DECISION NOTICE,

FINDING OF NO SIGNIFICANT IMPACT, and FINDING OF NON-SIGNIFICANT AMENDMENT

for the

LOWER SHEEP TIMBER SALE and FIRE REINTRODUCTION PROJECT

USDA Forest Service
Umatilla National Forest
Walla Walla Ranger District
Union and Wallowa Counties, Oregon

T4N, R40E, all sections except 31; T4N, R39E, sections 1,12,13,24,25; T4N, R41E, sections 7,18,30,31; T5N, R40E sections 31,32,33,28,29, Willamette Meridian.

Background

Planning and field work for this project began in the summer of 2002. The planning area has three distinct focus areas: the Grande Ronde River and Sheep Creek canyons (Inventoried Roadless Area and Wild and Scenic River); forest lands between the canyon rim and private in-holdings; and upper elevation forests west of the private lands (maps are found on EA page 1-7, Figure 1-3; and page 2-32, Alternative B).

The landscape within the Grande Ronde River and Sheep Creek canyons is characterized by a mosaic of dry forest and grasslands maintained by a frequent fire regime. The steep terrain and existing vegetation in these canyons combine to create the potential for extreme fire behavior. Beyond the rim, toward the private property, the forest changes in character to one maintained by the mixed fire regime with stands comprised of western larch. Most of these stands would also exhibit extreme fire behavior such that a ground crew would need aerial assistance under normal summer conditions to protect the private lands should a wildfire leave a canyon (EA pages 1-3 and 1-4; 3-2 to 3-9; 3-25 to 3-27).

The upper elevations of the planning area are also within the mixed fire regime but a longer return interval between fires has increased the amount of grand fir and Engelmann spruce. Western larch stands with heavy stocking are not regenerating nor are they able to maintain growth. Late old structure is well represented in this area and is above historic ranges. High stocking levels place large trees at risk to mortality from insects and wildfire.

The interdisciplinary team identified the need to increase stand resilience to insects, disease, and wildfire by restoring character reflective of historic fire return intervals and the need to improve forest health and tree vigor in over stocked stands. Additional field review, early in 2003, combined with comments received from the public during scoping revealed an additional need to lower fire severity along interior private land and improve the ability of ground crews to successfully suppress wildfires between the rim of the Grande Ronde canyon and the private lands (EA page 1-4). Following the April 2005, 30-day review and comment period, the District Ranger completed the environmental assessment based in part on many helpful suggestions provided by the public during the comment period. The Forest Supervisor is the responsible official because the project amends the forest plan.

The environmental assessment is available for public review at the Walla Walla Ranger District in Walla Walla, Washington or at the Forest Supervisor's headquarters in Pendleton, Oregon. The environmental assessment is also available on-line at http://www.fs.fed.us/r6/uma/projects/readroom/.

Decision

After careful review of public comments, the environmental assessment, and analysis file, I have decided to implement Alternative B (*Modified Proposed Action*), except that I am omitting units 19, 73, 78, 21, 22, and 86. I have also decided to add another management requirement to address the concern for "relict" size trees: *"When removing mistletoe infested trees is required and consistent with eastside screens, no tree over 29 inches will be removed. Any mistletoe trees needing removal will not increase the size of group selections."* A detailed description of Alternative B is found in the EA (pages 2-4 to 2-13) with management requirements on pages 2-20 to 2-26. The following table summarizes activities authorized by this decision.

Activities	Decision	Changes from Alternative B
Harvest:		
Total Harvest Volume (mbf)	9602	-251 mbf
Total Harvest (gross acres)	1755	-57 acres
Total Harvest (net acre)	1633	-49 acres
Logging Systems		
Forwarder, acres (volume mbf)	1708 (9,302)	-20 acres, (110 mbf)
Skyline, acres (volume mbf)	47 (300)	-37 acres, (140 mbf)
Silvicultural Prescriptions		
Commercial Thin – acres	1374	-46 acres
Group Select – acres	158	-11 acres
Single Tree Select - acres	82	No change
Improvement cut – acres	82	No change
Shelterwood – acres	53	No change
Seed Tree – acres	6	No change
Fuel Treatments:		
Acres of total harvest and landscape treatments	4559	-57 acres
Burning understory outside units (acres)	2763	No change
Mechanical fuel treatment (acres)	1274	-9 acres
Acres treated in support of suppression efforts around private lands	4,030	-21 acres
Roads:		
New System Road Construction (miles)	0	No change
Maintenance (miles)	54.8	-1.5 miles
Temporary road construction (miles)	1.9	-0.1
Closed road opened temporarily (miles)	16.3	-1.5
Shaping,blading & surface rock (miles)	7.7	No change
Road brushing (miles)	3.4	No change
Culverts replaced (number)	2	No change
Culverts added (number)	2	No change
Roads decommissioned	0	No change

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Reasons for the Decision

I carefully considered concerns raised during scoping and the opportunity to comment (EA Appendix B and L). I considered thirteen alternatives to the proposed action. My reasons for not analyzing eight alternatives in detail are disclosed in the EA, Chapter 2 (EA pages 2-1 to 2-3). The following narrative presents why I omitted units 19, 73, 78, 21, 22, and 86 and why I did not select Alternatives A, C, D, and E. Also presented are narratives that describe how I considered and addressed the purpose and need, significant issues, and other resource concerns in making my decision.

Reasons for Omitting Units 19, 73, 78, 21, 22, and 86

I deleted units 73, 78, 21, and 22 because they are skyline units located in the dry forest biophysical type and there was a possibility that trees over 21 inches would have had to be cut to facilitate skyline logging. I also decided to drop units 21 and 22 because harvest would require the removal of trees within an intermittent riparian area where skyline corridors crossed the RHCA. Units 19 and 86 were dropped because field review indicated they were too steep for forwarders and changing them to skyline yarding would not be economical using the proposed stand prescription.

Reasons for Not Selecting Alternatives A, C, D, and E

I considered, but did not select the no action alternative because it does not address the purpose and need and leaves the forest and adjacent private lands furthest from conditions that reflect the historic fire return interval. It does nothing to reduce severity of wildland fire near private property; nor does it improve protection of private property from fires.

Alternatives C, D, and E each address a conflict relative to the effects of the proposed action and I acknowledge there are attractive aspects to each. On the other hand, Alternatives C, D, and E also omit worthwhile and needed activities.

I did not select Alternative C because all action alternatives maintain existing Late Old Structure stands (EA pages 4-30 to 4-33). Removing understory from Late Old Structure stands protects them from insects, disease, and wildfire while creating only minor effects to LOS dependent species (EA pages 4-38 to 4-40). All cumulative effects to LOS and dependent species are fully consistent with the forest plan. Alternative C also avoids cutting 40 to 100 trees between 21 and 29 inches dbh. However, it is more important to improve stand health and resilience by removing trees that could spread mistletoe to otherwise healthy young trees. Alternative C does not protect private lands as well as Alternative B from a wildfire moving out of the Grande Ronde Canyon at Meadow Creek. It does not improve or maintain low fuel conditions in the upper elevations of the planning area (EA pages 4-7 to 4-10). For these reasons, I feel it is reasonable to select another alternative that more fully addresses the purpose and need.

I did not select Alternative D because all action alternatives adequately conserve lynx habitat (EA, Chapter 4), and Alternative B addresses additional concerns as well. All cumulative effects disclosed for action alternatives are consistent with the amended Forest Plan standards and guidelines for Canada lynx (EA, Chapter 4). Therefore, pursuing another alternative that more fully addressed the purpose and need was reasonable. (EA pages 4-41 to 4-46)

I did not select Alternative E because it did not maintain western larch nor maintain low fuel conditions in the upper elevations of the planning area. I recognize this alternative disturbed fewer acres and impacts were generally less compared to the modified proposed action. However, all cumulative effects disclosed for alternatives B and E are consistent with the Forest Plan and the difference in effects were generally minor, therefore pursuing an alternative that more fully addressed the purpose and need was reasonable.

Lastly, alternatives C, D, and E treat fewer acres of fuel adjacent to private land; Alternative C is 410 acres less than Alternative B, Alternative D is 293 acres less, and Alternative E is 189 acres less. The treatments proposed in Alternative B provide safe conditions for taking suppression actions along the private lands and wildfire could be suppressed at lower costs because more of the area would have fuel conditions that would allow three to four person engine crews to successfully handle them.

Purpose and Need

The following narrative presents how I considered and addressed the purpose and need in making my decision.

I believe my decision affirmatively addresses and best meets the purpose of and need for action. Based on information given to me by the public and information found in the EA and project file I believe there is a clear need to create or extend low fuel conditions supportive of controlling wildfires and to increase resilience of forest stands.

My decision will help maintain large trees on the landscape (Decision Notice, Figure 1). Ladder fuels and overstocked conditions place large trees at risk of damage or being killed by wildfire and insects. Over-crowding stresses trees, attracting insects. I selected Alternative B because thinning would remove competition from small diameter trees and group selections would allow patches of larch to regenerate without changing the stand structure. The few trees between 21 and 29 inches dbh proposed for removal would be outside of late old forest stands and would reduce the potential source of dwarf mistletoe infestation.

I selected Alternative B because it does the most to restore western larch stands, a type that is disappearing on the landscape (EA pages 4-30 to 33; 4-48 to 51). My decision increases the representation of early seral species in stands that are departing from historic conditions. The alternatives differ by the amount of stands being managed to increase western larch regeneration and their dominance in the overstory. Western larch improves a stand's resilience to wildfire, insects, and disease. Western larch is sensitive to over -crowding and when suppressed, larch lose the ability to release as other tree species do. Larch need frequent disturbance to keep stocking levels low and have growing space. Within these stands, grand fir is becoming the dominant species in the understory or co-dominates in the overstory. Western larch is losing its position because openings are not being created for it to regenerate into and the over stocked conditions are not favorable for growth (Decision Notice, Figure 2).

My decision provides the best mix of prescriptions to reduce the intensity of wildland fire coming out of the Grande Ronde canyon and lower the severity of a wildfire along the private lands by modifying the fuel conditions for successful suppression effects (EA pages 4-7 to 4-11). It emphasizes restoration of frequent fire character in sites historically dominated by ponderosa pine using prescribed fire and hand piling and burning with limited use of timber harvest (EA, pages 2-5 to 2-13, 4-1 to 4-11, and EA Appendix C).

Another reason I selected Alternative B is that I believe it will best reduce fire severity near private property and administrative sites and support national and regional emphasis to provide for public and firefighter safety and reduce the cost of fire suppression efforts, after all treatments are accomplished. Alternative B provides the best mix of treatments to prepare the area for successful fire suppression efforts between the rim of the Grande Ronde canyon and private lands. The landscape scale prescribed fire within the canyon will begin the process of reducing fuels and restoring the character of the infrequent fire regime. The proposed harvest focuses treatments in blocks to increase and maintain the amount of Fuel Model 8 between the rim and private lands. It does not attempt to treat all acres at this time; however treated blocks should provide safe areas to anchor future suppression efforts (EA pages 4-7 to 4-10).

Lastly, I believe treatments included in this decision will improve the landscape's resilience to major disturbance events. The decision treats stands in the mixed and frequent fire regimes by thinning overstocked stands, reducing surface fuels, and increasing the height to crown by removing low and intermediate trees in the overstory so that small regeneration and saplings are no longer a ladder fuel threat.

The following table compares the purpose and need with some outcomes of my decision.

Purpose and Need Statement	Outcome of Decision
Maintain and restore vegetation and forest character reflective of historic fire return intervals and other disturbance processes.	Approximately 2,765 acres of landscape prescribed fire and hand piling and burning of small fuels; 80 percent in the frequent fire regime and 19 percent in the mixed.
Reduce severity of wildland fire near private property & FS administrative sites.	Approximately 1,210 acres treated within a half mile of private lands to maintain or develop Fuel Model 8 conditions and 1,289 acres between the rim and private lands. Approximately 5 miles of treatment along private lands.
Maintain western larch in stands currently dominated by that species	Thinning of approximately 347 acres in stands dominated by western larch.
Reduce stocking levels to make stands more resistant to insect attacks & forest diseases while maintaining the mixed species composition.	Approximately 1,680 acres
Maintain stands that have large tree size classes in a mix of early & late seral species in the overstory.	Approximately 590 acres of treatments with a focus on improving the resilience of large trees.
Supply materials & job opportunities to local markets.	1,635 acres of harvest; 9,600 mbf; 1,230 acres of mastication, 105 acres of planting
Amend the Forest Plan to apply management direction related to Canada lynx.	Amends the forest plan to provide objectives, standards and guidelines for the conservation of lynx.

Significant Issues

The following narrative presents how I considered and addressed significant issues raised by the public in making my decision.

Habitat for Canada Lynx: The planning area is within the Timothy Lynx Analysis Unit (LAU). There was a concern that timber harvest and burning activities could change lynx foraging and denning habitat into unsuitable habitat. I looked at the tradeoff between reducing suitable lynx habitat with proposed activities and the benefits from the activities.

Analysis of impacts to lynx habitat indicates that Alternative B may affect but not likely adversely affect Canada lynx. The Blue Mountains are considered dispersal habitat (EA, Chapter 3, EA pages 3-33 and 3-35) and there are no resident populations, so impacts to individual lynx are unlikely. The proposed harvest within lynx habitat would reduce 2 percent of the suitable habitat within the Timothy LAU causing a cumulative total of 26 percent unsuitable. About half of this will likely become suitable habitat in the next 15 years. The expected unsuitable habitat condition is well within the standard of 30 percent unsuitable and a 1 percent cumulative conversion to unsuitable habitat within the ten year period beginning in 2000; this is also consistent with the Forest Plan as amended to incorporate the objectives, standards and guidelines for Canada lynx for the duration of the Lower Sheep Project. I decided that the long term benefits from activities in lynx habitat out-weigh the short term reduction in suitable habitat (EA pages 4-41 to 4-46).

Late/Old Structure Habitat and Large Trees: During the comment period, one writer mistakenly thought that the project would cut very large trees, and objected to cutting 55 inch trees. Since protecting and preserving such trees is a purpose of this project, this comment helped us understand that the project needed clarifying on this issue. Towards this end, I added a management requirement to address the concern for "relict" size trees: "*When mistletoe infested trees need to be removed, no tree over 29 inches will be removed. The mistletoe tree removal will not increase the size of the group selection.*" Thus, the decision includes harvesting 40 to 100 larch trees between 21 and 29 inches in diameter within fifty feet of group selections in stands outside of late old structure. These trees will be cut to remove disease sources in group selection harvests designed to regenerate western larch. There will be no removal of trees larger than 21inches from stands of late old structure. Large trees would remain common on the landscape and late old structure stands will still have sufficient large diameter trees and snags to remain late old structure (EA pages 4-30 to 4-33 and 4-38 to 4-41).

I considered both the value to the forest of retaining these trees and the benefits of cutting them. While we are concerned about spreading disease from large infected trees, we also recognize the value of large trees as future snags. At the same time, large infected trees located above young stands can be the source of disease that affects forest health. This project seeks to balance these considerations by removing only those 21 to 29 inch trees that are positioned to have the greatest effects on understory trees, within stands that are not late old structure.

On a field trip last year representatives of Hells Canyon Preservation Council stated their organization was not necessarily against cutting trees over 21 inches. They were concerned primarily about removing trees via commercial timber sale because it introduced the possibility of trees being removed for economic reasons instead of resource reasons. Although I believe it is a benefit to realize commercial value while accomplishing resource objectives, and this is a purpose and need of the project, I can appreciate that the purpose for this project could be trusted at a higher level by this organization if there were no commercial aspect to an activity.

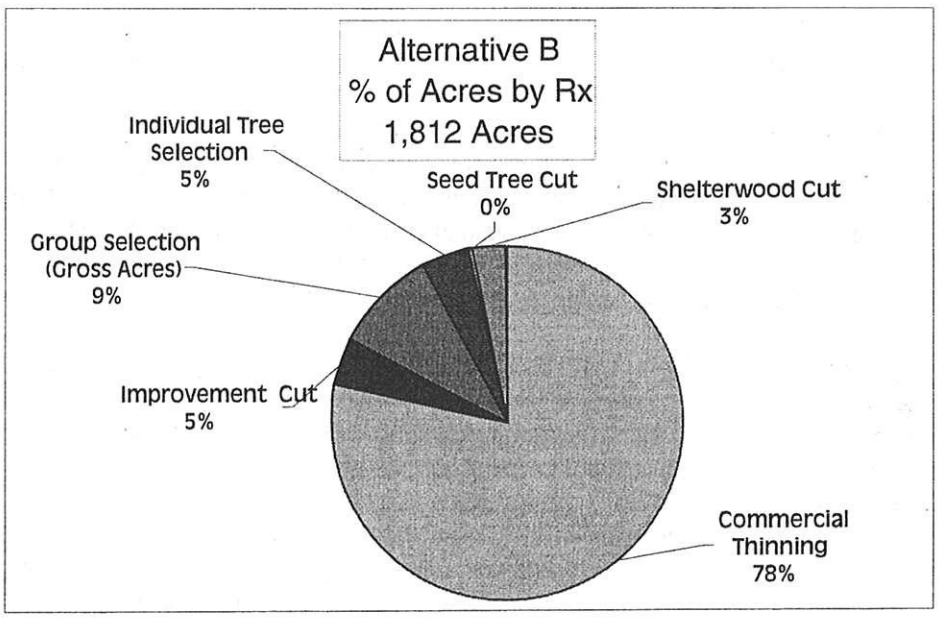
With all of this in mind, the IDT considered options for reducing the risk of disease spread from large trees without removing those trees with a timber sale. We evaluated dropping and leaving diseased trees; we also considered girdling them and leaving them standing. Either of these options would accomplish the forest health objectives as well as commercial removal of the trees and both would require paying a contractor to accomplish the resource objectives, instead of generating money for the Treasury while improving conditions. Because there is no ready source of funds to pay for having the work done, and because there are public benefits from removing the source of infection to the stands, providing wood for the local economy, and generating funds to the Treasury, I concluded that the best way of reducing infection in the stands is through commercial timber harvest.

Other Resource Concerns

The following narrative presents how I considered and addressed other resource concerns raised by the public in making my decision.

Use of Regeneration Harvest: Some believe that regeneration harvest is a treatment that should no longer be used on National Forests. In my decision, regeneration harvest will occur on 60 out of 1,755 acres; or 3 percent of the proposed harvest prescriptions (Decision Notice, Figure 3). Shelterwood and seedtree prescriptions will be implemented in stands with high levels of disease. I believe regeneration harvest is appropriate under these conditions (EA pages 2-27, 2-29 and 2-3).

Figure 3



Big Game Cover: This area was studied in the late 1990s for road decommissioning. Recommendations were made and roads no longer needed for the system were decommissioned. Currently Management Area C4 – Big Game has 61 percent total cover and 17 percent satisfactory cover within the planning area; none of the alternatives would change total cover. Even though there was a need to treat more acres for stocking level control I decided to not reduce satisfactory cover below 15 percent which is well above the forest plan standard for satisfactory cover of 10 percent. Stands supporting wildfire suppression efforts were given the highest priority for inclusion in the project proposal (EA page 1-4; and Alternatives in Chapter 2). Thermal cover will be retained at existing levels even with a reduction of satisfactory cover. The mosaic in age of plantations provides hiding cover as does the understory vegetation. The quality of big game habitat would be unchanged to slightly improved by the burning and opening of crowns and growth of shrubs and herbaceous species in forested stands and grasses within the canyon and harvest units would also be improved.

Soil Impacts: The cumulative effects analysis for soils indicates Forest Plan standards and guidelines would be met (EA pages 4-12 to 4-17). Field review of proposed units for impacts to soils indicated that residual detrimental soil conditions would not limit future activities. Several plantations with off-site pine were proposed for restoration. However, treatments would have caused detrimental soil conditions, and I decided not to enter these plantations (EA page 2-3).

Wild and Scenic River and Roadless Areas: The eastern portion of the planning area is within the Grande Ronde Wild and Scenic River corridor and the inventoried Grande Ronde Roadless Area. Prescribed fire would be used to reduce ladder fuels and stocking levels here. Even though it would take longer to reach desired fuel goals and frequent fire character, prescribe fire is more compatible than timber harvest with the outstanding resource values of the wild and scenic river (EA pages 4-53 to 4-58).

Roads: Some commentors suggest every project reduce road densities. However, road decommissioning for this area was studied and implemented in the late 1990s. This previous road decommissioning reduced the road system to appropriate levels; there is little opportunity for additional decommissioning. Approximately 2 miles of short-term temporary roads would be used to access four harvest units (EA pages 3-40; 4-52 to 4-53). These temporary roads were found to have acceptable effects.

Alternatives Considered

The EA considered five alternatives in detail, including the no action. Alternatives B, C, and E include a forest plan amendment that add management direction for Canada lynx. A detailed description and comparison of all alternatives, including eight alternatives considered but eliminated from detailed study, can be found in Chapter 2 of the EA.

The final modified proposed action and alternatives were refined over three field seasons. All alternatives would accomplish the purpose and need and incorporate design features that protect various resource values and include a forest plan amendment when activities are proposed in lynx habitat. The alternatives to the proposed action are responsive to significant issues raised during scoping. The table following the alternative descriptions summarizes the outcomes and activities of each alternative.

Alternative A – No Action
Alternative A represents the existing situation, uses, and environmental processes. No new management actions would take place. Current management direction and existing activities, fire protection, and road maintenance would continue. Current biological and physical processes creating stand disturbance and changes would be allowed to continue. Current management plans would continue to guide management of the project area (EA page 2-4).

Alternative B – Modified Proposed Action, Forest Health
This alternative restores a forest character more reflective of historic fire and other disturbance processes using prescribed fire and timber harvest. This action would accomplish all of the purposes listed in Chapter 1 to the extent possible within the Forest Plan standards and guidelines. This alternative is smaller than the original proposed action, a result of further study by the IDT (EA pages 2-4 to 2-13).

Alternative C –Forest health without activities in Late Old Structure
Alternative C is the same as Alternative B except there would be no harvest in late old structure or cutting trees greater than or equal to 21 inches trees. It is responsive to concerns that timber harvest and burning could adversely impact species dependent on late old structure (EA pages 2-13 to 2-15).

Alternative D – Forest health without activities in lynx habitat
Alternative D is the same as Alternative B except there would be no harvest in lynx habitat. Although all alternatives comply with Forest Plan management direction for lynx, Alternative D would implement activities **only** outside of lynx habitat. For some commenters the thought of no management in lynx habitat provides protection. This alternative addresses concerns that timber harvest and burning could adversely impact Canada lynx (EA pages 2-15 to 2-18).

Alternative E – Protection of private property
Alternative E is the same as Alternative B except Alternative E focuses on minimizing loss to private property from wildfire. This alternative contains only the harvest units that would reduce wildfire intensity at the private property boundary. It is responsive to concerns that forest health restoration is too broad and that fuel reduction needs to be focused around private lands (EA pages 2-18 to 2-20).

Comparison of Alternatives				
Activities	**Alt B**	**Alt C**	**Alt D**	**Alt E**
Harvest:				
Total Harvest Volume (mbf)	9853	6244	5948	5748
Total Harvest (gross acres)	1812	1208	1090	1108
Total Harvest (net acre)	1682	1175	1074	1064
Commercial Thin – acres	1420	1006	861	834
Group Select – acres	169	47	28	60
Single Tree Select - acres	82	82	82	82
Improvement cut – acres	82	25	60	73
Shelterwood – acres	53	42	53	53
Seed Tree – acres	6	6	6	6
Skyline(S) or Helicopter(H) (# of units)	S 5	H 5	S 2	S 2
Fuel Treatments:				
Total Fuel Treatments (acres)	4616	4012	3894	3912
Burning understory outside units (acres)	2763	2763	2763	2763
Mechanical fuel treatment (acres)	1283	917	833	908
Roads:				
New System Road Construction (miles)	0	0	0	0
Maintenance (miles)	56.3	52.10	34.9	30.2
Temporary road construction (miles)	2	.7	1.1	1.5
Closed road opened temporarily (miles)	17.8	17.2	7	6.4
Shaping,blading & surface rock (miles)	7.7	7.7	7.7	7.7
Road brushing (miles)	3.4	2.6	2.6	2.6
Culverts replaced (number)	2	2	2	2
Forest Plan Amendment for Canada lynx	Yes	Yes	No	Yes

Public Involvement

Public scoping began March 10, 2003 by mailing a proposed action to 126 individuals, groups, agencies, organizations, and tribal governments. The District received three written responses. A discussion of issues raised during scoping is included in Appendix B of the EA. Issues raised during public scoping were used to develop alternatives. On April 17, 2005 the District began the 30-day comment period consistent with regulations issued June 4, 2003, CFR 215.3 and 215.5. The responsible official determined this was the most effective time to publish the legal notice and provide opportunity to comment. Information provided during the comment period included the purpose and need for action, a description of alternatives, management requirements that would be applied during project implementation, a narrative response to concerns raised during scoping, and a statement about the Forest Plan amendment. The District received comments from one individual and three organizations. The comments and resource concerns have helped the District refine the analysis presented in this EA.

Finding of No Significant Impact

My determination of significance is based on careful consideration of the EA and project file as compared to the context and intensity factors listed in 40 CFR 1508.27.

Context

The actions included in the selected alternative are described in Chapter 2 of the EA. The disclosure of effects may differ by the resource and by the scale of analysis. Therefore, multiple scales and levels of analysis were used to determine the significance of the actions' effects on the human environment. The overall project area for the Lower Sheep analysis included about 26,343 acres. The selected alternative included vegetation modification activities on 4,616 acres, about 18 percent of the planning area. Activities were designed to improve ecosystem function and resilience to natural disturbance by moving stocking levels, species composition, forest structure, and fuel loads toward their historic ranges. Water qualities and flows would not be measurably impacted. The management activities applied would improve the ability to suppress wildfires along the boundary of private lands by reducing fuel concentrations between the canyon rim and the private lands. Wildlife and its habitat, soil stability and productivity, and the regional economy would also be affected. The impacts of the selected alternative on each of these are disclosed in the EA (Chapter 4). The analyses also found that the activity may affect but not likely to adversely effect any listed fish species or critical fish habitat and Canada lynx or its habitat. Therefore, in context, this project is local in scope.

Intensity

The environmental effects of the following actions are documented in Chapter 4 of the Environmental Assessment: commercial harvest of trees; tree planting; reduction of fuels by landscape prescribed fire, mastication, underburning, hand pile and jackpot burning, temporary road construction and decommissioning and temporary use of roads designated closed in the Access and Travel Management Plan. The beneficial and adverse direct, indirect, and cumulative impacts discussed in the EA have been disclosed within the appropriate context, and effects are expected to be low in intensity because of project design including management requirements developed to protect or reduce impacts to resources. Significant effects to the human environment are not expected. The rationale for the determination of significance is based on the environmental assessment, in light of the factors listed below:

1. Impacts that may be both beneficial and adverse (40 CFR 1508.27(b)(1))

The interdisciplinary team analyzed and disclosed the direct, indirect, and cumulative effects of the actions on ecosystems and diversity (EA, pages 4-30 to 4-33), wildlife habitat (pages 4-33 to 4-47), soils (pages 4-12 to 4-17), water (pages 4-17 to 4-24), fire and fuels (pages 4-1 to 4-11), air quality (pages 4-11 to 4-12), range (pages 4-59 to 4-60), transportation (pages 4-52 to 4-53), timber (pages 4-48 to 4-51), visual quality (pages 4-58), and pest management (pages 4-60 to 4-62).

The direct, indirect, and cumulative effects of the selected alternative included the following:

Finding from the Analysis	EA page Number
There would be a short-term increase in fine fuels and small fuels as a.result of timber harvest. Slash reduction treatments include mastication and burning that would bring fuel loads to desired conditions as defined for Fuel Model 8. These reductions would reduce starts and help to successfully suppress wildfire or alter fuel concentrations to aid in controlling the size of future wildfires.	Pages 4-4 and 4-6.
The increase in the height to crown would reduce the risk of fire moving into the crowns. Saplings not killed by fire would be retained for wildlife values.	Page 4-6
The proposed landscape prescribed fire treatment along the rim and into the canyon is common to all alternatives and would decrease the risk of crown fire and reduce intensities of fires coming out of the canyon. The proposed harvest units between the rim and the private lands are located in areas that aid in suppression by increasing the area of low fuel accumulations on the landscape.	Page 4-9
The project may slightly increase the amount of acres within the planning area with detrimental soil conditions, however all activity units are consistent with the Forest Plan; impacts to soil productivity will be immeasurable.	Page 4-14
Past results using in-woods processors (including the cut-to-length systems using forwarders) have been quite favorable. The slash mats spread compressive forces while little to no soil displacement occurs, as there are minimal turning forces or dragging of trees to cause mixing of surface soil. Landings often overlap existing roads thereby limiting additional impacts.	Page 4-14
Exposed soil from prescribed fire would be scattered in a mosaic pattern and rarely in continuous areas that could become an erosion hazard. Forest Plan standards and guidelines would be met; there would be no measurable impacts to soil productivity.	Page 4-15
The field review of soils in units that had prior tractor skidding showed they recovered well. Use of harvester/forwarder equipment and designated forwarder routes minimizes additional displacement and compaction and detrimental soil conditions are expected to stay well within Forest Plan standards and guidelines.	Page 4-15
The proposed activities will not increase stream temperatures.	Page 4-18
Commercial harvest would create small, scattered patches of bare ground that would have a low risk for erosion. Surrounding undisturbed vegetation and RHCA protection would prevent transport of any eroded sediment into surface waters.	Page 4-20
There is a low likelihood of erosion from prescribed burning due to short slope lengths of exposed soil. The risk of sedimentation is low due to surrounding unburned debris and vegetation. However, because mineral soil might be exposed adjacent to channels, a small amount of sediment might enter channels during intense storms and spring runoff for the first year after burning. It is very unlikely that sedimentation would occur at levels that would measurably affect water quality or deposition in channels.	Page 4-20
No sediment would move from the culvert replacement sites until fall rains or spring runoff.	Page 4-21
With this magnitude of treatment, it is unlikely that private actions would combine with the proposed project to measurably change water yield or peak flows of the streams in the analysis area as they leave the National Forest System.	Page 4-23
This project would not measurably add chemical contaminants and nutrients to the stream systems or cause degradation of habitat. There are no other sources of contamination that would causes cumulative effects.	Page 4-26
Because none of the component activities of the Lower sheep project would significantly alter the sediment flux, substrate imbeddedness would be unchanged. The discountable amount of sediment potentially delivered to the Grande Ronde River would not be measurable against background turbidity and would be flushed from the system by the high flows of the Grande Ronde River.	Page 4-28
The proposed activities will not alter pool frequency.	Page 4-28
No subwatershed surpasses 15 percent ETA (Equivalent Treatment Area, this is the same as equivalent clearcut area) and would not be expected to cause detectable changes in water yield or to peak or base flows.	Page 4-29
All temporary roads are located along ridgetops so they will not contribute to the drainage network. The less than 0.1 miles per square mile increase in road density would be short-term (1 to 3 months), and would not impact fish habitat. The roads are not located in RHCAs nor connected hydrologically to fisheries habitat.	Page 4-29
The proposed thinning and group sections would not change the percentage of any of the structural stages in the planning area.	Page 4-31
The reduction in stand stocking levels would allow faster growth and would increase resilience. The reduced fuel structure would help protect large trees from wildfires. Vigor of the remaining trees would increase, reducing the risk of mortality from insect epidemics.	Page 4-32 and 4-33
Harvest of diseased trees, thinning, and fuels treatment activities would not reduce the total amount of big game thermal cover in the area. Some satisfactory cover will be converted to marginal, and hiding cover would be reduced. The remaining satisfactory cover would provide security habitat over 15.4 percent of the planning area, which above forest plan standard. The Habitat Effectiveness Index (HEI) value for C4 would drop one point in all	Page 4-34

alternatives, from 63 to 62. This value is above the forest plan standard for MA C4.	
Some satisfactory cover in Management Area E2 will be converted to marginal cover. However there will still be 20% satisfactory cover remaining, well above the forest plan minimum standard.	Page 4-34
The quantity and distribution of satisfactory cover and marginal cover will not change as result of proposed fuel treatments, however, hiding cover would be reduced.	Page 4-34
There would be little change in big game population because of the current state deer and elk management strategies.	Page 4-35
Cumulatively the effects of proposed activities in combination with other existing and potential future effects are not expected to negatively impact Rocky Mountain elk and other big game species. The quality of big game habitat would remain unchanged or slightly improved by the burning and opening of crowns.	Page 4-36
Proposed commercial thinning and group selections would reduce snag and down wood densities in the planning area, reducing habitat for primary cavity excavator species. Although no currently existing down wood would be removed with harvest, there would be fewer snags to provide down wood in the future. Because a large number of snags are available in this area, very little measurable difference can be shown between the alternatives. The overall 1 percent reduction in snags will not impact populations.	Page 4-36, 4-37, 4-47
While no loss of late old structure is expected, wildlife species currently using these stands would be affected by the treatments to varying degrees. Existing habitat for some species such as the northern goshawk, pileated woodpecker, and some neotropical migratory birds would be affected to a small degree simply because of stand disturbance and changes in microhabitats. Connectivity in thinned stands would remain functional and allow the free movement of old-growth-dependent wildlife. Treating these stands would benefit connectivity in the long-term by creating healthier conditions for tree development and growth.	Page 4-39
After project implementation, less than 30 percent of the lynx habitat in the Timothy LAU would be in unsuitable condition (Table 4-22). This is consistent with the Forest Plan as amended. Harvest and fuels treatments would not preclude a return to suitable habitat in the future and the stands should develop into lynx foraging habitat in 15 to 20 years. Given the low open road density in the area, and the location of the proposed road activities, no meaningful changes to lynx habitat would occur from road activities. None of the proposed activities would change connectivity between LAUs because no harvest would occur on the western side of the Timothy LAU.	Page 4-41 and 4-43
Habitat for Neotropical migratory birds and other land birds that are dependent upon open, single-stratum stands and understory shrubs would slightly increase with thinning and fuels treatments. Most stands would retain their current multi-storied structure. Old growth characteristics would be enhanced, and stand composition and structure would more closely resemble what was historically present. Underburning would remove some shrubs, grasses, and seedlings from the understory, which would temporarily reduce cover for birds and decrease foraging habitat. However, in the year following burning, grasses, forbs and shrubs would re-occupy the burned area.	Page 4-46
Fire within the Grande Ronde Wild and Scenic River Corridor and Inventoried Roadless Area is a natural occurrence. Although a prescribed fire is a management action, after treatment the landscape would still have a natural appearance. Prescribed fire would not be as intense as that expected with a wildfire, especially when considering the current fuel conditions in the area. Management actions would not impact the use of the area for rafting. Solitude and outstanding and remarkable values would be retained.	Page 4-53 to 4-58

While the EA discloses short-term and minor deviations from the existing conditions, in my experience with similar projects, none of these effects have been found to be significant. All proposed activities would result in conditions consistent with the Forest Plan.

2. Effects to public health and safety (40 CFR 1508.27(b)2)).

Management Requirements and project design (EA, pages 2-20 to 2-26), including best management practices (Appendix E, pages E1 to E8), will reduce impacts to acceptable levels. Beneficial uses of water are described in the EA, pages 3-15 to 3-17. The analysis determined the projects to be compatible with the findings and recommendations of the Upper Grande Ronde River Subbasin Total Maximum Daily Load and Water Quality Management Plan (EA, pages 3-16 to 3-17 and 4-65 to 4-66). Beneficial uses would not be impacted within or downstream of the planning area. Past experience has shown that air quality declines are limited in scope to the general burn area and are of short duration. Prescribed fires will occur at times when the air is unstable and smoke can mix with the upper atmosphere. Monitoring by EPA for PM10 particles has shown thresholds of health concerns are not reached during periods of wildfires or prescribed fire (EA, pages 4-11 to 4-12). Road maintenance will provide for increased public safety on roads because of the improved surface (EA, pages 4-52 to 4-53). Increased fire fighter and public safety will result from reducing wildfire intensity and severity. The

combined harvest and surface fuel treatments would lower the intensity and rate of spread of wildfires allowing for safer control measures to be taken near private property (EA, pages 4-3 to 4-11).

3. Effects to unique characteristics of the geographic area (40 CFR 1508.27(b)(3)).

Avoidance measures will be implemented to protect Cultural Resources. Twenty-seven sites are considered potentially eligible for inclusion in the National Register of Historic Places and will be protected from activities associated with the project. There would be no effect to any cultural property (EA, page 4-62). Only landscape burns are being proposed in roadless areas. A portion of the Grande Ronde Inventoried Roadless is within the planning area and the proposed prescribed fire will conserve roadless character and values (EA, pages 4-57- 4-58). The project will not impact wetlands or floodplains (EA, page 4-65). A portion of the Grande Ronde Wild and Scenic River is within the planning area. The project is consistent with the *Wallowa and Grande Ronde Rivers Final Management Plan and the Oregon State Scenic Waterways Program.* (EA pages 4-53 to 4-57) and will conserve outstanding and remarkable values.

4. Effects on the quality of the human environment that are likely to be highly controversial (40 CFR 1508.27(b)(4)).

There are differing opinions within the local area on the importance or role fire disturbance and timber harvest should play in the ecosystem. The level of controversy or interest in what course of action to take regarding the use of timber harvest and prescribed fire to achieve desired conditions in the Forest Plan and the purpose and need for this project are not the focus of this criterion, rather the degree of controversy over the effects disclosed in the analysis.

Cutting of 21 inch dbh trees. Controversy over cutting large trees is recognized. This project would cut an estimated 40 to100 trees with diameters over 21". After harvest, large trees would remain common on the landscape. The amount of late old structure would be the same after completion of the project. "Relict" size trees would be protected by a requirement to keep all trees larger than 29 inches.

No significant disagreements have been identified with the disclosure of effects in the EA or public comments. While some commenters disagreed with the conclusion that a combination of prescribed fire and timber harvest would help move the existing vegetative conditions closer to desired conditions listed in the Forest Plan and the purpose and need, the reasons for this difference are based on opinions, not with the disclosure of effects. Although there is controversy and disagreement among the public over the potential for significant effects from a project of this size, the professional experts and scientific research consulted agree that the activities can be implemented without significant adverse effects on the environment. All actions meet Forest Plan standards and guidelines (EA, Chapter IV and pages 4-66 to 4-68). Concerns raised during scoping were considered and responded to in Appendix B and L of the EA.

5. Effects on the human environment that are highly uncertain, or involve unknown risks (40 CFR 1508.28(b)(5)).

My decision will not impose any highly uncertain, unique, or unknown environmental risks. Thinning, harvest, mechanical fuel treatment, prescribed fire and tree planting have been implemented successfully on the Umatilla National Forest in the past, meeting regulations concerning these activities and protecting National Forest resources. Past monitoring and experience with these types of activities has shown that the effects disclosed in the EA are not uncertain, and do not involve unique or unknown risk. Recent monitoring has found that Best Management Practices for protecting soil and water resources are effective in keeping detrimental impacts to within Forest Plan standards and in compliance with the Clean Water Act.

6. Establishment of a precedent for future actions with significant effects or implication of a decision in principle about a future consideration (40 CFR 1508.27(b)(6)).

Harvest is not a new activity within this analysis area and the proposed prescribed burning of natural and activity fuels has occurred in numerous parts of the Umatilla National Forest. The Forest Plan allows harvest, thinning, planting, and prescribed burning in this area. The EA effectively addressed and analyzed all major issues associated with the project. While sustaining dry forest stands at or near historic conditions would require increased use of prescribed fire in the future, this would also reduce fuel loads and continuity so that wildfires would have lower risk of catastrophic effects. Harvest of

trees over 21" is consistent with the forest plan as amended by eastside screens. The lynx amendment and associated guidelines only apply to this project.

7. Relationship to other actions with individually insignificant but cumulative significant impacts (40 CFR 1508.27(b)(7)).

EA, pages 3-1 to 3-2 lists existing permits, contracts, and uses both within and adjacent to the planning area, along with reasonably foreseeable future projects. These actions were considered when the cumulative effects for various resources were discussed in Chapter IV. Past actions were also included when analyzing the impacts to water quality, through the use of equivalent treatment acres (ETA); big game with HEI and cover to forage ratios and by estimating the residual detrimental soil condition from past ground based skidding. Private lands below the Forest boundary were also considered in determining cumulative effects. The analysis did not indicate significant cumulative effects. Forest standards and guidelines would be met and the activity on the Forest would not cause measurable impacts below the Forest boundary.

8. Effects to resources listed or eligible for listing in the National Register of Historic Places, and significant scientific, cultural, or historic resources (40 CFR 1508,27(b)(8)).

The planning area has been surveyed and cultural sites were inventoried. Twenty-seven sites have been determined as eligible for listing in the National Register of Historic Places. These sites and any sites found later will be protected by avoidance. If any artifacts or sites should be discovered during project implementation, the North Zone Archeologist will be notified and the area will be protected from disturbance until a determination can be made. No activities will occur on known sites (EA, page 4-62). The Forest Plan has not designated any Research National Areas in the planning area. There will be no impact to cultural, historical, or scientific sites. Oregon State Highway 204 forms the eastern boundary of the planning area.

9. The Lower Sheep Timber Sale and Fire Reintroduction Project would not adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act (40 CFR 1508.27(b)(9)).

The selected alternative would conserve endangered, threatened, and sensitive species and their habitats as required under the Endangered Species Act and Regional guidelines for sensitive species. There are no unique or isolated populations of wildlife or plants. *Carex backii (Back's sedge)* occurs on a small tributary just above the confluence with the Grande Ronde within Fuel Reduction Area 8. It is likely adapted to late season ground fires, although a hot fire could kill them. A low intensity fall burn would not contribute towards a federal listing or cause loss of viability to the species. Fall burning is recommended. Proposed Activities may temporarily impact potential habitat (2 to 5 years) by reducing shade from shrub species, and might impact individual plants, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the species (EA, pages 4-63 to 4-65; and Biological Evaluations for aquatic, terrestrial, and plant species in the Analysis File).

The action alternatives will not adversely affect essential chinook salmon habitat. The project has been determined to "may effect not likely to adversely effect" Columbia River bull trout, Snake River steelhead, Snake River spring/summer chinook salmon, Snake River fall chinook salmon and Canada lynx. The project has been consulted and the USDI Fish and Wildlife Service and the National Marine Fisheries Service concur with the findings. The project includes a Forest Plan Amendment for the conservation of lynx.

10. The Lower Sheep Timber Sale and Fire Reintroduction Project does not threaten a violation of Federal, State or local law or requirements imposed for the protection of the environment (40 CFR 1508.27(b)(10))

The project complies with the USFWS Director's order #131 related to applicability of the Migratory Bird Treaty Act to federal agencies and requirements for permits for "take" and E.O. 13186. Conservation measures have been developed (EA, pages 4-67 to 68). There are no wetlands (EA, page 4-65). The project is in compliance with the Clean Water Act (EA, page 4-65 to 4-66). Water quality is protected by project design (EA, pages 2-20 to 2-26), using low soil disturbance logging systems (EA, pages 4-12 to 4-17), and BMPs (EA, Appendix E). The action will not violate Federal, State, and local laws or requirements for the protection of the environment. Applicable laws and regulations were considered in the EA (EA,

pages 4-62 to 4-71). The action is consistent with the Umatilla National Forest Land and Resource Management Plan (EA, pages 4-67 to 4-68). The Forest Plan amendment does not violate any Federal, State, or Local laws.

Finding

On the basis of the information and analysis contained in the EA as disclosed above, it is my determination that implementation of my selected alternative does not constitute a major Federal Action significantly affecting the quality of the human environment. Therefore an Environmental Impact Statement is not needed.

Findings Required by Other Laws and Regulations

NFMA and Forest Plan Consistency

This decision to harvest and use landscape prescribed fire is consistent with the intent of the Forest Plan's long term goals and objectives summarized in EA Appendix A. The project was designed in conformance with land and resource management plan standards and incorporates appropriate land and resource management plan guidelines for soils, wildlife habitat, riparian and fisheries habitat, timber, ecosystems and diversity, water, soils, fire and fuels, air quality, pest management, threatened, endangered, and sensitive species, visual resources, and management area guidelines (Land and Resource Management Plan, pages 4-47 to 4-195).

No thinning, yarding, prescribed fire ignition or temporary roads would occur within Riparian Habitat Conservation Areas and these activities would be mitigated so they will not cause detrimental changes in riparian areas (EA pages 2-20 to 2-26). Soil and water would be conserved through project design and mitigation (EA pages 2-20 to 2-26 and Appendix E), consistent with Forest Plan Amendment #10 PACFISH (EA pages 4-25 to 4-30 and 4-67). The selected alternative would also be consistent with the Regional Forester's Forest Plan Amendment, also know as the "Eastside Screens" (EA pages 4-67 and Appendix G).

In accordance with 36 CFR 219.27, I conclude from the results of site-specific analysis documented in the EA and analysis file that timber harvest would only occur on those lands identified in the Forest Plan as suitable for timber production (EA pages 4-66 to 67). The selected alternative is consistent with the Umatilla National Forest Land and Resource Management Plan Final Environmental Impact Statement, Record of Decision, the accompanying Land and Resource Management Plan (USDA Forest Service 1990), dated June 11, 1990.

Finding of Non-Significant Amendment

The Forest Service Land and Resource Management Planning Handbook (Forest Service Handbook 1909.12) lists four factors to be used when determining whether a proposed change to a Forest Plan is significant or not significant: timing; location and size; goals, objectives and outputs; and management prescriptions.

Timing: The timing factor examines at what point over the course of the Forest Plan period the Plan is amended. Both the age of the underlying document and the duration of the amendment are relevant considerations. The handbook indicates that the later in the time period (fifteen year planning period), the less significant the change is likely to be. The Record of Decision for the Umatilla Forest Plan was signed June 11, 1990, so we are in year sixteen. As noted in the EA (Chapter 1, 2, and 4) the action is limited in time in that it would only apply for the duration of the Lower Sheep Timber Sale and Fire Reintroduction project in lynx habitat.

Location and Size: The key to location and size is context, or the relationship of the affected area to the overall planning area. "[T]he smaller the area affected, the less likely the change is to be a significant change in the forest plan." The planning area for the Umatilla National Forest is about 1.4 million acres (Forest Plan, page 1-4). The management direction in the amendment applies only to lynx habitat and only for the duration of the Lower Sheep project. The Lower Sheep project is within the Timothy lynx analysis unit (LAU). There are about 35,083 acres of lynx habitat with in the Timothy LAU. Of that about 608 acres of lynx habitat are affected by the Lower sheep project; which is about 2 percent of

the total lynx habitat within the LAU. This amount is less than 0.004 percent of the forest planning area (1.4 million acres). Thus, the size of the area affected by the project and amendment is small when compared to the overall planning area.

Goals, Objectives, and Outputs: The goals, objectives, and outputs factor involves the determination of "whether the change alters the long-term relationship between the level of goods and services in the overall planning area" (Forest Service Handbook 1909.12, section 5.32(c)). This criterion concerns analysis of the overall Forest Plan and the various multiple-use resources that may be affected. In this criterion, time remaining in the 15-year planning period to move toward goals and achieve objectives and outputs are relevant considerations.

The objectives, standards, and guidelines of the amendment are specific to Canada lynx for the duration of the Lower Sheep project. The amendment does not change the goals and objectives for other resources in the forest plan. The amendment does place limitations on timber management, wildland fire management, and road management within the affected portions of the Lower Sheep project. The effects of these limitations are disclosed by alternative in Chapter 4. The amendment is not expected to preclude or require other actions across the forest in lynx habitat and incorporation of this management direction will not change the amount of timber made available for public use outside this project area; will not require changes in grazing permits; plans of operation for mining; or the access and travel management plan (Chapter 4). Therefore, anticipated changes brought about by this amendment in the levels of resource activities and outputs (Forest Plan, page 4-16) projected for this planning period are not expected to be measurable.

Management Prescriptions: The management prescriptions factor involves the determination of (1), "whether the change in a management prescription is only for a specific situation or whether it would apply to future decisions throughout the planning area" and (2), "whether or not the change alters the desired future condition of the land and resources or the anticipated goods and services to be produced" (Forest Service Handbook 1909.12, section 5.32(d)). In this criterion, time remaining in the 15-year planning period and changes in desired future conditions or the anticipated goods and services to be produced are relevant considerations. The amendment is specific to, and for the duration of, the Lower Sheep project and will not apply to future decisions throughout the planning area (EA, Chapter 1, 2, and 4). The desired future condition and land allocations are not changed by this decision (EA, Chapter 1, 2, and 4). As discussed above in "goals, objectives, and outputs", the long-term levels of goods and services projected in current plan for the 15 year planning period are not measurably changed by the Forest Plan amendment.

Finding

On the basis of the information and analysis contained in the EA and all other information available as summarized above, it is my determination that adoption of the management direction reflected in my decision results in a non-significant amendment to the Forest Plan.

Implementation Date

If no appeals are filed within the 45-day time period, implementation of the decision may occur on, but not before, 5 business days from the close of the appeal filing period. When appeals are filed, implementation may occur on, but not before, the 15th business day following the date of the last appeal disposition.

Administrative Review or Appeal Opportunities

This decision is subject to appeal in accordance with Forest Service regulations at 36 CFR 215.11, June 4, 2003 rule. Any written appeal must be postmarked or received by the Appeal Deciding Officer, Linda Goodman, Regional Forester, ATTN 1570 Appeals, P.O. Box 3623 Portland, OR 97208-3623 within 45 days of the legal notice announcing this decision in the East Oregonian Newspaper. The Appeal must meet the content requirements of 36 CFR 215.14.

The street location for hand delivery: 333 SW 1st Ave, Portland, OR (office hours: 8-4:30 M-F). Send faxes to 503-808-2255. Appeals may be emailed to: appeals-pacificnorthwest-regional-office@fs.fed.us

For further information regarding these appeal procedures, contact the Forest Environmental Coordinator Dave Herr at 541-278-3869

Contact

For additional information concerning this decision contact Glen Westlund, District Planner, Walla Walla Ranger District, 1415 West Rose Street, Walla Walla WA, 99362. Phone Number is (509) 522-6009 and E-mail is gwestlund@fs.fed.us. Or contact Dave Herr, Umatilla National Forest, 2517 SW Hailey Avenue, Pendleton, OR 97801, phone number is (541) 278-3869 and E-mail dherr@fs.fed.us.

Richard E. Markley

RICHARD E. MARKLEY
Acting Forest Supervisor

July 8, 2005
Date