An Environmental Assessment (EA) has been prepared for the Hartz Young Stand Management project. This area is located in T17S, R4E; T17S, R.5E, T.18S, R.4E, and T18S, R5E; Willamette Meridian. The project area is located in the South Fork McKenzie River and the McKenzie River/Quartz Creek Watersheds.

Actions are needed in the Hartz Young Stand Management Project area to improve the health and diversity of natural and previously harvested young stands (approximately 40 years old) that are currently in an overstocked condition. The purpose of this project is to apply silvicultural treatments to these young stands in order to maintain or improve tree growth and vigor, and reduce the tree mortality that occurs in high-density stands when resources critical to tree survival become limiting. In addition, young thinned forests create conditions that allow for the development of understory vegetation that leads to greater structural diversity that in turn is beneficial for many species of wildlife.

The Willamette National Forest Land and Resource Management Plan, as amended, includes management goals to maintain or enhance forest conditions at the stand and landscape level. Other goals include: maintaining high quality water resources; maintaining or enhancing aquatic habitat for fish; maintaining or enhancing terrestrial habitat diversity for wildlife and plants; maintaining scenic quality; and providing timber products.

**DECISION**

I have selected Alternative 4, with the following amendments:

**Alternative 4 Modified**

As described in the EA, Alternative 4 would harvest 706 acres within the Hartz planning area including 563 acres of thinning and 143 acres of regeneration harvest (EA p. 33). Stands proposed for thinning consist primarily of densely stocked young Douglas-fir forests with average maximum stand density index (SDI) levels of 50%. The current stands range from 200 to 250 trees per acre. This alternative will reduce the SDI levels to 20% to 30% of maximum with heavy thinning of 513 acres leaving approximately 45 to 65 trees per acre. Moderate commercial thinning of 50 acres will reduce SDI levels to 30% to 40% of maximum leaving 80 to 100 trees per acre.

I have decided not to include regeneration harvest at this time, instead units 2 and 4, totaling 85 acres, will be commercially thinned with a heavy thinning prescription, and Unit 25, 58 acres,
will be dropped. This will change the total harvested acres to 648 reducing the volume to 11.1 million board feet.

In the commercial thinning units, four to six live trees per acre will be left for future snag and down wood creation. Existing snags will be left standing unless hazardous to logging operations. Existing down logs/trees will be saved.

Harvesting would be accomplished with ground based, skyline, shovel and helicopter yarding systems. Up to six helicopter landings may be needed; each landing is about 0.5 to 1.0 acre in size. Removing whole trees, hand piling and burning will accomplish logging slash reduction.

Alternative 4 includes thinning within 155 acres of riparian reserves that is intended to accelerate development of large trees adjacent to streams and provide the potential for future large wood input to stream channels. Without Unit 25, the riparian acres are reduced to 148 acres.

Alternative 4, modified, includes the construction of about 2,050 feet of temporary roads. In addition, approximately 4,500 feet of an existing unclassified road will be re-used. Post harvest, all temporary roads will be decommissioned.

Closures of permanent roads using gates or berms are proposed for 7.76 miles to reduce road densities. Spot rocking and other road maintenance are prescribed for 6.12 miles of road in addition to the normal timber haul maintenance. Approximately 26.8 miles of existing forest roads will be reconstructed for access, safety and drainage improvement. This includes felling hazard trees, clearing and grubbing, surface blading, replacing drainage structures, reshaping ditches, and placement of aggregate surfacing.

Even though the silviculture descriptions and stand diagnosis (specialist report) do not use the term “variable density thinning”, the proposal does include elements that will result in variability in the stands. Diversity and variability will be introduced in several ways: 1) Leave tree spacing will vary within units and among units. 2) Leave trees will include minor species. 3) Openings in root rot pockets will be created and planted with resistant and tolerant species. 4) Leave trees will be left for future snag and large down wood creation.

The following KV projects are included in this decision: Reforestation, pre-commercial thinning, diversity thinning, conifer release, browse cutback, forage seeding, pond habitat improvement, aerial fertilization, and conifer pruning. Recreation projects include site maintenance and visual cleanup of dispersed sites, trail reconstruction of the last half mile of Indian Ridge Trail and signs placed at the trailhead, and a sign at Hard Rock group site campground will be replaced (EA p. 39-41). Mitigation and Design Measures are also included with this decision (EA p 41-46).

RATIONALE
The analysis illustrates that projected stands are overstocked and experiencing decreased growth (EA p. 77-78). Post harvest, these stands will have optimum spacing that will increase or maintain the tree growth and vigor while reducing the mortality that normally occurs in high-density stands when resources significant to tree survival are limiting. Harvest in the matrix is
desirable as tree health and growth is improved while providing forest products. This is consistent with the Northwest Forest Plan goal of helping to maintain the stability of local and regional economies now and in to the future (EA p. 3-7).

I have chosen Alternative 4 in lieu of Alternatives 2 and 3 because Alternative 4 best meets the purpose and need to thin dense forested stands in order to create a productive healthy forest environment. This alternative best meets the objectives for producing wood products, increasing the amount of large trees growing in riparian reserves, and reducing road density. Alternative 4 best meets these objectives and the purpose and need by treating more acres with the heavier thinning than the other two alternatives. The heavier thinning maintains an elevated growth rate resulting in growing larger trees more rapidly than the moderate thinning. The heavier thinning will also result in fewer entries needed over time and greater structural diversity within the thinned stands. Alternative 4 closes 4.32 more miles of roads than Alternative 3.

Regeneration harvest is not being prescribed for units 2, 4, and 25. The Quartz Creek Sub-watershed is bordered by private land to the north wherein a high percentage of the forests have been regeneration harvested during the previous decade. Currently there is an abundance of early seral forests.

Units 2 and 4 will instead be harvested with a heavy thinning prescription. Unit 25 is located in an area where helicopter logging would be required for portions of the unit and ground based logging for others. The trees that are in areas where helicopter logging would be needed are too small to support the cost of logging at this time if commercially thinned. For this reason, the stand was not analyzed for commercial thinning in the Hartz EA and will therefore be dropped from the project.

**Other Alternatives Considered**

**Alternative 1** This is the no-action alternative. It was not selected because it does not provide the benefits described in the purpose and need, and does not offer wood fiber for sale that is consistent with the Northwest Forest Plan goal of maintaining the stability of local and regional economies. The no action results in dense crowded forest conditions with reduced tree vigor, increased mortality and stagnation. A complete description of this Alternative is on page 78 of the EA.

**Alternative 2** The proposed action alternative harvests 706 acres with 11.6 million board feet (MMBF) including regeneration harvests of units 2 and 25. This alternative provides the greatest variation of forest densities due to the more equal distribution of harvest treatments. The proposed road activities are the same as Alternative 4. The complete description of this Alternative is on page 21-26 of the EA. This option was not selected because it does not meet the purpose and need for producing wood products as well as Alternative 4.

**Alternative 3** This alternative would harvest 648 acres with a volume of 9.4 MMBF. More moderate thinning were proposed, with no regeneration harvests, allowing opportunities for more future harvests and treatment options within the stands. The proposed road management is similar to Alternatives 2 and 4, but with fewer miles of road closures. The complete description
of this Alternative is on page 27-32 of the EA. It was not selected because it did not meet the purpose and need for producing wood products as well as Alternative 4 and has fewer acres of heavy thinning. Alternative 3 includes more acres of moderate thinning resulting in less structural diversity within the stands and overall growth of trees than the heavier thinning would provide over time.

**Other Alternatives Considered But Not Fully Developed**

**Original Proposed Action Alternative**
The Hartz Young Stand Management project was first proposed to include commercial thinning in stands located within Critical Habitat Units (CHU) for the northern spotted owl, some of which were located within LSRs. The stands were considered as dispersal habitat for the northern spotted owl. The proposal also included stands within CHUs that are currently suitable foraging roosting habitat for the spotted owl identified for partial cutting. Even though the inclusion of the stands would have met with the project’s purpose and need, they were dropped from the proposed action due to their location being within CHUs.

The original proposed action included other commercial thinning units located outside of CHUs and LSRs, but were dropped for feasibility reasons after the analysis showed the current size of trees and volume per acre would did not support the cost of logging the stands.

The original proposed action also included a 17-acre prescribed burn. This restoration broadcast burn was intended to reduce encroaching conifers and encourage growth of huckleberry. The broadcast burn was dropped in favor of proposing and analyzing it as a separate action.

**No Harvest in Unroaded Areas (Considered initially in Alternative 3)**
Chandra LeGue, of the Oregon Natural Resources Council, expressed concerns with building roads and harvesting timber in unroaded areas. They indicated that Units 9 and 12 are located within the unroaded area depicted in a map created by ONRC and included with Ms. LeGue’s comment. These units will be harvested because they are previously managed stands with road access. Post sale road closures and vegetation growth rates will rapidly return this area to a pre logging condition.

**Variable Density Thinning Alternative**
A comment from Josh Laughlin of the Cascadia Wildlands Project, requested that an alternative be developed that uses variable density thinning instead of standard commercial thinning. The comment stated that there are reduced amounts of late seral forests (in the past 50-80 years) and the structural complexity characteristic of late seral stands.

If prescribed, variable density thinning would meet the purpose and need for the Hartz Project while accelerating the development of late successional forest conditions. However, variable density thinning is more appropriate in areas where late successional characteristics are a primary objective, such as in LSRs. The project area no longer includes units within LSRs, instead they are within General Forest/Matrix land allocations. To meet the objectives of General Forest/Matrix land allocations and the Purpose and Need, the IDT developed three action alternatives. An alternative specifically prescribing variable density thinning was not considered because of the similarity to Alternative 4. The wider spacing of the heavier
commercial thinning in Alternative 4 would contribute to variation in tree density, considering the natural openings known to exist within the proposed units.

**FINDING OF NO SIGNIFICANT IMPACT (40 CFR 1508.27)**

Based on the site-specific environmental analysis documented in the EA and the comments received from the public, I have determined that this is not a major Federal action that would significantly affect the quality of the human environment; therefore, an Environmental Impact Statement is not needed. This determination is based on the design of the selected alternative and the following factors:

1. Adverse and beneficial impacts have been assessed and found to be not significant. The analysis considered not only the direct and indirect effects of the projects, but also their contribution to cumulative effects. Past, present and foreseeable future actions have been included in the analysis. The analysis considered the proposed actions with mitigation and design measures. The EA elaborates on cumulative impacts related to resources such as water quality and wildlife. No significant cumulative or secondary effects were identified.

2. The project will not affect public health or safety. Potential conflicts between log hauling and public traffic on major access routes are minimized by appropriate advisory signing and/or traffic control, and if the need arises, restricting log haul on weekends. The effects to recreational use in the area are disclosed in the EA (EA p. 117-118).

3. There will be no effect to Wild and Scenic Rivers and State Scenic Waterways, wetlands, wilderness areas, research natural areas or any other areas with unique geographic characteristics. There are no inventoried roadless areas within the project boundaries. No adverse effects are expected to riparian areas (EA p. 54-76).

4. The effects of this project are not likely to be highly controversial. The analysis completed and comments received did not identify any significant controversy or disagreement concerning effects of the decision on the quality of the human environment (EA p.12).

5. The effects of this project are not highly uncertain, and do not involve unique, or unknown risks. The Willamette National Forest has implemented similar thinning projects. These actions are expected to occur on the forest as part of implementation of the Willamette National Forest Plan, as amended (EA p 4).

6. This action will not establish a precedent for future actions with significant effects because other similar actions have occurred in the past. The decision implements the Willamette National Forest Plan, as amended (EA p.3-5).

7. The activities are not connected to any other action or part of a larger action, and therefore the decision will not result in any known cumulatively significant impacts on the environment (EA Chapter 3, p. 53-122).
8. Field surveys have been conducted for heritage resources. The heritage resource report concludes that there will be no effect to any properties on or eligible to the National Register of Historic Places (Heritage Resource Report 04/15/05). Documentation was forwarded to the State Historic Preservation Office (EA, Appendix F).

9. The proposed action does not adversely affect any endangered or threatened species or critical habitat as determined by the Endangered Species Act of 1973 (EA p. 84-90).

Formal and informal consultation with the U.S. Fish & Wildlife Service concerning the northern spotted owl has been completed for this project. The Biological Opinion written by U.S. Fish & Wildlife Service and received on April 4, 2005 concluded that this project may affect, but is not likely to adversely affect. Seasonal restrictions required for compliance with the Biological Opinion are included in the mitigation measures (EA p. 44, Appendix C).

Informal consultation with NOAA Fisheries and the U.S. Fish and Wildlife Service was necessary as there is habitat for Upper Willamette Spring chinook salmon and Columbia River bull trout. An effect determination of “may affect, but not likely to adversely affect” was made and submitted to NOAA Fisheries and U.S. Fish and Wildlife Service on March 1, 2005. Letters of Concurrence were received on March 21, 2005 (USFWS) and March 22, 2005 (NOAA).

Essential Fish Habitat (EFH) as described in the Magnuson-Stevens Act of 1976 (reauthorized in 1996) is not designated upstream of Cougar Dam in the South Fork McKenzie River, however EFH is designated in Quartz Creek. An assessment on the impacts to designated EFH was conducted for this project and a determination of “will not adversely affect EFH” was made and concurred with by NOAA Fisheries (Letter of Concurrence March 22, 2005).

A Biological Assessment for Spring Chinook and Salmon is referenced in the affects analysis for Aquatic and Riparian Habitat (EA p. 54-81, Appendix B). Mitigation measures are included as part of the proposed action (EA p. 41-43). There are no threatened or endangered plant species in the planning area (EA p. 91, 93).

10. The project does not threaten a violation of any Federal, State, or local law. The project complies with Executive Order 12898 regarding environmental justice (EA p. 124-125). No disproportionately high adverse human or environmental effects on minorities and/or low-income populations were identified during the analysis and public information process.
OTHER FINDINGS AND REQUIRED LAWS AND REGULATIONS
The proposed action is consistent with Management Area goals, desired future conditions, and standards and guidelines identified in the Willamette National Forest Land and Resource Management Plan, as amended (Forest Plan).

It is consistent with late-successional reserve (LSR) objectives. The project initially had units located within LSRs but were dropped from the original proposed action alternative (EA p. 4, 19).

There will be no significant adverse effects to sensitive species. The project will not jeopardize the continued existence of any listed aquatic species nor will it cause a trend to federal listing or loss of viability for any proposed or sensitive species. For wildlife species, the analysis determined that there will be no impact to Harlequin ducks and Peregrine falcons (EA p. 90-91).

For botanical species, two extant populations of Ophioglossum pusillum, adders tongue, occur within the project area, but are located one half mile from proposed units and will not be affected by proposed project activities. Lewisia columbiana var. columbiana is located in Unit 12 and Castilleja rupicola, is located in Unit 25. The rare lichen, Leptogium subaridum, is also located in Unit 25. No disturbance buffers will be placed around the sites and other identified special habitats (EA p. 91- 93).

I have considered the effects to management indicator species (MIS) as disclosed in the EA (EA p. 96-98). Wildlife MIS include spotted owl, pileated woodpecker, marten, elk, deer, cavity excavators, balk eagle, peregrine falcon, and fish, all of which may occur in the Hartz project area.

I have considered the relevant information from the Quartz Creek and South Fork McKenzie Watershed Analyses. The project is consistent with the Aquatic Conservation Strategy objectives. I have also considered the existing condition of riparian reserves, including the important physical and biological components of the fifth-field watersheds and the effects to riparian resources. I find that Alternative 4 is consistent with the recommendations of the watershed analyses, is consistent with riparian reserve standards and guidelines, and will contribute to maintaining or restoring the fifth-field watersheds over the long term.

The proposed action is consistent with standards for elk management, threatened, endangered and sensitive species protection, noxious weeds, hydrology, air quality, heritage resources, scenery, and timber management (EA, elk: 98-102; TES Species: 84-93; noxious weeds: 108-110; hydrology: 54-65; air quality: 106-108; heritage resources: 121-122; scenery: 114-118; timber management: 77-80.). The Hartz Young Stand Management project is consistent with Forest Plan objectives for snags and down logs (EA p. 97).

It is consistent with the National Forest Management Act regulations for vegetative management. The proposed activities would comply with the seven requirements associated
with vegetative manipulation (36 CFR 219.27(b)), riparian areas (36 CFR 219.27(e)), and soil and water (36 CFR 219.27(f)) (EA p. 125).

The Hartz project is consistent with Forest Plan objectives for long-term soil productivity. Units using ground based logging systems may have temporary roads partially obliterated, which include: ripping, re-contouring, re-vegetation, and construction of water bars, as needed. Although no standards for long-term soil productivity were in place when the original stands were logged, the stands continue to grow well and are projected to continue to grow well after the proposed thinning (EA p. 110-112).

Public Involvement:
A letter describing the initial Hartz Young Stand Management project and requesting comments was sent out on December 18, 2003. On April 3, 2004, the Hartz project was introduced to the public in Walterville, Oregon during an Open House that was hosted by the McKenzie Watershed Council. As previously stated, two written comment letters were received in response to the scoping letter and open house, one from ONRC and one from Cascadia Wildlands Project.

In addition to the scoping letters, the project appeared in the Fall 2003 edition of the Willamette Forest Focus, the Willamette National Forest's quarterly Schedule of Proposed Action, and has appeared in subsequent editions since.

Appeal Rights:
This decision is subject to appeal pursuant to Forest Service regulations at 36 CFR 215. Any individual or organization that submitted substantive comments during the comment period may appeal. Any appeal of this decision must be in writing and fully consistent with the content requirements described in 36 CFR 215.14. An appeal should be addressed to Dallas Emch at 211 East 7th Avenue, P.O. Box 10607, Eugene, OR 97440. Appeals can also be filed electronically at: appeals-pacificnorthwest-willamette@fs.fed.us. Electronic appeals must be submitted as part of the actual e-mail message, or as an attachment in Microsoft Word (.doc), rich text format (.rtf), or portable document format (.pdf) only. E-mails submitted to email addresses other than the one listed above, or in formats other than those listed, or containing viruses, will be rejected. It is the responsibility of the appellant to confirm receipt of appeals submitted by electronic mail.

The appeal, including attachments, must be postmarked or received by the Appeal Deciding Officer within 45 days of the date legal notice of this decision was published in the Register-Guard, Eugene, Oregon. For further information regarding these appeal procedures, contact Environmental Coordinator Neal Forrester, at 541-225-6436.

Should this project be appealed, the responsible official offers to meet with appellants to attempt to informally resolve the appeal on October 7, 2005, at the McKenzie River Ranger District, 57600 McKenzie Highway, McKenzie Bridge, OR, 97413.

Project Implementation:
Implementation of this decision may occur on, but not before, 5 business days from the close of the 45-day appeal filing period described above. If an appeal is filed, implementation may not occur for 15 days following the date of appeal disposition (36 CFR 215.10).
The EA can be downloaded from the Forest web site at http://www.fs.fed.us/r6/willamette, in the Forest Management/Forest Planning section.

For further information contact Rita Mustatia, McKenzie River Ranger District, 57600 McKenzie Highway McKenzie Bridge, OR 97413. Phone: (541) 822-7236 Email: rmustatia@fs.fed.us

/s/ Mary Allison  7/29/2005
MARY ALLISON
District Ranger