 31B and 31D only Douglas-fir trees will be cut unless the western hemlock is growing in clumps, in which case, the western hemlock will be thinned. When comparable adjacent trees occur, western hemlock will be reserved over Douglas-fir. In Unit 31C, only Douglas-fir trees will be cut. In all units, hardwood trees and western hemlock trees 14.0" diameter and smaller will be reserved (EA p. 51), as well as all other minor species of any size. The proportion of minor conifer species will be increased from the current 10 to 30% to 50 to 75% by targeting Douglas-fir as the primary species to remove (EA p. 19). Conifer species such as western hemlock, noble fir and western red cedar will be planted in areas large enough to support a conifer understory (EA p. 10).

Appendix B: 2001 ROD Compliance Review: Survey & Manage Wildlife Species

Environmental Analysis File
Salem District BLM, Marys Peak Resource Area

Project Name:	**K-Line LSR Enhancement Project**	Prepared By:	**Scott Hopkins**
Project Type:	**Density Management Thinning**	Preparation Date:	**2/27/2006**
Location:	**T.07S., R.07W., Section 31.**	S&M List Date:	**12/19/2003**

Table A. Survey & Manage Wildlife Species Known and Suspected on Salem District BLM. The species listed below were compiled from the 2003 Annual Species Review (IM-OR-2004-034) and incorporates those vertebrate and invertebrate species whose known or suspected range includes the Salem District according to: Survey Protocols for Amphibians under the Survey & Manage Provision of the Northwest Forest Plan, version 3.0 (1999), Survey protocol for the Great Gray Owl within the Range of the Northwest Forest Plan, version 3.0 (Jan. 2004), Survey Protocol for the Red Tree Vole, version 2.1 (Oct. 2002) and those mollusk species that are known or suspected within the District according to the Survey Protocol for S&M Terrestrial Mollusk Species version 3.0 (Feb. 2003).

Species	S&M Category	Survey Triggers			Survey Results			Buffers?
		Within Range of the Species?	Project Contains Suitable habitat?	Project may negatively affect species /habitat?	Surveys Required?	Surveys completed?	Sites Found?	
Vertebrates								
Larch Mountain Salamander [2] (Plethodon larselli)	A	No	NA [1]	NA	No	NA	NA	None
Great Gray Owl [3] (Strix nebulosa)	A	No	NA	NA	No	NA	NA	None
Oregon Red Tree Vole [4] (Arborimus longicaudus)	C	Yes	No	No	No	NA	NA	None
Mollusks								
Puget Oregonian [5] (Cryptomasix devia)	A	No	NA	NA	No	NA	NA	None
Crater Lake Tightcoil [6] (Pristiloma arcticum crateris)	A	No	NA	NA	No	NA	NA	None

1. NA = Not applicable.
2. In the Salem District, the range of the Larch Mountain salamander is only in the very northern portion of the Cascades Resource Area, within 14 miles of the Columbia River, east of the confluence with the Sandy River according to Survey Protocols for Amphibians under the Survey & Manage Provision of the Northwest Forest Plan v3.0 (1999) pages 262 and 269.
3. In the Salem District, the range of the great gray owl is only within the Cascades Resource Area.
4. In the Salem District, pre-disturbance surveys are required for red tree voles in the North Mesic Zone which includes

the project area. However, since the proposed treatment units do not contain any mature or old-growth forest patches, nor do they have 2 or more "predominant" conifer trees per acre (Survey Protocol for the Red Tree Vole, Version 2.1, October 23, 2002), surveys are not required.

5. In the Salem District, the range of Cryptomastix devia is limited to the Tillamook Resource Area and Clackamas County and Multnomah County in the Cascades Resource Area.
6. In the Salem District, Pristiloma articum crateris is suspected to occur above 2000 feet elevation in the Cascades Resource Area only.

Statement of Compliance. Within the K-Line LSR Enhancement Project there are no pre-disturbance surveys required for Survey and Manage wildlife species in order to comply with the 2001 Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines (as the 2001 ROD was amended or modified as of March 21, 2004). There are no known Category B, D, E, and F species within the K-Line LSR Enhancement Project.

Therefore, based on the preceding information (refer to Table A above), it is my determination that the K-Line LSR Enhancement Project complies with the provisions of the 2001 Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines (as the 2001 ROD was amended or modified as of March 21, 2004). For the foregoing reasons, this project is in compliance with the 2001 ROD as stated in Point (3) on page 14 of the January 9, 2006, Court order in Northwest Ecosystem Alliance et al. v. Rey et al.

Brad Keller, Field Manager
Marys Peak Resource Area

Feb 28, '06
Date

2001 ROD Compliance Review: Survey & Manage Botany Species

Environmental Analysis File

Salem District Bureau of Land Management

Project Name: K-Line **Prepared By:** Ron Exeter

Project Type: Density Management **Date:** Feb. 2006

Location: (Coast Range physiographic province) T.7 S., R.7 W., Section 31

S&M List Date: December 2003

Table A. Survey & Manage Species Known and Suspected in the Salem District. Species listed below were compiled from the 2003 Annual Species Review (IM-OR-2004-034) and includes all species in which pre-disturbance surveys may be needed (Category A, C and non-fungi Category B species if the project occurs in old-growth as defined on page 79-80 of the 2001 ROD) and lists known sites of other survey and manage species that are known to occur within the project area. In addition, the table indicates whether or not a survey was required, survey results and site management.

The following survey protocols and literature were used in determining species known range, habitat and survey methodology. All field surveys were completed by intuitive controlled methods.

Fungi:

Survey Protocols for *Bridgeoporus* (=*Oxyporus*) *nobilissimus* (Version 2.0, May 1998)

Lichens:

Survey Protocols for Component 2 Lichens (Version 2.0, March 1998)

Survey Protocols for Survey and Manage Category A & C Lichens in the Northwest Forest Plan Area (Version 2.1 (2003)

2003 Amendment to the Survey Protocol for Survey and Manage Category A & C Lichens. (Version 2.1 Amendment, September 2003)

Bryophytes:

Survey Protocols for Protection Buffer Bryophytes (Version 2.0)

Vascular Plants:

Survey Protocols for Survey and Manage Strategy 2 Vascular Plants (Version 2.0, December 1998).

All species:

Rare, Threatened and Endangered Species of Oregon; Oregon Natural Heritage Information Center (May 2004).

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/year)	Sites Known or Found?	
Fungi								
Bridgeoporus nobilissimus[1a]	A	YES	YES	NO	YES	May, June, Sept 2004	None	N/A
Lichens								
Bryoria pseudocapillaris[1a]	A	NO	NO	NO	NO[3]	N/A	None	N/A
Bryoria spiralifera[1a]	A	NO	NO	NO	NO[3]	N/A	None	N/A
Dendriscocaulon intricatatulum[1c]	A	YES	NO	NO	NO[5]	N/A	None	N/A
Hypogymnia duplicata[1c]	C	YES	YES	NO	YES	May, June, Sept 2004	None	N/A
Leptogium cyanescens[1c]	A	YES	YES	NO	YES	May, June, Sept 2004	None	N/A
Lobaria linita var.tenuoir[1b]	A	YES	NO	NO	NO[5]	N/A	None	N/A
Nephroma occultum[1c]	C	YES	NO	NO	NO[5]	N/A	None	N/A
Niebla cephalota[1b]	A	NO	NO	NO	NO[3]	N/A	None	N/A
Pseudocyphellaria perpetua[1c]	A	NO	NO	NO	NO[4]	N/A	None	N/A
Pseudocyphellaria rainierensis[1c]	A	YES	NO	NO	NO[5]	N/A	None	N/A
Teloschistes flavicans[1a]	A	NO	NO	NO	NO[3]	N/A	None	N/A
Bryophytes								
Schistostega pennata[1b]	A	YES	YES	NO	YES	May, June, Sept 2004	None	N/A
Tetraphis geniculata[1b]	A	YES	YES	NO	YES	May, June, Sept 2004	None	N/A
Vascular Plants								
Botrychium minganense[1c]	A	NO	NO	NO	NO[6]	N/A	None	N/A
Botrychium montanum[1b]	A	NO	NO	NO	NO[6]	N/A	None	N/A
Coptis asplenifolia	A	NO	NO	NO	NO[8]	N/A	None	N/A
Coptis trifolia[1b]	A	NO	NO	NO	NO[6]	N/A	None	N/A
Corydalis aquae-gelidae[1a]	A	NO	NO	NO	NO[7]	N/A	None	N/A
Cypripedium fasciculatum[1a]	C	NO	NO	NO	NO[6]	N/A	None	N/A
Cypripediium montanum[1c]	C	NO	NO	NO	NO[6]	N/A	None	N/A
Eucephalis vialis[1a]	A	NO	NO	NO	NO[6]	N/A	None	N/A
Galium kamtschaticum	A	NO	NO	NO	NO[8]	N/A	None	N/A

Plantanthera orbiculata var. orbiculata	C	NO	NO	NO	NO[8]	N/A	None	N/A
Category B Species (equivalent effort surveys needed if project area includes old-growth as defined in 2001 ROD glossary, p. 79-80)								
None. [9]	B	-	NO	NO	NO[9]	N/A	None	N/A
Additional Category B, D, E & F known sites located within the proposed project Area								
Cudonia monticola	B				NO	May 2004	YES	Described below*
Gomphus kaufmannii	B				NO	Nov. 2004	YES	Described below*
Ramaria cyaneigranosa	B				NO	Nov. 2004	YES	Described below*
Rickenella swartzii	B				NO	May 2004	YES	Described below*

1 These species are former species of concern; (a) Bureau sensitive, (b) bureau assessment or (c) bureau tracking species.
2 This species is known from high elevations containing true fir and the only site in the Oregon Coast Range is at approximately 4000 feet on the top of Marys Peak. There are no true firs within the proposed project area.
3 This species known range within the NW Forest Plan is along the immediate coast or within the coastal fog zone within sight or sound of the Pacific Ocean but often extending up to 15 miles inland.
4 This species is only known from Oregon at Cape Perpetua adjacent the Pacific Ocean. There are no survey protocols available. Survey protocols were due to be completed on September 30, 2005, and fully effective September 30, 2006.
5 These species are known primarily from mature and old-growth, Doug-fir, Western Hemlock and Pacific silver-fir. Field surveys are not required if the species is not known to exist in the proposed project area or in the vicinity, and if it is determined that probable suitable habitat is unlikely to exist in the proposed project area.
6 These species are not known to occur on Bureau of Land Management lands within the Salem District. These species have no known sites in the Oregon Coast Range physiographic province.
7 This species is known to occur on Bureau of Land Management lands within the Salem District in the Cascades Resource Area. This species has known sites in the Western Cascades physiographic province but none in the Oregon Coast Range physiographic province.
8 This species is only known from western Washington. There are no known sites in Oregon.
9 Surveys are not required. The project area is less than 80 years of age and the project does not meet the definition on page 79-80 of the 2001 ROD.

STATEMENT OF COMPLIANCE: Pre-disturbance surveys and management of known sites required by protocol standards to comply with the 2001 Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines (as the 2001 ROD was amended or modified as of March 21, 2004) were completed for K-Line Commercial Thinning Project. The K-Line Commercial Thinning Project also complies with any site management for any Category B, D, and E species as identified in the 2001 ROD (as modified).

SUMMARY OF SURVEY RESULTS : The following survey and manage special attention species were located in May and November, 2004 during intuitive controlled surveys; *Cudonia monticola*, *Gomphus kaufmannii*, *Ramaria cyaneigranosa* and *Rickenella swartzii*. The management direction is to protect known sites and to minimize soil disturbance. All of the sites were protected by excluding the known site location from any harvest consideration, and providing a 60 foot minimum protection zone. All of the sites except for the *Rickenella* site were further protected by incorporating the known site protection zones into an adjacent riparian reserve.

Therefore, based on the preceding information (refer to Table A above) regarding the status of surveys and site management for Survey & Manage botanical species, it is my determination that K-line Late Successional Reserve Enhancement Project complies with the provisions of the 2001

Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines (as the 2001 ROD was amended or modified as of March 21, 2004). For the foregoing reasons, this contract is in compliance with the 2001 ROD as stated in Point (3) on page 14 of the January 9, 2006, Court order in Northwest Ecosystem Alliance et al. v. Rey et al.

Brad Keller, Field Manager
Marys Peak Resource Area, Salem District BLM

Feb 28, 06
Date