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NORTH CASCADE DISTRICT

2008 ANNUAL OPERATIONS PLAN

INTRODUCTION

This operations plan describes the activities planned for the Santiam State Forest during the 2008 fiscal year. The 2008 fiscal year runs from July 1, 2008 to June 30, 2009. This plan summarizes the activities and projects that will take place in FY 2008 to achieve the goals, strategies and objectives of the Northwest Oregon State Forest Management Plan, Cascade District Implementation Plan and the Santiam State Forest Recreation Management Plan as well as state and federal statutes and regulations, policies and voluntary measures.

The 2008 Annual Operations Plan is broken out into a Summary section that discusses commercial forest management operations, roads and engineering, non-commercial forest management operations, recreation, land exchange, planning, public information and education, and administration; Summary Tables, Pre-Operations Reports, Maps and a Public Involvement appendix that will be included in the final document.

A portion of this plan describes timber harvests and associated road work which will be designed and prepared for contract during FY 2008. The actual harvesting and associated road work described in these plans will not occur until one to three years after the end of FY 2008 due to the time required to set up the timber sales, write the timber sale contracts, advertise and auction the sales. The duration of a timber sale contract is generally two to three years.

The reforestation, young stand management, recreation management, road management, planning and information activities described within this plan are estimated objectives that will be met within FY 2008. The levels of these activities are based on current information and data. These management activity levels may be adjusted as new information becomes available during the fiscal year. For instance, initial tree planting levels are dependent upon harvest units being completed on a certain timeline. If those harvest units are not completed as estimated, the initial tree planting levels would be adjusted.

Acres in this plan are described as gross acres or net acres. Gross acres refer to the total area within the boundaries of an operational unit. Gross acres are the starting point for determining acreage. Acres reported in ArcView shapefiles for a unit are gross

acres. Net acres refer to the total area within the boundary of an operational unit minus the acres in roads, stream buffers, green tree retention areas and other areas that will not be harvested. Net acres are used when determining harvest volumes.

Harvest Levels:

The District is including 14.0 MMBF of timber harvest in this Annual Operations Plan (Table A-1). This harvest level is consistent with the District's intensive review¹ of the outputs from the Department's recently completed Harvest and Habitat Model Project.

Additionally, the department is continuing its Implementation Plan Revision Process following the guidance provided by the State Forester². Phase I of this process consisted of additional model runs that helped inform the '08 harvest level. Phase II of the Implementation Plan Revision Process is examining: the implementation planning framework, and associated policies and procedures; alternative strategies for the management and protection of species of concern; and upgrades to the program's model, including significant improvements to the forest inventory and yield tables. This phase is expected to be completed by the end of 2007.

At the end of Phase II, additional model runs will occur and districts will conduct an intensive review of the outputs from these model runs. The outcomes of this Implementation Plan Revision Process will help identify changes that may need to occur to the Implementation Plans. As previously noted from the Harvest and Habitat Model Project³, such changes are likely to include adjustment to the mixture of regeneration and partial cut harvests needed to meet Forest Management Plan goals and objectives.

For the FY 2008 AOP, the District is proposing a minor modification to the District's Implementation Plan. The mid-point harvest volume identified in the District's Implementation Plan (IP) is 21 MMBF. A key assumption in the Implementation Plan is that a Habitat Conservation Plan (HCP) would be in place for the District, and that "take-avoidance" strategies concerning Northern Spotted Owl habitat would not be necessary. Currently, the District does not have an HCP and, with each passing AOP, the District faces increasing difficulty identifying candidate operations to meet the IP objectives for clearcut and partial cut acres. This situation results from having a reduced 'pool' of operation areas available that are not affected by take avoidance strategies, particularly stands best suited to partial cut operations. Since harvest volume is closely linked with acreage of clearcut and partial cut harvest, the IP volume objective is also becoming difficult to reach.

During the FY 2008 AOP planning period, the District was involved in multiple, Phase I model runs using the Harvest and Habitat model. These model run outputs generally tended toward lower harvest volumes than identified in the IP, and a shift toward more clearcutting and less partial cutting than identified in the IP. This

¹ *Model Solution Review Report* of the 'Forest Management Plan with Habitat Conservation Plan' Alternative

² Memo RE: State Forest Implementation Plans dated June 5, 2006 from the State Forester

³ Harvest & Habitat Model Project Final Report completed March 8, 2006 by the Oregon Department of Forestry

information supports the District's conviction that IP harvest-acre objectives should be lower, and a different mixture of regeneration and partial cut acres is needed. Following the completion of Phase II of the Implementation Plan Revision Process, the District will have more information available to support a revision to its IP.

The district has included 5 Alternate Operations in this Annual Operations Plan. These alternate operations may be used to replace regular sales that cannot be completed as planned.

Table 1. Annual Operations Plan objectives compared to annual objectives identified in the 2003 Cascade District Implementation Plan (Table A-1) as modified in 2006. All values are acres.

Silvicultural Activity	IP Annual Objective		2008 AOP Objective
	Low	High	
Conifer Partial Cut	650 (470) ¹	1200 (900)	487
Conifer Clearcut	180	270	259
Hardwood Partial Cut	0	0	0
Hardwood Clearcut	0	0	0
Rehabilitation	0	0	0
Reforestation (Initial Planting)	115	345	482
Precommercial Thinning	150	250	250
Fertilization	1000	1400	0
Pruning	0	50	0

¹ The number in the parenthesis reflect the 2007 modification to the District's IP.

INTEGRATED FOREST MANAGEMENT OPERATIONS

Timber Harvest Operations

Overview of Timber Harvest Operations

Definitions for proposed harvest types can be found on the "State Forest Annual Operations Planning" web page

(http://www.oregon.gov/ODF/STATE_FORESTS/docs/management/aop/Harvest_Type_definitions.pdf)

Summary tables and detailed pre-operation reports for the harvest operations are attached to this document.

The partial harvests and regeneration harvests proposed in this operations plan comprise 2% of the total acres within the Santiam State Forest.

Approximately 65% of the planned harvest operations are partial cuts, while the remaining 35% are regeneration harvests. Approximately 19% of the partial cuts are considered “heavy” and 81% of the partial cuts are considered “moderate”. These partial cuts are intended to reduce the density of the overstory trees and to maintain or further encourage the understory growth within these stands. Partial cutting will also allow the residual trees within a stand to increase their diameter growth. These proposed partial cuts will allow the stands to move along the trajectory towards their desired future condition.

The regeneration harvests are a mix of modified clearcuts (85%) and one retention cut (15%). The majority of the regeneration harvests are planned within stands that are not on a trajectory for a complex stand structure. There are two regeneration harvests that are planned in stands with a desired future condition of Older Forest Structure. These are two stands that would not respond well to partial cuts. (See the *Pre-Operation Reports for Mackey Creek and Potato Hill for more information.*) All of the regeneration harvests will be reforested with a mixture of Douglas-fir and western red cedar or for higher elevation ground, a mixture of Douglas-fir and noble fir seedlings.

The guidelines for managing structural habitat components listed under Landscape Management Strategy 3 in the *NWO State Forests Management Plan* (pg. 4-52) will be followed for the FY 2008 Annual Operations Plan. In proposed commercial forest management operations, existing down wood and snags will be retained. The landscape management goal is to have an average of two snags per acre retained across the landscape. Residual live trees retained in conjunction with regeneration harvests will serve as a source of future snags and down wood as well as provide legacy trees for the new stand being regenerated. The snags and down wood left in all operations also support future forest needs. The snags provide habitat for cavity-using species and provide a future source of down wood. The down wood provides habitat for wildlife species and enables other key functions such as nutrient cycling.

Additional information on the proposed operations can be found in Tables 1, A-1, and A-2 located in Appendix A and in the individual pre-operations reports located in Appendix B.

Table 2. Stand Structure Development – This table summarizes how the Timber Harvest Operations in this AOP will contribute to achieving the district’s desired future condition. All values are in acres.

Stand Structure	REG	CSC	UDS	LYR	OFS	GEN¹
Current	0	162	485	99	0	
Post Harvest²	221	0	426	99	0	
Desired Future				171	290	285

1. General (GEN) is not a stand structure, but identifies those stands that are not targeted for Layered or Older Forest Structure in the district landscape design. These stands may develop into any of the five stand structures.

2. The Post Harvest stand structure is an estimate of how the stands will develop in five to ten years after the operations are completed.

Management activities within riparian areas of streams will focus on achieving properly functioning aquatic and riparian habitat conditions over time. Riparian Management Areas (RMAs) will be established immediately adjacent to streams for the purpose of protecting aquatic and riparian resources and maintaining the functions and ecological processes of the streams. The Management Standards for Aquatic and Riparian Areas found in the *NWO State Forests Management Plan* (pg. J-1 – J-16) will be followed within these RMAs.

The District follows the *Oregon Forest Practices Act* statutes and rules for soil and water protection. These rules define the best management practices for protecting soil, air and water quality when conducting timber harvests, prescribed burning or road construction activities. The District uses the professional expertise of foresters and forest engineers to evaluate proposed activities. The District also uses geotechnical expertise in planning and carrying out management activities, especially when steep slopes and other high landslide hazard locations require this.

All management activities will avoid take of Northern Spotted Owls by applying *Procedures Leading to Endangered Species Act Compliance for the Northern Spotted Owl (USFWS 1990)*, subsequently rescinded. These measures remain the best available information for avoiding take. These guidelines call for surveys of suitable habitat, protection of core areas, and maintaining suitable habitat within owl circles. The Boulder Creek alternate sale is located within Northern Spotted Owl sites. Biological assessments of the Northern Spotted Owl sites have been prepared by ODF staff biologists. These assessments will be reviewed by both the Oregon Department of Fish and Wildlife and the US Department of Fish and Wildlife. The biological assessments and comments from both agencies will be reviewed by the District Forester, Area Director and Program Director who will then determine how to proceed with the planned operations.

Summary of Operations by Basin

Table 3. Summary of Timber Harvest Operations in each basin. All values are in acres.

Basin	2008 AOP		Cumulative Operations ¹ (FY 02—08)	
	Partial Cut	Clearcut	Partial Cut	Clearcut
Butte Creek	169	69	971	268
Cedar Creek	0	0	1133	142
Crabtree	9	96	9	351
Green	0	0	430	3
Mad Creek	249	56	1182	172
Rock Creek	0	0	2009	330
Scattered	60	38	660	408

1. The Cumulative Operations include all Timber Harvest Operations, prepared and proposed, under the current implementation plan period (July 1, 2001 through June 30, 2011). Operations or units that were proposed, but have been subsequently dropped, are not included in the total.

The following is a short description of operations proposed within the seven management basins within the District. A more detailed description of each operation can be found in the attached Pre-Operations Reports.

Butte Creek Basin

There are two operations planned within this basin. The net affect of these operations will increase the Understory stands within the basin by 90 acres, reduce the Closed Single Canopy stands by 162 acres and increase Regeneration stands by 69 acres.

Taylor Butte: this operation is made up of two areas. Area I is a 69 acre modified clearcut and Area II is a 7 acre heavy partial cut. Both areas are within a 70 year-old stand currently classified as Understory. Area I will be reforested with a mixture of Douglas-fir and noble fir seedlings.

Rhody Lake: this is a 162 acre partial cut. This is a 50 year-old stand currently classified as Closed Single Canopy. The moderate partial cut will help to move the stand to an Understory stand condition and eventually to its Desired Future Condition of Older Forest Structure.

Special Concerns: This partial cut will result in a large amount of slash that will need to be treated. This sale is located along the route to Rhody Lake, a high elevation lake with camping. Special provisions will be placed within the timber sale contract to minimize conflicts between the operation and recreation at Rhody Lake on the weekends.

Cedar Creek Basin

There are no planned harvest operations within this basin for FY 2008.

Crabtree Basin

There is one planned operation in this basin. This operation will move 96 acres from an Understory stand condition to a Regeneration stand.

Crabtree #6: there are two areas within this operation. Area I is a 96 acre modified clearcut. The stand in Area I is currently classified as Understory. Area I will be reforested with a mixture of Douglas-fir and western red cedar seedlings. Area II is a heavy partial cut which will improve the growing conditions in a 9 acre Understory stand. Both areas are located within a 65 year-old stand.

Green Basin

There are no planned harvest operations within this basin for FY 2008.

Mad Creek Basin

There are three planned operations within this basin. The net affect of these operations will change approximately 56 acres from an Understory to a Regeneration stand condition, 150 acres will remain in Understory and 99 acres will remain in Layered stand conditions.

Mad Monument: there are three areas within this operation. Area I is a 78 acre heavy partial cut in a stand currently classified as Understory. Area II is a 26 acre modified clearcut in a stand currently classified as Understory. This area will be reforested with a mixture of Douglas-fir and western red cedar seedlings. Area III is a 72 acre moderate partial cut in a stand currently classified as Understory. Areas I and II are located within a 90 year-old stand and Area II is located within an 85 year-old stand.

Special Concerns: There is a non-motorized, multi-use trail located within the proposed operation. The trail will be closed while the operation is active and re-opened within a year after the harvest is completed.

Potato Hill: this operation is located within a 95 year-old stand currently classified as Understory. This operation will place patch cuts within one third (30 acres) of the stand.

Special Concerns: This operation is located within an area considered to be focused visual. The patch cuts will be designed to take advantage of topographic breaks in slope, aspect, and elevation to minimize the impact to the scenic resources.

Wagon Road: this is a 99 acre partial cut located within a Layered stand. This moderate partial cut is designed to keep the existing layers within the stand growing and present within the stand. The operation is located within an 85 year-old stand.

Special Concerns: There is a non-motorized, multi-use trail located within the proposed operation. The trail will be closed while the operation is active and re-opened within a year after the harvest is completed. Trail users may employ the Xmas Tree Road as a detour around the operation to access other nearby trails.

Rock Creek Basin

There are no primary operations planned within this basin, however, there are two proposed alternate operations.

Above 1000 (alternate): this is a 45 acre modified clearcut in a stand currently classified as Understory. The stand is approximately 45 years old. The area will be replanted with a mixture of Douglas-fir and western red cedar seedlings.

Special Concerns: While the operation is not located within a Northern Spotted Owl site, a short section of road to access the operation is. A biological assessment is being prepared by an ODF biologist.

Rock Creek (alternate): this is a 71 acre retention cut located within a stand currently classified as Understory. The trees within this operation range from 35 years to over 100 years old. These trees are not uniformly distributed across the stand, but are in patches and clumps within the stand. The retention cut will retain all trees greater than or equal to 32 inches in diameter. The area will be reforested with a mixture of Douglas-fir and western red cedar seedlings.

Scattered Basin

There is one proposed operation and three alternate operations located within this basin. The proposed retention cut will reduce the Understory stands and increase the Regeneration stands within the basin by 38 acres.

Mackey Creek: there are two areas within this operation. Area I is a 60 acre moderate partial cut. Area II is a 38 acre retention cut. Both areas in the operation are located within stands currently classified as Understory. Area I is within a 68 year-old stand and Area II is 52 years old.

Special Concerns: The intake and treatment facility for the City of Detroit's drinking water is located on State Lands. This operation was proposed during the FY 2007 AOP. The district decided to take another year to address concerns surrounding the operation.

Boulder Creek (alternate): there are two areas within this operation. Area I is a 250 acre partial cut in a stand currently classified as Understory. Area II is a 5 acre modified

clearcut currently classified as Understory. The operation is located within a 60 year-old stand.

Special Concerns: This operation is located within two Northern Spotted Owl sites. Biological assessments are being prepared by an ODF biologist.

Evans Mtn. (alternate): this is a 61 acre modified clearcut in an Understory stand. This stand is currently 70 years old. The area will be reforested with Douglas-fir and western red cedar seedlings.

The Other Half (alternate): this is a 60 acre modified clearcut in an Understory stand. This stand is 70 years old. The area will be reforested with Douglas-fir and western red cedar seedlings following the completion of the operation.

Forest Roads Management

Overview

The primary transportation focus is to protect and secure access for forest management activities. This involves constructing new roads where needed and maintaining or upgrading existing roads. Other resource management and other users are also considered in the transportation planning. The transportation system provides access for timber removal, recreation, fire control and removal of other forest products to name a few of the uses. The District transportation system is managed to provide efficient and effective access that facilitates obtaining the greatest permanent value from the forest for the people of Oregon. This AOP represents Level III planning as described in the Forest Roads Manual, pg. 2-2.

An important component of the transportation activities planned in FY 2008 will be to maintain and improve current access to a condition that minimizes resource impacts to water quality and meets ODF's access needs. A high priority and special concern for road improvement is to protect or improve water quality. The activities below will accomplish this as well as meet the transportation goals. The District Implementation Plan defines our goals for surfacing. Higher use mainline roads and some collector roads are targeted to have a 2 to 3 inch lift of crushed rock surfacing. This includes re-surfacing of roads to replace worn running surfaces and/or to upgrade pit-run roads by adding a more serviceable crushed rock running surface. Roads with crushed rock make it possible to create and maintain a road surface shape that will drain well and allow for efficient travel. Good surface drainage is critical to minimizing sedimentation from roads and for protecting the subgrade to allow winter hauling where appropriate. Along with good surface drainage, once the water is off the road and into a ditch it needs to be directed in a way to minimize impacts to water quality. Cross drainage will be reviewed on essential haul routes, tributary roads and will be upgraded where necessary, including disconnecting the ditches from live streams. The guidelines found in the ODF Roads Manual are followed to decide where additional culverts will be installed. Stream

crossings will be analyzed on haul routes and the connecting spur roads to make sure they meet 50-year flow event minimums. Roadside brushing and roadside spraying will be conducted to control encroaching vegetation.

Several new roads will be constructed to provide access for commercial forest management operations planned within the 2008 fiscal year. All new road construction for this Annual Operations Plan falls into the spur road category and will be evaluated during sale prep for closure or being vacated after the sale is completed. Spur roads needed for future management activities but not for immediate use may be put in a restricted status by partially vacating or simply closing the road. This will help to reduce the maintenance cost as well as water quality impacts from those roads. All new road construction will be designed, reviewed and administered by qualified forest engineers. Roads will be rocked if winter use is anticipated, typically during cable logging operations. Roads within some of the predominately ground harvestable operations will be restricted to summer use only and those roads will generally not be surfaced. There are exceptions when it may be desirable to rock roads primarily for reforestation access that must occur in the winter.

The transportation activities for the 2008 fiscal year will fall within fiscal year budget instructions. The high cost activities will be rock-crushing projects to improve or maintain higher use roads. These projects are achievable with the proposed sales for this plan and stay within current guidelines for project expenses.

Small quantities of noxious weeds such as Tansy ragwort, Scotch broom, and a variety of thistles are present around the District. If significant populations of noxious weeds are present on the District, a formal plan will be created and implemented to address their control.

Additional information regarding roads and engineering can be found in Table A-3 located in Appendix A.

Table 4. Summary of Road Management Activities. All values are in miles.

	Mainline (High Use)		Collector (Medium Use)		Spur (Low Use)	
	AOP	IP ¹	AOP	IP ¹	AOP	IP ¹
Road Construction	0	0 - 0.4	0	0.2 - 0.3	2.07	4 - 5.2
Road Improvement	0	1.6 - 15	0	4.9 - 6.1	1.37	2.4 - 3.6
Road Closure/Vacation	0	0 - 0.5	0	0 - 0.5	.9	4.6 - 5.8
Road Maintenance – District²	20		40		40	
Road Maintenance - Active Operations³		n/a	15	n/a	14.4	

1. These are annual estimates derived from Table 6 Potential Road Activities FY 2002-2011 of the 2003 District Implementation Plan. The values here were derived by dividing the values in the Potential Road Activities table by 10.

2. The road maintenance estimates include only the work to be completed during Fiscal Year 2008 by the district road crew or service contract. Estimates of road maintenance were not made in the Implementation Plan.

3. This is a broad estimate of the road maintenance that may be accomplished during the fiscal year, through active commercial operations. However, the exact amount can not be predicted at this time.

Road Construction

All of the road construction described for the planned commercial forest management operations described within this Annual Operations Plan will be designed as a spur road. These will be short roads, generally less than ½ mile in length and will be built to standards to minimize the road footprint. Road subgrade widths will be 14 to 16 feet wide and either ditched or out-sloped. Since many of the proposed operations are partial harvests, there will be a need to use most of the roads again for future management activities. Some of the roads built will be closed (not vacated) when the operation has been completed. Closed roads will be put in a condition that will require minimal or no maintenance until needed again. This may involve grass seeding and the installation of water bars, tank traps or other road barriers to keep vehicles off the road. Spur roads into completed clear-cut operations will be vacated when it is determined that the road is no longer needed for approximately 15 years or more. Stream crossing structures will be removed to eliminate the possibility of a stream restriction or maintenance problem. In some cases the access in clear cuts will not be vacated to assist with the reforestation effort. The net effect of road building and road vacating will be a gain of 1.17 miles of spur road on the District.

Road Improvement

Approximately 6.1 miles of collector road will be resurfaced with crushed rock. The roads scheduled for resurfacing have been determined to need additional surfacing for several reasons. Although resurfacing is mentioned here under "Road Improvement" as it does improve the running surface; it is actually a road maintenance function. The road running surface does wear out over time and use and must be replenished with additional rock periodically. Most often the road has been judged to be unsuitable or undesirable for wet weather use. In some cases the base rock is close to being exposed or anticipated use of the next timber sale warrants additional surfacing. The primary goals for resurfacing are to improve surface drainage of the road, provide a smooth running surface and provide enough surfacing rock for future maintenance gradings. Approximately 0.72 miles of spur road will be improved by re-opening and spreading pit run surfacing.

Road Access Management

Generally speaking all Oregon Department of Forestry roads are open to the public without restriction. Roads that are not needed for future forest management or for extended periods of time (more than 15 years) are candidates for some form of closure to take the road out of active use. Roads that pose a high risk of damage to water quality are candidates for closure. Closing and vacating roads reduces the District's maintenance cost and helps to minimize impacts to the environment from roads. Not only do these roads cause a maintenance liability; some of these roads become opportunities or locations for dumping of trash. Many of the short spurs constructed for timber sale use will be reviewed for closure. Before any road is scheduled for closure a "Road Proposed for Vacating " sheet is routed to all known interested management sections within the District to make sure roads are not closed that are needed.

Road Maintenance

The road maintenance for roads being used for timber sale access becomes the responsibility of the timber sale purchaser once sale activity has begun. Timber sale purchasers during this operating plan will maintain approximately 19.4 miles of road. This includes resurfacing approximately 6.1 miles of collector road with crushed rock, grading roads due to purchaser's use and maintaining drainage systems. Road grading, ditch cleaning, culvert inlet and outlet cleaning and spreading patch rock as needed during timber haul will all be done by purchasers.

The District roads not under timber sale contracts are maintained by the District using a grader, loader, lowboy and a dump truck. Road grading over much of the District is covered once during the year with some roads graded more. Small rock projects will also take place to reinforce weak subgrades or cover road surfaces producing sediment.

The District road crew also responds to emergencies such as unplugging culverts, removing small slides, clearing slough from ditch lines and blocking roads when necessary. A backhoe or excavator will be rented for approximately a 1/2 month to clean out culvert catch basins as well as working on any miscellaneous projects that come up.

By combining the timber sale road activities and District road crew activities together the following road maintenance work estimates are expected:

- 80 miles of road will be graded
- 7.2 miles of road will be resurfaced with crushed rock
- 10,000 cubic yards of crushed rock will be spread on roads
- 17.9 miles of road will be brushed
- 30 miles of road side vegetation will be treated with herbicide
- culvert catch basins will be cleaned as needed
- Slough and slide removal will take place as needed
- Road surface rock patching will be done as needed

Land Surveying

There are 3 miles of property line on 5 timber sales that will be surveyed, posted and blazed by District personnel.

Young Stand Management

Young stand management operations occur in forest stands prior to the first commercial thinning and after a commercial thinning. These operations tend not to produce revenue, but are essential in establishing a healthy forest. The objectives of young stand management are to achieve the goals for reforestation, stand structure development, and future revenue generation. The current fiscal year budget allocates the necessary funding to implement stand management prescriptions to move stands toward the desired future conditions for each stand.

Several smaller and short-term reforestation projects are well suited to using inmate crews from Marion County or South Fork. South Fork is a correctional facility that is a cooperative effort between the Department of Corrections and ODF. These reforestation projects tend to be one-day projects such as planting a few acres or pruning small acres of white pine to protect them from blister rust. The inmate crews do work well in filling the niche left open when projects are too small to contract out. Prior planning is needed to schedule any inmate crew for these projects; although some emergency situations can be accommodated.

The planned operations necessary to meet landscape and stand structure targets include: site preparation, planting, vegetation management, tree protection, pre-

commercial thinning and fertilization. The following is a brief summary of each individual activity. Additional information on young stand management can be found in Tables 1 and A-4.

Rehabilitation

No rehabilitation projects are planned for fiscal year 2008.

Site Preparation

Site preparation is an important tool used in establishing a stand. Site preparation can affect seedling establishment and survival. Site preparation will help with reforestation efforts to move a stand into a Regeneration (REG) classification. Prescribed fire (burning of logging slash), mechanical (piling of slash) and use of herbicides are just a few tools used in site preparation. The goal of burning or piling logging slash is to eliminate or manipulate logging debris in order to create plantable areas. Herbicide site preparation is used to manage undesirable vegetation that would compete with newly planted seedlings. Planting spot development is used when burning is not a preferred method due to shallow soils or flat slopes. The use of a slash buster reduces the size of the slash and creates open areas for planting. The slash is not removed from the site and quickly decomposes on site. All site preparation activities contribute to moving a stand towards its desired future condition.

Basins:

Butte Creek: 15 acres of slash burning

Cedar Creek: 124 acres of slash burning; 124 acres of mechanical site prep; and 124 acres of chemical site prep

Mad Creek: 14 acres of slash burning

Rock Creek: 133 acres of slash burning; 98 acres of mechanical site prep; and 98 acres of chemical site prep.

Scattered: None

Special Concerns: To protect air quality, all burning will be done in accordance with the Oregon Smoke Management Plan. The Smoke Management Plan is designed to reduce emissions from prescribed burning in western Oregon and to minimize smoke intrusions into designated population areas.

When using herbicides on State Forests for site preparation needs, EPA approved herbicide product labels and the Forest Practices Act will be strictly adhered to. Mechanical site preparation will also be monitored during use to ensure that the Forest Practices Act requirements are met.

Planting

Reforestation is the establishment of seedlings following regeneration harvests, patch cuts, root disease removal, severe blow down events, and, in certain cases, partial harvests. Planting helps meet the goals of reforestation through planting a variety of tree species in stands. The mixing of tree species helps achieve the desired future conditions within each management basin. The various activities of initial planting, interplanting, and underplanting provide different outcomes to achieve these future conditions.

Initial planting establishes the seedlings to begin a regeneration stand. The species of seedlings planted and the density at which they are planted will influence future management activities within the stand.

Interplanting is used when initial reforestation has been less successful than desired. Planting additional trees within an area will continue the stand along its desired management path.

Underplanting involves planting seedlings beneath a canopy of taller trees. Most species used in underplanting are shade tolerant and are used to help achieve a desirable understory needed for Layered or Older Forest Structure stands. This activity can likewise introduce a desired native species into a stand to increase stand diversity.

Basins:

Butte Creek: Initial Plant 60 acres; and interplant 63 acres.

Cedar Creek: Initial Plant 204 acres; interplant 111 acres; and Under-plant 80 acres.

Mad Creek: Initial Plant 14 acres; and interplant 35 acres.

Rock Creek: Initial Plant 133 acres; and interplant 84 acres.

Scattered: Initial Plant 71 acres; and interplant 30 acres.

Vegetation Management

Vegetation management activities include the use of aerial, backpack and hand applications of herbicides to control brush, and the removal of brush using chainsaws, mechanized equipment or hand tools. The various tools used control the growth of unwanted vegetation within stands classified as Regeneration. However, the same tools are used in stands of other classifications. The objective of vegetation management is to favor the survival and development of desired species or to remove invasive plant species.

Basins:

Butte Creek: Chemical Release 123 acres

Rock Creek: Chemical Release 103 acres

Scattered: Chemical Release 101 acres

All Basins: Noxious weeds 30 acres

Tree Protection

Tree protection is used in areas where animal damage is expected to reduce the number of seedlings below desired levels. An initial means of protection is placing a vexar tube over a newly planted seedling and supporting the tube with a pin. Vexar tubes are generally reserved for tree species ravaged by browsing animals.

Basins:

Mad Creek: Tubing 9 acres

Rock Creek: Tubing 71 acres

Precommercial Thinning (density management)

Due to successful reforestation efforts and to an influx of natural seedlings, forested stands can become crowded. Tree removal is needed to reduce the crowding. A pre-commercial thinning project removes some of the weaker, slower growing trees making room for the stronger, larger trees to grow. Species selections are based upon the desired future condition for each particular stand. The timing of the pre-commercial thinning and the residual number of trees to remain are influenced by the desired future condition as well. The trees in these stands have not reached commercial size. Those trees cut are left within the unit to decay and provide future nutrient needs.

Basins:

Scattered: 250 acres

Special Concerns: Leaving the cut trees within the stand creates a potential fire hazard. The slash from the cut trees decomposes quickly so that the hazard is short term, usually less than five years.

Fertilization

No fertilization projects are planned for fiscal year 2008.

Pruning

No pruning projects are planned for fiscal year 2008.

Recreation Management

Overview of Recreation Management

The Recreation Program on the Santiam State Forest is managed with the guidance of the Recreation Management Plan approved in September 2000, Cascade Implementation Plan approved in March 2003 and the approved 2001 Northwest Oregon State Forest Management Plan. This section of the FY08 AOP is designed to provide information about the types of recreation opportunities and activities that are currently in demand on the Santiam State Forest, the current developments and opportunities available on the forest, and the planned projects for the FY08 AOP period. The planned projects will increase the recreation capacity of the District. Funding for the planned projects will be from the 2008 fiscal budget. The District will also find and apply for state and federal grants that will compliment the program.

A Citizen Advisory Committee is utilized to provide input on a wide range of recreational interests and the public. The Committee convenes once a year to review accomplishments and to discuss and suggest future projects and activities. The Committee is also a source for recruiting volunteers for the District. The District initiated the formation of an inter-governmental committee to open an avenue of coordination and communication among the various recreational staffs of county governments and state and federal agencies. The committee adopted the name of "Mid-Willamette and Cascade Recreation Coordination Group". The members of this committee hope to use this group as a forum to coordinate recreation needs, opportunities and development as well as to avoid unnecessary or conflicting uses and duplication of efforts.

Volunteers are expected to contribute labor and expertise to the recreation program. Volunteers from clubs will be used to construct trails and facilities. These clubs include the Oregon Equestrian Trail club (OET), Back Country Horsemen club, Chemeketans Hiking club, Merry Cranksters and Mountain Street Dirt Crew (MSDC) which are both mountain bike clubs.

In the past year volunteers have donated significant time as well as expertise and resources to aid in the development of campgrounds and trails on the district. Partnership with the Silver Falls Chapter of the Oregon Equestrian Trails club (OET) has been important in the development of equestrian and other non-motorized trails and facilities

Recreation staff has formed a partnership with the Mountain Street Dirt Crew (MSDC) free-ride mountain biking club. MSDC is working with the recreation staff to create mountain biking opportunities near the Shellburg Falls Recreation area.

Most recently recreation staff has assisted in the development of an ATV club, the Crooked Finger Rider's Association, who will develop and adopt motorized trails and a staging area along the Crooked Finger Road near Scott's Mills.

The recreation staff may utilize 10-person inmate crews from the Oregon Department of Corrections (DOC), Santiam Correctional Institution, Mill Creek Correctional Facility and also Marion County Inmate Work crews. These inmate crews will be used for facility and trail maintenance, improvements, and construction projects. The crews are within 1 to 1 ½ hour travel time from most recreation sites. The crews have the expertise and ability to perform the kind of specialized work projects that need to be completed. Finally, when there are complex or difficult projects that require more expertise than is available from the above crews the Department of Forestry's South Fork Inmate Crews can be utilized. However the long travel distance each way limits the work that South Fork Crews can accomplish each day.

The primary recreational activities on the Santiam State Forest include hiking, equestrian use, biking, OHV use, hunting, camping, fishing and sight seeing. A variety of organizations occasionally request to use an area of the forest for 2 to 3 days for re-enactment of historical events and youth leadership camps in which a forest setting is needed. In the past these have included re-enactments of Civil War and World War II battles, mountain bike races, youth leadership camps, bow hunting skill competition and back-county road motorcycle events.

The recreational facilities and opportunities on the Santiam State Forest consist of four developed car campgrounds, one primitive hike in only campground, dispersed camping areas, one developed specialized campground for Equestrian enthusiasts and two unique vistas and natural attractions. Combined, there are currently 23 camp sites on the Forest. There are about 21 miles of non-motorized trails associated with the developed sites. The attractions or special places on the Santiam State Forest are located at or near developed sites. These include three waterfalls, Shellburg Falls and Upper and Lower Butte Falls, two lakes, Rhody and Butte, commonly called the High Lakes, as well as Rocky Top and the Natural Rock Arch.

One area of the Forest is used by ATV and 4 x 4 enthusiasts. The State Forest land adjacent to Crooked Finger Road area east of Scott Mills has been used by local off-road motorists for a number of years. The Recreation Coordinator has established a relationship with the Crooked Finger Rider's Association. The recreation staff plans to continue to work with this organization to develop and manage a 6-10 mile system of OHV trails. These trails will be developed for ATVs and motorcycles.

Since the Santiam State Forest Recreation Plan was approved there has been a steady annual increase of recreation use by the public on the Forest. A fee system was implemented at Santiam Horse Camp, Butte Creek Campground and Rock Creek Campsites during 2006. The purpose of this fee is to help supplement maintenance costs, regulate use and limit long term occupancy at camp sites. It is important for the district to ensure that all visitors may have an opportunity to camp at their favorite sites.

Visitation to the Santiam State Forest rose dramatically in the past year. As new developments have opened up and word of mouth spread, recreation staff have worked

diligently to operate and maintain existing facilities as well as implement new projects to meet public demand. As use increases on the forest, limited staff resources at times must be directed away from new development and towards maintenance and operation of existing facilities. To ensure the facilities and trails are kept to high standards and safe, the district is strengthening its maintenance budget and increasing inmate sweeps throughout recreation areas. The district is also continually seeking partnerships and contracts for trail and facility stewardship. As these opportunities are found ODF will once again be able to increase their focus on new development that is outlined in the Recreation Management Plan.

It should also be noted that there is significant use in the Santiam State Forest outside of the designated recreation areas. This includes, dispersed camping, hunting, site seeing, rock climbing, exploration and other activities such as mushroom gathering. Recreation staff is responsible for litter cleanup, monitoring vandalism, monitoring illegal motorized off-road use and providing visitor assistance on nearly 47,000 acres of the Santiam State Forest.

The two most visited areas are the Butte Creek Falls Recreation Area and the Santiam Horse Campground. These sites are well-known locally. Butte Creek Falls is used primarily for day-use. The nearby campground receives moderate use during the summer. The Santiam Horse Camp and surrounding Monument Peak Trail System was opened officially in June of 2006. In the first three months over 1000 vehicles were recorded visiting this secluded forest campground. The trails were well used. As news of this campground and trails spread, use is expected to significantly increase. The third most visited location is the Shellburg Falls area. Use at Shellburg Falls is increasing because of the hiking trail connecting to Silver Falls State Park, as well as the publicity about Shellburg Falls and the exposure the site receives through the Forest Education and Interpretation Programs. The Rocky Top and Natural Rock Arch trails and vistas are used frequently by those who want more solitude on their hike. A road improvement project is expected to increase use at these sites.

The dispersed camp sites at Rock Creek were used frequently throughout the summer.

All of the developed sites and other frequently used areas are patrolled by two certified Law Enforcement Officers hired through an agreement with the Oregon State Police. These retired State Troopers promote public awareness of rules and regulations and assist with providing a safe recreational experience for recreationists. They investigate crimes and violations on the Santiam State Forest and cite individuals to court when the responsible party is identified. An on-going effort of the officers is to identify and contact individuals that illegally dump debris and garbage. When responsible parties are identified they are usually cited to Justice Court and required to clean-up the trash. Since the District began using these officers there has been a significant improvement in compliance with the regulations in effect.

The Recreation Coordinator, temporary employees and the Recreation Summer Intern regularly patrol all the developed sites from May through October. The primary objectives of this effort is to monitor and document the amount of use the sites are getting and, as important, to make contact with recreationists to inquire if the facilities and opportunities provided are ones that they like to visit and if there are additional services and opportunities they would like offered on the Santiam State Forest.

Facilities (Campgrounds, View Points, Trail Heads, etc.)

Shellburg Falls Recreation Area:

The Shellburg Falls Recreation Area offers a variety of nonmotorized recreational activities in a secluded high quality yet minimally developed setting. Within the Shellburg Falls Recreation Area there are 4.5 miles of trail, a campground with four sites and two trailhead parking areas. In addition, the Shellburg Falls Recreation Area is a popular interpretive and educational destination for schools and the general public. ODF staff offer multiple guided nature hikes and school field trips at this site.

North Cascade District's goal at Shellburg Falls is to maintain a secluded, more primitive setting while offering a quality camping and trail use experience and enhancing the educational potential of this site.

Trails: The emphasis of trail development at Shellburg Falls is to offer a system of non-motorized loop trails. These trails include hiking only and non-motorized multi-use trails. These loops are of varying lengths and difficulty to offer visitors to Shellburg Falls a variety of trail options. Short trails that are easy in difficulty are designed for interpretive/educational programs and the casual trail user. Longer more difficult trails are designed for trail users who wish a more challenging experience. During FY08 no new trails will be constructed in this area. A timber sale north of the campground will close the Shellburg Creek Trail when harvesting occurs. During the timber sale operational period, efforts will focus on ensuring visitor safety in the Shellburg Recreation Area and protecting recreation resources. Once the timber sale is complete the trail will be repaired and re-opened at or above current conditions.

Interpretive Area: The number of educational and interpretive programs at Shellburg Falls is increasing yearly. During these programs interpretive staff commonly hold outdoor lessons in the forest. During the winter months there is a need for a covered shelter to present these formal programs. ODF will design and construct a small shelter with benches to act as an outdoor classroom for students and as a picnic shelter for visitors to Shellburg Falls. The funds for this shelter were requested during FY07 but not received. The district will once again request the funding for this shelter during FY08.

Shellburg Area Free Ride Mountain Biking Trails:

Free ride mountain biking is a relatively new, yet fast growing recreational activity. This activity is comprised of down hill mountain bike trails with technical trail features such as bridges and jumps. The North Cascade District has established a partnership with the

Mountain Street Dirt Crew (MSDC) free ride mountain biking club to establish free ride trails near the Shellburg Falls Recreation Area. The District and MSDC have established an adopt-a-trail agreement to design and construct free ride mountain bike trails. The District approves and monitors trail development while MSDC is responsible for on the ground trail design, construction and maintenance. Currently an estimated one mile of trail has been established. This trail has a variety of trail features and difficulties and is designed for riders to train on. During FY 08 volunteers hope to construct a 1-1.5 mile trail. The trail will have features with varying degrees of difficulty allowing a variety of options for riders of different skills.

Santiam Horse Camp:

The Santiam Horse Camp is a 9 site moderately developed equestrian camp and day-use area. Amenities include drinking water, picnic shelter, corrals, manure bins, restrooms, and trailer parking both in camp and in the day-use area. Along with this camp, a system of trails is being developed. There are currently an estimated 15 miles of trails at this site. A host campsite will be constructed at the Santiam Horse Camp during FY08. This site will be designed for a campground host who can monitor the campground throughout the high use season and answer visitor questions. The host will provide a valuable resource for visitors to the Santiam Horse Camp.

Trails: During FY 07 an intense fire season and larger than expected increase in visitation to the forest reduced the amount of resources available for trail construction. Because of this not all of the trail planned for FY07 was constructed. Nine miles of trail will be constructed during FY08. Six miles will complete important loop trails in the main trail system and an additional three miles of trail will connect the Monument Peak Trail System to the Rock Creek Campsites allowing both equestrian and car campers access to the entire Monument Peak Trail System.

Crooked Finger OHV:

Along the Crooked Finger Road near Scott's Mills there is a significant amount of ATV and motorcycle use. During FY 07, ODF assisted a group of local OHV enthusiasts form the Crooked Finger Riders Association (CFRA). This organization is currently planning and designing an OHV staging area and trail system for ATV and motorcycle riders. The staging area will be completed in FY 07 and the trails during FY 08. CFRA will construct and adopt the staging area and trail system.

Trails: ODF will work with CFRA to design and construct an estimated 6 miles of motorized trail. This includes a large all ages loop; and a small children's loop designed specifically as an easy trail for children to learn on.

Butte Creek Falls and Trails:

The Butte Creek Falls Recreation Area is a picturesque site containing a three site campground, day-use area and two impressive waterfalls made accessible by the Butte Creek Falls Hiking Trail. This site will have minimal new development during FY 08.

Rhody Lake:

Rhody Lake is contained within the High Lakes Recreation Area. At Rhody Lake there is a 3 site campground and day-use area with parking and a picnic area. Near Rhody Lake is a trailhead that accesses the 1.5 mile High Lakes Trail. This trail provides a link to Butte Lakes. The Butte Lakes are a scenic, primitive recreational site offering dispersed camping, site seeing, fishing and hiking opportunities.

Trails: As with all trail design the goal is loop trails of varying difficulty. During FY 08 ODF will connect Rhody Lake to High Lakes trail with ½ mile multi-use non-motorized trail. This trail will loop around Rhody Lake and then connect into the High Lakes Trail allowing visitors to access the entire trail system without walking on the road.

Rock Creek Recreation Area

The Rock Creek Recreation Area is composed of 4 dispersed campsites along Rock Creek. The camps are minimally developed offering fire rings, picnic tables, garbage collection and seasonally placed portable restrooms.

Trails: A 1 mile trail is to be completed by the end of FY07. It will connect the campsites and give campers an opportunity to take a scenic hike or bike ride in the area. This trail is the first stage in connecting the Rock Creek area to the Santiam Horse Camp trails. No new trail development is planned for the Rock Creek Recreation Area during FY08.

Rocky Top/Natural Arch:

The Rocky Top/Natural Arch Recreation Area is a high elevation site in the foothills of the Cascade Mountains. This scenic area is composed of two hiking trails and day-use areas offering breathtaking views of the Cascade Mountain Range. Rocky Top at 5,000 feet is the highest elevation within the Cascade foothills. Natural Rock Arch is an impressive forty foot tall rock arch made accessible by a rugged hiking trail. Though there are no designated camping areas, there is dispersed camping within the area.

Trails: The primary goal of trail design in this area is to create a long trail system connecting Rocky Top to Natural Arch and to other scenic areas within USFS ownership. ODF will continue to seek a cooperative agreement with USFS to construct a 2 mile hiking trail in the Rocky Top area that will lengthen and enhance the Rocky Top trail system. Once this agreement is formed development of the trail will begin.

Abiqua Falls:

Abiqua Falls is an impressive waterfall located on Mount Angel Abbey ownership. This waterfall is both unique as a waterfall and a geological formation. This waterfall would be a valuable addition to public ownership. ODF will continue as staff time allows to investigate the feasibility of a land trade to improve the public access to the Falls with the adjacent state ownership at the top of the Falls.

Fee System:

In many of North Cascades recreation areas, use has continually increased. This is most evident at the small developed campsites. Often at these sites, campsites are filled above capacity or held by a single group for the maximum of 21 days. In order to manage visitor use and to ensure natural resources, ODF has implemented campground fees consistent with policies on other districts at Santiam Horse Camp, Butte Creek Campground, Rock Creek Camps and Rhody Lake Campground. These fees also help to reduce maintenance costs. ODF will continue to monitor other campgrounds that do not currently require fees to determine if fees may be necessary in the future.

Volunteer Program:

Volunteer hours have increased steadily during the past year. In order to add value to the volunteer experience North Cascade will continue to implement a recognition program for volunteer service on the district.

Maintenance Program:

As the level of recreational use increases, a strong maintenance program is a necessity. In FY07 a short term custodial contract was implemented in the Butte Creek Area. This contract was highly successful. During FY08 ODF will issue a more comprehensive Personal Service Contract in the Butte Creek area to perform summer maintenance and visitor assistance. Due to long travel times to these sites, a personal service contract is the most efficient option for maintenance in the Butte Creek, Crooked Finger and High Lakes Area.

The district will utilize Mill Creek Department of Correction inmate crews and Marion County inmate crews to maintain recreation areas, trails, campgrounds and related facilities.

In addition ODF will investigate and, if feasible, form a trail patrol agreement with Linn County Sheriff's Posse members to provide trail patrol services in the Santiam Horse Camp and Rock Creek Area.

Recreation Mapping

In order to provide an accurate representation of recreational resources and to aid with future goals, the district will continue its on-going mapping project that will map to scale existing recreation areas, campground and other facilities as staff time allows. In addition, staff will use GPS to map the location of signs, kiosks and gates.

Forest Land Management Classification

As required under OAR 629-035-0050, Forest Land Management Classifications (FLMCS), and for the purposes of implementing the FMP's forest resource management strategies, all forest lands have been classified within the planning area to describe the types of management that a District will apply to particular areas of the land base, the

appropriate range of management activities for these areas and the forest resource or resources the classifications are intended to address. The system identifies when a particular forest resource may need a more focused approach, or possibly an exclusive priority, in management. State Forest Lands are classified into one of three classifications: General Stewardship, Focused Stewardship, or Special Stewardship. Descriptions and methods of the classifications are found in the Forest Management Plan beginning on page 2-56.

Focused and Special Stewardship classifications are further classified into subclasses based upon the existence of forest resources that require some level of supplemental planning and/or modified management practices to help achieve identified goals. Several subclasses may be assigned to a parcel of land. Where this occurs, the resource requiring the highest level of protection will determine the management approach. A complete list and specific definitions of the subclasses can be found in OAR 629-035-0055.

Total acreage for each classification and subclass can be found in the District IP on pages 5 and 6.

The acreage and boundary lines shown on maps for forest land management classifications are approximate. The information will be updated through watershed assessments, planning for site-specific management activities or site-specific field visits conducted over time. Management activities will be conducted based upon exact areas and locations as determined on the site and will depend upon the conditions that exist on the site.

Land Exchange

There are no on going land exchanges on the District currently. There are no land exchanges planned to begin during the FY 2008.

Other Integrated Forest Management Operations

Firewood

The North Cascade District has a firewood program that is tied to the completion of timber sales. Timber sale contracts require any non-merchantable wood or cull material that has been yarded to the landing and is suitable for firewood to be placed in a pile. This wood is then made available to the public by issuing a permit for two cords of firewood. There is a great demand by the public for firewood. Some years there is an abundant supply of firewood. Other years there is very little firewood available.

Offering firewood permits to the public involves the timber sale administrator, clerical staff, and management. The time spent on each timber sale area opened up for firewood is

approximately eight hours a week by the sale administrator, sixteen hours a week by the clerical staff, and four hours a week by managers. Law enforcement also spends time checking permits out in the firewood areas. In a typical year, the firewood season lasts for approximately three months. Areas with limited public access are set aside for commercial firewood cutting or special interest groups such as church organizations or community assistance groups. Overall, the firewood program on the Santiam State Forest is highly visible and provides an important face-to-face interaction with the public.

Miscellaneous Forest Products

The North Cascade District has an active miscellaneous forest products program on State Forest lands. Part of the District's landscape management objectives is to provide for diverse stand types that over time can produce a sustainable source of a wide variety of forest products. Some forest products are available on a seasonal basis, such as mushrooms, while others like vine maple, moss, and salal are available year-round. Harvest is always dependent upon markets and commercial demand. Many of these products are available throughout the forest landscape, and can be found in the different stand structures on the forest. Other products (i.e. mushrooms, moss, etc.) require specific stand types and growing conditions to be most productive. The most popular products requested on this District are salal, mushrooms, moss, and flat rock. Salal can be found over most of the District, while mushrooms grow best at lower elevations and in younger, dense stands of timber, usually in the under 40-year old closed single canopy stands. State lands foresters and office staff on average spends approximately 2 hours per week answering questions and issuing permits for this program.

On October 1, 2006 the North Cascade District implemented new procedures for selling Miscellaneous Forest Products. These procedures are being implemented by all districts in the Northwest Oregon Area. (NWOA) All NWOA districts use the same sale permit form and exhibits (attachments) for commercial quantities of miscellaneous forest products. The price structure for products is the same across the NWOA except for bear grass, fir boughs, cascara and yew bark, moss and rock. These and other miscellaneous forest products that are not on the NWOA list are sold following individual district policy. Currently the North Cascade District does not issue commercial permits for bear grass and moss. The District does not have a good inventory for these plants. Some of the products, including cascara bark and noble fir boughs, are not available in desired commercial quantities on this district. Consequently very few, if any, commercial use permits are sold for those products.

Commercial use permits are sold for all Santiam Forest Management Basins. The permittee is required to provide a list of authorized pickers/workers for every permit. They must maintain and return a product removal form showing the dates and corresponding quantities removed. Picking instructions are issued for all products. Copies of permits are provided to law enforcement personnel. They check permits in the field as they encounter gathers and vehicles hauling products. Individuals gathering commercial quantities without a commercial permit are issued a Uniform Citation for unlawful

transport of forest products or theft of forest products and the product is confiscated. If there is a local market for the product, the District will sell it.

The District does not issue personal use permits, consistent with NWOA policy. Gathering of these products is allowed provided that the products and quantities are not removed or exceeded as outlined in ORS Chapter 164.813.

Planning (and Information Systems)

Stand Level Inventory and Other Vegetation Inventories

Some stands within the District will be inventoried during the FY 2008 using the Stand Level Inventory procedures. This information will replace the current inventory system with new information that is better suited to structure based management planning and decision making. Approximately 3 stands totaling approximately 1,000 acres may be inventoried using contractors.

Fish and Wildlife Surveys

Almost all of the streams located within operations proposed in the FY 2008 Annual Operations Plan have been surveyed to determine beneficial use (i.e. fish bearing or not). The only exceptions to this will follow the Oregon Forest Practices *Revised Guidance on Interim Water Classifications (1995)* to determine beneficial use on these streams or be surveyed by an ODF co-op fish survey crew during the survey season in the spring of 2007 prior to sale layout.

Surveys for the Northern Spotted Owl (*Strix occidentalis*) will be conducted by a contractor during the 2007 field season. The information gathered from these surveys is used during planning activities to determine how to proceed with forest activities without adversely affecting the owls and their habitat. Surveys will be specifically done on a portion of commercial management operations identified for the fiscal year 2007, and all commercial management operations identified for the fiscal years 2008 and 2009 as well as known owl sites.

Table 5. Summary of status of T&E surveys.

Operation	Species (NSO/MM)	Status
Crabtree #6	NSO	Surveyed in 2004, 2005, 2006. Will be surveyed again in 2007.
Mackey Creek	NSO	Surveyed in 2005, 2006. Will be surveyed again in 2007.
Mad Monument	NSO	Surveyed in 2006. Will be surveyed again in 2007.
Potato Hill	NSO	Surveyed in 2004, 2005, 2006. Will be surveyed again in 2007.
Rhody Lake	NSO	Surveyed in 2006. Will be surveyed again in 2007.
Taylor Butte	NSO	Surveyed in 2006. Will be surveyed again in 2007.
Wagon Road	NSO	Surveyed in 2006. Will be surveyed again in 2007.
Above 1000 (alt)	NSO	Surveyed in 2006. Will be surveyed again in 2007.
Boulder Creek (alt)	NSO	Surveyed in 2006. Will be surveyed again in 2007.
Evans Mtn. (alt)	NSO	Surveyed in 2006. Will be surveyed again in 2007.
The Other Half (alt)	NSO	Surveyed in 2006. Will be surveyed again in 2007.
Rock Creek (alt)	NSO	Surveyed in 2006. Will be surveyed again in 2007.

Watershed Assessments

ODF is committed to perform watershed analysis on key watersheds on state forest lands. Watershed analysis will be used to gain insights into the interaction between ecological resources and forest management. This, in turn, will provide information for future Implementation Plans and Annual Operation Plans.

The Northwest Oregon FMP provides that watershed analyses shall be performed on all priority watersheds “within the ten-year period following plan adoption”. No watershed assessments for the Santiam State Forest are planned to begin in fiscal year 2008.

Research and Monitoring

OSU is continuing a study on Swiss Needle Cast. The study is looking into growth trends following thinning in stands with varying levels of Swiss Needle Cast damage, the interactive effect of Swiss Needle Cast with the intensity of thinning and the interaction between thinning, Swiss Needle Cast and the seed source for the stand involved. Four of the study and control plots are located on the Santiam State Forest. The study is scheduled to last until 2011.

Other Planning Operations

Reforestation planning that will occur during the 2008 fiscal year include the following: vegetation management plans, density management plans, reforestation plan for the 2008 planting season, seed sowing plans, and seed collection plans. These plans will be developed at different times throughout the fiscal year.

Planning will begin in the spring of 2007 for the FY 2009 Annual Operations Plan. These plans will be completed in the spring of 2008. The annual operations plan will provide specific details on the harvest operations that will be set up and auctioned in the 2009 fiscal year. The plan will also provide an overview of the roads and engineering projects, non-commercial forest management operations, recreation management, planning, public information and education and administrative activities that will take place during FY 2009. This plan is developed according to guidance and standards found in the *NWO State Forests Management Plan*, *Cascade District Implementation Plans*, *Santiam State Forest Recreation Plan* and the *Oregon Forest Practices Act*.

Public Information and Education

This Annual Operations Plan will undergo a public review. Following that review, a public involvement summary will be added as an Appendix to this document.

The District often receives requests for job shadowing opportunities. Job shadowing usually involves a high school student or occasionally a college student who is interested in natural resources. The District arranges for these students to spend a work day with a Santiam State Forester, Stewardship Forester, Road Specialist or other job position they may be interested in. The initial contact is made by the student, so it is impossible to pin down when this activity will occur. The District has also conducted school to work tours in cooperation with the Human Resources section of ODF. Additional tours may possibly occur on the Santiam State Forest during the 2008 fiscal year.

Forest Education and Interpretation

The Santiam State Forest Recreation Coordinator has developed a growing Forest Education and Interpretative Program. ODF offers educational programs to local school children both in the classroom and in the forest. Students learn about forest environment, management and ethics with educational hands-on activities. During the past year 2,000 students have participated in education/interpretive programs.

Several summer programs are conducted for local community libraries within close proximity to the Forest. In addition several interpretive nature hikes are presented each summer. The most often used site for these programs is Shellburg Falls. In addition, interpretive hikes are held in the Butte Creek Falls area.

The recreation staff has been successful in obtaining a Title III Grant from the Clackamas County Board of Commissioners, for an After-School Forest Education and Interpretation Program. This program has been developed by the recreation staff with the cooperation of the Oregon State University Extension Service in Clackamas County. It consists of several classroom and field sessions for elementary-age students from First through Fifth-grades. Subjects include Forest Ecology, Forest Management, Forest–User ethics and fire prevention and safety. The District has also taken the experience gained from

developing these curriculums and programs to teach similar programs and lead field trips during the school year in Marion and Linn County. This has been a popular program and will continue to grow with the cooperation of local schools and county agencies.

The District will continue to strengthen its education program. When possible the District will use funding from Title III grants and from grants through Oregon Forest Resource Institute to subsidize this program. In addition to programs for students during the academic year, North Cascade will continue to offer interpretive programs in the form of summer reading program partnerships with local libraries and guided hikes within the Santiam State Forest.

Administration

There are a total of 13 permanent positions, 3 seasonal positions, 1 co-op position, and 1 grant position that comprise the State Forest Team at the Santiam Unit. In addition, the District Forester and Assistant District Forester provide key leadership and support to the program. The organization is structured as follows:

- Management Unit Forester, FUS2
 - Planning Forester, NRS2
 - Operations Forester, NRS2
 - Reforestation Forester, NRS2
 - Foresters (3 positions), NRS1
 - Technician, FMT (shared with Protection)
 - Intern (1 position, Forest Management)
- District Engineer, FUS2
 - Road Specialist, NRS1
 - Recreation Specialist, NRS1
 - Recreation/Education Assistant, FMT (limited duration)
 - Equipment Operator, HMS 2
 - Road Maintenance Assistant, Laborer 2
 - Interns (2 positions; Forest Engineering, Forest Recreation)

The organization consists of 2 functional units: Forest Management and Forest Engineering & Recreation. The Forest Management unit is responsible for forest-level Planning, Stand Level Inventory, and for Commercial and Noncommercial Forest Management Operations. This group produces the AOP, timber sale contracts, reforestation and young growth management contracts, conducts stand level inventories, and administers the special forest products and firewood programs.

The Forest Engineering/Recreation unit is responsible for Roads and Recreation. This group produces the different plans and projects associated with roads including the AOP

road information, transportation plans, road maintenance plans and schedules, and other engineering related plans. The recreation program produces plans and contracts needed to develop campgrounds, trails, and associated facilities. In addition, Recreation program personnel coordinate most of the Public information and education done on the District.

Personnel from both units are involved in the preparation of the AOP, and in the development of commercial forest operations contracts. There is less overlap in the noncommercial forest operations, so additional efforts are needed to ensure that objectives for recreation, reforestation, and special forest products are understood by all.

The organization fits well within the budget instructions and guidance that is available for next fiscal year at this point in time. The Reforestation program is highly cyclical in workload due to the nature of projects such as tree planting, fertilization, and vegetation management. During active reforestation and young growth management operations, additional resources are always needed to cover logistical concerns.

APPENDICES

A. Summary Tables

B. Pre-Operations Reports

C. Public Involvement

D. Additional Maps

TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

District: North Cascade

Fiscal Year: 2008

Date: 06/12/2007

Operation	Payment Type	Fund %		County	Sale Quarter	Net Acres		Volume (MMBF)			Value		
		BOF	CSL			Partial Cut	Clear-cut	Con-ifer	Hard-woods	Total	Gross	Projects	Net
Crabree #6	Recovery	100%	0%	Linn	1	9	96	3.4	0	3.4	\$1,008,000	\$109,000	\$899,000
Mackey Creek	Recovery	100%	0%	Marion	2	60	38	1.3	0	1.3	\$263,400	\$5,000	\$258,400
Mad Monument	Recovery	100%	0%	Linn	4	150	26	2.7	0	2.7	\$1,043,300	\$4,000	\$1,039,300
Potato Hill	Recovery	100%	0%	Linn	4	0	30	1.2	0	1.2	\$237,000	\$12,260	\$224,740
Rhody Lake	Recovery	100%	0%	Marion	1	162	0	1.5	0	1.5	\$262,500	\$34,000	\$228,500
Taylor Butte	Recovery	100%	0%	Marion	2	7	69	1.7	0	1.7	\$514,200	\$80,400	\$433,800
Wagon Road	Recovery	100%	0%	Linn	3	99	0	2.2	0	2.2	\$978,250	\$30,000	\$948,250
Total:						487	259	14.0	0	14.0	\$4,306,650	\$274,660	\$4,031,990

Alternate Operations

Above 1000	Recovery	100%	0%	Linn		0	45	1.2	0	1.3	\$430,000	\$32,600	\$397,400
Boulder Creek	Recovery	100%	0%	Marion		251	5	2.9	0	2.9	\$868,600	\$10,000	\$858,600
Evans Mtn.	Recovery	100%	0%	Marion		0	61	1.2	0	1.2	\$300,000	\$10,000	\$290,000
The Other Half	Recovery	100%	0%	Marion		0	60	2.1	0	2.1	\$736,800	\$11,500	\$725,300
Rock Creek	Recovery	100%	0%	Linn		0	71	1.3	0	1.3	\$525,937	\$90,000	\$435,937

TIMBER HARVEST OPERATIONS - FOREST STRUCTURE SUMMARY

District: North Cascade

Fiscal Year 2008

Date: 01/29/2007

Operation	Area	Net Acres			Stand Structure Development Pathway			Structural Components			Comments
		Clearcut	Partial Cut	Total	Current	Post-Harvest	Desired	Down Wood	Green Trees	Snags	
Butte Creek											
Taylor Butte	I	69	0	69	UDS	REG	GEN				
	II	0	7	7	UDS	UDS	GEN				
Rhody Lake		0	162	162	CSC	UDS	OFS				
Crabtree											
Crabtree #6	I	96	0	96	UDS	REG	GEN				
	II	0	9	9	UDS	UDS	GEN				
Mad Creek											
Potato Hill		30	0	30	UDS	REG	OFS				
Mad Monument	I	0	78	78	UDS	UDS	GEN				
	II	26	0	26	UDS	REG	GEN				
	III	0	72	72	UDS	UDS	LYR				
Wagon Road		0	99	99	LYR	LYR	LYR				
Scattered											
Mackey Creek	I	0	60	60	UDS	UDS	OFS				
	II	38	0	38	UDS	REG	OFS				

Total	259	487	746
Annual Range	180-270	470-900	650-1170

Alternate Operations

Above 1000		45	0	45	UDS	REG	GEN				
Boulder Creek	I	0	251	251	UDS	LYR	LYR				
	II	5	0	5	UDS	REG	LYR				
Evans Mtn.		61	0	61	UDS	REG	GEN				
The Other Half		60	0	60	UDS	REG	GEN				
Rock Creek		71	0	71	UDS	UDS	LYR				

Reforestation and Young Stand Management Report

District: North Cascade

Fiscal Year: 2008

Date: 10/24/2006

Management Activity	Board of Forestry			Common School Forest Lands			District	
	Acres Planned	Average Cost*/Acre	BOF Cost	Acres Planned	Average Cost*/Acre	CSL Cost	Total Acres	Total Cost
Initial Planting	482	\$235.16	\$113,347.12	0	\$100.00	\$0.00	482	\$113,347.12
Interplanting	323	\$107.20	\$34,625.60	0	\$70.00	\$0.00	323	\$34,625.60
Underplanting	80	\$114.00	\$9,120.00	0	\$80.00	\$0.00	80	\$9,120.00
Tree Protection-Barriers	80	\$218.00	\$17,440.00	0	\$218.00	\$0.00	80	\$17,440.00
Tree Protection-Direct Control	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Site Prep-Chemical- Aerial	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Site Prep-Chemical- Hand	222	\$170.00	\$37,740.00	0	\$170.00	\$0.00	222	\$37,740.00
Site Prep -Slash Burning	286	\$97.00	\$27,742.00	0	\$97.00	\$0.00	286	\$27,742.00
Site Prep -Mechanical	222	\$85.00	\$18,870.00	0	\$85.00	\$0.00	222	\$18,870.00
Fertilization	0	\$130.00	\$0.00	0	\$130.00	\$0.00	0	\$0.00
Noxious weeds	30	\$60.00	\$1,800.00	0	\$60.00	\$0.00	30	\$1,800.00
Release-Chemical- Aerial	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Release,-Chemical-Hand	327	\$170.00	\$55,590.00	0	\$170.00	\$0.00	327	\$55,590.00
Release-Mechanical-Hand	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Precommercial Thinning	250	\$100.00	\$25,000.00	0	\$100.00	\$0.00	250	\$25,000.00
Pruning	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Other	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Totals	2,302	--	\$341,274.72	0	--	\$0.00	2,302	\$341,274.72

*Planting costs include all costs including seedlings

RECREATION MANAGEMENT SUMMARY

District: N. Cascade

Fiscal Year:

2008

Date:

10/19/2006

Operation	Unit of Measure	Current	Construction Projects	Construction Cost (Funding)		Improvement Projects	Improvement Cost (Funding)		Total Cost	Comments
				ODF	Other		ODF	Other		
Facilities										
Campsites	Sites	23	1	\$10,000	\$1,000				\$11,000	
Day Use Areas		2							\$0	
Trailheads		9							\$0	
Interpretive Sites	Shelter	2	1	\$50,000					\$50,000	
(Other)	Sites								\$0	
Trails									\$0	
Non-Motorized	Miles	21	11	\$63,000	\$5,000				\$68,000	
Motorized	Miles	0	6	\$0	\$10,000				\$10,000	
Maintenance									\$0	
Trails Inmates	NA			\$6,400					\$6,400	
Custodial Inmates	NA			\$16,800					\$16,800	
Custodial Contract				\$13,000					\$13,000	
Maintenance Supplies	NA			\$6,000					\$6,000	
Custodial Supplies	NA			\$2,000					\$2,000	
Portable Toilets				\$1,100					\$1,100	
Education/Interp.									\$0	
Supplies	NA			\$1,500					\$1,500	
Busing	NA			\$2,000					\$2,000	
Rentals	NA			\$1,600					\$1,600	
Volunteers										
Supplies	NA			\$4,000					\$4,000	
Total				\$177,400	\$16,000			Total:	\$193,400	