



# Oregon

John A. Kitzhaber, MD, Governor

## Department of Forestry

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June 9, 2014



STEWARDSHIP IN FORESTRY

To: Andy White, Area Director

From: Dan Goody, Astoria District Forester

CC: Liz Dent, State Forests Division Chief  
Brian Pew, State Forests Deputy Division Chief  
Rob Nall, State Forests Operations Coordinator

Re: Information Item – Approved Annual Operations Plan for FY 2015

The FY 2015 State Forests Annual Operations Plan (AOP) for the Astoria District is attached for your information. During my review of this plan, I have found that it conforms to the Oregon Forest Practices Act and is consistent with the 2010 Northwest Oregon State Forest Management Plan, the 2011 District Implementation Plan and the 2015 Annual Operation Planning Standards and Guidance.

During its preparation, this plan was reviewed by technical specialists from within the department and biologists from the Oregon Department of Fish and Wildlife. Their comments were received verbally and in writing and can be found in Appendix D of this AOP. The draft AOP also underwent a 45-day public comment period. All comments were carefully considered and incorporated where appropriate. All changes that have occurred since the public comment period ended are summarized in Appendix E of the AOP.

The management activities planned for this AOP are consistent with the FY 2015 budget level. Due to agency budget constraints, this budget allows for performing contractually and legally required activities. It also allows for the minimum activities to achieve social, environmental, and economic benefits, while emphasizing activities with higher economic return. The District Recreation Program will be directed at base level maintenance of existing infrastructure and trails.

As prepared, this AOP consists of 73.0 MMBF of harvest volume. This volume will be achieved through 832 acres of partial cut harvest and 1,487 acres of regeneration harvest. There are fourteen primary operations and fifteen alternate operations within this sale plan. The FY 2015 operations are estimated to generate gross revenues of approximately

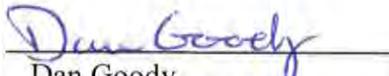
\$27,270,575 and net revenues of \$23,031,722 within Clatsop County. The objectives and specific plans for timber harvesting and the associated project work provide an accurate picture of what will be designed and prepared for contract in FY 2015. Due to the time lag associated with contract duration, most of the actual on-the-ground logging, project operations and projected revenues will not occur for a period of one to three years beyond the end of the fiscal year.

Approval of this plan does not constitute final approval of individual project details. Individual operations are subject to additional review processes at the district and program staff level before implementation. The planned amount and location of all management activities are based on the latest site-specific assessments and estimates of operational, T&E surveys and market variables. Management activity levels may be adjusted and modified to account for any significant changes to these variables. The district has included eleven alternate operations in this Annual Operations Plan. These alternate operations may be used to replace regular sales that cannot be completed as planned.

The official copy of this AOP will be on file at the district office. Additional copies are available at the State Forests Program office in Salem, and are also available on the ODF web site at:

[http://www.oregon.gov/odf/pages/state\\_forests/annual\\_operations\\_plans.aspx](http://www.oregon.gov/odf/pages/state_forests/annual_operations_plans.aspx)

Approved:

  
Dan Goody  
Astoria District Forester

# ASTORIA DISTRICT

## 2015 ANNUAL OPERATIONS PLAN

### OVERVIEW

This plan describes the activities and outcomes that Oregonians can expect to see on the Clatsop State Forest in 2015.

The Clatsop State Forest is an actively managed forest, valued by many Oregonians for its mixture of environmental, economic, and social benefits. This plan supports this mixture and provides a balance of these benefits as required by Oregon Administrative Rule (OAR 629-035-0020). We strive to manage the forest sustainably, so that the benefits from the forest can be delivered into perpetuity. The forest harvesting is planned at a sustainable level; a level that our computer models suggest can be harvested year after year without reduction.

The forest has a mixture of habitat types for all of Oregon's native wildlife. Recreational opportunities are diverse and high quality, allowing for off-highway vehicles, bicycling, hiking, hunting, horseback riding, and more, striving to minimize user and environmental conflicts in the context of a working forest.

Managing a large public forest has its challenges. In addition to the challenges of providing the opportunities described above, the forest is expected to be financially self-supporting. About two-thirds of the revenues from state forest timber sales go to local counties and other taxing districts, including schools. Oregon Department of Forestry (ODF) uses the remaining third of the revenue to manage the forests and keep them healthy, through activities including fire protection, tree planting, thinning, research and monitoring, recreation services, road maintenance and stream improvement.

Every year in the Clatsop State Forest, we learn new things and find new challenges and opportunities. In preparing this plan, we have consulted with geotechnical specialists, wildlife biologists, fish biologists, aquatic specialists, engineers, adjacent landowners, and a variety of interest groups.

Additionally, ODF has reviewed this AOP with, Clatsop County Commissioners, the Forest Trust Land Advisory Committee (representing the counties that deeded land to ODF), the State Forests Advisory Committee (SFAC - composed of Oregonians representing many interests), and the Oregon Department of Fish and Wildlife. The US Fish and Wildlife Service has had the opportunity to review all Biological Assessments pertaining to the Northern Spotted Owl.

It is through this collaborative approach that we can finalize this AOP as one we are confident will meet the ODF goals; achieving the greatest permanent value for the citizens of Oregon.

Several changes have occurred since the public comment period ended. Most notably, two fiscal year 2014 operations (Bull Ridge and Rector Combo) have been moved into the primary operation list for the 2015 AOP. If sold in FY14, the volume for these two operations would have increased the 14 AOP volume much higher than the planned amount. To keep with the direction and intent to harvest approximately 73 MMBF per fiscal year, we have moved these two operations into the 15 AOP as primary operations. Subsequently, two primary operations, Boiler Combo and Nowhere Land are now in the alternate list for 2015. A detailed list of all changes can be found in Appendix E.



### **A short summary of activities planned for the coming year:**

- Prepare to harvest approximately 73 million board feet of timber volume, through modified clearcut and partial cut harvest, generating revenue of over 23 million dollars. This harvest level is in alignment with longer term plans and modeling to ensure it is sustainable and promotes the development of a mixture of habitat types across the landscape.
- Of the 23 million in revenue Clatsop County will receive approximately two-thirds or 15 million dollars to distribute to various taxing districts within the County. The Department of Forestry will receive the remaining one-third or 8 million dollars.
- Planting 460,000 trees on 1,423 acres within the Clatsop State Forest.
- Protecting streams and water resources through a series of buffers and seasonal restrictions.
- Habitat development projects such as creating snags by removing tree tops, retaining green trees in clearcut areas, and leaving down wood, all for wildlife benefits in harvest areas and future forests.
- Maintain approximately 900 mile road network that provides access to timber harvest as well as various recreational opportunities.
- Conduct over 6,000 individual surveys for northern spotted owls.
- Survey approximately 40 miles of stream for the presence of fish.
- Conduct approximately 400 individual surveys for the marbled murrelet.
- Stream improvement projects. An initial screen suggests that streams near four planned harvest units could benefit from large wood additions to the stream system. These streams will be reviewed further during sale layout to confirm the large wood placement plan.
- Vacate approximately 3 miles of existing road; which includes 14 fills, four of which are on Type F streams; to enhance watershed health.
- Operate and maintain the following developed facilities in a safe, clean, and responsible manner:
  - Four campgrounds
  - One dispersed recreation area
  - Eight dispersed camp sites
  - Two interpretive sites
  - Six trailhead facilities
- Provide a safe and clean environment for the myriad of dispersed activities that occur across the forest – hunting, camping, angling, sight-seeing, target shooting, swimming, mushroom picking, etc.
- Maintaining, managing, and patrolling the motorized and non-motorized trail networks, striving to protect the trail investments, provide for user safety, address developing trail issues, and protect water quality.
- Continue to provide firewood cutting and special forest products (salal, mushrooms, etc.) permits.

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## INTRODUCTION

This annual operations plan (AOP) outlines state-owned forestland managed by the Astoria District for Fiscal Year 2015 (FY15), which begins July 1, 2014 and ends June 30, 2015. This document describes how the activities and projects undertaken by the district will achieve the goals, strategies, and objectives of the *NW Oregon Forest Management Plan (FMP)*, and the *Astoria District Implementation Plan (IP)*. Please refer to the district IP for more specific information on physical characteristics and other district resource information. The AOP document is divided into five major categories: Integrated Forest Management; Planning and Information Systems; Public Information and Education; Administration and Appendices. A short summary of proposed activities are listed within this introduction.

The proposed operations and activities are planned to be designed, engineered, and submitted for processing during the FY15 time period. Actual on-the-ground operations will likely not occur during FY15 due to the time-lag associated with contract duration, which could be one to three years after auction. In contrast, reforestation, young stand management, recreation management, and planning activities will be carried out during FY2015. A 45-day public comment was held from March 17, 2014 through May 2, 2014. Appendix E outlines changes made after the public comment period.

In addition to describing forest management activities for FY 2015, Appendix A of this AOP also describes *major changes\** being recommended to the State Forests' Forest Land Management Classification maps, including the implementation of High Value Conservation Areas. At the close of the public comment period, the District Forester will forward these changes with any public comments to the Area Director and State Forester for review and approval.

Accomplishments of forest management activities that occurred under previous AOPs can be found in several reports, including the *State Forester's Annual Report for the Association of Oregon Counties*, the *Common School Forest Lands Annual Report*, and individual district annual reports (these reports also cover the accomplishments of the Fire Protection and Private Forests Programs). These reports are available through the local district office or online.\*\*

\*Major changes and the procedures for making these changes are described in OAR 629-035-0060

\*\*The State Forests' individual district annual reports are available on the Oregon Dept. of Forestry website under "Publications." You can access here:  
<http://www.oregon.gov/odf/Pages/pubs/publications.aspx>

# **Integrated Forest Management Operations**

## **Timber Harvest Operations**

### **Overview of Timber Harvest Operations**

This AOP contains 14 primary operations comprised of 832 acres of partial cut harvests and 1,487 acres of regeneration harvest. The operations range in timber volume from 2.45 to 11.2 million board feet (MMBF) and have an estimated gross revenue of approximately \$27.3 million dollars. Net revenues are estimated to be \$23.0 million dollars. A detailed financial summary is included in Appendix B.

FY 2015 AOP guidance directs the Astoria District to achieve 74.3 MMBF. At this time, all of the FY 2014 operations have been prepared yielding approximately 1 MMBF over the FY14 target volume of 74.4 MMBF. Since we have gone 1 MMBF over in volume, the district has decided to reduce the FY 2015 volume target by 1 MMBF, to a volume of 73.0 MMBF. Appendix B has been updated to reflect these changes.

As planned, these operations are estimated to primarily contain conifer species. Hardwoods are not anticipated to make up a significant amount of volume. Operations will be conducted on approximately 1.8% of the district's total acres. Of this 1.7%, approximately 0.6% is partial cut harvest and 1.1% is regeneration harvest.

Table 1. Annual Operations Plan objectives compared to annual objectives identified in the Astoria District Implementation Plan. All values are expressed in acres.

<b>Silvicultural Activity</b>	<b>IP Annual Objective</b>		<b>2015 AOP Objective</b>
	<b>Low</b>	<b>High</b>	
Partial Cut Harvest	605	3,430	832
Regeneration Harvest	285	1,615	1,487

Below are definitions of the most common harvest types, followed by more specific examples of the planned operations.

The definitions of the harvest types used to describe timber harvesting on State Forests can be found on the [State Forests website](#) under Forest Management and Planning. The most common harvest types can be found below:

**Partial Cut Harvest (PC):** The intent of a partial cut harvest is to manage the growth and density of an existing stand. A prescription for partial cut may be designed to increase the structural complexity of a stand, maximize volume growth, or capture tree mortality. A stand may be partial cut many times throughout its life. Partial cuts leave 80 or more square feet of basal area per acre on Site Class I, II, or III. The partial cuts in this plan will reduce stand density to a Stand Density Index range of 20 to 45 percent of maximum stand density.

Stands designated for partial cut harvest in this operations plan fit into one or more of the following situations: stands that are currently Closed Single Canopy (CSC) or Understory (UDS) that are on a pathway to more complex structures; stands that need to be maintained as Layered (LYR); or to move stands on a pathway to Older Forest Structure (OFS); or to increase stands future volume/value while capturing mortality and promoting a second cohort of species. These operations thin conifers and hardwoods to maintain vigorous tree growth, retain deeper crowns and allow light onto the forest floor to initiate understory vegetation establishment and growth.

While partial cut prescriptions will increase tree growth, actual growth response in the understory will vary depending on several factors. Some of these factors include, but are not limited to: density of

residual overstory trees, available seed source of shade tolerant tree species, existing ground cover, and site preparation. With the right combination of these factors, initiation of a shade tolerant conifer understory is very likely. In other cases, shade tolerant trees may have to be planted if a complex structure is desired. Yet in some partial cut stands, where there is no complex desired future condition (DFC) assigned, the following active management entry may be a clearcut harvest. In which case, establishment of an understory stand is not a priority.

The “non-thinnable” areas that often exist within partial cuts are made up of hardwoods, brushy areas, adequately stocked conifer, a mix of both adequately stocked conifer and hardwoods, or non-merchantable trees. These areas usually range in size from 1 acre to 20 acres. Leaving these areas unthinned contributes to biological diversity across the landscape.

Numerous green trees are retained on each acre of partial cut allowing for additional snag and down wood recruitment through natural processes over time.

**Regeneration Harvest:** The intent of a regeneration harvest is to develop a new stand. In general, residual trees left after a regeneration harvest are intended to remain on the site through the life of the new stand. There are two types of regeneration harvest - retention cut and modified clearcut:

**Retention Cut (RT):** These operations leave approximately 33-80 square feet of basal area on Site Class I, II, or III. The residual trees are well distributed across the harvest unit. These operations leave approximately 5-10 wildlife trees and 2-6 snags per acre with preference given to the biggest and best green trees in addition to the trees in riparian areas.

**Modified Clearcut (MC):** Generally, all regeneration harvest referenced in the Pre-Operations reports fall into this classification. These operations leave less than 33 square feet of basal area on Site Class I, II, or III. Harvest will leave an average of 5-10 wildlife trees and 2-6 snags per acre. The leave trees may be scattered across the unit or clumped. Areas of green tree retention are included in harvest areas and are located along the riparian areas, on steep slopes above streams, inoperable areas, and/or in operationally strategic areas.

Stands designated for regeneration harvest in this operations plan fit into one or more of the following situations: over-stocked and dense stands, under-stocked stands, diseased stands, stands that are surplus to the complex structure targets in the desired future condition landscape design, highly marketable stands, and stands in areas that would provide an opening in the landscape to temporarily serve as big game foraging habitat and increase landscape diversity.

Structural habitat components such as snags and down wood are considered for all harvest prescriptions. In the case of regeneration harvests, it is essential to incorporate structural habitat components into the management prescription to ensure they are retained.

Structural components may be retained at higher levels in some units and at lower levels in other units. The intent is to achieve the targets outlined in the Forest Management Plan strategies in a given annual operations plan. The estimates used in the pre-operation reports for existing snags and down wood are generally based on SLI data for the sale areas. The estimates of the post harvest expectations are based on ocular estimates, past contracts, monitoring results, or SLI data for that basin. During sale layout, cruise data gives a more recent account of the number of existing snags per acre. It is from the current cruise information that the remaining number of snags needed is tallied. If needed, additional green trees will be marked as wildlife trees for future snag recruitment or trees may be topped or girdled. It is rare that the conifer downwood requirements of 600-900 cubic feet per acre cannot be met, however, this type of situation would be where a higher amount of downwood would be left on another unit in the basin making up for the lower levels in the hardwood stand. A District analysis of downwood and snags is typically done annually to monitor the landscape level goals.

The process of producing an array of forest stand structures across the landscape is a gradual one. A variety of silvicultural practices will be used to actively move the forest towards the desired range of stand structures outlined in the IP (see Table 12 in the IP, page 73).

In the Astoria District, laminated root rot disease is prevalent at endemic levels throughout much of the forest. Generally, stands infected with this disease retain the pathogen at moderate to low levels and cause tree mortality of individuals or in small groups. This endemic level of infection helps to create snags, provides additional sources of downed wood and small openings within denser stands, and is generally not treated. If higher levels of laminated root rot exist, other prescriptions for treatment of the disease may be implemented in conjunction with the desired future condition and the landscape plan. Prescriptive treatments to heavily infected stands may include modified clearcuts or limited patch cuts, followed by replanting these sites with disease resistant species, such as red alder or western red cedar. Tree protection measures are prescribed when planting western red cedar as this species is resistant to laminated root rot but highly susceptible to big game browse.

All of the Primary and Alternate harvest operations and many of the other forest management activities have been reviewed by ODF's wildlife biologists, aquatic specialist, geotechnical specialist, road engineer, operations coordinator, and fish and wildlife biologists from the Oregon Department of Fish and Wildlife. Information on operations that occur within the provincial circle of a northern spotted owl has been provided to the US Fish and Wildlife Service. Occasionally, operations may contain a resource or activity that needs to be reviewed by another state agency, such as the Department of Agriculture or the Department of State Lands. Written comments from the external resource specialists and the resolution of those comments can be found in Appendix D.

Some smaller additional operations targeting infrastructure maintenance will also produce timber volume during the 2015 fiscal year. These small operations are not included as part of the AOP because they affect a very small area, produce little volume or revenue, and do not require significant effort to develop and execute. For example, a sale may be set up to thin the trees in an ODF Campground to remove unsuitable trees, improve safety and improve growing conditions for the remaining trees. Several other sales may remove trees adjacent to main haul roads to allow roads to dry and improve drainage. These sales will be less than \$100,000 in value and comply with all policies and plans.

## **Minor Landscape Design Modifications**

The landscape design is a long term vision of the Desired Future Condition (DFC) for an array of stand structures across the district which will be achieved through a variety of silvicultural prescriptions across diverse stand types.

The District's vision for future development of complex and general stands on the landscape is described and mapped in the Astoria District Implementation Plan. The Landscape Design is composed of stands occupying 30 percent of the district that is to be managed for DFC – Complex structure, either Layered (LYR) or Older Forest Structure (OFS). Management of DFC – Complex structure usually consists of partial cuts only. The DFC of the remaining 70 percent of the district is called General. A DFC of General allows for a variety of management options including both partial cuts and modified clearcuts. The "Harvest Operations – Stand Structure Summary" table in Appendix B provides an overview of the current condition of the Primary Harvest Operations and their anticipated stand structure five to ten years after harvesting has been completed. In addition, this table provides a summary of the DFC of the Primary Harvest Operations.

The development of the landscape design during implementation planning is generally conducted at the stand level, or higher, using the best available information at the time. Recognizing that some minor changes will be necessary during operational planning. Modifications will be described annually in the AOP and documented in Table 1A. Minor changes to a landscape design will not exceed 240 acres in an AOP.

Table 1A. Minor Landscape Design Modifications

Description of Changes	LYR Acres	OFS Acres
Beginning Acres (2011 IP)	20,699	20,576
Revised Acres (July 1, 2012)	20,655	20,642
<i>Revised Acres (July 1, 2013)</i>	20,655	20,708
Green Mountain Area Revision	+28	
<i>Revised Acres (July 1, 2014)</i>	20,683	20,721

No DFC changes were made for any operation in this AOP. As illustrated in Table 1A, one modification was made to the landscape design in the Green Mountain area on the east side of the Astoria District. The DFC GIS layer was created using large stand polygons that tend to not match operational boundary's such as roads, streams, and/or ridges. If mapping errors are found to exist, this section of the AOP will describe the change made and why. In this case, approximately 46 acres of a larger stand type was erroneously placed in the DFC layer, overlapping a sold modified clearcut. This modified clearcut had been planned years earlier, under a different version of the district's landscape design. This 46 acres has been removed from the DFC and an adjacent stand consisting of 74 acres has been added. This resulted in 28 additional acres of LYR in the Districts DFC layer. Additionally, the current OFS GIS acreage total is 20,721. This is slightly more than the 20,708 acres reported in last years' AOP. This table has been updated to match current GIS acres.

### Harvest Operations within Terrestrial Anchor Sites and Aquatic Anchors

The State Forests' Species of Concern Strategies specifically identifies fish and wildlife species of concern on the Clatsop State Forest. Two of these strategies are incorporating Terrestrial Anchor Sites (TAS) and Aquatic Anchor (AA) sites into the forest.

- Terrestrial Anchor Sites (TAS):** are intended to benefit terrestrial wildlife species of concern, especially those: associated with older forest or interior habitat conditions, sensitive to forest fragmentation, or those that do not readily disperse across younger forest conditions.. Management within a TAS is intended to be limited, to emulate natural small-scale disturbance patterns, and to minimize short-term negative impacts to habitat. All TAS areas were designated for the development of complex structure in the Landscape Design.
- Aquatic Anchor (AA):** sites are watersheds where salmon and aquatic amphibian conservation is of concern. Riparian management strategies beyond those described in the FMP will be applied within AAs. In addition, areas designated for the development of complex structure in the Landscape Design are clustered around streams important to fish in the AA.

The Species of Concern Strategies provide long term goals for TAS and AA. Any management activities within those areas are designed to achieve those goals. These strategies have not identified specific limits to the total area that can be harvested within these areas; however, the district and resource specialist will be tracking the harvest trends within these areas.

The TAS comprise approximately 8% of the Astoria District. It's important in selecting stands for harvest and developing prescriptions in these areas to ensure these harvest activities achieve the goals of the TAS. Table 1B summarizes harvest operations within the TAS (proposed in the 2015 AOP) and the cumulative operations in the TAS since the strategy was adopted (AOPs 2012 through 2015). In this AOP, there will be no clearcuts within the TAS and 0.9% (97 acres) of the total TAS acres will be partial

cut. Since FY12, operations have been planned in the Sweethome and Plympton TAS consisting of portions of five partial cut areas (191 acres) and a two retention cuts (10 acres).

Table 1B. Summary of Harvest Operations within TAS (Acres and Percent)

Acres within TAS	Current AOP (2015)		Cumulative Harvest (Since 2012)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Entire District (137,003 Ac.)	<b>1,487</b>	<b>832</b>	<b>5,538</b>	<b>6,055</b>
% of District Acres	1.1%	0.6%	4.0%	4.4%
Buster (4,598 Ac.)	-	-	-	-
% of TAS Acres	-	-	-	-
Plympton (4,075 Ac.)	-	<b>70</b>	-	<b>70</b>
% of TAS Acres	-	1.7%	-	1.7%
Sweethome (2,274 Ac.)	-	<b>27</b>	<b>10</b>	<b>121</b>
% of TAS Acres	-	1.2%	0.4%	5.3%
All TAS (10,947 Ac.)	-	<b>97</b>	<b>10</b>	<b>191</b>
% of all TAS Acres	0.0%	0.9%	>1%	1.7%

Effective July 1, 2013 (2014 AOP), the AAs comprise approximately 23% of the Astoria district. The AA strategies focus on protection of riparian areas within the AA watersheds. Harvest in these basins require additional stream buffers contributing towards longer term riparian protection. Since the boundaries of these anchors are watersheds, these anchor basins cross lands not managed by ODF. Of the five anchor basins in the Astoria District, two are almost completely on District ownership and three have acreage on other ownerships. In this AOP, 1.8% (564 acres) of all AAs on the Astoria district will be modified clearcut and 0.5% (167 acres) will be partial cut.

Table 1C. Summary of Harvest Operations within AA (acres and percent)

Acres within AA's (Acres listed are ODF Astoria District only)	Current AOP (2015)		Cumulative Harvest (Since FY 2014)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Entire District (137,003 Ac.)	<b>1,487</b>	<b>875</b>	<b>2,639</b>	<b>2,932</b>
% of District Acres	1.1%	0.6%	1.9%	2.1%
Northrup Creek (7,207 Ac.)	<b>275</b>	-	<b>275</b>	-
% of ODF Acres	3.8%	-	3.8%	-
Buster Creek (10,874 Ac.)	<b>258</b>	<b>167</b>	<b>287</b>	<b>440</b>
% of ODF Acres	2.4%	1.3%	2.6%	4.0%
Upper Rock Creek (3,498 Ac.)	-	-	-	-
% of ODF Acres	-	-	-	-
Upper North Fork Nehalem (9,908 Ac.)	<b>31</b>	-	<b>81</b>	<b>460</b>
% of ODF Acres	0.3%	-	0.8%	4.6%
Coal Creek (183 Ac.)	-	-	-	-
% of ODF Acres	-	-	-	-
All Aquatic Anchors (31,670 Ac.)	<b>564</b>	<b>167</b>	<b>643</b>	<b>900</b>
% of ODF Acres	1.8%	0.5%	2.0%	2.8%

## Summary of Timber Harvest Operations by Basin

In the following section, the commercial forest management operations planned for FY 2015 will be summarized in the context of the 17 management basins on the Astoria District. ODF and ODFW resource specialists reviewed the FY 2015 operations plan and provided input. Individual pre-operation reports include information on riparian protection and structural components such as snags, down woody debris, and green tree retention (these reports are available upon request). Since the Forest Management Plan strategies provide standards for these components, they are not directly addressed in this AOP. Road concerns and standards are discussed in the Transportation Planning and Harvesting section.

Table 2. Summary of Timber Harvest Operations in each basin. All values are in net acres.

Basin	2015 AOP	
	Partial Cut	Clearcut
Astoria	0	0
Beneke	79	208
Buster	167	339
Crawford	0	0
Davis	0	41
Fishhawk	0	0
Gnat	31	104
Hamilton	123	200
Klaskanine	0	0
Lousignot	0	0
N. Fork Nehalem	0	0
Northrup	0	275
Plympton	394	40
Quartz	0	0
Sager	0	0
Scattered	0	0
Sweethome	38	280

Descriptions of operations occurring in each basin can be found below. In each basin where harvest will be occurring, the expected change in the current condition is noted. Changes in CSC, UDS, LYR and OFS are estimated to occur 5-10 years post harvest. The harvest occurring in each basin during FY15 is within the anticipated trajectory towards the DFC goal for that basin. The DFC goals for each basin are outlined in the Astoria District Implementation Plan.

### **ASTORIA BASIN**

**Boiler Combo (Alternate Operation):** This operation is comprised of five partial cut units totaling 136 acres and four modified clearcut units totaling 123 acres. Areas 2, 6, 7, 8 & 9 are approximately 33 years old and are generally in the CSC condition. These stands will have a “first entry thinning” which will remove approximately half of the basal area. This will allow the residual stand to thrive and grow into a stand that will have a variety of management options available in the future. The DFC of Area 2 is LYR and the DFC for Areas 6-9 is General. Areas 1, 3, 4, & 5 are between 40 – 50 years old. These stands are generally in the CSC condition and have a DFC of General. They will be harvested and replanted with a mixture of species.

### **BENEKE BASIN**

**Bull Nose:** This operation is comprised of three modified clearcuts totaling 208 acres. The stands range between 70-80 years old and are in the LYR or UDS condition. The DFC for all areas in this sale

is General. The stands will be harvested and replanted with a mixture of species allowing for a variety of management options in the future.

**Bull Ridge – Area 3:** This sale area consists of 79 acres of partial cut harvest. Primary species for this unit is western hemlock. This stand is currently in the UDS stage and has a DFC of LYR. The stand is approximately 71 years old.

**Packy (Alternate Operation):** This operation is comprised of three modified clearcuts totaling 213 acres. The stand ages range from 54-68 years old and have a mixture of LYR, UDS, & CSC conditions. The DFC for all areas is General.

## **BUSTER BASIN**

**Dragon Buster:** This operation consists of one modified clearcut totaling 52 acres and two partial cut units totaling 167 acres. Area 1 is approximately 73 years old and is in the UDS condition. The sale area has a DFC of General. Once harvested the sale area will be replanted with a mixture of species, allowing for a variety of future management options. Area 2 & 3 are approximately 80 years old and are currently in the LYR condition. The DFC for these sale areas is OFS. The thinning prescription will be one that accelerates these stands to OFS as quickly as possible.

All sale areas for this operation are within the Buster Creek Aquatic Anchor. As a result, all Type F, and large and medium Type N streams will have a 100 foot no-harvest buffer and all small, perennial, debris flow-prone, and high-energy Type N streams will have a 50 foot no-harvest buffer.

**Oz:** This operation is comprised of two modified clearcut units totaling 81 acres. The sale areas are approximately 60 years old and are currently in the UDS condition. The sale areas will be replanted after harvest with a mixture of species. The DFC for both sale areas is General.

**Wage Against the Machine:** This operation consists of four modified clearcuts totaling 206 acres. The stands range from 72-77 years old and are currently in the UDS condition. The DFC for all the stands in this operation is General. After harvest, the stands will be replanted with a mixture of species allowing for a variety of future management options.

All sale areas for this operation are within the Buster Creek Aquatic Anchor. As a result, all Type F, and large and medium Type N streams will have a 100 foot no-harvest buffer and all small, perennial, debris flow-prone, and high-energy Type N streams will have a 50 foot no-harvest buffer.

**Green Olive (Alternate Operation):** This operation consists of three modified clearcut units totaling 134 acres. The sale areas are approximately 70 years of age and are a mix of CSC and LYR conditions. The DFC for all sale areas is General.

**Homesteader (Alternate Operation):** This operation consists of three partial cut units totaling 234 acres and four modified clearcut units totaling 203 acres. Area 1 is a partial cut unit that is approximately 35 years old and currently in the UDS condition. The DFC for this area is General. Due to the stand age and condition this will be a first entry thinning aimed at maximizing tree growth for the future. Areas 3 & 5 are partial cut units approximately 74 years of age. Area 3 is currently in the UDS condition and has a DFC of OFS. Area 5 is currently in the LYR condition and has a DFC of OFS. The thinnings on these areas will be done to elevate the stands to the OFS condition. Areas 2, 4, 6, & 7 are modified clearcuts ranging from 63-88 years of age. The stands within these areas are generally in the LYR condition with a portion of Area 2 being in the UDS condition. The DFC for these areas is General. Areas 3 and 5 are partially within the Buster Creek Aquatic Anchor.

## **CRAWFORD BASIN**

There is no harvest planned in this basin for FY 2015.

## **DAVIS BASIN**

**String Bean Areas 1 & 2:** This sale consists of four sale areas; two are in this basin and two are in the Plympton Basin. Areas 1 and 2 are modified clearcut units totaling 41 acres. The sale areas range from 76-82 years old and are currently in the LYR condition. The DFC is General. After harvest these stands will be replanted with a mixture of species allowing for a variety of future management options.

**Petersen Heights (Alternate Operation):** This operation consists of one modified clearcut totaling 13 acres and two partial cuts totaling 269 acres. Area 2 is a modified clearcut that is approximately 47 years of age. The current condition is UDS with a DFC of General. Areas 1 and 3 are partial cut units approximately 50 years old. Area 1 has a current condition of UDS and Area 3 has a current condition of CSC and UDS. Both sale areas have a DFC of General.

## **FISHHAWK BASIN**

There is no harvest planned in this basin for FY 2015.

**Greasy Hawk (Alternate Operation):** This sale consists of two modified clearcuts totaling 152 acres. The stands in this sale are approximately 76 years old. Area 1 is currently a mix of the LYR and UDS conditions, while Area 2 is currently UDS. The DFC for all areas is General.

## **GNAT BASIN**

**Knob Point Combination:** This operation consists of one partial cut unit totaling 31 acres and three modified clearcut units totaling 104 acres. Areas 1, 2 and 4 are modified clear cut units ranging from 44-54 years in age. These sale areas are currently in the UDS condition and have a DFC of General. After harvest, the stands will be replanted with a mixture of species allowing for a variety of future management options. Area 3 is a partial cut unit that is 47 years old and currently in the LYR condition. The stand will be thinned to maintain the LYR condition. Note: It is likely that this stand is UDS and not LYR, this will be verified during sale layout. The DFC for this stand is General.

**Frosty Shingle (Alternate Operation):** This operation consists of one partial cut unit totaling 145 acres and one modified clearcut unit totaling 37 acres. Area 1 is a partial cut unit that is approximately 56 years of age and is currently in the UDS condition. The DFC for Area 1 is General. Area 2 is a modified clearcut unit approximately 57 years of age and currently in the UDS condition. The DFC for Area 2 is General. This operation is partially within the Northrup Creek Aquatic Anchor.

**Noisy Thin (Alternate Operation):** This operation consists of three partial cut units totaling 329 acres. The stands range from 35-37 years of age and are in the UDS and CSC condition. The DFC for all the areas is General.

## **HAMILTON BASIN**

**Swede Retreat:** This operation consists of one partial cut unit totaling 60 acres and three modified clearcut units totaling 114 acres. Areas 1, 3, and 4 are modified clearcuts ranging from 63-68 years in age. The stands are mostly in the UDS condition and have a DFC of General. After harvest these stands will be replanted with a mixture of species to allow for a variety of future management options. Area 2 is a partial cut unit approximately 65 years old. The stand is currently in the LYR condition and has a DFC of OFS. The thinning will be done to promote the stand towards the OFS condition.

**Bull Ridge – Areas 1 and 2:** These sale areas consist of one modified clearcut totaling 86 (Area 2) acres and one partial cut unit of 63 acres (Area 1). Area 3 of this sale falls within the boundaries of the Beneke Basin. Primary species for Areas 1 and 2 are Douglas-fir and western hemlock with a cedar component as well. Area 1 is generally in the UDS stage, with 12 acres classified at LYR, and has a DFC of OFS. Area 1 ranges in age from 75 to 92 years. Area 2 is generally in the LYR stage, with 9 acres classified as UDS, and has a DFC of General. Area 2 is approximately 74 years old.

## **KLASKANINE BASIN**

There is no primary operation planned in this basin for FY 2015.

**South Fork Thin (Alternate Operation):** This operation consists of two partial cut units totaling 158 acres. The stands are approximately 30 years of age and are a mix of CSC and UDS. The DFC for all sale areas is General.

## **LOUSIGNOT BASIN**

There is no primary operation planned in this basin for FY 2015.

**King Louis (Alternate Operation):** This operation consists of four modified clearcut units totaling 164 acres. The stands range between 64-75 years old and are all in the UDS condition. The DFC for all sale areas is General.

**Lost Pony (Alternate Operation):** This operation consists of two modified clearcut units totaling 159 acres. The stands are generally approximately 70 years old with some imputed stand information showing the ages between 83-112 years. The current condition is a mix of CSC, UDS and LYR. The DFC for all stands within the sale is General.

## **NORTH FORK NEHALEM BASIN**

There is no harvest planned in this basin for FY 2015.

## **NORTHRUP BASIN**

**Cowabunga:** This operation consists of three modified clearcuts totaling 93 acres. The stands are approximately 65 years old and have a current condition of UDS. The DFC for these stands is General. After harvest, the stands will be replanted with a mixture of species allowing for a variety of future management options.

All sale areas for this operation are within the Northrup Creek Aquatic Anchor. As a result, all Type F, and large and medium Type N streams will have a 100 foot no-harvest buffer and all small, perennial, debris flow-prone, and high-energy Type N streams will have a 50 foot no-harvest buffer.

**Nowhere Land (Alternate Operation):** The operation consists of two modified clearcut units totaling 137 acres. The sale areas range from 72-75 years of age and are currently in the UDS condition. The DFC of these stands are General. After harvest, these stands will be replanted with a mixture of species to allow for a variety of future management options.

All sale areas for this operation are within the Northrup Creek Aquatic Anchor. As a result, all Type F, and large and medium Type N streams will have a 100 foot no-harvest buffer and all small, perennial, debris flow-prone, and high-energy Type N streams will have a 50 foot no-harvest buffer.

**Treasure Island:** This operation consists of three modified clearcut options totaling 182 acres. The stands are generally between 60 and 70 years old. The current condition of the sale areas is UDS with the exception of six acres of LYR in Area 2, and 10 acres of CSC in Area 3. The DFC for all areas is General.

All sale areas for this operation are within the Northrup Creek Aquatic Anchor. As a result, all Type F, and large and medium Type N streams will have a 100 foot no-harvest buffer and all small, perennial, debris flow-prone, and high-energy Type N streams will have a 50 foot no-harvest buffer.

## **PLYMPTON BASIN**

**String Bean Areas 3 & 4:** This operation consists of four sale areas; two are in this basin and two are in the Davis Basin. Areas 3 and 4 are modified clearcuts totaling 40 acres. Area 3 is 67 years old and Area 4 consists of 8 acres that is 102 years old. Area 3 is currently in the UDS condition and Area 4 is currently LYR. All sale areas have a DFC of General. After harvest, these stands will be replanted with a mixture of species to allow for a variety of future management options.

**Microwave Thin:** This operation consists of three partial cut units totaling 394 acres. Stand ages range from 44-74 years old. The current condition is primarily a mixture of CSC and UDS with 45 acres of LYR existing within Area 3. All three areas have a DFC of both LYR and General. All of Areas 1 & 2 and a portion of Area 3 is within the Plympton Ridge Northern Spotted Owl Circle. A preliminary Biological Assessment has been done in conjunction with the planning of this sale. This operation has been given a low risk rating of causing harm to the NSO. The sale has been designed to enhance NSO habitat as well as to promote layering across all the stands.

Approximately 25 acres within Area 1 and 45 acres within Area 2 are within the Plympton Terrestrial Anchor. Thinning is anticipated to move the stands towards a more complex structure more quickly than would occur without management. The sinuous nature of the sale boundary as well as the thinning “skips” (as described in the Biological Assessment) will provide for a variety of species including the NSO that will enhance habitats for various species of concern.

## **QUARTZ BASIN**

**Spruce Run Ridge (Alternate Operation):** This operation consists of one partial cut unit totaling 210 acres. The stands are approximately 61 years old and are in the UDS condition. The DFC for this sale area is LYR. The thinning will be done to accelerate reaching the LYR condition.

## **SAGER BASIN**

There is no primary operation planned in this basin for FY 2015.

**Meier Mainline Combo (Alternate Operation):** This operation consists of one modified clearcut totaling 51 acres and four partial cut units totaling 263 acres. Area 4 is a modified clearcut approximately 92 years of age. The stand is currently in the UDS condition and has a DFC of General. Areas 1, 2, and 3 are partial cut units that are approximately 37 years of age. The stands are currently in the UDS condition and have a DFC of General. Area 5 is a partial cut that is approximately 112 years of age and is currently in the UDS condition. The DFC for this stand is LYR.

## **SCATTERED BASIN**

There is no harvest planned in this basin for FY 2015.

## **SWEETHOME BASIN**

**Beaver Challenge:** This operation consists of two modified clearcuts totaling 137 acres. The stands range from 62 years old in Area 2, to 112 years old in Area 1. Area 1 is currently an even mix of UDS and LYR stands, while Area 2 is currently UDS. All sale areas have a DFC of General. After harvest, these stands will be replanted with a mixture of species to allow for a variety of future management options.

**Moonlight Drive:** This operation consists of two modified clearcut units totaling 93 acres. The stands range from 67-72 years of age; with Area 1 being in the UDS condition and Area 2 being in the LYR condition. Both sale areas have a DFC of General. After harvest, these stands will be replanted with a mixture of species to allow for a variety of future management options.

Area 2 of this operation is within the North Fork Nehalem Aquatic Anchor. As a result, all Type F, and large and medium Type N streams will have a 100 foot no-harvest buffer and all small, perennial, debris flow-prone, and high-energy Type N streams will have a 50 foot no-harvest buffer.

**Rector Combo:** This operation is comprised one modified clearcut, totaling 50 acres and one partial cut unit, totaling 38 acres. The primary species for Area 1 is western hemlock that is approximately 63 years old. The primary species for Area 2 is western hemlock that is approximately 63 years old. The current condition of Area 1 is LYR and the current condition for Area 2 is LYR and UDS. The DFC of Area 1 is General and for Area 2 it is LYR. Upon completion, Area 1 will be replanted mixture of conifer species. Area 2 will be moderately thinned to promote the DFC of LYR.

Area 2 of the Rector Combo sale is within the Sweethome Terrestrial Anchor Site. At the time of writing this, the boundary for Area 2 has been posted resulting in 27 net acres. This is less than the approximated 38 acres that the pre-operations report details.

**Quarter Mile (Alternate Operation):** This operation consists of one modified clearcut totaling 68 acres. The stand age is 60 years old and the current condition is UDS. The DFC for this stand is General.

## **Forest Roads Management**

### **Overview**

A variety of forest road and transportation system management and land surveying activities are planned for this AOP. Primary objectives include providing forest access and meeting the goals, objectives and standards contained in the *Forest Roads Manual*. As site specific information is gained during the preparation of planned management activities, emphasis will be given to refinement of Level III Transportation Plans in conformance with:

- The 12 Guiding Principles for Road Management
- Oregon Department of Forestry Road Standards

Additionally, Board of Forestry Performance Measures, adopted in 2008 set targets for the State Forests Division to achieve. Performance Measure 5 was specific to road management and is described as follows:

***The Board of Forestry Performance Measure #5 directs that the Clatsop State Forest will:*** Reduce the miles of hydrologically connected roads to less than 15 percent of the road network within the next ten years, and maintain or improve that level of reduction for the following ten years. Reduce the number of road crossings that are barriers to fish passage to less than 2 percent within the next ten years, and maintain or improve that level of reduction for the subsequent ten years.

- a. Percent of State Forests roads that have hydrologic connection to stream networks
- b. Percent of State Forests stream crossings on fish streams with barriers to adult or juvenile migration

Project work associated with these sales is anticipated to further the intent of Performance Measure 5:

- Bull Nose
- Dragon Buster
- Knob Point Combination
- Microwave Thin
- Moonlight Drive
- Treasure Island
- Wage Against the Machine

Exact details of each project, such as cross drain locations, are not known at this time and will be further refined upon sale and project field layout.

A summary of estimated values for planned timber operation road and project work activities is shown in the Forest Roads Summary Table, in Appendix B. Estimated project values for alternate timber sales have not yet been fully determined.

## Road Construction

The planned harvest operations in this AOP anticipate the construction of 14.4 miles of Spur roads. Approximately 8% or 1.1 miles are planned to be native earth (dirt) roads. All dirt spurs will be blocked or vacated upon completion of road use. In addition to the blocked dirt spurs, there will be 3.35 miles of spurs vacated.

Therefore, this Operations Plan will increase the amount of active roads by an estimated 10.05 net miles.

## Road Improvement

Road improvement projects will use ODF road inventory protocols to assess existing road drainage, stability, surfacing and vegetation conditions, and to aid in the development of transportation system improvement plans.

- Approximately 1.7 miles of Mainline, 35.8 miles of Collector, and 22.8 miles of Spur roads are identified for improvement with planned operations.

## Road Access Management

Approximately 4.45 miles of roads are identified for closure and/or permanent vacating with these operations, as follows:

- Bull Nose: Road closure includes approximately 0.8 mile of dirt spur road.
- Bull Ridge: Road closure includes approximately 0.25 mile of rocked spur road.
- Microwave Thin: Road closure includes approximately 1.0 mile of rocked spur road.
- Moonlight Drive: Road closure includes approximately 0.6 mile of rocked spur road.
- String Bean: Planned road closures include approximately 0.2 mile of dirt road constructed for timber sale access and 0.1 mile of rocked spur road.
- Swede Retreat: Planned road closures include approximately 0.9 miles of dirt road constructed for timber sale access and 0.5 mile of rocked collector road.
- Wage Against the Machine: Road closure includes approximately 0.1 mile of rocked spur road.

Old abandoned or legacy type roads found during sale layout will be evaluated for vacating.

## Other Road Management Activities

Rock quarry development and/or rock crushing is necessary to provide sufficient quantities of road rock for planned road construction, road improvement, and road maintenance activities. Quarry developments are planned for the following operations:

- Beaver Challenge
- Bull Nose
- Bull Ridge
- Microwave Thin
- String Bean
- Swede Retreat
- Treasure Island
- Wage Against the Machine

## Road Maintenance

Planned road maintenance activities will be accomplished by timber sale contracts and by the district road crew. A breakdown of planned road maintenance activities follows:

- Timber Sale Contracts: Approximately 115.7 miles of active road maintenance (associated with FY 2015 hauling operations and road use) is planned within timber sale contracts.
- Approximately 60 miles of mechanical road brushing and spraying is planned for State Forest roads in this operations plan.

District Road Crew: The District road crew will perform routine road maintenance activities on approximately 50 miles of inactive and active forest roads located throughout the District.

## **Land Surveying**

Land surveying may be necessary for the following timber sales:

- Beaver Challenge
- Bull Nose
- Knob Point Combination
- Microwave Thin
- Moonlight Drive
- Nowhere Land
- South Fork Thin
- String Bean
- Swede Retreat

## **Young Stand Management**

The young stand management program involves the application of various silvicultural treatments intended to create diverse management options for future stand and forest development under the objectives of the Northwest Forest Management Plan. These applications include site preparation, fertilization, planting, interplanting, underplanting, rehabilitation, vegetation management, invasive species control, tree protection, pre-commercial thinning, and pruning. To meet the objectives of the Northwest Oregon Forest Management Plan, specific prescriptions of the above applications must be developed for each set of forest and environmental conditions.

Forest health strategies within this program focus on a diverse composition of tree species to provide stability and resiliency to the forest, especially with regard to pests. Implementation of a diversity of tree species at the time of reforestation can minimize the levels and severity of pest outbreaks, while diversifying the forest both structurally and compositionally. Enhancing the diversity of native species contributes to habitats and conditions suitable for many natural dynamics that keep pest populations and damage within acceptable levels. The program incorporates improved and locally collected seed, with a greater resistance to native and non-native pests. This integration process reduces the susceptibility to forest health issues of Northwest Oregon such as Swiss Needle Cast.

The utilization of South Fork crews has become essential to the success of young stand management on the Clatsop State Forest. Activities such as tree protection (trapping), noxious weed control, mechanical hand release, and seed collection will be accomplished by South Fork inmate crews. Budget reductions have streamlined the ODF funded activities to the minimum amount necessary to meet the long term goals and objectives of the State Forest's Management Program. In past years, American Recovery and Reinvestment Act (ARRA) funding has been utilized to accomplish such tasks as pre-commercial thinning and invasive weed treatment. Funding for the ARRA program is no longer available. South Fork crews will continue to be utilized, when possible, to conduct additional activities that may not be funded during tough financial times.

See the Young Stand Management Table in the Appendix B for an itemized list of what is planned in FY 2015.

The following specific activities will be conducted throughout the fiscal year:

## Site Preparation

These activities prepare the planting sites to enable new conifer stands to meet stocking guidelines and become free to grow. The site preparation activities consist of primarily two site specific prescriptions:

(1) Herbicides applied by helicopter, or by ground methods, target site specific vegetation species that will aggressively compete with the newly planted trees. In FY 2015, there are 1,150 acres proposed for ground site preparation through a combination of hand and aerial application using contract and South Fork crews.

(2) Dense slash concentrations created during timber harvest will be mechanically piled and burned during the fall season to improve and open planting areas. Approximately 400 acres are proposed for mechanical site preparation and pile burning.

## Planting

Planting is comprised of matching the appropriate species and stock type to the planting site. Forest health strategies are addressed on a site specific basis when the planting plan is developed. Site specific prescriptions consider target species, Swiss Needle Cast risk, *Phellinus weirii* (laminated root rot) presence, protection of water quality, required stocking guidelines, natural advanced regeneration, and the desired future condition of the stand. To accomplish this, a mixture of species is planted to provide for a healthy, productive, and sustainable forest ecosystem over time. This strategy provides for diverse habitats for wildlife and biodiversity while offering a full range of social, economic, and environmental benefits for future generations.

The planting plan anticipates 1,223 acres of initial planting and 200 acres of interplanting in regeneration harvest units. A mixture of the following species will be planted based upon the site characteristics: western hemlock, Douglas-fir, and western red cedar. Stocking densities are site specific and natural regeneration is considered when establishing a new stand.

## Vegetation Management

Vegetation management activities focus on releasing existing conifer or hardwood stands, which have been overtopped by competing vegetation, or controlling roadside brush encroachment. Various prescriptions focus on ensuring that newly established stands are kept in a healthy condition, so the forest stand will continue to grow to its biological and economical potential. In young stand management, the plan includes 500 acres of chemical release through aerial and hand chemical application using contract and South Fork crews, and 500 acres of mechanical hand release using South Fork crews.

Roadside vegetation management is intended to maintain visibility for public and employee safety when driving the forest road network and to protect the economic investment made to our road system. This AOP will complete approximately 300 miles of roadside herbicide treatment.

## Tree Protection

This activity is designed to protect young stands from being foraged by big game species, or Mountain Beaver. Site specific prescriptions are utilized to protect trees from damage, so the forest stands can develop into their desired future condition. The District plans to trap mountain beavers on 500 acres.

## Pre-commercial Thinning

Precommercial thinning (PCT) is a silvicultural technique that provides growing space by removing less vigorous trees from the stand during this stage of competition. These thinnings are made as an investment for the future growth and development of the stand. PCT is conducted in stands when high stand densities first develop, generally from 7 to 18 years of age. This practice accelerates the development of both conifer and hardwood stands towards the selected silvicultural pathway.

Generally, all minor species, such as western red cedar and true firs, are retained. The practice of precommercial thinning allows for increased individual tree growth until significant competition between trees develops again, 15 to 20 years later. At this point, other management prescriptions can be evaluated.

Western hemlock stands provide unique challenges for density management, as this species generates a prolific amount of seed that will germinate in the understory of existing stands. Pre-commercial thinning of western hemlock stands regenerated from natural seeding, or advanced regeneration, is required at a relatively early age (7 to 8 years). Pre-commercial thinning of these extremely dense young stands provides flexibility in future density management activities.

During this AOP, 300 acres of stands are scheduled for PCT.

## **Invasive Weed Management**

Current funding is low for invasive weed treatment. Approximately 100 acres of treatment is expected to be accomplished by District staff and/or South Fork Crews. Planned invasive weed treatment will focus on continuing the past ARRA work in the Astoria Basin and addressing small populations of Scotch Broom identified along roadside ditches, landings, and in units, as resources allow.

## **Pruning**

There are currently no areas planned or identified for pruning for FY 2015.

## **Fertilization**

There are currently no areas planned or identified for fertilization for FY 2015.

## **Recreation Management**

### **Overview of Recreation Management**

Recreation is diverse on the Clatsop State Forest, with dispersed use throughout the forest. Activities include horseback riding, hiking, mountain biking, all terrain vehicle (ATV) riding, family camping, group camping, hunting, target shooting, fishing, nature study, and sightseeing. Due to agency budget constraints, the primary focus of the District Recreation Program will be directed at base level maintenance of existing infrastructure and trails.

Utilizing the South Fork Inmate Camp for maintenance and repairs of recreation facilities is a critical component of achieving the FY 2015 objectives of the District recreation program.

District staff received proposals from two user groups for the development of two new recreation opportunities. The first was from Pacific Trail Riders, they proposed a Class II (4x4, jeep) trail system within the Nicolai Mountain OHV Riding Area. The second was a proposal from the North Coast Chapter of Oregon Equestrian Trails. This user group proposed the construction of several equestrian challenge obstacles at the Northrup Creek Horse Camp. Both of these opportunities have been approved by the State Forests Division. The organizations that proposed the developments will enter into ODF Adopt-a-Trail agreements conducting the construction and maintenance. Construction is planned to begin during this AOP.

### **Planning**

Planning for development of designated ATV trails for the Nicolai Mountain OHV Riding Area will be limited through this annual operations plan. Some degree of modification of the original riding area is anticipated based on acquired new information as trail objectives are accomplished. The overall goal

during this planning period is to identify and assess what OHV use is ongoing. The information gathered will be used to inform and support future management decisions.

## **Motorized Recreation Operations/Maintenance**

Over the past year, the Shingle Mill Staging Area and approximately 4-5 miles of trail was constructed under a Recreational Trail Program (RTP) grant. With the completion of the trail construction in this grant, the total amount of Off Highway Vehicle (OHV) trails is approximately 25 miles, with an 820 foot learner's loop. ODF continues to receive funding from Oregon Parks and Recreation Department (OPRD) for funding District OHV positions and facility operation and maintenance costs.

ODF continues to work collaboratively with the District Recreation Advisory Committee, local ATV users, Pacific Trail Riders, and Dirt Church, to develop the Nicolai Mountain OHV Riding Area.

For FY2015 the Astoria District will complete the following OHV projects:

- Continued maintenance of existing designated trails.
- Identify and construct minor trail re-routes.
- Continue inventory and GPS mapping of dispersed ATV trails.
- Vacate ATV trails that cause resource damage or direct riders onto private ownership as appropriate.
- Continue to work with existing ATV user groups and develop new working relationships as available.
- Begin collaborative work with 4x4 user groups to identify opportunities and re-designate trails for 4x4 use.
- Conduct planning and potential improvement of two dispersed campsites.

## **Facilities Operations/Maintenance (campgrounds, view points, trail heads, etc.)**

### **Facilities**

The Astoria District is responsible for operation and maintenance of four fee campgrounds, one dispersed recreation area, and eight designated dispersed sites, two interpretive sites, and six designated trailheads.

- Gnat Creek Campground
- Henry Rierson Spruce Run Campground
- Beaver Eddy Campground
- Northrup Creek Horse Camp
- Lost Lake dispersed recreation area (proposed day use area)
- Lower Nehalem dispersed sites (three)
- North Fork Nehalem dispersed sites (two)
- Nicolai Mountain dispersed sites (two)
- Astoria District Demonstration Forest
- Chet Reed Arboretum
- Gnat Creek Trailhead
- Bloom Lake Trailhead
- Soapstone Lake Trailhead
- Diane Berry Equestrian Trailhead
- Spruce Run Creek Trailhead
- Demonstration Forest Trailhead

Activities associated with facility operation and maintenance includes:

- Campground host recruitment and supervision
- Coordination of daily maintenance activity by South Fork Inmate Camp

- Scheduling of garbage and recycling services, vault toilet pumping, well maintenance
- Well water testing
- Sign and information board management
- Fee collection
- Public contacts/use management
- Public Use monitoring
- Assessment and coordination of facility repairs
- Firewood sales
- Lost and Found program

Trail construction and associated maintenance has been steadily increasing on the District. Currently, there are approximately 20 miles of designated non-motorized trails on the District.

Trail maintenance (non-motorized):

- Gnat Creek Trail – Four miles
- Bloom Lake Trail – Two miles
- Soapstone Lake Trail – Two miles
- Demonstration Forest Trail – One mile
- Northrup Equestrian Trails – Eight miles
- Spruce Run Creek – Three miles

#### **Resource Specialists or Contract Service Providers:**

The following resource specialists, providers of contract services, public user group clubs, and organizations are an essential part of the Astoria District recreation program.

- Public/user group clubs and organizations.
- South Fork Inmate Camp provides grounds/facilities construction and maintenance support.
- ODF&W: Consulted on wildlife and fisheries issues.
- Forest Management, Forest Roads, Reforestation and Administration Staff for integration with other planned management activities and staff support.
- Support from Oregon Parks and Recreation for continued ATV program development.

### **Other Recreation Management Activities**

#### General Projects

As time and resources permit, recreation staff will continue to update and refine existing technical tools used to manage the recreation program. These efforts will include: updating the GIS trails layer for the District, identifying and GPS locating dispersed recreation sites across the forest, and refining the conceptual “District vision” for recreation on the Clatsop State Forest.

#### Volunteer Efforts

In 2013, the Clatsop State Forest had over 541 hours of volunteer work consisting of trail volunteers (Oregon Equestrian Trails), camp-host programs, and various recreational committee member participants. The District Recreation Staff will continue to develop a working relationship with local clubs and organizations, and promote volunteerism on the forest.

#### Law Enforcement

Law enforcement for the District ATV program is provided by the Clatsop County Sheriff’s Office which has one officer dedicated approximately half time to ATV enforcement. Law enforcement for other district general recreation will be provided by a seasonal law enforcement officer during the heavy recreation use season.

## **Land Exchange**

In FY15 we intend to complete one land exchange for two parcels that are a high priority to acquire in our approved land exchange plan. The parcels are South Walker Creek and Buster Creek which are surrounded by over 20,000 contiguous acres of State forests and located in the Buster Creek Aquatic Anchor. Additionally, both parcels have important mainline roads through them that are regularly used for forest management operations and by the public for recreational access.

The parcels were owned for many decades by an individual who recently sold them to a small timber company. The new owner is currently logging most of the merchantable timber and intends to divest of the land. It is our intention to exchange timber of equal value to the parcels as the method for the transaction.

The two parcels total approximately 170 acres and are estimated to be worth \$250,000 to \$300,000 once the land owner completes their current harvest. We anticipate exchanging 25 to 40 acres of timber for these parcels. The location of the timber has not yet been identified, but it will be selected from an area where a modified clear cut harvest of that size is consistent with our landscape design plans and will meet regular timber sale planning criteria.

## **Other Integrated Forest Management Operations**

### **Public Woodcutting**

**Purpose:** The primary objective of the District Firewood Cutting Program is to provide a source of firewood from State Forests to the public for personal use and secondarily to reduce fuel hazards, improve visibility along roads, and provide a recreational opportunity. The District's Firewood Cutting Program is primarily 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.

State Forests are managed for multiple benefits, and snags, downed wood and stumps are important habitat components under our Forest Management Plan. Permittees should follow the permit instructions, review the permit and district maps, and consult with ODF personnel to ensure they remain on State Forests land. Property lines are frequently unmarked and ODF firewood permits are only valid on State Forests land. Harvesting firewood without the landowner's permission is trespass.

Firewood is a high-risk vector for wood-boring insects, such as emerald ash borer and Asian longhorned beetle, two species responsible for widespread defoliation of forests in Midwest and Eastern states. The Oregon Invasive Weed Council and ODF encourage people to obtain their firewood in a place as close as possible to the place where it will be burned. Recreationists have a role in protecting the forests by not moving firewood great distances.

**Permit Fee:** The permit fee is \$20 for two cords of firewood and is not transferrable to another party.

**When:** Wood permits will be issued for three week periods and they are available Monday-Friday during business hours, outside of fire season. Fire season is generally from July 1st through October 15th.

**Who:** An unlimited number of personal firewood cutting permits will be issued to the public, with a limit of 5 permits per individual or household within a calendar year. The permit cannot be used to sell firewood to another party, or to manufacture wood products for resale. Firewood cutting permits will be sold and administered to public employees under the same processes used by the public. Oregon Department of Forestry does not guarantee the quality or availability of wood

when issuing firewood cutting permits, as such, permit fees will not be refunded. Exceptions to the two cord limit may be made for non-profit organizations, with prior district authorization.

**Where:** Designated firewood cutting areas will be by Forest Management Basins and will be marked on the permit map, which excludes active and sold timber sales, recreation sites, planned operations, and any ecologically sensitive areas. There is no guarantee that units or travel routes will be posted in the field.

**How:** Revenue from permit fees will be used to reimburse administration of the firewood cutting program. Enforcement of firewood cutting permits will be accomplished by contracted law enforcement officers and following the Firewood Cutting Guidance described in 12.2.G1.2.2. Additional firewood cutting permit requirements and guidelines are provided with the permit.

During the FY 2015, it is estimated that the Astoria District will issue approximately 1,100 woodcutting permits.

### **Special Forest Products**

The Astoria District currently administers a Special Forest Products program which consists of issuing Commercial Use Permits to individuals who wish to collect larger quantities of various forest products with the intent for the products to be re-sold. There is a fee charged to individuals for a Commercial Use Permit, which is based on the type of forest product and quantity. Revenues during FY 2013 yielded approximately \$15,900 from the sale of 60 permits. It is anticipated that FY 2014 and FY 2015 will yield approximately the same results. Special Forest Products include: mushrooms, salal, moss, and ferns. Additionally, the public has the ability to gather smaller quantities of these forest products, free of charge, for personal use.

## **Planning (and Information Systems)**

The following on-going planning, monitoring, and information gathering activities will be conducted throughout the next fiscal year:

### **Stand Level Inventory and Other Vegetation Inventories**

Since 2001, the Astoria District has conducted a rigorous Stand Level Inventory (SLI) regime yielding 56% of the Districts stands and 74% of the district acres inventoried to date. If the budget allows, the District aims to continue to conduct inventory on unmeasured stands as well as stands that have been operated in since the original inventory was taken.

Stocking surveys will be conducted on young conifer stands to determine stocking levels in the one year old and three year old stands. Approximately 3,500 acres of stocking surveys will be conducted on these types of stands in FY 2015.

### **Fish and Wildlife Surveys**

All of the proposed sales in this AOP have been reviewed by ODF and ODFW biologists. Survey requirements are based on current policy, protocol, and biologist recommendations.

*Fish Distribution Surveys:* Streams are classified in part as supporting fish (Type F) or not supporting fish (Type N). Riparian protection measures depend in part on the presence of fish. Fish distribution information varies across the district. Many streams have been surveyed with electro fishing techniques that established the upper extent of fish use. However many very small streams have not yet been surveyed for fish presence. These streams will be evaluated with either an electro-fishing method (through contractual arrangements with private consultants or support from ODFW) or with a

Physical Habitat Survey. The physical methodology was developed in conjunction with Oregon Department of Fish and Wildlife.

The Astoria District will continue its northern spotted owl survey program, in order to effectively comply with federal and state Endangered Species Acts and to contribute to the Forest Management Plan (FMP) goals. Survey requirements for each sale are determined in accordance with the State Forest Division Northern Spotted Owl Policy, Procedures, and Guidance (January 2012).

A private contractor will continue the annual surveying for northern spotted owls near planned operations and to monitor the status of occupied sites. It is estimated that this will entail approximately 1,000 survey stations; each station is called for the NSO 6 times over the survey season yielding 6,000 individual nighttime surveys conducted. Approximately 4 daytime follow-up surveys are expected to follow up any NSO detection during the night calling.

In FY 2015, the district will continue its marbled murrelet survey program in order to comply with federal and state Endangered Species Acts and to contribute to Forest Management Plan goals. Survey requirements are determined in accordance with ODF Policy & Guidance. Operations fall into either the Operational Survey Zone or the Systematic Survey Zone. The Operational Survey Zone is closest to the coast where all known occupied sites are located. East of the Operational Survey Zone is the Systematic Survey Zone, where high quality potential murrelet habitat is being surveyed systematically and operational surveys are not being conducted.

Table 3. Summary of Surveys for Threatened and Endangered Species

<b>Operation</b>	<b>Species<sup>1</sup> (NSO/MM)</b>	<b>Survey Years<sup>2</sup></b>	<b>BA<sup>3</sup> Required</b>	<b>Special Considerations</b>
Beaver Challenge	NSO	'13-'14	No	
Beaver Challenge	MM	'13-'14	No	
Bull Nose	NSO	'12-'13	No	
Bull Nose	MM	'12-'13	No	
Bull Ridge	NSO	'11-'14	No	
Bull Ridge	MM	'11-'12	No	
Cowabunga	NSO	'12-'13	No	
Cowabunga	MM	N/A	No	Systematic Survey Zone.
Dragon Buster	NSO	'12-'13	No	
Dragon Buster	MM	N/A	No	Systematic Survey Zone.
Knob Point Combination	NSO	'13-'14	No	
Knob Point Combination	MM	N/A	No	Systematic Survey Zone.
Microwave Thin	NSO	'12-'14	Yes	
Microwave Thin	MM	N/A	No	Systematic Survey Zone.
Moonlight Drive	NSO	'13-'14	No	
Moonlight Drive	MM	'13-'14	No	Area 2 was surveyed in '12-'13.
Oz	NSO	'12-'14	No	
Oz	MM	N/A	No	Systematic Survey Zone.
Rector Combo	NSO	'11-'13	No	
Rector Combo	MM	'11-'12	No	
String Bean	NSO	'13-'14	No	
String Bean	MM	N/A	No	Systematic Survey Zone.
Swede Retreat	NSO	'12-'13'	No	
Swede Retreat	MM	'12-'13	No	Survey Areas 2 & 4 only.
Treasure Island	NSO	'12-'13	No	

Operation	Species <sup>1</sup> (NSO/MM)	Survey Years <sup>2</sup>	BA <sup>3</sup> Required	Special Considerations
Treasure Island	MM	N/A	No	Systematic Survey Zone.
Wage Against the Machine	NSO	'13-'14	No	
Wage Against the Machine	MM	N/A	No	Systematic Survey Zone.

<sup>1</sup> Surveys are conducted according to accepted protocols when habitat for the specific species is determined to be present. NSO – northern spotted owl, MM – marbled murrelet.

<sup>2</sup> Years that surveys have been completed or are planned.

<sup>3</sup> A Biologic Assessment is required for this operation due to the presence of NSO or MM in the vicinity of the operation.

## Aquatic and Riparian Resources

*Restoration Goals and Identification Process:* The overarching principles for fish habitat restoration are described in the Forest Management Plan. Landscape and site-specific strategies will improve levels of aquatic function in the short term to meet the immediate habitat needs of depressed species and place aquatic habitats on a trajectory toward desired conditions. At the same time actions are carried out to restore the ecological processes and functions that create and maintain self-sustaining habitats over the long term. Restoration strategies include: completing assessments to identify limiting factors and identify, design, and implement projects to remedy identified problems. Projects should mimic natural process, use multidisciplinary approach, and consider site-specific as well as watershed scale processes and disturbance regimes. Projects will be designed to re-establish natural physical and biological processes. The district's approach to restoration planning is further refined in the Implementation Plan. The types of projects in order of priority are: (1) Fish Passage, (2) Road Decommission or Hydrologic Disconnection, (3) Instream Habitat Projects, (4) Alternative Plans to Manage Riparian Areas, and (5) Beaver Relocation. More information on these project types and rationale for priorities is provided in the district IP.

Projects can be implemented *opportunistically* (when operating near streams that would benefit from restoration efforts) or with a more complex and typically *larger scale* approach both of which will be evaluated for ecological benefits. For the Astoria District the goals are to:

- Implement 2-5 larger scale projects over a 10-year period if resources and partners are available.
- Implement 2-3 opportunistic projects per year if resources and partners are available.
- Contribute to fish passage improvement and hydrologic disconnection.

There are stream enhancement opportunities identified in association with sales in this sale plan.

- Potential log placement on Dragon Buster, Cowabunga, Treasure Island, and Wage Against the Machine.
- Road decommissioning to allow for fish passage on Moonlight Drive.

Before determining if these potential projects will go into a full planning process, more field review is needed. For stream restoration the ODF Aquatic and Riparian Specialist and the ODFW District Fish Biologist will perform a field evaluation to make sure that the stream will benefit from the proposed project and meets screening criteria (see below). This evaluation will also include reviewing findings, recommendations, modeled conditions, and fish species distribution from available sources such as watershed analyses, ODFW aquatic inventories and fish distribution data, intrinsic potential models, and federal/state recovery and restoration implementation plans where available.

Some screening criteria used to help determine if a potential stream wood placement project should be further considered include:

- Good access to stream (e.g. either cable over stream or road/tractor ground near stream).
- Trees of sufficient size (meet ODFW diameter and length criteria) or with root wad attached are available in the harvest area.
- Operation is adjacent to a salmon or steelhead stream.
- Operation is adjacent to stream with an active channel width between 10 and 20 feet.

- Wider channels may work, but are more challenging because of the length of wood required (2 times channel width). Projects in narrower channels can work as well, but are considered a lower priority-especially if the stream is steep and only contains cutthroat trout.
- Personnel are available to administer implementation of the project.
- Address 1 or more of the habitat restoration priorities.

Restoration accomplishments are reported to OWEB using the OWRI electronic filing process and reported by ODF annually in our report to the counties, Board of Forestry, and DSL.

*Aquatic and Riparian Conditions:* Watershed assessments have been completed on 11 basins on this district. In addition the Oregon Department of Fish and Wildlife completed Fish Habitat Assessments and summarized the findings by district (ODFW 2005-2006). Limiting factors have largely been identified in the ODFW conservation strategy, the 2005 State of Oregon Coastal Coho Assessment (OCCA) (State of Oregon 2005), and ODF watershed analyses. Common limiting factors include: a lack of large wood in streams, increased fine sediment in riffles, a lack of complex pool habitat, and a need for more off-channel habitat. The task during this AOP is to identify, design, and implement projects to address the limiting factors either through opportunistic projects (e.g. harvest units adjacent to streams that meet certain criteria) or through larger, multi-collaborator, diversely funded projects.

Major streams that drain these forest lands on the Astoria District are: Gnat Creek, Plympton Creek, and the Klaskanine River, which flow into the Columbia River; and the Nehalem, North Fork Nehalem, and Necanicum Rivers, which flow directly into the Pacific Ocean. Some of the larger streams that feed the Nehalem and North Fork Nehalem Rivers include: Fishhawk Creek, Beneke Creek, Northrup Creek, Sager Creek, Buster Creek, Humbug Creek, Fall Creek, and Sweethome Creek. These major watershed basins define the basin planning areas in the section entitled "Management Basins". There are several shallow lakes on state forest lands, the largest of which is Lost Lake. Beaver ponds and other wetlands are scattered throughout the district. The Fishhawk Basin contributes to the Fishhawk Lake community water system. Some springs in the Osweg Creek Area of the Buster Basin, supplies the community water for the Elderberry Area residents.

Several strategies, described in the Forest Management Plan dictate protection measures designed to protect, maintain, and restore aquatic and riparian functions. These strategies are employed during harvest activities and include but are not limited to, leaving trees adjacent to streams to protect stream temperature, provide nutrients, protect stream banks, and eventually provide wood to improve fish habitat. Best management practices for road construction, reconstruction, and maintenance minimize impacts to water quality. Aquatic Anchors have been established on five watersheds where additional aquatic conservation measures are applied. The Aquatic Anchors include: Buster Creek, Upper North Fork Nehalem River, Upper Rock Creek, Coal Creek, and Northrup Creek.

## **Terrestrial Wildlife Resources**

Terrestrial Anchor (TA) Sites are areas intended to benefit terrestrial wildlife species of concern; especially those associated with older forest or interior habitat conditions, sensitive to forest fragmentation, or do not readily disperse across younger forest conditions. Management within TAs is intended to develop larger patches of mature forest conditions, to emulate natural small-scale disturbance patterns, and to minimize short-term negative impacts to habitat. Harvest will mostly consist of thinnings but small regeneration harvest areas and/or retention cuts will be used at times to emulate natural small-scale disturbances. ODF biologists will be consulted when patch cuts and/or retention cuts will be used within TA's.

The following operations are within Terrestrial Anchor Sites:

Microwave Thin (Primary) – Approximately 25 acres within Area 1 and 45 acres within Area 2 are within the Plympton Terrestrial Anchor. Thinning is anticipated to move the stands towards a more complex structure quicker than would occur without management. The sinuous nature of the sale boundary as well as the thinning "skips" as described in the Biological Assessment will provide for a variety of species including the NSO that will enhance habitats for various species of concern.

Rector Combo (Primary) – Area 2 of the Rector Combo sale is within the Sweethome Terrestrial Anchor Site. The primary species for Area 2 is western hemlock that is approximately 63 years old. Area 2 will be moderately thinned to promote the DFC of LYR. The thinning will promote the UDS stands towards a LYR condition, and maintain what is currently LYR within the stand.

At the time of writing this, the boundary for Area 2 has been posted resulting in 27 net acres. This is less than the approximated 38 acres that the pre-operations report details.

## **Public Information and Education**

A number of district employees annually participate in the local school Career Day, Sixth Grade Forestry Tour and Field Day, demonstration forest tours, Clatsop County Fair booth, State Fair booth, and many public school presentations. The district has representatives who attend local watershed council meetings, including the Upper Nehalem Watershed, and the Nicolai-Wickiup Watershed. The Assistant District Forester is on the Board of Directors of the North Coast Watershed Association and the District Forester participates on the Clatsop Forest Economic Development Committee (CFEDC).

## **Administration**

The State Forest Program in the Astoria District is organized into four separate functional work units. They are managed by a Unit Forester or Unit Supervisor/Manager, and directly supervised by the Assistant District Forester (Operations Manager). The four work units include:

**Administration** includes the District Forester, Assistant District Forester, Office Manager and clerical staff. The administrative function provides policy and planning direction, budgeting, coordination between units and programs, oversight to the field units, public contact and clerical support. The office manager and clerical staff are split funded from all programs they are involved in.

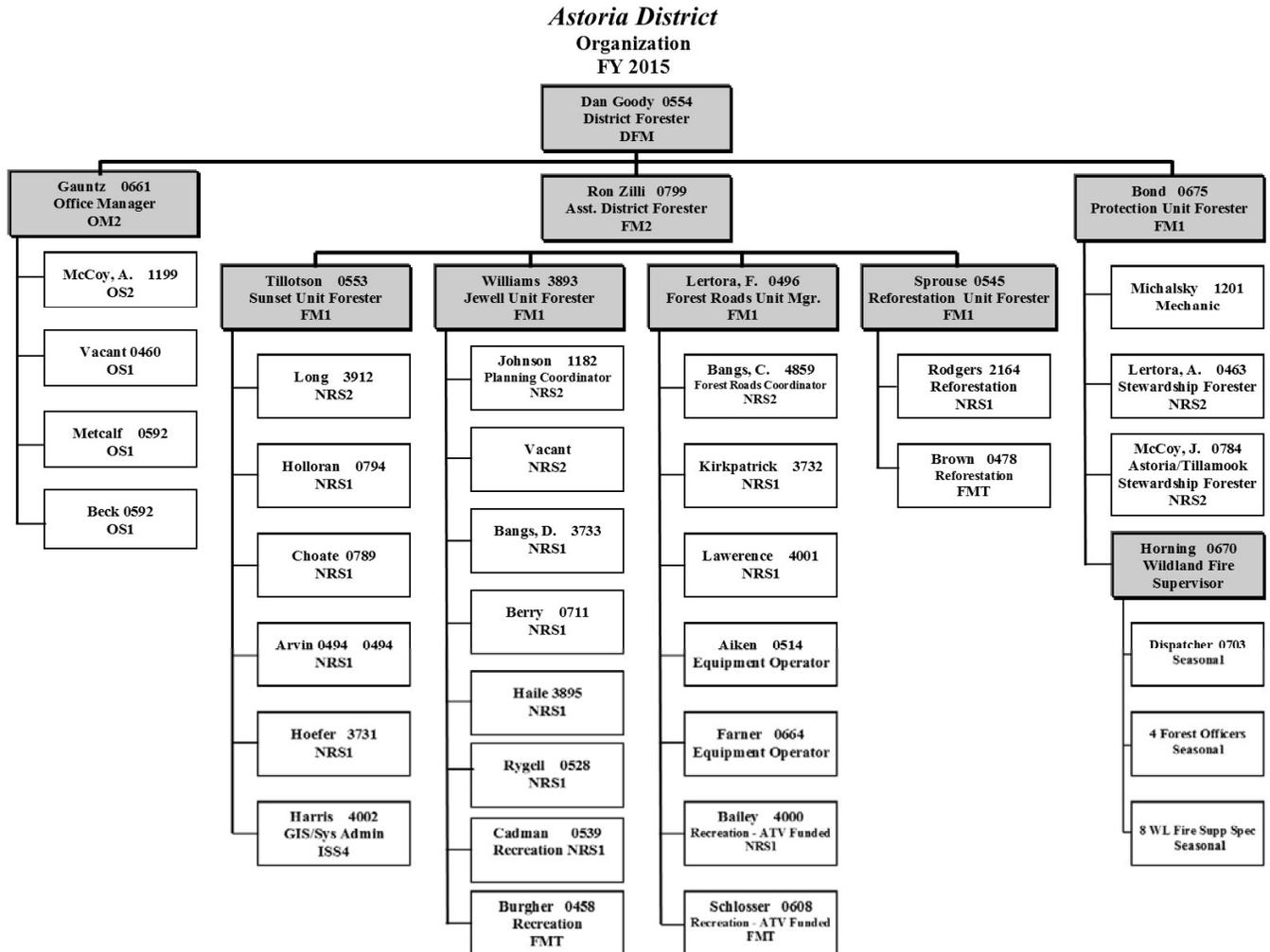
The **Forest Roads Unit** is responsible for the road and project support, establishment and maintenance of property line surveys, and supervision of the district road maintenance crew. The Forest Roads Unit is also responsible for the management of the motorized recreation, which includes: an ATV Specialist and an ATV Technician. The ATV positions are funded through Oregon Parks and Recreation funds.

The **Forest Management Units**, include the Jewell Unit (central Clatsop County) and the Sunset Unit (remaining state forest lands along the western and northern portions of Clatsop County). They are responsible for the planning, preparation and administration of all State Forest timber sales. The Jewell Unit Forester is responsible for the management of the District's non-motorized recreation facilities and trails, which includes the management of one Recreation Specialist and one Recreation Technician. Both recreation positions are funded through State Forest Development Funds.

The **Reforestation Unit** is responsible for young stand management. The reforestation unit consists of a Reforestation Unit Forester, a Reforestation Forester and a seasonal Reforestation Technician.

# DISTRICT ORGANIZATION CHART

## June 2014



# **APPENDIXES**

## **A. Forest Land Management Classification Changes**

This appendix describes (minor/major) changes to the State Forests' Forest Land Management Classification maps, including maps of the specific changes.

## **B. Summary Tables**

- a. Harvest Operations – Financial Summary
- b. Harvest Operations – Forest Resource Summary
- c. Harvest Operations – Stand Structure Summary
- d. Forest Road Management Summary
- e. Reforestation and Young Stand Management Summary
- f. Recreation Management Summary

## **C. Maps**

- a. Harvest Operations Vicinity Map
- b. Include other maps that support the AOP

## **D. Consultations with Other State Agencies**

This appendix summarizes the results of consultations with the Oregon Department of Fish and Wildlife and other agencies, as appropriate. This appendix contains any written comments that we received from state agencies.

## **E. Public Involvement and Summary of Changes**

This appendix describes the results of the public involvement process of this AOP and will be added prior to its approval.

## **F. Pre-Operations Reports**

Pre-Operations Reports are available from the district upon request.

## Appendix A - Changes to Forest Land Management Classification



# Oregon

John A. Kitzhaber, MD, Governor

Department of Forestry

State Forester's Office

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[www.oregon.gov/ODF](http://www.oregon.gov/ODF)

To: Liz Dent, State Forest Division Chief

From: Doug Decker, State Forester

Date: June 25, 2014



"STEWARDSHIP IN FORESTRY"

Subject: Implementation of the Revised Forest Land Management Classification Rule on State Forests

This memo addresses approval of the implementation of the revised Forest Land Management Classification System (FLMCS) rule, including the new High Value Conservation Areas and Special Use classifications, on State Forest lands managed by the following districts: Astoria, Coos, Forest Grove, North Cascade, Southwest Oregon, Tillamook, West Oregon, and Western Lane.

On June 5, 2013, the Oregon Board of Forestry adopted a revision to the FLMCS rule (OAR 629-035-0055) that added the classifications of High Value Conservation Area and Special Use while removing the Special Stewardship Classification. The purpose of this rule revision was to increase the visibility of the important conservation strategies that were already occurring on State Forests.

It was clear that implementation of this rule revision would result in a major change to the FLMCS maps/data and would be required to be available for public comment for 30-days (OAR 629-035-0060). Upon approval of the rule revision, the districts were directed to begin the task of updating the FLMCS data with the goal of having draft maps available for a public comment process that would occur concurrently with the normal 45-day public comment period for the Annual Operations Plans.

The public comment period occurred between March 17 and May 2, 2014 and included three open houses that focused on the implementation of the revised FLMCS rules, especially the location and purpose of High Value Conservation Areas. The open house were held early in the public comment period at the Forest Grove, Astoria, and Tillamook district offices. In response to the public comment period, the Division received:

- Eight letters/emails
- Approximately 1,700 form letter type emails
- Fifteen comments generated through an on-line survey

Almost all of the comments were generally supportive of the implementation of the FLMCS. Many of the comments included a request that the Department improve the durability of the High Value Conservation Areas; this issue is currently being addressed through the Alternative Forest Management Plan Project.

Several individuals indicated that old growth should be classified as High Value Conservation Areas. After reviewing the management strategies for old growth in the Northwest Oregon, Southwest Oregon, and Elliott State Forest Management Plans, I have found that old growth stands (as defined in those plans) qualifies for classification as High Value Conservation Areas under the Unique, Threatened, or Endangered Plants subclass. I have directed the districts to include existing old growth stands as High Value Conservation Areas in their final FLMCS designations.

## Appendix A - Changes to Forest Land Management Classification

After reviewing the draft FLMC maps/data, the public input, the recommendations from the District Foresters and Area Directors, and consistent with OAR 629-035-0060 (2), I am approving the revised FLMCS for Astoria, Coos, Forest Grove, North Cascade, Southwest Oregon, Tillamook, West Oregon, and Western Lane Districts.



---

Doug Decker  
State Forester

6.25.14

---

Date

# Appendix A – Changes to Forest Land Management Classification

The Forest Land Management Classification (FLMC) is a method of describing the management emphasis of parcels of state forest land. The management emphasis identifies the extent to which a parcel of land can be managed for a variety of forest resources. It also identifies when a particular forest resource may need a more focused approach in its management, or possibly an exclusive priority in its management.

The framework of the FLMC places all state forest land within one of four land management classifications. The classifications are: 1 - General Stewardship, 2 – Focused Stewardship, 3 – Special Use, and 4 – High Value Conservation Area. Subclasses are assigned for the specific forest resources that require a Focused Stewardship, Special Use, or High Value Conservation Area Classification.

This Appendix describes changes to the Astoria District FLMC. These changes meet the definition of a major modification. A major modification is defined as one that cumulatively exceeds 500 acres within one year. Major modifications require a 30 day public comment period which will be held in conjunction with the Districts 2015 AOP comment period. At the close of the public comment period, the Department will consider the public comments and make final decisions on the proposed changes. The District Forester will forward the draft final changes along with any public comments to the Northwest Oregon Area Director and the State Forester for review and final approval.

The Astoria District FLMC was last updated in July of 2013. Since that time, the Board of Forestry approved changes to the FLMC Administrative Rule that renamed the Special Stewardship classification to Special Use Area as well as added a new classification called High Value Classification Area. This FLMC update incorporates these new classifications and provides updated acres for each classification and subclass listed in the tables below.

Tables 2 and 3, originating in the District Implementation Plan have been updated to reflect these changes. As defined in OAR 629-035-0060, major modifications require State Forester approval. Updated FLMC maps are also included in this Appendix.

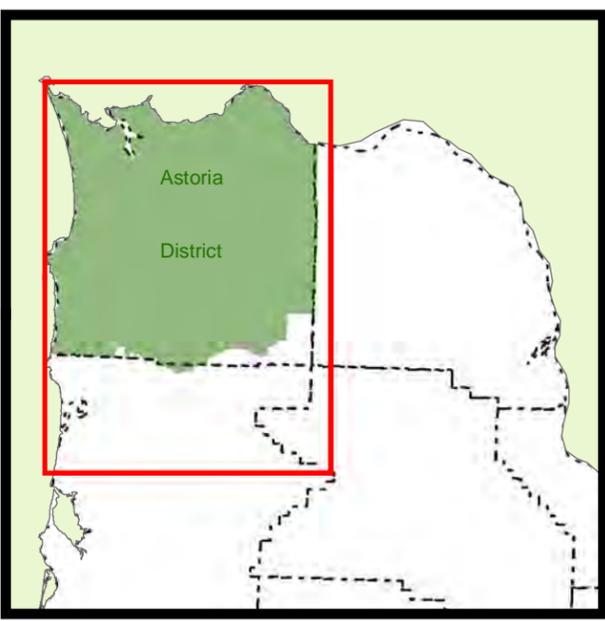
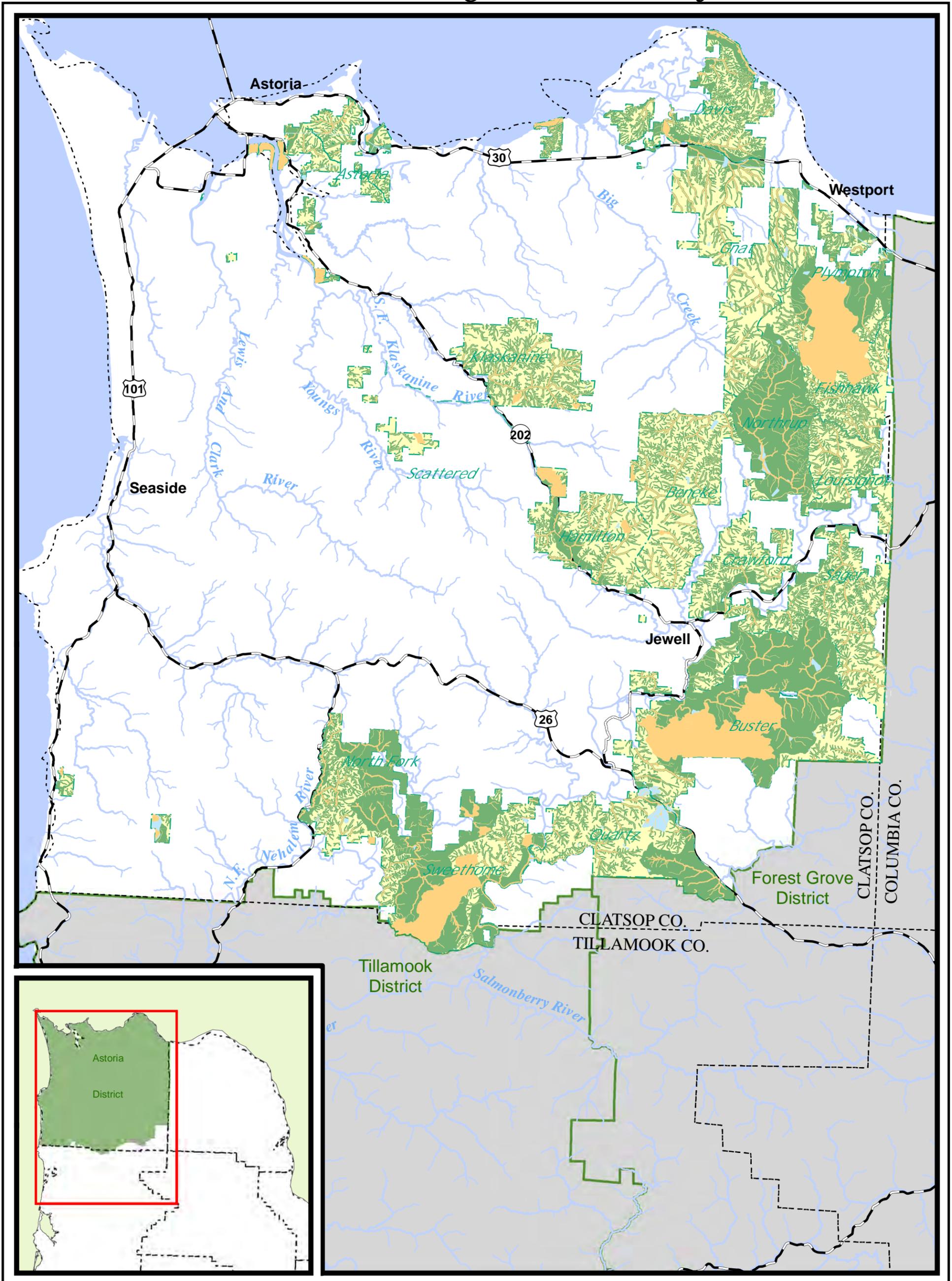
Table 2. Astoria District Acres, by Stewardship Class and Fund

<b>Classification</b>	<b>BOF</b>	<b>CSL</b>	<b>Total Acres</b>
High Value Conservation	23,672	256	23,928
Focused Stewardship	63,313	1,368	64,681
Special Use	1,274	64	1,338
General Stewardship	46,570	317	46,887

Table 3. (Includes overlapping Acres) Forest Land Management Classifications for Astoria District – Focused and Special Subclasses (Acres)

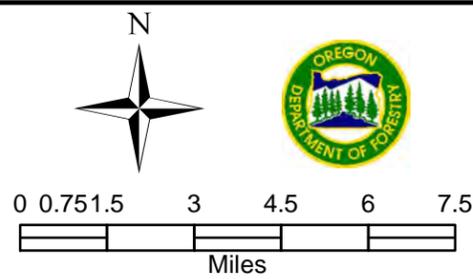
	<b>Focused</b>	<b>Special</b>	<b>High Value Conservation</b>
Administrative Sites	0	76	0
Agriculture, Grazing	0	11	0
Aquatic & Riparian	48,589	0	13,058
Cultural Resource	8	10	0
Domestic Water Use	81	0	0
Energy & Minerals	0	255	0
Operationally Limited	0	790	0
Plants	0	0	55
Recreation	1,098	140	0
Research/Monitoring	250	91	0
Transmission	0	214	0
Visual	9,237	33	0
Wildlife Habitat	37,088	0	12,027

# Astoria District Forest Land Management Classification



**Legend**

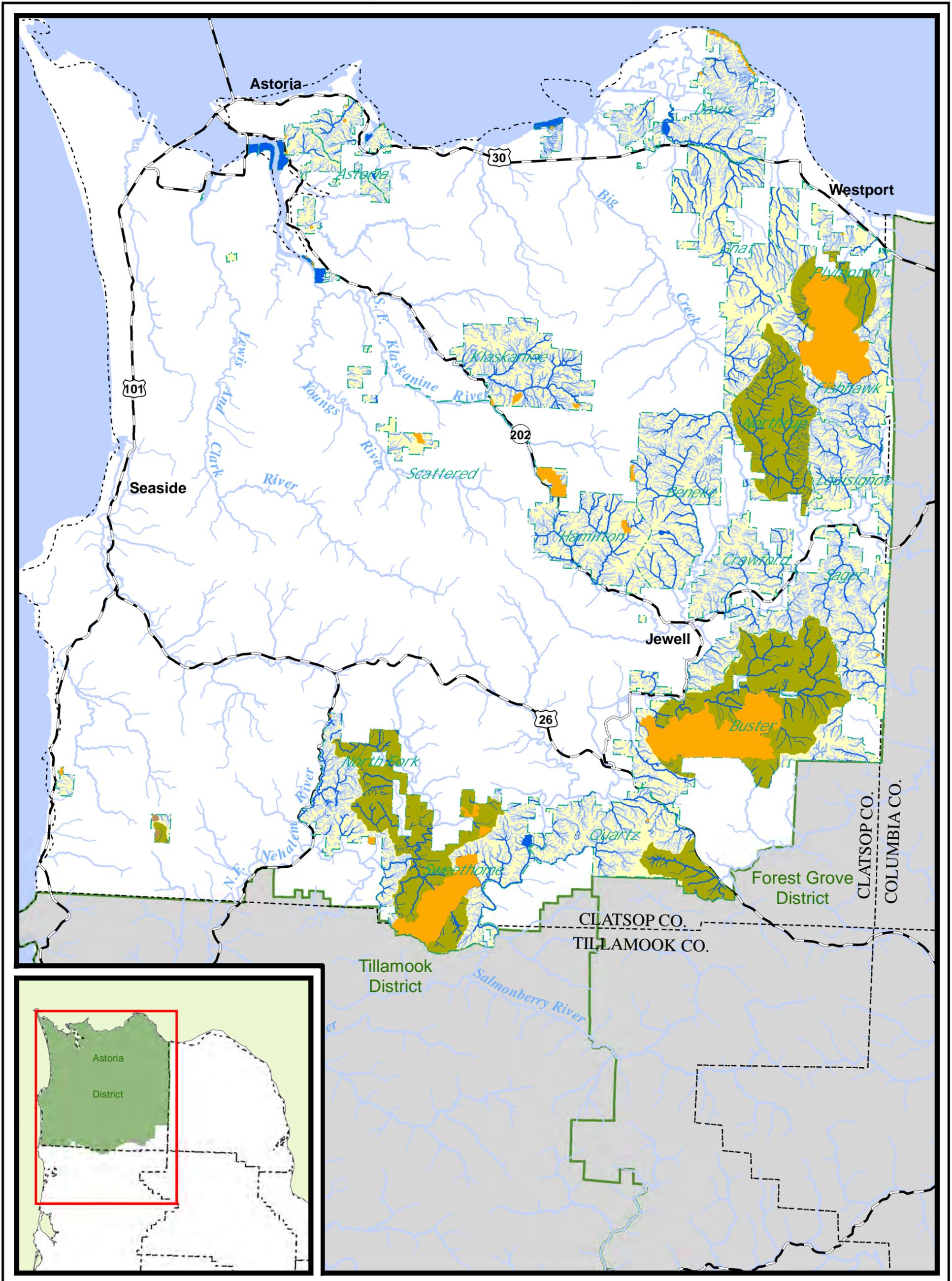
<b>STEWARDSHIP</b>	<b>Streams</b>
High Value Conservation Area	Streams, Large
Special Use	Streams, Medium
Focused Stewardship	Adjacent Districts
Highways	



This product is for informational purposes, and may not be suitable for legal, engineering or surveying purposes. This information or data is provided with the understanding that conclusions drawn from such information are the responsibility of the user.

# Astoria District

## Stewardship Classifications - Biological Subclasses



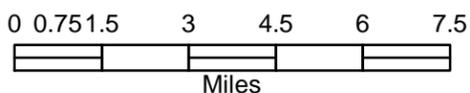
**Legend**

- High Value Conservation Area**
- Aquatic and Riparian Habitat
  - Plants
  - Wildlife Habitat

- Special Use**
- Agriculture, Grazing or Wildlife Forage

- Focused Stewardship**
- Aquatic and Riparian Habitat
  - Wildlife Habitat

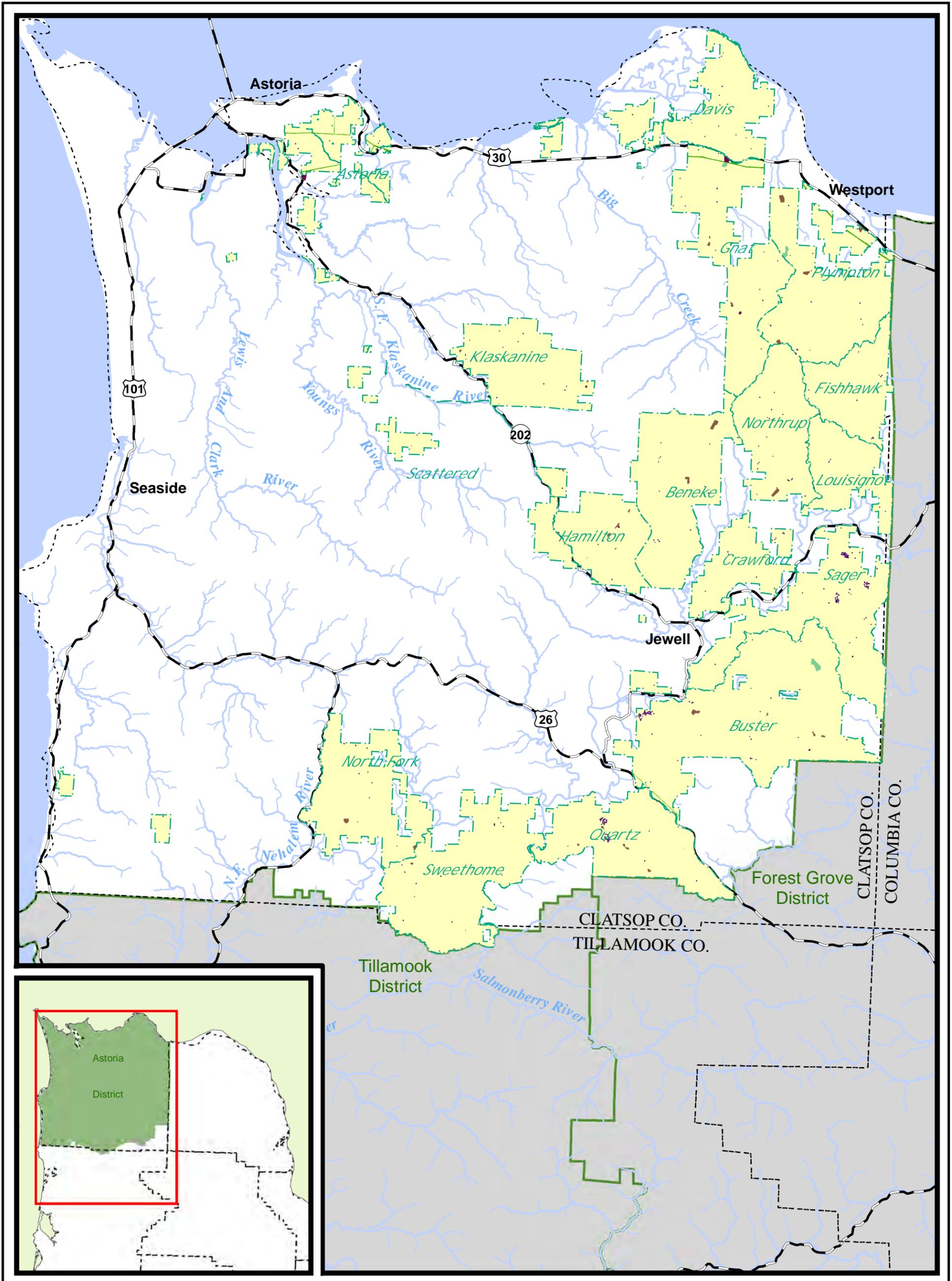
- Streams**
- Streams, Large
  - Streams, Medium
  - Adjacent Districts
  - Management Basins
  - Highways



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# Astoria District

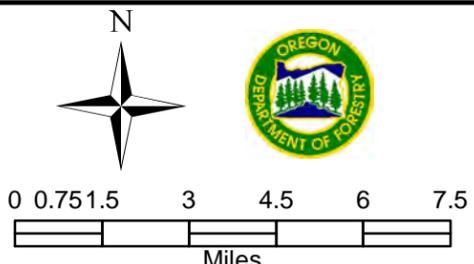
## Stewardship Classifications - Management Subclasses



- Legend**
- Special Use**
- Administrative Sites
  - Research/Monitoring
  - Energy and Minerals
  - Transmission
  - Operationally Limited

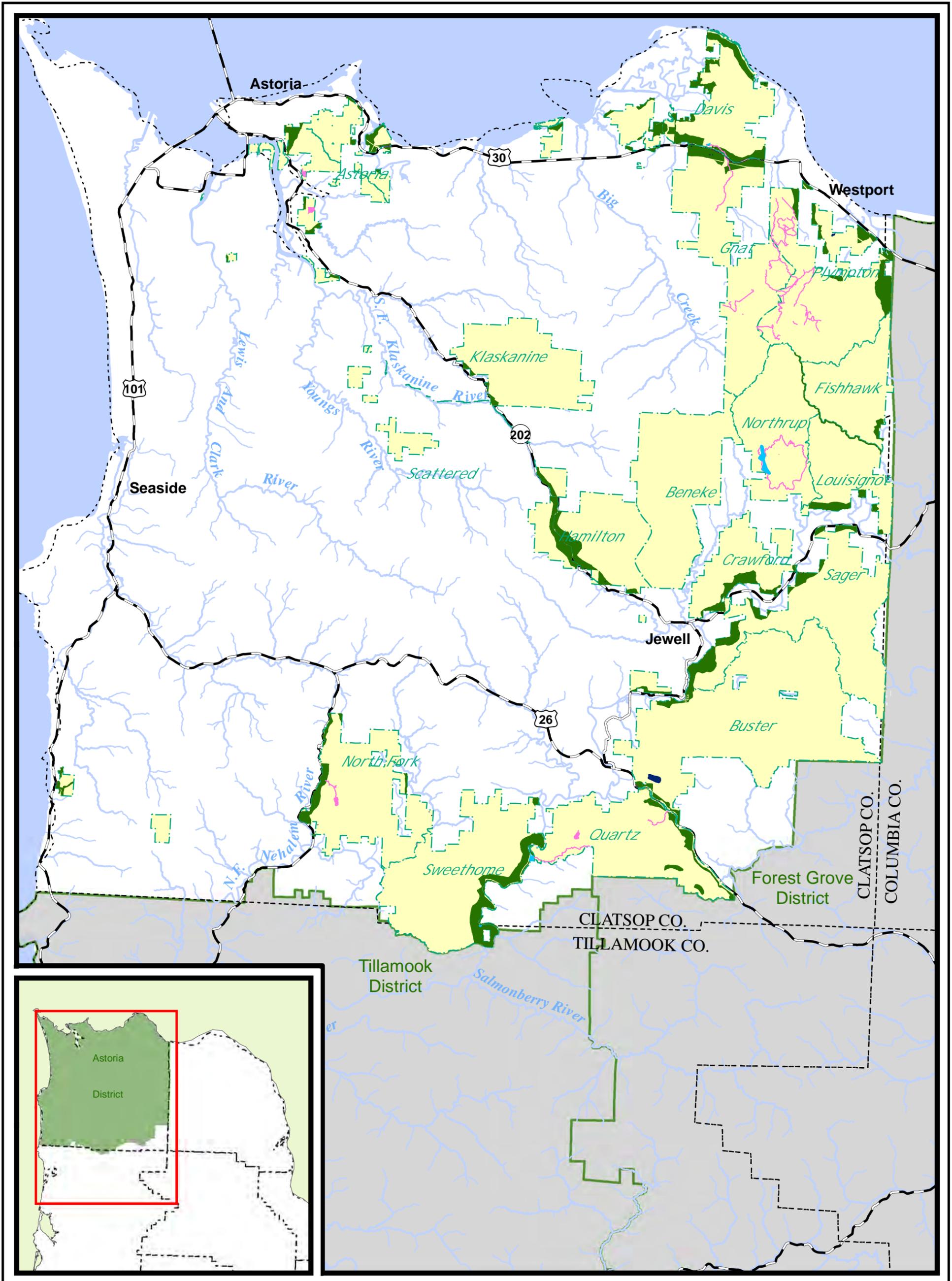
- Focused Stewardship**
- Focused - Research/Monitoring
  - Streams, Large
  - Streams, Medium

- Adjacent Districts
- Management Basins
- Highways



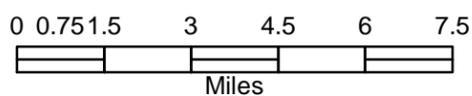
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# Astoria District Stewardship Classifications - Social Subclasses



**Legend**

- |                            |                            |                    |
|----------------------------|----------------------------|--------------------|
| <b>Special Stewardship</b> | <b>Focused Stewardship</b> | Adjacent Districts |
| Recreation                 | Domestic Water Use         | Management Basins  |
| Visual                     | Visual                     | Highways           |
|                            | Recreation                 | Streams, Large     |
|                            |                            | Streams, Medium    |



This product is for informational purposes, and may not be suitable for legal, engineering or surveying purposes. This information or data is provided with the understanding that conclusions drawn from such information are the responsibility of the user.

## Appendix B - Summary Tables

### TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

District: Astoria

Fiscal Year: 2015

Date: 06/02/2014

Primary Operation	Fund %		County	Sale Quarter	Net Acres		Volume (MMBF)			Value		
	BOF	CSL			Partial Cut	Clear-cut	Conifer	Hard-woods	Total	Gross	Projects	Net
Beaver Challenge	100%	0%	Clatsop	2	0	137	4,020	0	4,020	\$1,523,700	\$552,400	\$971,300
Bull Ridge	100%	0%	Clatsop	2	142	86	4,684	0	4,684	\$1,873,600	\$397,753	\$1,475,847
Bull Nose	100%	0%	Clatsop	4	0	208	10,400	0	10,400	\$4,160,000	\$373,200	\$3,786,800
Cowabunga	100%	0%	Clatsop	1	0	93	4,105	0	4,105	\$1,642,000	\$94,800	\$1,547,200
Dragon Buster	100%	0%	Clatsop	4	167	52	4,555	0	4,555	\$1,822,000	\$181,000	\$1,641,000
Knob Point Combination	81%	19%	Clatsop	3	31	104	4,206	0	4,206	\$1,416,500	\$247,075	\$1,169,425
Microwave Thin	100%	0%	Clatsop	3	394	0	4,234	0	4,234	\$1,294,200	\$314,400	\$979,800
Moonlight Drive	100%	0%	Clatsop 9%/Tillamook 91%	3	0	93	2,820	0	2,820	\$837,000	\$285,400	\$551,600
Oz	100%	0%	Clatsop	4	0	81	2,932	0	2,932	\$1,172,800	\$53,500	\$1,119,300
Rector Combo	100%	0%	Tillamook	1	38	50	2,456	0	2,456	\$675,400	\$77,700	\$597,700
String Bean	100%	0%	Clatsop	2	0	81	3,571	0	3,571	\$1,231,000	\$365,800	\$865,200
Swede Retreat	100%	0%	Clatsop	1	60	114	4,613	0	4,613	\$1,729,875	\$249,925	\$1,479,950
Treasure Island	100%	0%	Clatsop	3	0	182	9,190	0	9,190	\$3,676,000	\$309,500	\$3,366,500
Wage Against the Machine	100%	0%	Clatsop	2	0	206	11,244	0	11,244	\$4,216,500	\$736,400	\$3,480,100
<b>Total:</b>					<b>832</b>	<b>1,487</b>	<b>73,030</b>	<b>0</b>	<b>73,030</b>	<b>\$27,270,575</b>	<b>\$4,238,853</b>	<b>\$23,031,722</b>

Alternate Operations												
Boiler Combo	100%	0%	Clatsop	Alt.	136	123	3,455	0	3,455	\$1,036,500	\$216,200	\$820,300
Frosty Shingle	100%	0%	Clatsop	Alt.	145	37	2,125	0	2,125	\$667,625	\$48,200	\$619,425
Greasy Hawk	100%	0%	Clatsop	Alt.	0	152	6,840	0	6,840	\$2,565,000	\$353,000	\$2,212,000
Green Olive	100%	0%	Clatsop	Alt.	0	134	3,674	0	3,674	\$1,285,900	\$206,000	\$1,079,900
Homesteader	100%	0%	Clatsop	Alt.	234	203	12,019	0	12,019	\$4,206,650	\$467,375	\$3,739,275
King Louis	100%	0%	Clatsop	Alt.	0	164	8,200	0	8,200	\$2,870,000	\$383,400	\$2,486,600
Lost Pony	100%	0%	Clatsop	Alt.	0	159	7,950	0	7,950	\$2,782,400	\$466,900	\$2,315,500
Meier Mainline Combo	100%	0%	Clatsop	Alt.	263	51	6,183	0	6,183	\$1,854,900	\$187,500	\$1,667,400
Noisy Thin	100%	0%	Clatsop	Alt.	329	0	2,303	0	2,303	\$690,900	\$192,000	\$498,900
Nowhere Land	100%	0%	Clatsop	Alt.	0	137	5,707	0	5,707	\$2,140,125	\$167,750	\$1,972,375
Packy	100%	0%	Clatsop	Alt.	0	213	5,964	0	5,964	\$2,087,400	\$500,000	\$1,587,400
Petersen Heights	100%	0%	Clatsop	Alt.	269	13	2,299	0	2,299	\$677,975	\$183,200	\$494,775
Quarter Mile	100%	0%	Clatsop	Alt.	0	68	2,176	0	2,176	\$707,200	\$120,200	\$587,000
South Fork Thin	100%	0%	Clatsop	Alt.	158	0	948	0	948	\$251,850	\$71,000	\$180,850
Spruce Run Ridge	100%	0%	Clatsop	Alt.	210	0	1,680	0	1,680	\$504,000	\$116,320	\$387,680
<b>Total:</b>					<b>1,744</b>	<b>1,454</b>	<b>71,523</b>	<b>0</b>	<b>71,523</b>	<b>24,328,425</b>	<b>3,679,045</b>	<b>20,649,380</b>

**Appendix B - Summary Tables**

**District:** Astoria      **PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY**      **Date:** 05/20/2014  
**Fiscal Year** 2014

This table lists Forest Resources and other issues addressed within Pre-Operations Report due to their presence within or near harvest operations

Primary Harvest Operations	Unit (Optional)	Forest Health Issues <sup>1</sup>	Invasive Species	LYR/OFS Structures <sup>2</sup>	Landscape Design LYR/OFS <sup>3</sup>	Install/Replace Culverts on Fish Bearing / Perennial Streams	Harvesting within 100' of Fish Bearing Stream	Domestic Water Source	Potential Stream Habitat Improvement <sup>4</sup>	Within Aquatic Anchor	Within Terrestrial Anchor	Operating within a NSO Provincial Circle	Within 1/4 mile of MMMA	T&E Fish Adjacent to Harvest Unit / Haul Route <sup>5</sup>	T&E Plants	Geotechnical Issues Needing Field Review	Recreation Sites	Cultural Resources	Scenic Resources	Other Resources or Issues
Beaver Challenge		x	x	x														x		
Bull Nose				x																
Bull Ridge				x	x			x						x		x			x	
Cowabunga									x	x				x			x			
Dragon Buster			x	x	x	x			x	x				x						
Knob Point Combination			x	x										x			x		x	
Microwave Thin			x	x	x	x			x		x	x					x	x	x	
Moonlight Drive			x	x		x	x			x				x		x	x		x	
Oz			x					x	x					x		x			x	
Rector Combo				x	x					x	x			x		x				
String Bean			x	x										x				x		
Swede Retreat			x	x	x		x		x					x					x	
Treasure Island			x	x					x	x				x		x				
Wage Against the Machine			x			x			x	x				x		x				

<sup>1</sup> A 'x' (in any column) indicates yes the resource or other issue occurs within or near the harvest operation and is addressed by the Pre-Operations Report

<sup>2</sup> A 'x' indicates the harvest operation contains stands that are currently in a Layered or Older Forest Stand Structure

<sup>3</sup> A 'x' indicate that the operation contains areas that have been designated for the development of complex forest stands (LYR/OFS)

<sup>4</sup> The final decision on these projects will occur during sale preparation and inconspicuous with ODFW.

<sup>5</sup> This table lists harvest operations (units or log haul routes) that are adjacent to streams that are known to contain T&E fish. The Pre-Operation Report identifies whether T&E fish are present in the basin.

**Appendix B - Summary Tables**

**ALTERNATE HARVEST OPERATIONS - FOREST RESOURCE SUMMARY**

This table lists Forest Resources and other issues addressed within Pre-Operations Report due to their presence within or near harvest operations

Alternate Harvest Operations	Unit (Optional)	Forest Health Issues <sup>1</sup>	Invasive Species	LYR/OFS Structures <sup>2</sup>	Landscape Design LYR/OFS <sup>3</sup>	Install/Replace Culverts on Fish Bearing / Perennial Streams	Harvesting within 100' of Fish Bearing Stream	Domestic Water Source	Potential Stream Habitat Improvement <sup>4</sup>	Within Aquatic Anchor	Within Terrestrial Anchor	Operating within a NSO Provincial Circle	Within 1/4 mile of MMA	T&E Fish Adjacent to Harvest Unit / Haul Route <sup>5</sup>	T&E Plants	Geotechnical Issues Needing Field Review	Recreation Sites	Cultural Resources	Scenic Resources	Other Resources or Issues
Boiler Combo			x	x	x		x		x					x		x			x	x
Frosty Shingle			x	?						x							x			x
Greasy Hawk			x	x		x								x		x				
Green Olive				x										x						
Homesteader				x	x				x	x				x					x	
King Louis			x						x					x		x				x
Lost Pony			x	x					x					x		x				
Meier Mainline Combo			x		x				x					x		x			x	x
Noisy Thin			x				x							x			x		x	
Nowhere Land			x							x				x			x		x	
Packy			x	x		x			x					x		x				
Petersen Heights			x				x							x						
Quarter Mile													x	x			x		x	
South Fork Thin			x				x						x						x	
Spruce Run Ridge			x		x				x					x		x	x		x	

<sup>1</sup> A 'x' (in any column) indicates yes the resource or other issue occurs within or near the harvest operation and is addressed by the Pre-Operations Report

<sup>2</sup> A 'x' indicates the harvest operation contains stands that are currently in a Layered or Older Forest Stand Structure

<sup>3</sup> A 'x' indicate that the operation contains areas that have been designated for the development of complex forest stands (LYR/OFS)

<sup>4</sup> The final decision on these projects will occur during sale preparation and inconultation with ODFW.

<sup>5</sup> This table lists harvest operations (units or log haul routes) that are adjacent to streams that are known to contain T&E fish. The Pre-Operation Report identifies whether T&E fish are present in the basin.

## Appendix B - Summary Tables

### TIMBER HARVEST OPERATIONS - FOREST STRUCTURE SUMMARY

District: Astoria

Fiscal Year 2015

Date: 05/20/2014

Current Structure	
	Total
REG	
CSC	97
UDS	1,488
LYR	734
OFS	0
<b>Total</b>	<b>2,319</b>

Post Harvest Structure				
REG	CSC	UDS	LYR	OFS
20		0	77	
1,076		212	200	
391			343	
<b>1,487</b>	<b>0</b>	<b>212</b>	<b>620</b>	<b>0</b>

Desired Future Condition		
GEN	LYR	OFS
30	67	
1,076	359	53
467	30	237
<b>1,573</b>	<b>456</b>	<b>290</b>



## Appendix B - Summary Tables

### REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY

District: Astoria

Fiscal Year: 2015

Date: 02/24/2014

ODF Funded Activities  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	1,223	\$272*	\$332,656					
Interplanting	200	\$166	\$33,200					
Underplanting	0							
Tree Protection-Barriers	0							
Tree Protection-Direct Control (trapping)	500**							
Site Prep-Chemical- Aerial	1,034	\$75	\$77,550					
Site Prep-Chemical-Hand(S. Fork)	116**							
Site Prep -Mechanical	400***							
Fertilization	0							
Noxious weeds	100**							
Release-Chemical- Aerial	200	\$75	\$15,000					
Release,-Chemical-Hand	300**							
Release-Mechanical-Hand <sup>1</sup>	500**							
Precommercial Thinning	300**							
Pruning	0							
Roadside Herbicide Spraying	300 miles	\$166	\$50,000					
Other Seed Collection** (Red Alder & Grand fir)			\$0					
<b>Totals</b>	<b>2,657</b>	<b>--</b>	<b>\$508,406</b>	<b>0</b>	<b>--</b>	<b>\$0.00</b>	<b>0</b>	<b>\$0.00</b>

\*Planting costs include all costs including seedlings

\*\* South Fork inmate crews will perform these activities.

\*\*\* Activity accomplished in conjunction with timber sale harvesting contracts which is later burned by ODF District staff

**Appendix B - Summary Tables**

**RECREATION MANAGEMENT SUMMARY**

District: Astoria

Fiscal Year: 2015

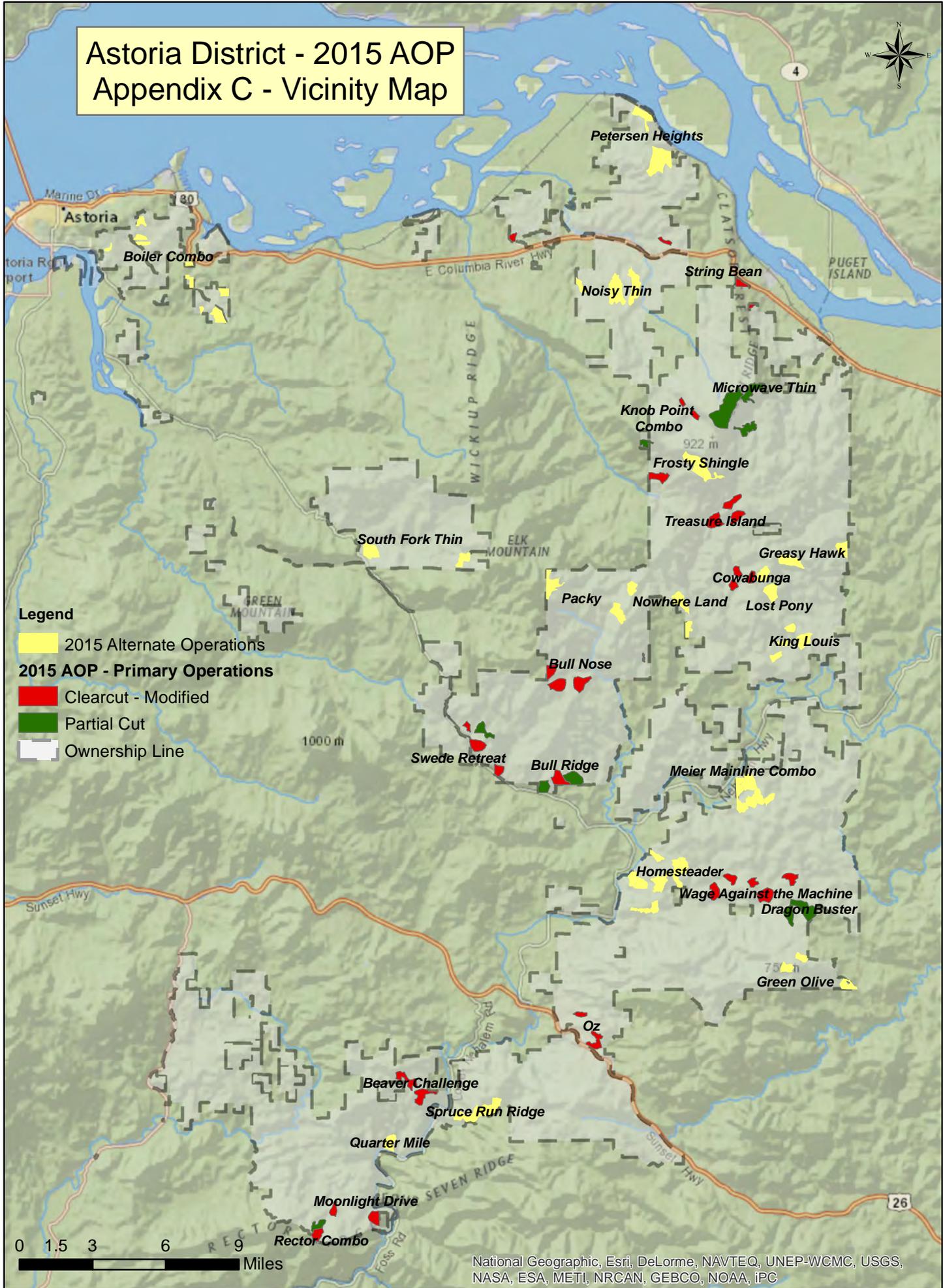
Date :

12/10/2013

Operation	Construction Projects	Construction Cost (Funding)		Improvement Projects	Improvement Cost (Funding)		Operations and Maintenance Projects	Operations/Maint. (Funding)		Total Costs	Comments
		ODF	Other		ODF	Other		ODF	Other		
<b>Facilities</b>											
<b>Campgrounds</b>											
Henry Rierson Spruce Run							\$15,500	\$15,500		\$15,500	Sewer & Sanitary Service/Maintenance
Northrup Creek Horse Camp							\$2,500	\$2,500		\$2,500	Sewer & Sanitary Service/Maintenance
Gnat Creek Campground							\$2,000	\$2,000		\$2,000	Sewer & Sanitary Service/Maintenance
Beaver Eddy							\$3,000	\$3,000		\$3,000	Sewer & Sanitary Service/Maintenance
										\$0	
<b>Designated Dispersed Campsites</b>											
Misc. Improvements							\$2,000	\$2,000		\$2,000	
*Viewpoint Quarry							\$2,000		\$2,000	\$2,000	Sewer & Sanitary Service/Maintenance
*Kerry Road							\$2,000		\$2,000	\$2,000	Sewer & Sanitary Service/Maintenance
*Plympton Ridge Road							\$2,000		\$2,000	\$2,000	Sewer & Sanitary Service/Maintenance
										\$0	
<b>Day Use Areas</b>											
Lost Lake	5,000	\$5,000					\$4,500	\$4,500		\$9,500	Kiosk Const./Sewer & Sanitary Service/Maintenance
*Shingle Mill OHV Staging Area							\$1,000		\$1,000	\$1,000	Sewer & Sanitary Service/Maintenance
										\$0	
										\$0	
										\$0	
<b>Trailheads</b>											
Bloom Lake							\$250	\$250		\$250	Maintenance
Soapstone							\$250	\$250		\$250	Maintenance
<b>Interpretive Sites</b>											
										\$0	
										\$0	
<b>Trails</b>											
Non-Motorized							\$0	\$0		\$0	Bridge Const./Maint. to be conducted by South Fork
*Motorized							\$8,000		\$8,000	\$8,000	Maint. by Staff and South Fork.
<b>Other Operations</b>											
Law Enforcement							\$30,000	\$30,000		\$30,000	Clatsop County Sheriff's Contract
Clatsop Recreation Brochures							\$3,000	\$3,000		\$3,000	Update/Printing of CSF Rec. Brochures
Dumpsites Cleanup							\$500	\$500		\$500	Annual Forest Cleanup
Special Projects							\$4,000	\$4,000		\$4,000	Kiosk Repairs & Maintenance
Misc. Maintenance Supplies & Repairs							\$2,000	\$2,000		\$2,000	Misc. Supplies/CG Envelopes/Etc.
										District Total	\$74,500
										Other Total	\$15,000
										<b>TOTAL</b>	<b>\$89,500</b>

\*Motorized recreation costs are funded through OPRD transfer funds.

# Astoria District - 2015 AOP Appendix C - Vicinity Map



**Legend**

- 2015 Alternate Operations
- 2015 AOP - Primary Operations**
- Clearcut - Modified
- Partial Cut
- Ownership Line

National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC

## Appendix D – Consultations with Other State Agencies

The Annual Operations Plan is prepared in a preliminary form by District Staff two years in advance of it becoming finalized. This gives opportunity to begin required wildlife surveys as well as time to refine the plan with review from Department Staff as well as Staff from The Oregon Department of Fish and Wildlife (ODFW). It has been standard practice that ODFW is invited to both the field tour and review meeting of the preliminary sales. Local ODFW staff has been involved in this AOP review for many years and have always provided comments and feedback to our plan.

This Appendix summarizes results of consultations with the Oregon Department of Fish and Wildlife during the planning of this AOP. Below you will find comments received by Herman Biederbeck, ODFW District Wildlife Biologist along with our responses to his comments or questions. Additionally, we consult with Dave Plawman, ODFW Assistant District Fish Biologist who gives us feedback as to what his priorities would be for opportunistic stream enhancement projects. This year Dave as well as Troy Laws (ODFW) attended the meeting and voiced their top candidates for Stream Enhancement were those operations within the Aquatic Anchors. Specifically naming: Dragon Buster, Cowabunga, Treasure Island, & Wage Against the Machine. All four of these operations will be reviewed further with ODFW during sale layout to confirm a stream enhancement project can be accomplished on the site.

See Herman's comments below, with our response in italics.

### General

- In this AOP, the planned distribution of residual green trees (GTs) includes scattered and clumped, which is good. Many wildlife species that use snags, down wood and residual GTs are territorial, and therefore benefit most from having these components positioned throughout the upland portions of harvest units. So placement of GTs in and along RMAs, where lots of GTs already exist, should be avoided. RMA prescriptions should stand alone as being adequate for aquatic and riparian needs. Placement of GTs in GTAs should not be done if the goal is to create wildlife structural components. Also, in units with smaller dbh trees, where additional GTs are being left in lieu of creating down wood or snags, these future stand structural components should be distributed across the landscape, not in/along RMAs and GTAs.

*The Astoria District continues to review each sale area individually during layout for the best juxtaposition of wildlife trees. Each stand has unique habitats and features that lend well to wildlife tree placement. For example, a small wet bog found during sale layout might be surrounded with wildlife trees to further protect the integrity of the wet feature. A patch of residual snags lends well to having wildlife trees remain around them to not only protect the snags but also for safety reasons. Each sale area has a different amount of streams and buffers that might run very high up into the unit. These situations create a lot of variability and uniqueness to each stand and we strive to not have one "cookie cutter" prescription for wildlife tree placement. Our goal is provide a variety of green tree arrangements in any AOP.*

- Many of the regeneration prescriptions are in areas (units) with current levels of down wood below the FMP standards, but the Pre-Op reports state that down wood levels will be at least 600 cu ft. This meets the minimum standard in the FMP, but how will ODF get to that standard? Suggestion: a general narrative at the beginning of the AOP packet could help explain.
- In areas of regeneration prescriptions with currently deficient snag levels, how will harvest units be brought into compliance with FMP standards? Again, a general narrative at the beginning of the AOP could help explain.

*The Overview of Timber Harvest Operations section of our AOP summary document provides a general description of how we address structural components such as down wood during an AOP. Past monitoring of down wood post harvest has significantly exceeded 600 cubic feet per acre.*

## **Appendix D – Consultations with Other State Agencies**

*Structural habitat components such as snags and down wood are considered for all harvest prescriptions. (In the case of regeneration harvests, it is essential to incorporate structural habitat components into the management prescription to ensure they are retained. These components are initially assessed by reviewing the District Stand Level Inventory data for each specific stand and then at the management basin level.*

*The number of snags per acre in each stand is then more accurately assessed during sale layout with data from the market cruise. This information is more statistically accurate for each stand in question and aids in the final harvest prescription. If deficiencies in basin level snags is determined and the market cruise shows further deficiencies at the sale level then harvest prescriptions are tailored to allow for the creation of snags as prescribed in the NWFMP.*

*Down wood targets are assessed in a fashion similar to snags. Through Stand Level Inventory information foresters are able to generate an initial assessment of down wood amounts. As a general practice during modified clearcut and mature partial cut harvest, foresters work with timber fallers and logging crews to cut out defect and rot from logs. These “bucked out” sections are generally in lengths of at least six feet and are left on the sale area to meet down wood targets with minimal economic impact.*

- Many of the sales call for construction of new spur roads. The dirt spurs are scheduled for closing, which is good! Consider closing, even seasonally, some of the rocked spurs. Closure of spurs right after the sale has been completed will prevent an established use pattern by the public, which makes the spurs more difficult to close later.

*We look for opportunities to do this annually. The Bull Ridge timber sale (FY14) is a recent example of a new road (over 1 mile in length) that will be gated when the sale is completed. Much of this sale is within or adjacent to the Jewell Meadows Wildlife Area and a gate will be constructed as part of the project work with this sale.*

- In general, the sales within the FY 2015 AOP look good.

*We will continue to look for ways to improve the language and content within our AOP summary document. Our goal is to provide a good overview document that summarizes our AOP without individuals having to read through each sale report (27 reports, this AOP). The sale reports are available as Appendix F of the AOP.*

## APPENDIX E

### PUBLIC INVOLVEMENT AND SUMMARY OF CHANGES

The Oregon Department of Forestry held a formal 45 day public comment period for the 2015 Annual Operations Plans from March 17 through May 2, 2014.

The purpose of the Public Comment Period was to provide an opportunity for the public to review the AOPs, ask questions, make recommendations and offer comments. As a public agency, ODF strives to operate in the best interest of Oregonians. We provide opportunities for public participation to assist us in securing the greatest permanent value from state forests for all Oregonians.

Public comments and the Program's responses are available for public review on the ODF's website at:

[http://www.oregon.gov/odf/pages/state\\_forests/annual\\_operations\\_plans.aspx](http://www.oregon.gov/odf/pages/state_forests/annual_operations_plans.aspx)

In addition to changes from public comments, some modifications have been made to the draft AOP to account for affects from finalizing the field work on the District FY 2014 AOP. Specific changes to the composition of the FY2015 AOP plan are:

Bull Ridge (Primary) – This operation was a Primary sale in the FY 2014 AOP. Due to meeting volume outputs earlier than expected during FY14, this sale has been moved to the FY15 AOP and will be a second quarter primary operation.

Rector Combo (Primary) – This operation was a Primary sale in the FY 2014 AOP. Due to meeting volume outputs earlier than expected during FY14, this sale has been moved to the FY15 AOP and will be a second quarter primary operation. Area 2 of Rector Combo is a partial cut that is within the Sweethome Terrestrial Anchor Site. The Summary of Operations within TAS (Table 1B) has been updated to reflect this change.

Boiler Combo (Alternate) – This operation was moved to the Alternate list due to the insertion of the two FY14 operations into the FY15 AOP.

Nowhere Land (Alternate) – This operation was moved to the Alternate list due to the insertion of the two FY14 operations into the FY15 AOP. This operation is within the Northrup Creek Aquatic Anchor, thus removing it from the primary list reduced the amount of modified clearcut acres within the Northrup Creek AA for FY15. Table 1C within the Summary Document has been updated.

Recreation Update - The State Forests Division has accepted proposals from two recreation user groups since the 15 AOP went out for public comment. The first was from Pacific Trail Riders; they proposed a Class II (4x4, jeep) trail system within the Nicolai Mountain OHV Riding Area. The second was from the North Coast Chapter of Oregon Equestrian Trails. This user group proposed the construction of several

equestrian challenge obstacles at the Northrup Creek Horse Camp. The organizations that proposed the developments will enter into ODF Adopt-a-Trail agreements conducting the construction and maintenance.

Appendix A – The Forest Land Management Classification changes have been approved by State Forester Decker. The signed approval letter is included in this appendix.

Appendix B – The Financial Summary, Forest Resource Summary, Stand Structure Summary and the Forest Road Management Summary have been updated to reflect the changes to the operations listed above.

Appendix C – The vicinity map has been updated to reflect the changes within the Primary and Alternate Operations list.

Summary Document – The Summary Document has been updated to reflect the changes that the timber sale listed above created. (e.g. – updated total acres, and volumes.)