

Decision Memo

Mount St. Helens National Volcanic Monument Vegetation Management Activities 2008-2010

**USDA Forest Service
Mount St. Helens National Volcanic Monument,
Gifford Pinchot National Forest
Skamania County, Washington**

Purpose and Need

This action would control stand density by thinning fifteen- to twenty-year old plantations within the Mount St. Helens National Volcanic Monument (outside of the legislated Monument). This action also would prune the lower limbs from older noble fir trees and manually fertilize selected pruned stands.

The purpose of this action is to optimize growth of young stands and to provide a commercial product (boughs). Stands resulting from plantations tend to be too dense for optimum growth. Inter-tree competition for light and moisture can increase susceptibility to disease and insects. There is a need to thin and/or prune and fertilize these stands to improve vigor of the remaining trees.

Young stands within both matrix and late-successional reserve allocations are proposed to be treated. There is a need to improve growth within the matrix allocation to meet objectives for stand health and a sustainable supply of forest products. There is a need to improve growth within the late-successional reserve to be able to accelerate the development of late-successional stand characteristics.

This action would meet the additional objectives of enhancing wildlife habitat, diversifying species composition in plantations, restoring function within riparian zones, and managing viewsheds.

Additionally, in low elevations we currently must pay for young stand management operations to be completed by a service contract. In the high elevations where true fir species grow that are highly desirable for forest greens, we are able to facilitate completion of restoration activities as a by-product of marketing special forest products on the site; primarily forest greens and Christmas trees. Therefore, through a sale contract we harvest with low impact a readily renewable resource while at the same time facilitating accomplishment of our forest management objective for the site and achieving an efficient return for the government. The vegetation management objective attained is managing tree stocking levels to facilitate restoring forest health and vigor.

Proposed Action

Stocking Control and Conifer Release

The proposal is to thin saplings for “stocking control” to adjust stocking levels and improve growth on residual trees on 1,229 acres over the next three years on the Mount St. Helens National Volcanic Monument. A total of 512 acres in matrix lands and 717 acres in late successional reserve areas are proposed for treatment. Stocking control and conifer release is proposed in the following watersheds: Kalama River, Muddy River, South Fork Toutle River, Upper Lewis River, Merwin Reservoir Lewis River, and Swift Reservoir Lewis River.

Stocking control of saplings is proposed to be done by small contract crews of six to twelve forest workers utilizing chain saws. The work is typically completed between late May and late November with the bulk of the work usually occurring in the months of July, September and October. Fire restrictions and certain wildlife habitat seasonal operating restrictions occasionally alter the schedule of work.

Leave trees are “variably spaced,” meaning the leave tree spacing may vary by 25% to attain the desired leave trees. Desired leave trees are the biggest and healthiest trees; however, the natural range of species diversity is protected by leave tree preference priorities provided for in the stocking control contract. To further foster stand diversity, contracts require that trees two feet or less in height and trees seven inches and greater in diameter are not cut. Sometimes these parameters are fine tuned to meet specific objectives for individual stands. These two requirements foster vertical and horizontal structural variability in the stand as it matures. It should also be noted that deciduous species are considered for leave trees in some stands where their presence would otherwise be eliminated. Brush is typically not cut unless it overtops leave trees or it is desired to be cut back to resprout for the benefit of big game browsing.

Typically, wet areas and streams are buffered by a no cut strip fifteen feet in width for bank stabilization purposes. Often there are natural gaps between these trees that are filled in by willow or other brush species commonly found in riparian areas.

Slash created from stocking control activities is commonly able to be left on site due to relatively low fire potential in watersheds within our administrative boundaries. Where warranted, slash may be pulled back from heavily traveled roads to mitigate people-caused ignition potential. For aesthetic and fire potential reasons slash is typically managed along trail corridors or other recreational sites.

Wildlife screening by providing leave tree strips has been provided for in these operations in the past on some critical high vehicle traffic sites where deemed warranted.

Muddy River Riparian Area

This proposal also includes a riparian enhancement project which includes restoration of riparian areas and floodplains along a segment of the Muddy River.

The Muddy River Riparian enhancement project will include thinning of red alder and conifers, release of conifers from overtopping red alder or brush species where feasible, and eradication of

Scotch broom *Cytisus scoparius* within the project area. The purpose of this is to provide for an enhanced opportunity to grow big coniferous trees in a riparian zone where they once flourished prior to the 1980 eruption of Mount St. Helens. A further purpose is to eradicate invasive species found in the area.

This work is proposed to be completed within an approximate 800 acre floodplain and riparian area stretching from the confluence of the Muddy River and Smith Creek downstream several miles to the northern border of private land residing just upstream of the confluence of the Muddy River with the North Fork of the Lewis River. Within this 800 acres approximately 225 highest priority acres will be chosen for riparian conifer release and stocking control. Scotch broom eradication by manual mechanical means may be done throughout the entire approximate 800 acres depending upon available funding. Herbicide treatment is not covered under this decision.

Overtopped conifers approximately four feet and taller at a rate of 25 to 50 per acre at variable spacings will be released where needed from competing vegetation 10 to 20 feet from each tree selected for release in an east to west semi-circle on the south side of the conifer. In some areas where conifers are found abundant, conifers would also be thinned at a 20-foot, 25% variable spacing. Red alders will be thinned in some areas where abundant and where no conifers exist. Amongst red alder to be thinned, a 16 foot 25% variable spacing will be utilized. In certain areas for sake of spatial variability, no red alders would be thinned at all.

As with stocking control in plantations, stocking control and conifer release would be done with chain saws and cut materials would be left on the ground to decompose. Where warranted, cut stems may be bucked in 10-foot lengths to minimize the depth of the slash bed. Scotch broom will be either pulled by hand, wrenched out mechanically or where neither of the prior two are feasible—it will be cut by chain saw or hand operated gas powered basal tree timmer saw. Concentrations of pulled or cut Scotch broom stems may be piled for burning where needed to completely eradicate seed pods.

On Forest Service Road 2500, the Muddy Viewpoint day use site is within the project. In this area slash will be chipped or piled for burning as needed to facilitate aesthetic values along this corridor and within and around the day use area. There will also be a small “no treatment” area left in the vicinity of the Muddy Viewpoint day use site for purposes of public interpretation.

See Attachment 1 for a full list of stands proposed for stocking control.

Bough Sale Operations With Restoration Activities

Bough sales with restoration operations are being analyzed for 2,529 acres on the Monument. 2,164 of these acres are located in matrix locations and 365 acres are located in late successional reserve areas. These proposed operations are located above 3,000 feet elevation in the following 5th field watersheds: Kalama River, Muddy River, South Fork Toutle River, Upper Lewis River Merwin Reservoir Lewis River, Swift Reservoir Lewis River, and Yale Reservoir Lewis River.

During the bough harvest operation in bough sales crews five to twenty forest workers in number equipped with manually operated hand and pole pruners clip the tips of branches primarily from Noble fir trees and frequently from Pacific silver fir. Then, the clipped branches are formed into bundles 30 to 100 pounds in weight tied by baling twine. These bundles are carried to a landing location along existing posted roads where they are loaded into pickups, trailers, box trucks or if access is feasible, semi-trucks.

Occasionally and where feasible boughs may be removed by helicopter providing for a very efficient and rapid forwarding of the bundles to the transporting vehicle. Helicopters hover over a site where multiple bundles of boughs are staged in the plantations. The staged boughs have been pre-tied and are attached to a remotely controlled hook on a cable or “long line” under the helicopter and then are flown to the loading location.

Only boughs determined to be desirable for marketing are typically clipped from trees. Boughs are allowed to be removed only from the lower one half of the crown of the tree. This is done to minimize the impact on the photosynthetic capability of the tree. Limbs in the lower one half of the tree may only be clipped within the following parameter—a minimum of one third or fourteen inches (whichever is greater) must be left on the limbs from which boughs have been harvested. This is done to provide for effective regrowth of the harvested material and also to minimize impact on the productive capability of the tree.

Boughs are not allowed to be harvested from trees six feet or less in height and are preferred to be harvested from trees twenty to thirty feet in height. It is rare that noble fir trees taller than forty feet in height are pruned since boughs from taller trees may take on undesirable physical characteristics. Also, twenty feet (50% height of a 40 foot tree) is about the maximum height that a worker on foot can effectively handle a pole pruner to clip boughs.

Forest fertilization with forestry-grade urea pellets within bough sale units may be a component of these operations. This is typically done one season on an individual tree basis by forest workers carrying backpack applicators. It is chosen to complement the bough harvest potential where the purchaser feels a silvicultural benefit may be realized with site specific application. The Forest Service Representative must approve of this operation before it is allowed to proceed. Fertilization may also be done by service contract after the stocking control phase of the bough sale operation if the sale purchaser did not elect to do any during the term of the sale. This would be done where saplings would benefit from fertilization, where sites are characteristically nitrogen deficient and where sale area restoration funds are available to fund this treatment.

On large units or in logistically difficult terrain contractors may occasionally utilize a helicopter to move plastic bags of urea from a truck at the roadside to central areas approved by the Forest Service where workers may readily fill their backpack spreaders. This typically involves one to ten placements of bulk bags by helicopter long line in any given plantation. Placements within a plantation are typically completed within a few minutes to less than an hour.

Fertilizer is applied during the spring or fall season, depending upon available access to the site and the outyear schedule of harvest of greens from the bough sale.

Stands approved for bough sales may have sporadic yet continuing seasonal operations for a period of from one to four years from the time of award of the initial sale contract. This sale contract may be operational for two or three years. Following closure of the sale contract, a portion of the dollars collected in the bough sale are rolled over into a service contract to complete planned restoration activities.

See Attachment 2 for a full list of stands proposed for bough sales with sale area restoration.

Design Criteria/ Mitigation Measures

- Design and implementation review/coordination by an experienced fish biologist (Adam Haspiel) has occurred and will continue to occur.
- Project actions will follow all provisions and requirements of the Clean Water Act for maintenance of water quality standards as described by the Washington Department of Ecology and the Memorandum of Understanding between WDFW and the USFS regarding Hydraulic Projects Conducted by USDA Forest Service, Pacific Northwest Region, January 2005.
- Where applicable, a Pollution and Erosion Control Plan (PECP) will be developed and implemented for this project, and it will include methods and measures to minimize erosion and sedimentation associated with the project, as well as a Spill Prevention Control and Containment Plan (SPCCP). The PECP will include all the elements as stated in the June 14th, 2007 USFWS Biological Opinion and letter of Concurrence USDA Forest Service, USDI Bureau of Land Management and the Coquille Indian Tribe for Programmatic Aquatic Restoration Activities in Oregon and Washington That Affect ESA-listed Fish, Wildlife, and Plant Species and their Critical Habitats. This will include each piece of machinery to be checked for gas/oil/hydraulic fluid leaks before entering the worksite and each piece of heavy machinery to carry a spill-containment kit.
- In accordance with the June 14th Biological Opinion, all reasonable and prudent measures to avoid or minimize incidental take of listed fish species (in this case, Columbia River bull trout) will be undertaken (i.e. all conservation measures and design criteria for this activity type will be followed).
- Site disturbance will be kept to the smallest footprint practical.
- A limited operating period (LOP) prohibits use of chainsaws from March 1 to June 30. This LOP can be lifted if this mitigation is no longer required in updated versions of the Programmatic Biological Assessment for Forest Activities.
- In order to protect the known site for *Albatrellus flettii* (an uncommon fungus species) within unit Outlaw #1 (stand tag 103079), it is recommended that no fertilization occur within 500 ft. radius of the known site for this species.
- To prevent the introduction of noxious weeds into the project area, all heavy equipment, or other off- road equipment used in the project is to be cleaned to remove soil, seeds, vegetative matter or other debris that could contain seeds. Cleaning should be done before entering National Forest Lands, and when equipment moves from or between project sites or areas known to be infested into other areas, infested or otherwise. Cleaning of the equipment may include pressure washing. An inspection will be required to ensure that equipment is clean before work can begin. (Equipment cleaning clause Wo-C6.35) **(Standard 2).**

Decision

I have decided to implement the proposed action to thin selected plantations, authorize bough sales and fertilize young stands as described above. This decision requires the implementation of all mitigation measures and design criteria that are included in this document.

Young stand thinning, bow sales, and fertilization are activities fall within a category of actions established by the Chief of the Forest Service which normally do not individually or cumulatively have a significant effect on the quality of the human environment and, therefore, may be categorically excluded from documentation in an environmental impact statement or environmental assessment. This category of actions is identified in Forest Service Handbook 1909.15, Chapter 30, Section 31.2, Category 6 as:

Timber stand and/or wildlife improvement activities which do not include the use of herbicides or do not require more than one mile of low standard road construction.

A categorical exclusion is appropriate since there are no extraordinary circumstances potentially having effects that may significantly affect the environment. A Forest Service interdisciplinary team consisting of a wildlife biologist, fish biologist, botanist, and archeologist analyzed the proposal. Through their analysis, I considered the potential to affect federally listed species or their designated critical habitat, the potential for disturbance to culturally significant sites, and effects to soil, water, and air quality. I find that the effect of this action will not result in individually or cumulatively significant impacts.

An analysis of Federally-listed and Forest Service sensitive species concluded that the project activities will have “no effect” on coho, Chinook, and steelhead because they are not within the project area; “no effect” on Essential Fish Habitat as defined by the Magnuson-Stevens Fishery Conservation and Management Act; “no effect” on bull trout or bull trout critical habitat; and, “no impact” on Forest Service sensitive fish species. A complete fisheries biological evaluation is located in the project file.

An evaluation of terrestrial species concluded that since there is a possibility of noise disturbance adjacent to suitable spotted owl habitat during the nesting season, there could be negligible disturbance to spotted owls that may cause them to move away from the activity. There would be no effects to suitable habitat, including designated critical habitat. For this reason, the activity “may affect, but is not likely to adversely affect” spotted owls. In the long-term, the activity will accelerate the development of suitable spotted owl habitat in these units. The young dense plantations that would be treated are not important habitat for any of the Forest Service sensitive species and therefore there would be “no impacts” to any of these species.

An evaluation of botanical species concluded that there are no known current or historical sites of threatened, endangered or proposed species within the proposed project area, and none are suspected within the project areas, based on lack of suitable habitat. There are no known current or historical sites of sensitive species within the proposed project area, and none have a moderate or high likelihood of occurrence within the project areas, based on lack of suitable habitat. There

is one known occurrence of *Albatrellus flettii*, a rare/uncommon fungus, within bough stand Outlaw # 1 (GP Veg stand tag 103079).

Both stocking control, conifer release and bough sales are activities that will cause the removal of vegetation that may provide habitat for sensitive epiphytes. Because the vegetation impacted by this project are all from young trees, generally less than 20 years of age, the likelihood that sensitive epiphytes are present on these substrates is very low. Based upon this, it is not likely that the impacts from this project would lead to a loss of viability for the species or a trend towards federal listing. The application of fertilizer (urea) has the potential to negatively impact sensitive or other rare and uncommon species, particularly ground dwelling bryophytes, lichens or fungi that may be intolerant of high levels of nitrogen. Because the stands receiving fertilizer treatment are all generally less than 20 years of age, the likelihood that sensitive plants (including bryophytes, lichens and fungi) are present is very low. Based upon this, it is not likely that the impacts from this project would lead to a loss of viability for the species or a trend towards federal listing. Based on the information provided above, this project “may impact” sensitive plant 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.

Public Involvement

The proposed action was circulated to interdisciplinary team members for internal review. The proposal was published in the Gifford Pinchot National Forest’s *Schedule of Proposed Actions* (SOPA). No comments were received. Similar proposed actions on the Mount St. Helens National Volcanic Monument and other ranger districts have not been controversial.

Legal Requirements

As required by the National Forest Management Act, this decision is consistent with the *Gifford Pinchot National Forest Land and Resource Management Plan* (1990) as amended by the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (1994, amended 2004). I find that implementation of this project is consistent with standards and guidelines for this allocation and will result in conditions that are closer to the desired future condition. The project was designed in conformance with Forest Plan standards and incorporates appropriate Forest Plan guidelines.

I find that this action is consistent with the Endangered Species Act of 1973. There will be no effects to federally listed aquatic species and therefore no consultation is necessary. Formal consultation for the Northern spotted owl is covered under the *Programmatic Biological Assessment for Forest Management for the Gifford Pinchot National Forest* (August 2001) and the associated US Fish & Wildlife Service (USFWS) Biological Opinion, dated September 28, 2001, which has been renewed each year. Additional consultation with USFWS is not required.

I find that this action is consistent with the Forest Service policy concerning sensitive species and invasive species.

I find that this decision is consistent with the National Historic Preservation Act, the Federal Clean Air Act, and the Clean Water Act. This project meets or does not prevent the attainment of the Aquatic Conservation Strategy Objectives (see Fisheries Biological Evaluation in the project file).

This action does not violate other Federal, State, or local laws designed for the protection of the environment.

Implementation Date

This project may be implemented immediately.

Administrative Review or Appeal Opportunities

This decision is not subject to administrative appeal.

Contact Person

For additional information concerning this decision, contact Erin Black by phone: (509) 395-3411 or email: ekblack@fs.fed.us.

/s/ Tom Mulder
TOM MULDER
Monument Manager

6 August 2008
Date

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