

DECISION MEMO

East Fork Thinning

USDA Forest Service
Mount St. Helens National Volcanic Monument, Gifford Pinchot National Forest
Skamania County, Washington
T4N, R5E, Section 28, WM

Background

The Mount St. Helens National Volcanic Monument proposes to thin approximately 35 acres in the East Fork Lewis River 5th field watershed to improve the stand and enhance wildlife features and provide logs for fish habitat restoration. The planning area is located approximately 20 miles east of the town of Amboy in Skamania County, Washington, on forested land managed by the Gifford Pinchot National Forest, Mount St. Helens National Volcanic Monument (outside of the legislated Monument). The legal description of the planning area is Section 28 in Township 4 North, Range 5 East, Willamette Meridian, unsurveyed, in Skamania County, Washington.

The proposed action would thin the trees to a canopy closure of 40% throughout the unit. Tree species would be Douglas fir and western hemlock and sizes would range from 10 inches to 28 inches diameter at breast height. An EA for the instream work in the East Fork basin was completed and updated in 2006. There would be areas of skips and gaps that mimic natural openings while protecting certain wildlife and plant species; this would also provide protection of remaining trees during removal of thinned trees. No riparian treatments are proposed. This action would occur over a 5 to 10 year time span.

No slash treatment is proposed. Trees would be removed with limbs attached to add complexity in restoration work. A helicopter logging system would be used, except for a few trees felled into the main road and removed with a self-loading log truck.

Decision

I have decided to authorize the thinning treatment on 35 acres in the East Fork Lewis River as described above.

Under the Forest Service Handbook, 1909.15, Chapter 30.3, this action can be categorically excluded from further analysis and documentation in an environmental impact statement (EIS) or environmental assessment (EA) if there are no extraordinary circumstances related to the proposed action and if the proposed action is within a category listed in section 31.12 or 31.2 of the handbook. The proposed project falls under category 12 of Chapter 30, Section 31.2, "Harvest of live trees not to exceed 70 acres, requiring no more than ½ mile of temporary road construction" of the Forest Service Handbook 1909.15. Based on an interdisciplinary analysis, this project is excluded from documentation in an environmental assessment or environmental impact statement and there are no extraordinary circumstances that would prohibit use of the category.

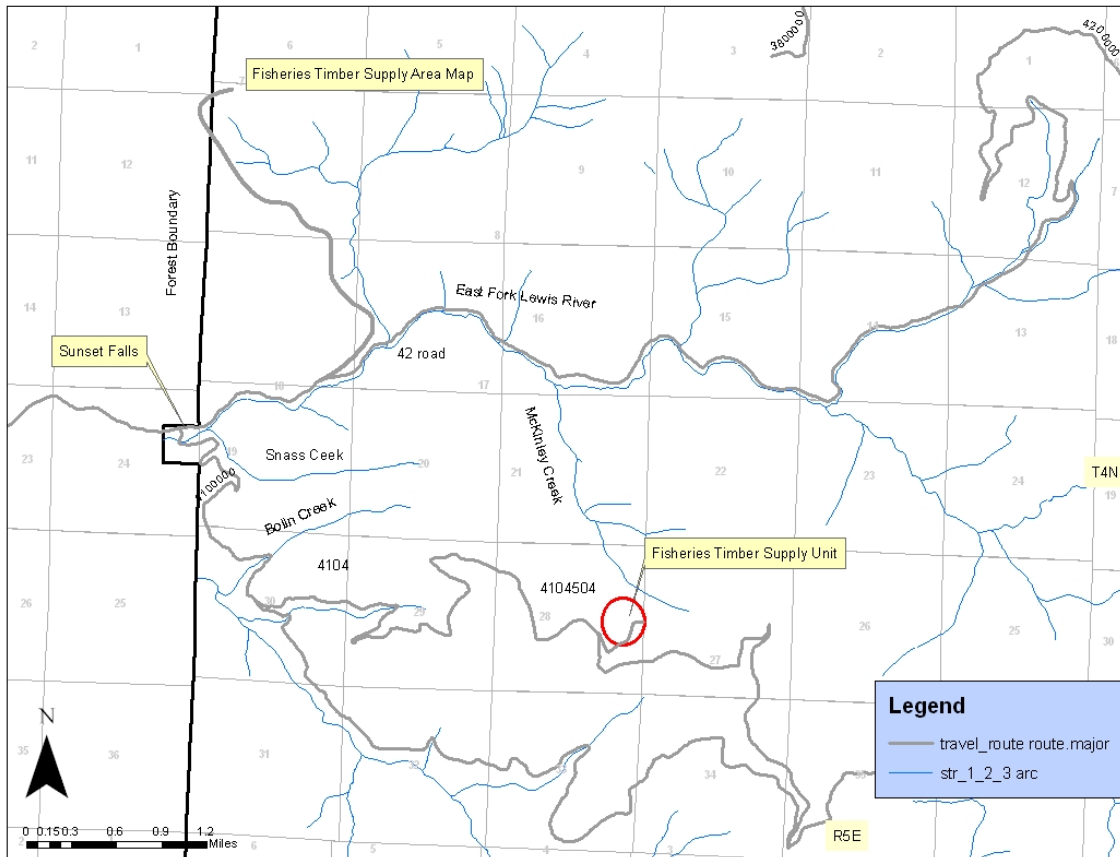


Figure 1. Unit to be thinning.

Scoping and Public Involvement

A scoping letter was sent to the Forest mailing list, requesting comments on the proposal. The Forest received a letter from the Gifford Pinchot Task Force (GPTF) and an email from the Washington State Natural Heritage Program.

The GPTF were generally supportive of the project, but did have a few questions and concerns. The group did not want the project to include any road building (including temporary roads) or thinning of large old growth or legacy trees that are important habitat features for threatened or endangered species such as the spotted owl. GPTF suggested leaving a 60% canopy closure, instead of the proposed 40%. To be clear, there will be no new roads of any kind constructed for this project. The Forest will use only existing roads to access this unit (specifically FSR 4104 and FSR 4104-504). Additionally, the 35-acre unit will be implemented over a 10-year period, with only five acres or less being cut per year. Given this sequential nature, the thinned area will begin recovery before the next portion of the unit is thinned. In addition, the Forest plans to thin using skips and gaps to mimic natural openings, rather than a uniform 40% canopy closure across the stand. The unit would continue to meet the definition of dispersal habitat for the Northern spotted owl. The minor effect of canopy reduction would be relatively short-term since

the overstory is expected to close back in at a rate of about 2 percent per year. The thinning would benefit spotted owls in the long term by accelerating growth of the retained trees, and promoting deeper crowns on the overstory trees.

The GPTF requested information on the Forest Service's intended minimum distance between trees to be cut and stream edges, concerned about the sensitive riparian habitat. As clarification, this project does not include any riparian acres; all trees will be removed from the uplands and a minimum stream buffer of 170 feet, or one potential tree height is included in the decision.

GPTF requested that the Forest Service take precautions to minimize the spread of noxious weeds, through mitigation work before, during, and after the project activity. These suggested mitigations have been included in the decision and are listed in the design features/mitigation measures section.

Finally, GPTF urged the Forest Service to implement a post-project schedule for monitoring project impacts on turbidity, stream temperature, and other riparian and watershed effects. The Forest appreciates the suggestion and is also interested in monitoring opportunities in the East Fork Watershed and will consider future monitoring as funding allows.

The Washington State Natural Heritage Program wanted to know if the project was in the vicinity of the *Corydalis aquae-gelidae* (Clackamas corydalis), a state sensitive plant and a federal species of concern and if so, what considerations were being given to protect this plant. The *Corydalis aquae-geldiae* is within the project area and the decision includes a buffer around the site to protect this species of concern (see the design features/mitigation measures section).

Evaluation of Extraordinary Circumstances

The following resource conditions were considered in determining whether extraordinary circumstances existed:

a. Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species:

The only Federally listed terrestrial species potentially affected by the thinning project is the Northern spotted owl. This project **may affect** but is not likely to adversely affect spotted owls. Thinning would reduce the canopy cover from 80 to 90 percent currently to an average of about 40 percent. However, because only about 5 acres of the unit are expected to be thinned at a time and the canopy cover in areas that were thinned first would have increased above 40 percent by the time the thinning is completed. In addition, the silvicultural prescription would include small no-cut patches, increasing diversity within the unit. The unit would continue to meet the definition of dispersal habitat after thinning since the average residual canopy cover would be 40 percent or more. The dispersal habitat would be degraded somewhat due to the reduction in the overstory canopy cover, but this minor effect would be relatively short-term since the overstory is expected to close back in at a rate of about 2 percent per year. On average, the canopy cover would be 60 percent in 10 to 15 years after each patch is thinned. The proposed thinning would benefit spotted owls in the long term by accelerating growth of the retained trees, and promoting deeper crowns on the overstory trees, thereby accelerating development of the dispersal habitat into foraging habitat. There would be **no effect** to critical habitat for the Northern spotted owl.

Terrestrial Forest Service sensitive species potentially affected by the project include: Larch Mountain salamander, Van Dyke's salamander, Cope's giant salamander, Cascade Torrent salamander, Malone's jumping slug and the warty jumping slug. It's unlikely that Larch Mountain salamanders exist in the forest talus area in the unit, since in this watershed they are usually found in open talus areas, and since the small talus area is isolated from other suitable habitat. However, protocol surveys were not conducted and therefore this project **may impact** individuals or habitat, but will not likely contribute to a trend towards federal listing, or cause a loss of viability to the population or species. Mitigation to avoid thinning trees in the talus area would likely protect salamanders that exist there from direct impacts. Since the surrounding stand would be opened by the thinning, the microclimate in the talus area would become warmer and drier. It's unclear what effect this would have since Larch Mountain salamanders are usually found in open talus in the watershed. The other known Larch Mountain salamander sites in the watershed are protected. Cascade torrent salamanders were found during surveys in the stream on the west side of the project area and it appears to be suitable habitat for the Van Dyke's salamander, although no Van Dyke salamanders were found during surveys. The 170-foot no-cut buffer is expected to protect habitat structures as well as the microclimate along the stream where these species could be found. For this reason, there would be **no impact** to these species.

Reducing the residual canopy closure to below 50 percent could result in the loss of some of the Malone's jumping slug and warty jumping slug known sites in the unit. Mitigation to protect the existing large logs and use of helicopter yarding, which would result in less ground disturbance, may allow sites to persist in the unit after thinning. In addition, canopy closure (and habitat suitability) would increase relatively quickly as growth on the residual trees is accelerated. Individual Malone's jumping slugs in the harvest units are likely to be impacted by planned thinning and slash treatment; however individuals will persist in the high priority sites, and other suitable habitat in the analysis area and in the watershed that is not being treated. In addition, it is expected that the jumping slugs will repopulate the harvest units from adjacent habitat as conditions become suitable. It is expected that the populations of Malone's jumping slug and warty jumping slug will persist in the watershed. Therefore, this project **may impact** individuals or their habitat, but would not likely contribute to a trend towards federal listing or a loss of viability of the population or the species.

Thinning would occur at least 170 feet away from non-fish bearing streams. There are no fish bearing streams in the immediate harvest area. The fisheries biological assessment concluded that hauling on Forest Service roads 4104-504, 4200, 4104 and 4100 would have a short-term increase in fine sediments in the tributaries of East Fork Lewis River following the first winter flush; however, sediments would be dissipated in the mainstem of the East Fork Lewis and are expected to be within background levels the effects determination of the project activities is **no effect** to Lower Columbia River steelhead and their designated critical habitat.

Occurrences for three botanical sensitive species were found within or directly adjacent to the project area, including *Corydalis aquae-gelidae*, *Tetraphis geniculata*, and *Peltigera pacifica*. A known occurrence for *Corydalis aquae-gelidae* is found along McKinley Creek, which borders the harvest unit to the west. Because McKinley Creek will receive a no-cut buffer of 170 ft. (one site-potential tree), and because trees will not be felled or yarded inside this buffer, the *Corydalis*

occurrence is unlikely to be substantially impacted by project activities. Some minor input of sediment to McKinley Creek is possible as a result of harvest, which could impact plants or habitat. For this reason, the activities **may impact** individuals or habitat, but is not likely to lead to a trend towards federal listing or cause a loss of viability to the population or species as a whole. A single new occurrence of this species was located within the East Fork Fish Logs Thinning project area.

Project activities will incorporate a buffer around the new *Tetraphis geniculata* and *Peltigera pacifica* occurrences designed to minimize the impact of project activities on the sites by maintaining the moist shaded microclimate of the area immediately surrounding the sites; therefore this project **may impact** individuals or habitat for these species, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species as a whole.

Within the project area, there is potential habitat for a number of botanical sensitive species, including 10 fungi species and 1 lichen species, that are considered survey-impractical species. Because fungi “fruit” (produce visible sporocarps) unpredictably (i.e. may not fruit each year, vary in fruiting timing from year to year), surveys are not reliable indicators of presence or absence. For these reasons, the determination is that the project **may impact** individuals or habitat, but will not likely lead to a trend towards federal listing or a loss of viability to the species.

b. Flood plains, wetlands, or municipal watersheds: There are no flood plains, wetlands, or municipal watersheds that will be adversely affected by the project.

c. Congressionally designated areas, such as wilderness, wilderness study areas, or national recreation areas. There are no are no congressionally designated areas, such as wilderness, wilderness study areas, or national recreation areas in the immediate project area.

d. Inventoried roadless areas: There are no inventoried roadless areas in the immediate project area.

e. Research natural areas: There are no research natural areas in the immediate project area.

f. American Indians and Alaska Native religious or cultural sites: A heritage resource survey was conducted in the planning unit and no known American Indian or Alaska Native religious or cultural sites were found.

g. Archaeological sites, or historic properties or areas: A heritage resource survey was conducted in the planning unit and no known archaeological sites, or historic properties were found.

Findings Required by Law

Endangered Species Act

An assessment of all endangered, threatened and sensitive species was conducted and it was determined that this decision is compliant with the Endangered Species Act. The wildlife biologist concluded that that the project **may affect but is not likely to adversely affect** the Northern spotted owl (see discussion above). This project is covered under the US Fish and Wildlife Service's *Wildlife Programmatic for Forest Management*, dated September 28, 2001. For aquatic species, the district fisheries biologist made a **no effect** determination for all threatened and endangered species and their habitat. Consultation with the National Marine Fisheries Service is therefore not required.

National Forest Management Act

The interdisciplinary team reviewed the applicable standards and guidelines of this proposal, and determined that this decision is compliant with the National Forest Management Act and consistent with the Gifford Pinchot National Forest Land and Resource Management Plan, as amended.

National Historic Preservation Act

A heritage resource analysis was completed in compliance with the National Historic Preservation Act. It was determined that this project would have no effect to historic properties. Consultation with the State Historic Preservation Officer was conducted.

Design Criteria/Mitigation Measures

Wildlife:

- Protect known warty jumping slug site by designating a no-cut buffer with a 100-foot radius (approx 0.7 acre) around the site.
- Protect all existing snags and down logs that are remnants of the previous stands to the extent possible. If snags must be felled for safety reasons, leave the resulting log in place.
- Retain storm-damaged overstory trees (broken tops) to provide future snags.
- Ensure that existing remnant logs are not affected by slash treatments. Ensure that these features are not incorporated into slash piles, or burned when burning slash.
- Avoid harvesting trees in the talus area near the center of the unit north of the 504 spur road.

Aquatics:

- Equipment used in yarding would be confined to pre-approved areas.
 - Cut trees would be directionally felled away from the stream channels and Riparian Reserves.
 - All aquatic features and Riparian Reserves would be located on Sale Area Maps. Riparian Reserve boundaries would be marked on the ground.
- Contractor will be required to have a Spill Prevention Plan and spill kits for heavy equipment and fuel trucks in place prior to logging.

- Riparian Reserves apply to all aquatic features including: the fishbearing stream north of the unit, perennial stream adjacent and west of the unit, the mapped spring located along the western edge of the unit, and any other aquatic features identified during layout or operations.
- No removal of standing or down trees from Riparian Reserves.
- Log removal will occur during the dry season.

Heritage Resources:

- No use of heavy equipment on the 4104 road at the top (south end) of the unit.

Botanical Resources:

- The known occurrence of *Corydalis aquae-gelidae* adjacent to the project area will be protected through implementation of the 160 ft. no-cut, no-yarding riparian buffer along McKinley Creek.
- The *Tetraphis geniculata* occurrence shall be protected through implementation of a 75 ft. radius no-cut buffer centered on the occurrence. During thinning operations, timber should be directionally felled away from the flagged occurrences, but may fall within buffered areas. This buffer is designed to protect the occurrence, maintain a moist microclimate, and recruit future down wood.
- In coordination with Wildlife project design criteria, leave large woody debris within the stand, preferably within 300 ft. of sites of *Tetraphis geniculata* – this will provide future habitat for this species.
- The *Peltigera pacifica* occurrence shall be protected through implementation of a 75 ft. radius no cut buffer centered on the occurrence. During thinning operations, timber should be directionally felled away from the flagged occurrences, but may fall within buffered areas. This buffer is designed to protect the occurrence, maintain a moist microclimate, and recruit future down wood.
- Minimize soil compaction and soil disturbance though the efficient use of heavy equipment within the project area. This will primarily benefit mycorrhizal fungi species, by minimizing disturbance to underground mycelial networks.
- Use log manipulation methods that minimize soil and woody debris disturbance (avoid dragging logs whenever possible). This will benefit both mycorrhizal fungi and saprobic and parasitic fungi, by minimizing disturbance to their substrates.

Implementation Date

This decision is effective immediately. While this decision is not subject to appeal pursuant to Forest Service regulations at 36 CFR 215.8(a)(4), I encourage you to discuss the this project with me if you have any concerns about implementation.

Contact Person

A project file has been prepared in conjunction with this decision memo. For additional information regarding this decision or the Forest Service appeal process, contact Erin Black, Mt. Adams Ranger District, 2455 Hwy 141, Trout Lake, WA 98650. (509) 395-3411.

Responsible Official:

/s/ Diana Perez (for)

TOM MULDER

Monument Manager

Mount St. Helens Nat'l Volcanic Monument

August 11, 2008

Date Signed