

Memo

To: Andy White, Area Director

From: Mike Cafferata, Forest Grove District Forester

CC: Liz Dent, State Forest Division Chief
Brian Pew, State Forest Deputy Division Chief
Ron Zilli, State Forests Field and Policy Manager

Date: July 6, 2016

Re: Information Item – Approved Annual Operations Plan for FY 2017

The FY 2017 State Forests Annual Operations Plan (AOP) for the Forest Grove 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 Forest Grove District Implementation Plan (IP) and the FY 2017 Annual Operation Planning Standards and Guidance. Consistent with the 2017 AOP guidance, the District has included a number of alternate sales, which were subjected to the same process of review and public comment as the regular sales.

During its preparation, this plan along with major revisions to the District Landscape Design and minor revisions to the Annual Harvest acreage range within the Forest Grove IP were reviewed by technical specialists and biologists from within the department and biologists from the Oregon Department of Fish and Wildlife. The draft AOP also underwent a 45-day public comment period. General comments were received regarding the AOP. Minor changes to Appendix F were made to include additional information requested from a public comment.

The management activities planned for this AOP are also consistent with the FY 2017 budget level. 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.

The goal of the Forest Grove District IP is to maintain an average harvest level of 61 MMBF for the duration of the current IP. For the past several AOPs contract volume accomplishment has exceeded the planned volume. After review of this information with the Area Director and the Deputy Division Chief, the FY 17 AOP planned volume has been reduced in accordance with the

FY 2017 AOP Guidance to 56.1 MMBF. The 56.1 MMBF of harvest volume will be achieved through 814 acres of partial cut and 1,258 acres of regeneration harvest. There are 14 primary operations and 3 alternate operations proposed within this plan. The net revenue estimate for the FY 2017 AOP is approximately \$16,980,662 (\$6,992,069 in Tillamook County; \$9,014,630 in Washington County; and \$973,963 in Columbia County).

This annual operations plan covers proposed forest management activities for fiscal year 2017. 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.

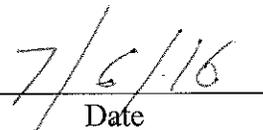
The planned amount and location of all management activities are based on the latest site-specific assessments and estimates of operational, T&E surveys and market variables. Management activity levels may be adjusted and modified to account for any significant changes to these variables. Modifications to these operations will conform to the process included in the draft Annual Operations Planning Directive. The alternate sales in this Annual Operations Plan may be used to replace regular sales that cannot be completed as planned. Actual revenue realized from this AOP could change due to market fluctuations.

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/Documents/AboutODF/ForestGroveDraft2017AnnualOperationsPlan.pdf>.

Approved:



Mike Cafferata
Forest Grove District Forester



Date

**FOREST GROVE
DISTRICT
2017 ANNUAL
OPERATIONS PLAN**



FOREST GROVE DISTRICT

2017 ANNUAL OPERATIONS PLAN

OVERVIEW

This plan describes the activities and outcomes that Oregonians can expect to see on the eastern side of the Tillamook State Forest for 2017. We welcome your comments, and will use them to improve this plan within the scope of the Department's authority, in alignment with the longer term overarching plans, and bounded by budgets and staff resources.

The Tillamook 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.

Forest habitat is expected to develop so 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. 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. Current financial constraints are currently limiting many activities and you will see this theme throughout the year's plan. We are striving to continue to provide the current opportunities, and are considering a few opportunities for change.

Every year in the Tillamook 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.

This AOP has been reviewed by 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), Oregon Department of Fish and Wildlife, the US Fish and Wildlife Service, motorized and non-motorized recreation users, hunters, fishermen, and wildlife advocates, as well as Oregonians in general.

A short summary of activities planned for the coming year:

- Planting 523,200 trees on 1,200 acres and conducting vegetation and animal management activities on an additional 2,000 acres to ensure the survival and growth of these plantations.
- Conducting density surveys for northern spotted owls covering the majority of the district and surveying 18 miles of streams for the presence of fish.
- Protecting streams and water resources through a series of buffers and seasonal restrictions.
- Stream improvement projects. An initial screen suggests that 1 stream near a planned harvest unit could benefit from large wood additions to the stream system. This stream will be reviewed in the field by ODF's Aquatic and Riparian Specialist and ODFW for potential projects during sale layout.
- Habitat development projects such as creating snags by removing the tops (over 190 planned this year), retaining green trees in clearcut areas, and leaving down wood, all for wildlife benefits in harvest areas and future forests.
- Maintaining 700 miles of road and improving approximately 31 miles of road to ensure ditch water is dispersed and filtered as much as possible, keeping runoff from entering streams. These roads provide access to timber harvest as well as various recreational opportunities.
- Reviewing District roads to develop plans to block or vacate roads to help manage trash dumping and irresponsible target shooting.
- Beginning the planning cycle to harvest approximately 56.1 million board feet of timber volume, through modified clearcut and partial cut harvest, generating revenue of an estimated \$17 Million in appraised value. 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.
- Operating and maintaining the following developed facilities in a safe, clean, and responsible manner:
 - 5 campgrounds
 - 2 day use picnic areas
 - 2 highway wayside interpretive sites
 - 12 trailhead facilities
- Providing 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 82 miles of motorized and 63 miles of non-motorized trails, striving to protect the trail investments, provide for user safety, address developing trail issues, and protect water quality.
- Supporting the important volunteer network that assists in forest management including the following programs:
 - Camp Hosts, Adopt a Trail and Trail Patrol
 - Forest Clean-up
 - Trail Maintenance and Construction Work Parties
 - OHV Trail Equipment Volunteer Operator
- Supporting the pre-planned 8 to 10 organized motorized events and providing support for 2 non-motorized events. Evaluate new event proposals for fit with forest goals.
- Supporting the planning effort on the Salmonberry Rail and Trail project, the opportunity to convert the damaged Tillamook to Banks railroad line into a rail line for portions and a recreational trail throughout its length.
- Providing a firewood cutting program and miscellaneous forest products permits (salal, mushrooms, etc.) as done in 2015.
- Supporting ongoing research on the district, in partnership with research cooperatives and universities.

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INTRODUCTION

This annual operations plan (AOP) outlines state-owned forestland managed by the Forest Grove District for Fiscal Year 2017 (FY17), which begins July 1, 2016 and ends June 30, 2017. 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)*, *Tillamook State Forest Recreation Action Plan*, and the *Forest Grove District 2011 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 harvest operations and activities are planned to be designed, engineered, and submitted for processing during the FY17 time period. Actual on-the-ground operations will likely not occur during FY17 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 FY2017.

A 45-day public comment period was held from April 4, 2016 through May 20, 2016. The District Forester considered the comments received during this period prior to approving this plan. Minor changes made prior to approving the AOP can be found in Appendix E.

In addition to describing forest management activities for FY 2017, Appendix F of this AOP also describes approved *major changes** to the Forest Grove District Desired Future Condition Landscape Design map of the IP. Appendix G describes approved minor changes to the Forest Grove IP harvest acres. This AOP is in alignment with the approved IP modifications.

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 Forest Grove IP.

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

INTEGRATED FOREST MANAGEMENT OPERATIONS

Timber Harvest Operations

Overview of Timber Harvest Operations

The FY17 AOP is estimated to produce 56.1 million board feet in volume, generate gross revenues of approximately \$18,855,262 and net revenues of \$16,980,662 in appraised value. The planned commercial forest management activities are in alignment with the guidelines and objectives outlined in the Forest Grove District's 2011 Implementation Plan (IP) with the proposed revisions described in Appendix F and G. The 56.1 million board foot (MMBF) volume is below the target of 61 MMBF in the IP. Previous AOPs accomplished contract volumes have exceeded the planned volumes, therefore FY 17 AOP planned volume has been reduced in accordance with the FY 2017 AOP Guidance. The goal is to maintain an average harvest level of 61 MMBF for the duration of the current IP. Refer to the attached Financial Summary Table (Appendix A, Table A-1) and vicinity map (Appendix B) for more detail.

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 engineer, road engineer, and operations coordinator, as well as fish and wildlife biologists from the Oregon Department of Fish and Wildlife and archeologists from Oregon Department of Transportation. Occasionally, operations may contain a resource or activity where review with another state agency, such as the Department of Agriculture or the Department of State Lands, is warranted. Written comments from the external resource specialists and the resolution of those comments can be found in Appendix C.

Table 1. Annual Operations Plan objectives compared to annual objectives identified in the Forest Grove District 2011 Implementation Plan. All values are acres.

Silvicultural Activity	IP Annual Objective ¹		2017 AOP Objective
	Low	High	
Partial Cut Harvest	0	2,100	814
Regeneration Harvest	500	2,000	1,258

¹ A minor revision to the IP Annual Objective was recently approved. Details of this revision can be found in Appendix G.

Table 1 shows the proposed acres by harvest type. The 1,258 acres of regeneration harvest planned for FY17 represents one percent of the district. Of the 1,258 acres planned for regeneration harvest 100 percent will be designed as modified clearcuts. Of the 814 acres of partial cut, 100 percent are planned for moderate partial cut. The anticipated harvest acres, volume, and revenue for each proposed operation in this AOP are listed in the "Harvest Operations – Financial Summary" Table A-1 in Appendix A, while a vicinity map of these harvest operations can be found in Appendix B.

Overview of Structural Components

Structural habitat components such as green trees, snags and down woody debris (DWD) are considered for all harvest prescriptions; however, most intentional development and retention of structural components is done within regeneration harvest units.

The green tree retention target for regeneration harvest units is five trees per acre. Green tree arrangements for this AOP include; scattered individual trees, clumps of trees, and trees concentrated in and adjacent to riparian management areas.

The Forest Grove district began leaving green trees within clearcut units in 1987, 14 years prior to the Forest Management Plan. Green tree retention levels began at one tree for every 2 acres of harvest and slowly increased up to the current level of five to seven trees per acre.

In 1992 the district began to incorporate tree topping in our timber sale contracts. Since that time there have been thousands of trees topped to create hard snags on the Forest Grove district. The FMP strategy for hard snags is to manage for at least two per acre on average across the landscape. The need for snag creation for regeneration sales is evaluated on a sale by sale basis. The wind events of 12/06, 11/07, & 12/07 made significant contributions to snag and DWD levels despite the salvage of some large concentrations and roadside blow down. This in turn led to scattered bark beetle outbreaks resulting in additional tree mortality during 2009. The majority of beetle caused mortality is located within the McGregor, Wheeler, and Upper Salmonberry Basins. Minor amounts were observed in Larch Mtn., Gales Creek, and Roger's Basins. Based on these observations, snag creation will only be required on planned sales in the Sunday Creek Basin, Wilark Basin, Scoggins Basin, and portions of Gales Creek and Roger's Basins. A total of 194 manmade snags greater than 15 inches in diameter will be created with this AOP.

Beginning in 1997, the district restricted windthrow salvage to large concentrations and roadsides allowing DWD to accumulate across the landscape. While landscape DWD levels are still below the FMP targets it is believed that over time these targets will be achieved through a combination of natural processes and the ODF salvage policy. The FMP strategy for DWD is to retain an average of 600 to 900 cubic feet of hard conifer logs (class 1 & 2) per acre during regeneration harvest. Stand Level Inventory (SLI) data indicates that there is approximately 200 cubic feet of Class 1 & 2 DWD per acre over the district. These numbers do not include additions from recent wind events or all of the snags & DWD created with recent timber sale contracts. In 2008 the district completed DWD surveys on ten recently completed modified clearcut units. Class 1 & 2 DWD amounts ranged from 600 to 1,700 cubic feet per acre. This shows that our current practices are meeting the down wood strategy.

Another opportunity for natural recruitment of snags and DWD is created by laminated root rot disease (*Phellinus weirii*). In severe cases of root rot, we attempt to retard the spread of the disease by cutting out the infected trees. In other cases we do not cut out the infected trees. This allows the disease to spread at a rate of approximately one foot per year, slowly adding snags and DWD to the stand. Whether laminated root rot is treated or untreated, we know from experience that additional trees will be infected by the disease, creating snags and eventually DWD.

Within a given annual operations plan, snags and DWD may be retained at higher levels in some units and at lower levels in other units, with the intent of achieving the landscape targets outlined in the Forest Management Plan strategies. The estimates used in the pre-operation reports for existing snags and DWD are based on our inventory for the sale area or on the basin average when not available for the sale area. The estimates for post-harvest expectations are based on contract requirements, monitoring results, and SLI data from the previous ten years of regeneration harvests. Stand Level Inventory data collected on sales harvested over the past 10 years show an average of 665 cubic feet per acre of Class 1 and 2 DWD for regeneration harvest units, and 605 cubic feet per acre of Class 1 and 2 DWD for partial cut units. These post-harvest DWD results can be attributed to natural recruitment from green tree retention, residual logging slash, and tree topping. A total of 939,450 cubic feet of sound down wood will be added to the forest as part of the FY 17 AOP.

Harvest Operations within Terrestrial Anchor Sites and Aquatic Anchors

The 2011 IP implemented the State Forests' Species of Concern Strategies that specifically identifies fish and wildlife species of concern on the Tillamook State Forest. Two of these strategies are Terrestrial Anchor Sites (TAS) and Aquatic Anchor (AA) sites.

- Terrestrial Anchor Sites (TAS) areas are 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 be limited, to emulate natural small-scale disturbance patterns, and to minimize short-term negative impacts to habitat. All areas that were designated as TAS 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. The 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 to ensure the harvest prescriptions and rate is consistent with the goals of these strategies.

Terrestrial Anchor Sites

Since the adoption of the TAS in the July 2011, the district has been proceeding with operations in these areas. Great care has been given in selecting stands for harvest and developing prescriptions in these areas to ensure that these harvest activities achieve the goals of the TAS. These sales were reviewed with ODF and ODFW Resource Specialists. Table 3 shows there are no harvest operations within the TAS proposed in the 2017 AOP and also shows the cumulative operations in TAS since the strategy was adopted (AOPs 2012 through 2017). Partial cuts have occurred within the Upper Salmonberry and Wolf Creek TAS in previous fiscal years.

Table 3. Summary of Harvest Operations within TAS (Acres and Percent)

Acres within TAS	Current AOP (FY 2017)		Cumulative Harvest (Since FY 2012)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
AOP Acres	1,258	814	6,661	6,295
% of District Acres	1%	1%	5.8%	5.5%
South Fork Wilson (2,081 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
Upper Salmonberry (3,097 ac)	0	0	0	365
% of Acres	0%	0%	0%	12%
Wolf Creek (4,203 ac)	0	0	0	514
% of Acres	0%	0%	0%	12%
All TAS (9,381 ac)	0	0	0	879
% of Acres	0%	0%	0%	9.3%

Aquatic Anchors

The AAs became effective July 1, 2013 and replaced the Salmon Anchor Habitat Strategy that expired June 30, 2013. Great care has been given in selecting stands for harvest and developing prescriptions in these areas to ensure that these harvest activities achieve the goals of the AA's. These sales were reviewed with ODF and ODFW Resource Specialists. Table 4 shows the current harvest and the cumulative total from FY 2014. Increased water protection measures will be implemented on regeneration harvest operations planned within the AA's as specified in the Species of Concern strategy.

Table 4. Summary of Harvest Operations within AA (acres and percent)

Acreages	Current AOP (FY 2017)		Cumulative Harvest (since FY 2014)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
AOP Acres	1,258	814	4,610	3,477
% of District Acres	1%	1%	4%	3%
Aquatic Anchor (AA) Basins				
Ben Smith Creek (2,410 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
Devils Lake Fork Wilson River (6,132 ac)	14	0	308	118
% of Acres	0%	0%	5%	2%
Elkhorn Creek (1,049 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
Lousignont Creek/Upper Nehalem River (12,355 ac)	340	363	951	1,417
% of Acres	2.8%	2.9%	7.7%	11.5%
S. Fork Salmonberry River (5,659 ac)	0	0	86	260
% of Acres	0%	0%	1.5%	4.6%
Upper Rock Creek (3,295 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
All Aquatic Anchors (30,900 ac)	354	363	773	1,113
% of Acres	1.1%	1.1%	2.5%	3.6%

Summary of Timber Harvest Operations by Basin

In the following section, the harvest operations planned for FY17 will be summarized in the context of the eleven management basins on the Forest Grove District. ODF and ODFW resource specialists reviewed the FY17 AOP and provided input. Individual pre-operation reports include information regarding riparian protection and structural components such as snags, down wood, and green tree retention. Since the Forest Management Plan strategies provide standards for these components, they are not discussed in the summary. Road concerns and standards are discussed in the Forest Roads Management section. Additional information regarding the harvest operations may be found within Table A-2, the Forest Resources Summary.

Table 5. Summary of Timber Harvest Operations in each basin. All values are in net acres.

Basin	2017 AOP	
	Partial Cut	Clearcut
Bell Mountain	0	0
Isolated Tracts	0	0
Gales Creek	0	103
Larch Mountain	0	0
McGregor	110	0
Rogers	0	375
Scoggins Creek	0	0
Sunday Creek	0	323
Upper Salmonberry	0	116
Wheeler	363	341
Wilark	341	0

Bell Mountain Basin

There is no harvest operation planned for this basin.

Isolated Tracts Basin

There is no harvest operation planned for this basin.

Gales Creek Basin

Josey Gales: This is a 103 acre modified clearcut. The sale areas contain Douglas-fir stands ranging in age between 60 to 63 years-old. Area 1 has a current stand condition of Layered. The Desired Future Condition of the sale is for non-complex stands. Following harvest the area will be planted with Douglas-fir seedlings with a minor amount of western hemlock and western red cedar seedlings.

Streams within this sale drain into the South Fork of Gales Creek. There are approximately 14 acres of the sale located within the outer edge of the Devils Lake Fork Wilson River Aquatic Anchor. There are no streams located within these 14 acres.

Approximately 0.87 mile of road will be constructed to facilitate harvesting this sale. This road will remain open for a period of time following harvest to facilitate the reforestation of the sale. Approximately 0.6 miles of road will be improved in conjunction with this sale and .06 miles of road will be vacated.

Larch Mountain Basin

No harvest operation is planned within this basin.

McGregor Basin

Beside Eastside: This is a 110 acre first entry moderate partial cut. The Douglas-fir stand within this sale is 30 years-old with a salal understory. The current stand condition is Understory. The Desired Future Condition of the sale is for non-complex stands. The thinning prescription is designed to improve the growing conditions within the stand.

Streams within this sale flow into a tributary of the South Fork of Clear Creek.

Moving Music (ALT): This is a 119 acre modified clearcut. The mixed Douglas-fir stands within the sale are approximately 69 years-old with a salal/vine maple understory. The majority of the sale has a stand condition of Understory while a 12 acre portion is currently classified as Layered. The sale has a Desired Future Condition of complex stands, but is currently part of the Landscape Design Modification that would change the DFC to non-complex stands. Following harvest the areas will be planted with Douglas-fir seedlings and a minor amount of western hemlock and western red cedar seedlings.

Streams within the sale flow into a tributary to the North Fork of Wolf Creek.

Approximately 1.4 miles of road will be constructed to facilitate the harvesting of this sale. A mile of road will be improved in conjunction with this sale including replacing a culvert that prohibits fish passage with one that allows fish passage.

The harvest unit is not within an NSO Provincial Circle, however, 1 acre of new road construction needed to access the operation is located within the outer edge of the South Rock Creek NSO Circle. The NWOA biologist has prepared a biological assessment for the removal of 20 to 30 trees from the outer edge of the circle. This assessment will be reviewed by the US Fish and Wildlife service.

Rogers Basin

Camp View: This is a 151 acre modified clearcut separated into 2 areas. The sale is located within stands that range in age from 58 to 64 years-old with a swordfern/vine maple understory. The sale has a current stand condition of Closed Single Canopy and Understory. The Desired Future Condition of both sale areas is for non-complex stands. The sale will be planted with Douglas-fir seedlings with minor amounts of western hemlock and western red cedar following harvest.

Streams within the sale drain into the South Fork Wilson River and Tuffy Creek.

Approximately 0.6 miles of road will be constructed to facilitate the harvest. These roads will remain open to provide access during reforestation activities. Approximately 2.4 miles of road will be improved in conjunction with this sale. This includes replacing a culvert that is impassible to fish on the University Falls Road.

Roger That: This is a 114 acre modified clearcut. The stands within the sale consist of mixed conifer aged 63 to 66 years-old with a salal/vine maple understory. Approximately 100 acres of the sale is currently classified as Understory while the remaining 14 acres is classified as Closed Single Canopy. The Desired Future Condition of the sale is for non-complex stands. The sale will be reforested with a mixture of Douglas-fir, western hemlock and western red cedar seedlings.

Streams within the sale flow into the South Fork Gales Creek.

Approximately 5.3 miles of road will be improved in conjunction with this sale. The improvement work includes road resurfacing, replacing damaged and undersized culverts, and installing new culverts to disconnect road runoff from live streams.

Woods Way: This is a 110 acre modified clearcut. The stands within this sale contain mixed conifer species that are between the ages of 59 to 69 years-old. The majority of the sale area is currently classified as Closed Single Canopy, with 33 acres classified as Understory and 13 acres classified as Layered. The Desired Future Condition of the entire sale is for non-complex stands. Following harvest the areas will be planted with Douglas-fir seedlings and a minor amount of western hemlock and western red cedar seedlings.

Streams within the sale flow into the South Fork Wilson River.

Approximately 0.9 miles of road will be constructed to facilitate the harvest of this sale. Approximately 0.2 miles of road will be blocked following harvest. The remaining roads will stay open to provide access during reforestation activities. Approximately 2.3 miles of road will be improved in conjunction with this sale.

Scoggins Creek Basin

No harvest operation is planned within this basin

Sunday Creek Basin

Boxcar Willie: This is a 113 acre modified clearcut. The Douglas-fir within this sale range from 38 to 49 years-old. The majority of the sale is currently classified as Layered with 27 acres of the sale classified as Understory. The Desired Future Condition for the sale is for non-complex stands. The sale will be reforested with Douglas-fir seedling with a minor amount of western hemlock and western red cedar seedlings.

Streams within the sale flow into the North Fork of the North Fork of the Trask River.

No road construction is needed to access this sale. Approximately 8.7 miles of road improvement will be done in conjunction with this sale.

Blind Ambition: This is a 97 acre modified clearcut. The Douglas-fir trees within the sale are 60-years-old. The stand is currently classified as Understory. The sale has a Desired Future Condition of non-complex stands. Following harvest the areas will be planted with Douglas-fir seedlings and a minor amount of western hemlock and western red cedar seedlings.

The streams within this sale flow into a tributary of the Tualatin River.

No new road construction will be needed to access this sale. Approximately 3.4 miles of road will be improved with this sale.

Schetky Green: This is a 113 acre modified clearcut. The sale is comprised of a 60 year-old Douglas-fir stand. The stand is currently classified as Understory. The Desired Future Condition is for non-complex stands. The sale will be reforested with a mixture of Douglas-fir, western hemlock and western red cedar seedlings.

Streams within the sale flow into a tributary of the North Fork of the North Fork of the Trask River.

Approximately 0.57 miles of new road construction is needed to facilitate the harvest of this sale. Approximately 0.7 miles of road will be vacated within the area following the harvest. Approximately 2 miles of road will be improved in conjunction with this sale.

Upper Deck (ALT): This is a 111 acre modified clearcut separated into two areas. Area 1 is a 43 year-old Douglas-fir stand currently classified as Understory. Area 2 is a 61 year-old Douglas-fir stand currently classified as Closed Single Canopy. The Desired Future Condition for both areas is for non-complex stands. Following harvest, the areas will be reforested with a mixture of Douglas-fir, western hemlock and western red cedar seedlings.

Streams within this sale flow into Sunday Creek.

Approximately 0.2 miles of new road construction is needed to facilitate the harvest of this sale. Approximately 0.7 miles of road within the area will be blocked following the completion of harvest.

Upper Salmonberry Basin

Salmonberry Bends: This is a 116 acre modified clearcut. The sale is located within a 64 year-old mixed conifer stand currently classified as Closed Single Canopy. The Desired Future Condition of this sale area is for non-complex stands. The areas will be reforested with a mixture of Douglas-fir, western hemlock and western red cedar seedlings.

Streams within this sale flow into a tributary of the North Fork Salmonberry River.

No new road construction is necessary to access this sale. Approximately 1.5 miles of road will be improved in conjunction with this sale.

Wheeler Basin

Mega Lou Mania: This is a 118 acre modified clearcut separated into two areas. The sale is located within a 79 year-old Douglas-fir stand. The majority of the sale is currently classified as Understory with 24 acres classified as Layered. The Desired Future Condition of the sale is for non-complex stands. Following harvest, the sale will be planted with a mixture of Douglas-fir, western hemlock and western red cedar seedlings.

Streams within the sale flow into the North Fork Lousignont Creek. Both areas of the sale are located within the Lousignont Creek/Upper Nehalem River Aquatic Anchor (AA). The fish bearing stream located within Area 1 will be protected with a 100 foot no harvest stream buffer. The small, perennial, non-fish bearing stream within Area 1 will be protected with a 50 foot no harvest stream buffer. There are no perennial streams located within Area 2. These protection measures follow the Aquatic Anchor strategies.

Approximately 1 mile of new road will be constructed to facilitate the harvest of Area 1. These roads will remain open to provide access during reforestation activities.

My Mulligan: This is a 108 acre modified clearcut. This sale is located within a 76-year-old mixed Douglas-fir and western hemlock stand. This stand is currently classified as Layered. The DFC for this sale is for non-complex stands. After harvest, the area will be reforested with a mixture of Douglas-fir, western hemlock and western red cedar seedlings.

Streams within this sale flow into Lousignont Creek. This sale is located within the Lousignont/Upper Nehalem River Aquatic Anchor (AA). The small perennial non-fish

bearing streams within the sale will be protected with 50 foot no harvest buffers as per AA strategies.

No new road construction or road improvement projects are planned at this time.

Old Norse: This is a 116 acre modified clearcut. The sale is located within 69-70 year-old mixed conifer stands currently classified as Layered. The Desired Future Condition of the sale area is for non-complex stands. The sale will be planted with a mixture of Douglas-fir, western hemlock, and western red cedar.

Streams within this sale flow into Lousignont Creek. This sale is located within the Lousignont/Upper Nehalem River Aquatic Anchor (AA). The small, perennial, non-fish bearing streams within the sale will be protected with 50 foot no harvest buffers as per AA strategies.

No new road construction or road improvement is planned at this time.

Step Over (ALT): This is a 113 acre modified clearcut. The Douglas-fir stands within this sale are between 76 to 79 years-old currently classified as Understory. The Desired Future Condition of the sale is for non-complex stands. The sale will be reforested with a mixture of Douglas-fir, western hemlock and western red cedar.

Streams within the sale flow into a tributary to the Nehalem River and a tributary of Step Creek. This sale is located within the Lousignont/Upper Nehalem River Aquatic Anchor (AA). The small, perennial, non-fish bearing streams within the sale will be posted with 50 foot no harvest buffers as per AA strategies.

Approximately 0.8 miles of new roads will be constructed to facilitate this harvest. These roads will remain open to provide access during reforestation activities.

The cultural resources review conducted by a qualified archaeologist at the Oregon Department of Transportation (ODOT) indicated that an old wagon road may have been located within the sale area at one time. The sale area has been reviewed for potential resources in the field by district staff and no cultural resources were found.

Voltaire's Flair: This is a 363 acre moderate partial cut. This is a first entry thinning within a 31 year-old Douglas-fir stand currently classified as Closed Single Canopy. The Desired Future Condition for this sale area is for non-complex stands.

Streams within this sale flow into a tributary of the Nehalem River and Carlson Creek. This sale is located within the Lousignont/Upper Nehalem River Aquatic Anchor.

No new road construction is needed to access this sale. Approximately 0.5 miles of road will be improved in conjunction with this sale. Following the completion of harvest, 0.5 miles of road within the area will be blocked.

Both the district cultural resource layer and the cultural resources review conducted by a qualified archaeologist at ODOT indicated that there may have been cabins within the sale area at one time. The sale area has been reviewed for potential resources in the field by district staff and no cultural resources were found.

Wilark Basin

Kirk to Enterprise: This is a 341 acre moderate partial cut separated into four areas. The Douglas-fir stands that are within this sale are between 34-39 years-old and currently

classified as Understory. The Desired Future Condition for this sale is for non-complex stands.

Streams within Areas 1 and 2 flow into Carcus Creek; Area 3 streams flow into Clatskanie River and streams within Area 4 flow into Clatskanie River and Oak Ranch Creek.

Approximately 0.4 miles of road will be constructed to facilitate the harvest. These roads and another 0.3 miles of spur roads in the area will be blocked following the completion of harvest. Approximately 4.5 miles of road will be improved in conjunction with this sale.

Forest Roads Management

Overview

The district's primary road network is an established system that has been in place for over twenty years. It provides access for forest management activities, fire suppression, and recreation. Visions, guiding principles, and goals for managing the district's road network are discussed in the *Northwest Oregon State Forests Management Plan* (April 2010) and the *State Forest Roads Manual* (July 2000). The *State Forest Roads Manual* also provides standards and guidance for all road management activities and definitions, road classifications and other terms.

The district's total road system consists of mostly collectors and spurs; in total approximately 700 miles of mostly single-lane roads with turnouts. Many of the district's main roads (collectors) were originally built as railroads and then converted to truck roads in the 1940s and 1950s to standards considerably less stringent than those applied today. These roads were originally often constructed with inadequate drainage systems, poor surfacing, and little regard for slope stability and fish passage. Most of these roads have been upgraded and now have rock surfacing, and improved width and alignment. There are still a few roads that are a legacy from those earlier decades and need improvement, access restriction, or vacating.

Road drainage structure improvement continues district wide. The district is in the process of inventorying all road culverts; 589 miles have been inventoried of the 795 total district miles. The culvert inventory will help identify such issues as maintenance needs, undersized culverts, and connected ditchlines. A connected ditchline is where ditch water flows directly into streams, resulting in increased sediment. Cross drain culverts are installed just before stream crossing culverts and direct water onto the forest floor away from live streams.

Almost all of the road work in this AOP is related to constructing spur roads and for improving haul routes for the FY17 timber sales. In addition, the District road crew will be maintaining roads not used for timber sales. Timber sale associated road work is summarized in the Forest Roads Summary Table A-4.

Identification and control of invasive weeds, mostly scotch broom, is a priority during this fiscal year. The District has been inspecting roads for presence and severity of scotch broom on District roads as limited resources are available.

Under this Plan, 4.3 miles of road will be constructed, and 31.3 miles of road will be improved. Of the roads to be improved, all are collector or spur roads that are part of the existing road system and will be improved to maintain current road standards.

Road Construction

Road construction and improvement identified in this plan will be primarily achieved through project work connected with timber sales.

There are 4.3 miles of new rocked construction in the AOP. Construction costs are estimated at \$385,200. Most of these spur roads will be constructed on gentle slopes. New LiDAR based slope information was helpful in locating roads away from locally steep slopes.

Road Improvement

Approximately 31.3 miles of road will be improved as part of the FY17 primary timber sales.

The majority of this improvement work will be performed on collector and spur roads and will consist of installing new cross drains and disconnect culverts, replacing culverts, ditchline improvements, and new surfacing. Improvement costs are estimated at \$1,085,400.

Road Access Management

Approximately 2.2 miles of road will be vacated or blocked as part of timber sales in this years' AOP. Upon completion of logging, 0.8 miles of dirt roads will be vacated and 1.4 miles of dirt roads will be blocked. Roads continue to be planned to reduce conflicts with recreational uses, and keeping the correct users on the correct road or trail, reducing conflicts when trails cross or use roads.

Total road vacating and blocking projects are estimated at \$16,000.

Road Maintenance

Roads will be maintained as necessary to protect water quality and the road system asset value. Road maintenance activities will follow the maintenance guidance in Chapter 7 of the Forest Roads Manual and the Forest Practices rules. Road maintenance is accomplished under timber sale contracts for roads used for hauling forest products, and using the district road crew for all other roads. Maintenance is focused on ensuring proper drainage to prevent sediment entering streams. After this, roads are graded to allow efficient forest management and where needed, recreation. Collector roads and roads in active sale areas need and get the most maintenance. District personnel respond to heavy storms and thaw periods by performing road inspections, additional maintenance, and where necessary, stopping heavy truck use during periods when roads cannot handle traffic without damage to water quality or the road asset.

Land Surveying

There has not been an active land survey program on the District for a number of years. Fortunately, many of our neighbors have been surveying, and have marked property boundaries. For the FY17 AOP, property lines need to be surveyed for Kirk to Enterprise; an estimated 4.5 miles of line will be run for \$40,000.

Young Stand Management

The district's strategy is to use silvicultural tools to establish and maintain diverse stands of well-adapted natural species throughout the landscape to meet the objectives and goals in the Forest Management Plan and Forest Grove District Implementation Plan. These tools include site preparation, planting, animal damage control, vegetation management, pre-commercial thinning, and interplanting or replanting. Each practice must be considered and prescribed for individual stands on a site-specific basis.

This section describes the types and anticipated amounts of reforestation and young stand management activities that will occur in FY17. Also refer to the attached Young Stand Management Table (Appendix A, Table A-5) for further details. The location and amount (acres) of these activities are estimates based on plans, information and conditions as known at this point in time. The type, amount and specific stand management prescriptions will be further adjusted based on when existing harvest units are completed and on updated assessments and surveys that will occur during and after the 2016 growing season.

Reforestation activities will be completed by using experienced contractors. Also, a portion of the activities will be completed by utilizing inmate crews from South Fork Camp. South Fork Camp is a correctional facility that has joined in a cooperative effort between the Department of Corrections and Oregon Department of Forestry located west of Forest Grove near Highway 6. These crews work on such activities as, planting, inter-planting, tree protection, mechanical hand release, and noxious weed control.

Site Preparation

These activities prepare the planting sites so new stands can be effectively established. Treatments include slash burning, mechanical site preparation, and chemical treatments.

- 1) Slash Burning: There is one sale that is completed for which broadcast burning is being considered in FY17. Fighting Phellini, 116 acres, is riddled with Laminated Root Rot and will be converted to resistant and immune species, primarily red alder. Quality site prep is essential for alder to gain quick establishment and optimum performance. Effective and efficient vegetation control after planting red alder is extremely difficult. This unit has favorable burn boundaries and is conducive to training for district personnel. The decision to proceed with it will be determined in the fall including involvement and coordination with Protection Unit staff.

Other harvest units completed in 2015 and 2016 will be considered for burning of landings and piles to reduce fire hazard and create additional planting spots within the units. Post-harvest assessments will determine the actual necessity to burn.

- 2) Mechanical Site Preparation: There are 4 units that may need some amount of mechanical site preparation, up to 150 acres, which is included in the timber sale contract. The scheduled units are Blazing Saddles, Sain Way, Mor Nor Wolf, and Chicken of the Tree. Portions of the units have relatively gentle terrain in that can be accessed by equipment to accomplish site preparation without causing significant soil compaction.

Mechanical site preparation may include slash manipulation or piling and reduction of competing vegetation. It is utilized where slopes are less than 35%, brush and/or harvesting debris prevent the planting and establishment of the desired number of trees per acre and burning is either more costly or impractical due to poor control boundaries or smoke management restrictions. Planting spots are created in a fairly even distribution.

- 3) Chemical Site Preparation: This method of site preparation is used when it is found to be the most cost effective method to control vegetation that would severely impact the survival and growth of newly planted seedlings. The objective is to control brush species to allow stand establishment and maintain 2-3 years free of significant competing vegetation. The current estimate is for approximately 875 acres. The actual site preparation plan will be prepared in late spring when harvest unit availability and brush development is better known. Approximately 90% of the chemical site preparation will be completed by helicopter spraying, while 10% will be done using ground base methods where aerial application is not cost effective or to protect adjacent ownership or specific resources (i.e. water).

Planting

Initial Planting: Planting activities establish the desired species and stocking levels to meet the goals in the Forest Management Plan. Seedlings are planted in modified clearcuts, areas that have had *Phellinus weirii* treatment, and stands where current stocking does not meet Forest Management Plan goals.

- 1) Initial Planting (Clearcut Units): There are an estimated 1100 to 1200 acres that will be planted during FY17. All of these sites will be planted to allow for the establishment of stands that can be managed to provide complex structure. A mix of transplant and plug Douglas-fir stock will compose 70%-85% of the planting stock on these sites where root rot is not a concern. Other native species will be selected and either mixed with the Douglas-fir or planted on micro sites for which they are best suited. These species include noble fir, grand fir, western hemlock, western red cedar, and red alder plug stock. Where root rot is a concern resistant and immune species will be planted such as, western red cedar, western hemlock, and red alder. The objective of planting a variety of species is to create a healthy and diverse stand by placing tree species on sites for which they are well adapted and where they will experience a high rate of survival and growth. Majority of the planting will be completed by contractors, while approximately 25-30% will be done by utilizing South Fork inmate crews.
- 2) Interplanting: The interplanting objective is to raise stocking in young plantations that are below acceptable levels, to a minimum of 300 trees per acre. Surveys are conducted one and two years after initial planting to determine interplanting needs. Where necessary, interplanting is done the following winter. During the spring and fall of 2016, surveys will be conducted to determine interplanting needs for the 2017 planting season. The current estimate is 150 acres, based on historical averages prior to the 2012 stock failure. Approximately half of the project will be done by utilizing South Fork inmate crews, while the other portion will be done by contractors.
- 3) Underplanting: None planned in FY17.

Vegetation Management

Vegetation management is done to reduce light or moisture competition in a young stand of trees to improve survival and growth. Vegetation management may be required to meet forest practices reforestation stocking requirements, the NW Oregon State Forests Management Plan and the Forest Grove District Implementation Plan.

Vegetation management can be categorized as manual cutting, aerial application of herbicides, and ground-based application of herbicides. Each method is tailored to the location and vegetation control needs and all three are valuable tools used to manage vegetation in young stands. For noxious weed control, ground based application of herbicides will be the most effective and common treatment, although manual cutting is also used in some circumstances.

Emphasis is being put on site preparation and planting the first season following timber harvest, resulting in better performance of trees in planted units, a reduced need for follow-up interplanting or vegetation management, and the opportunity for diverse vegetation to develop along with planted trees. Plantations will be evaluated during the spring and summer of 2016 to determine treatment needs for FY17.

Manual: The current estimate is 100 acres, based on historical averages. This work will be accomplished by utilizing South Fork inmate crews.

Chemical: The current estimate is 350 acres. Any areas that show development of unacceptable levels of competing vegetation will either be treated by helicopter or on the ground by hand.

Invasive Species: Reforestation continues to work with the Marketing, Forest Roads, and Recreation Units to identify appropriate steps each unit can take to prevent the introduction and spread of invasive plants. Knotweed, Scotch broom, and false brome are the primary species known to exist in the District. Active control measures are being planned and prioritized for roadside, in-unit, and trail treatment. Funding is limited. Two harvest units are scheduled for site preparation herbicide treatment as a preventive measure to inhibit the invasion of scotch broom. They are the Four Corners and Dairy Delight timber sales, totaling 263 acres.

Tree Protection

Deer and elk, as well as mountain beaver, can heavily damage young stands and prevent meeting Forest Management Plan goals. Various tree protection strategies are applied to help re-establish trees in areas with high concentrations of these species. Most commonly, various types of physical barriers are to help prevent damage from big game. Mountain beaver populations have greatly increased in the past few years across the District. We continue to observe historically high levels of damage.

Approximately 25 acres of new tube installation and maintenance will be required with the FY17 planting for protection of western red cedar. The bulk of this is located in micro-sites well suited to cedar or in pockets of *Phellinus weirii* (root disease) delineated in harvest units. Bud capping will be required on approximately 120 acres where heavy populations of big

game are present. The need for mountain beaver trapping has been projected on approximately 650 acres. Heavy populations are being trapped in harvest units prior to planting. Majority of this work will be accomplished by utilizing South Fork inmate crews.

Pre-commercial Thinning

Considerable acres of PCT were accomplished in the 2012 fiscal year utilizing American Recovery and Reinvestment Act dollars, allowing us to get “ahead of the game” by thinning some stands early. Although no PCT is scheduled for the FY17 AOP due to budget constraints, the district will survey and evaluate potential stands for pre-commercial thinning needs over the fiscal year. It is anticipated there will be 400-500 acres for FY2018.

Fertilization

Budget constraints in FY17 eliminate the consideration of any fertilization.

Pruning

No pruning is planned for FY17 beyond W. white pine for disease prevention of blister rust. Approximately 40 acres are anticipated. This work will be accomplished by utilizing South Fork inmate crews.

Recreation Management

Overview of Recreation Management

Recreation use has been taking place on the Tillamook State Forest and the Forest Grove District for more than 60 years and has been managed in varying degrees since the 1960s. Currently the direction for management of the Recreation program flows from the Northwest Oregon State Forest Management Plan (2001), the Tillamook State Forest Comprehensive Management Plan (1993), and the Recreation Action Plan 2000 (2001). Budget levels remain static and Agency focus continues to be on maintaining existing infrastructure and opportunities.

Planned Activities for 2017

Facilities

The Forest Grove District plans to operate and maintain the following developed facilities:

- 5 campgrounds
- 2 day use picnic areas
- 2 highway wayside interpretive sites
- 12 trailhead facilities

All developed facilities will be operated and maintained in good working order and will be kept clean and safe for public use and managed to minimize user conflict and to avoid adversely impacting the resource. The operating season for developed campground facilities will remain consistent with the FY2016 operating season.

Dispersed Use

Each year, an extensive amount of dispersed recreation use occurs across the Tillamook State Forest. Most of this use is associated with recreation activities such as hunting, camping, angling, sight-seeing, target shooting, swimming, and mushroom picking. Most of these activities take place at specific dispersed use sites. These activities are expected to continue in 2017 and will require varying degrees of District staff attention. Dispersed use sites will be monitored, maintained, and improved as resources allow, to meet safety, sanitation, and resource protection objectives.

See Table 6 below for developed and dispersed facility maintenance and improvement projects planned for FY2017

Table 6. Developed and Dispersed Facility Projects

Project Type	Project Name	Work Resources	Project Description
Facility Improvement	Information Board Replacement	District staff and South Fork Inmate Crew	Project work will involve replacing one 4'x4' information board and one 4'x6' information board at Reehers Camp Trailhead.
Facility Improvement	Picnic Table Replacement	Contractor / South Fork	Replacement of five picnic tables in Browns Camp OHV Campground and staging area and 14 picnic tables at Elk Creek Campground, and one 10 foot picnic table at Gales Creek Campground.. Project work consists of purchasing materials from local providers and working with South Fork to fabricate and install the tables. The new tables will replace failing tables most of which were installed more than 15 to 20 years ago.
Facility Improvement	Browns Camp Gates	District Staff / South Fork	Project work will consist of moving two gates on Scoggins Road to more appropriate locations for managing public use and installing a new gate on the spur road to the Browns Camp helipad spur road.
Facility Improvement	Rogers Camp Interpretive Site Improvement	District Staff	Project work will involve improving a site for placement of new interpretive signs that discuss the history of Rogers Camp and the Tillamook Burn.
Dispersed Site Improvement	Lyda Camp and Woods Point Site Improvement	District Staff	Project work will involve developing a site design plan to create more formal campsite areas to better address safety, sanitation, and user conflict issues.
Dispersed Site Improvement	Wilson River and Idiot Creek Dispersed Site Improvement	District Staff / Resource Specialists	Project work will involve developing design plans for each of the dispersed sites. Design work will address staff safety, resource impact, sanitation, and user conflict issues. Construction work will take place depending on funding and crew capacity.

OHV Trails

The District will continue to place emphasis on maintenance and upgrade of existing trails, development of partnerships to increase our capacity to manage the trail network, and on upgrading and improving the designated OHV trail network in an effort to better connect the trail system, protect forest resources, re-establish trails after timber harvest, move trail users off the mainline haul and public use roads, reduce trail congestion and the potential for conflict between trail users, improve user safety, improve maintenance efficiency, and reduce infrastructure investments and maintenance workload.

2017 OHV trail projects are identified and described in the following table (Table 7)

Table 7. OHV Trail Projects

Project Type	Project Name	Project Mileage	Work Resources	Project Description
Trail Construction and Upgrade	Back to Back Trail	½ to ¾ mile	District Staff / ODF Equipment Operators / Volunteers	Project work will consist of: <ul style="list-style-type: none"> Construction of ½ to ¾ miles of trail. This MC/Quad trail project will disperse trail users, improve trail system diversity and flow, reduce user conflict, improve public safety, reduce OHV use along forest roads and minimize the impact to trail network connections due to forest management operations.
Trail System Improvement Planning	Trestle Trail	1.5 to 2 miles	District Staff / Resource Specialists / Volunteers	Integration planning, trail location and design, and partnership development. This motorcycle trail project will improve public safety, trail system diversity and connectivity, and replacement opportunity lost as a result of timber sale and road construction activity over the years.
Trail Improvement Planning	Elliott Creek Trail bridge Replacement	35 foot long trail bridge	District Staff / Resource Specialists	Planning, design, and fundraising work to replace an old log stringer bridge that is failing and does not meet current bridge design standards
Trail Improvement Construction	Elliott Creek Trail Reroute	1 mile	District Staff / OHV Equipment Operators	This project involves construction a 1 mile of new trail and closure and restoration of 0.35 miles of old trail. The new segment will improve sustainability and reduce conflicts between motorized and non-motorized trail users.
Trail Improvement Planning	Powerline Trail Reroutes	1.5 to 2 miles	District Staff / Resource Specialists	Project work will include integration planning, resource specialist review, BPA review and reroute concept development and location and design work.

Non-motorized Trails

The District will be focused on making improvements to existing non-motorized trails to address user safety, resource protection, investment protection, sustainability, and user accommodation. FY2017 non-motorized trail projects are identified and described in the following table (Table 8)

Table 8. Non-Motorized Trail Projects

Project Type	Project Name	Project Mileage	Work Resources	Project Description
Trail Improvement	Dooley Spur Loop Trail Bridge 2 and 3 Replacement	Bridge 2 20 feet Bridge 3 20 feet	District Staff, Resource Specialists, South Fork Crew	This project will involve planning, fundraising, design and construction of the new bridges.
Trail Improvement	Gales Creek Trail Segment A Bridge 5 Reroute	¼ mile RR	District Staff and South Fork Crew	This project will involve construction of a ¼ mile reroute, removal of bridge 5 and a 30 foot long turnpike, and closure and restoration of 1000 feet of existing trail.
Trail Improvement	Gales Creek Trail Segment C Reroute	1 mile RR	District Staff and South Fork Crew	This project will involve construction of approximately 1 mile of trail in two different sections and vacating and restoring ½ mile of existing trail.

Trail Maintenance (OHV and Non-motorized)

Maintenance of existing trails remains our highest trail program priority. Trails will be maintained as necessary to protect investment, address developing issues, and to protect water quality. Trail maintenance activity includes the completion of trail condition assessments (112.7 motorized. 65 non-motorized), development of maintenance strategies, and completion of maintenance work. Basic trail maintenance work typically involves cleaning water bars and rolling dips, cleaning out culverts, basic trail tread work, repairing trail bridges, clearing downed trees, brushing, and sign replacement.

The District expects to complete condition assessments and trail clearing maintenance on all trails and will complete user safety and resource protection maintenance as needed. Other basic trail maintenance work is completed on most trails every two or three years. Approximately 65% to 70% of the network will receive basic maintenance attention in 2017.

Volunteer Program

The recruitment and use of volunteers is critical to the overall success of the recreation program. The district currently manages a Volunteer Program that includes the following recreation oriented sub-programs:

- | | |
|-----------------|---|
| Camp Host | Trail Maintenance and Construction Work Parties |
| Adopt a Trail | OHV Trail Equipment Volunteer Operator |
| Forest Clean-up | Trail Patrol |

Activities associated with the volunteer program will include the recruitment, selection, and management of campground hosts; planning and management of trail maintenance, trail development, and special volunteer projects; facilitation of Adopt a Trail program activities; and management of the Tillamook State Forest Volunteer Trail Patrol program. The Recreation Unit anticipates facilitating between 5,000 to 6,000 hours of volunteer contribution in FY2017.

Event Management

The Forest Grove district permits organized sponsored trail use events. Both motorized and non-motorized trail events are held on the district. The events consist of poker runs (fun runs), competitive timed motorcycle races, trials motorcycle competitions, and four-wheel drive rallies. Other events, such as equestrian poker rides, mountain bike races, running races, and archery events are scheduled less frequently. Non-motorized events will be evaluated to determine if the District has the capacity to support proposed event activities. In FY 2017 the district expects to review, permit, and administer 8 to 10 motorized trail events and 2 non-motorized trail events. Motorized events for FY 2017 were scheduled at a meeting in December, 2015. There are no plans to pre-schedule FY 2017 non-motorized events.

Grants

The Recreation Unit expects to administer and apply for several grants in FY2017 to support project and program activity.

- ATV and RTP grants to support purchase of OHV trail maintenance equipment.
- RTP grant to support replacement of trail bridges.
- Tillamook County Transient Lodging Tax grant to support purchase and installation of vault toilet at Elk Creek Trailhead.
- RTP grant and an ATV grant to support purchase and installation of a vault toilet at Lyda Camp OHV Staging Area.
- Yamaha Access Initiative grant to support replacement of an OHV trail bridge.

Law Enforcement

ODF and the Tillamook County Sheriff's Office (TCSO) partner to maintain 3 full time forest deputies that are funded through ATV grants and ODF dollars. Forest Grove District staff work closely with the forest deputies and Tillamook District staff to facilitate law enforcement activity on the district.

The forest deputies enforce state, federal, and forest recreation laws with an emphasis on ATV enforcement as they patrol the forest. Deputies also provide search and rescue services as needed. Fire laws pertinent to recreation use are enforced by county deputies, fire protection, and recreation staff. The forest deputies are essential to the success and overall management of the forest and their presence benefits all forest users.

Forest Grove District staff also work closely with the Washington County Sheriff's Office to support and facilitate law enforcement patrol and search and rescue activities on the Tillamook State Forest in western Washington County.

Unplanned Activities

The activities above represent project and program work items for the fiscal year. However, the Agency often receives requests from non-profit and commercial businesses to utilize the forest for their trail use events or business ventures. Any new requests beyond the above

described workload will be reviewed and evaluated based on the following criteria to determine whether or not the request will be permitted:

- Safety
- Risk of environmental damage
- Risk of trail and facility impacts
- Conflict with other forest users
- Conflict with other forest management activity
- Contributions to social, environmental, and economic goals
- Contribution to forest management plan goals
- Risk of fire
- Impacts on law enforcement
- Staff workload
- Opportunity for new partnerships and increased program capacity

Land Exchange

There are no active land exchange projects for this AOP.

Other Integrated Forest Management Operations

District Annual Operation Firewood Cutting Plan

The district administers an active public woodcutting program issuing between 2,000 and 3,000 permits annually, generating \$20,000 to \$30,000 in gross revenue. The Forest Grove District will continue to issue personal firewood cutting permits in the coming year for the entire district.

Where:

The entire district will be open to wood cutting as described on the permits **except** for areas shown on maps attached to permits. Areas excluded from wood cutting are sold timber sales, recreation sites, planned operations, ODOT right of way, etc. All of these areas are shown as cross hatch on the maps. The district is divided into four basins for the purpose of issuing firewood permits.

When:

Permits will be issued for 3 week periods, during the months outside the fire season. Wood Cutting will be closed from July 1st until end of fire season.

Who:

Personal firewood cutting permits will be issued with a limit of 5 permits per individual or household per 12 month period (fiscal year, July 1st – June 30th). Oregon Department of Forestry does not guarantee the quality or availability of wood when issuing firewood cutting permits. Permits will be sold and administered to employees under the same process as used by public.

Permit Fee:

The permit cost is \$20 for 2 cords of firewood and is not transferrable to another party.

Miscellaneous Forest Products

Approximately 200 miscellaneous forest products permits are sold each year, mostly for salal and mushrooms, generating approximately \$20,000 in revenue. In addition, the district sells a small number of negotiated timber sales. These sales may be utilized for recovery of wind thrown trees, fire killed trees, or when an adjacent landowner needs to purchase right-of-way timber from the state in the event they have been granted permission to construct an access road across state ownership. These special sales usually generate revenues between \$40,000 and \$80,000 annually.

Planning (and Information Systems)

Below are the significant district-level planning projects currently scheduled for commencement, completion, or both in FY17.

Stand Level Inventory and Other Vegetation Inventories

During FY 17, Stand Level Inventory (SLI) is planned for 32 stands totaling approximately 3,400 acres. Stocking surveys will be conducted on approximately 2,000 acres of young stands to determine if desired live tree stocking levels have been met and to assess the need to manage competing vegetation or animal damage. These surveys will cost approximately \$20,000.

Wildlife Surveys

Northern Spotted Owl Surveys

For FY17 AOP, the Forest Grove District will be transitioning from its current northern spotted owl survey program of operational surveys to a density survey program, in order to effectively comply with federal and state Endangered Species Acts and to contribute to Forest Management Plan (FMP) goals. Survey requirements are determined in accordance with *ODF Northern Spotted Owl Operational Policies*, February 2013. Density surveys are accomplished with strategically placed calling stations throughout the district ownership which allows for complete survey coverage of all potentially suitable NSO habitat. Some scattered ownership parcels where no operations are planned may not be covered by the density surveys. Bible Belt in the FY 2018 AOP is outside of the density survey area and will receive operational surveys starting in 2016. NSO surveys for 2015 cost the Forest Grove District \$208,028 which is 14.7% of the total cost for NSO surveys for ODF.

Marbled Murrelet Surveys

Most of the Forest Grove District is located within the Systematic Survey Zone (*ODF Marbled Murrelet Operational Policies*, July 2010), except for some ownership parcels in the Bell Mountain Management Basin, thus operational surveys for marbled murrelets will not be

conducted for sales in the FY17 sale plan. The Bible Belt sale in the FY 18 AOP will require operational surveys beginning in 2016.

Table 9. Summary of Operational Surveys for Threatened and Endangered Species

Operation	AOP Year	Species ¹ (NSO/MM)	Survey Years ²	BA ³ Required	Special Considerations
Bible Belt	FY 2018	MM	2016, 2017	No	NSO not habitat

¹ 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.

² Years that surveys have been completed or are planned.

³ 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

The Forest Grove District’s distinguishing geographic feature is its location in relation to the Coast Range divide. About one-half of the district land base drains to the Pacific Ocean and the other half flows to the Willamette River. Five rivers originate within the district. These include the Nehalem River, Salmonberry River, Wilson River, Tualatin River, and the North Fork Trask River. In addition, nine important tributaries feed into these rivers from within the district: Wolf Creek, North Fork Wolf Creek, Lousignont Creek, North Fork Salmonberry, Gales Creek, Devils Lake Fork, South Fork Wilson, Scoggins Creek, and the North Fork of the North Fork Trask River.

Barney Reservoir lies at the district’s southern end and is mostly surrounded by state forest land. Covering approximately 450 acres and with a capacity of 20,000 acre-feet, this reservoir supplies water to much of Washington County.

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: leave 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 6 watersheds in which additional aquatic conservation measures are applied. The Aquatic Anchors include: Upper Rock Creek, Lousignont Creek/Upper Nehalem River, South Fork Salmonberry, Devils Lake Fork Wilson River, Elkhorn Creek and Ben Smith Creek.

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. Streams in the AOP 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 (*State Forest Program Bulletin 09-04, Determining the Upper Extent of Fish Use...*). The physical methodology was developed in conjunction with Oregon Department of Fish and Wildlife. The seasonal/perennial break in the streams will be evaluated during fish distribution surveys or during sale layout.

Aquatic and Riparian Conditions: Watershed assessments have been completed on 3 watersheds 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.

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 (*Forest Grove District 2011 Implementation Plan, "Aquatic Resources – Stream Enhancement Projects", page 38*). 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 Forest Grove District IP.

Projects can be planned or 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. All sales will be evaluated for the ability to do in stream habitat projects. Those projects with high benefit and relative lower costs, which are supported by ODFW, will be implemented as resources allow.

For the Forest Grove District the goals are to:

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

In the FY17 AOP an initial screen by the district, ODFW fish biologist, the ODF Aquatic and Riparian specialist, and ODF road specialists have identified 1 stream within Camp View (Tuffy Creek) as a potential candidate for restoration projects. Two alternate sales, Moving Music and Upper Deck have potential projects that will be reviewed. These streams will be reviewed in the field by ODF's Aquatic and Riparian Specialist and ODFW for potential projects during sale layout.

Planned Projects within the FY 17 AOP:

- 31.3 miles of road will be improved. This includes installing additional cross drain culverts to hydrologically disconnect the roads from streams as possible.

- 1 fish passage issue will be addressed on these roads.
- 1 stream enhancement projects will be completed.

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.

Research and Monitoring

The Forest Grove District will assist in a variety of research and monitoring projects in FY17. Examples include:

- ◆ Red alder research areas.
- ◆ White Pine Blister Rust resistance studies.
- ◆ OSU research areas (commercial thinning and wildlife studies).
- ◆ Commercial thinning and *Phellinus weirii* research areas.
- ◆ Commercial thinning and Swiss Needle Cast study areas.
- ◆ Riparian zone functions study areas.
- ◆ Green tree retention and seedling growth demonstration areas.
- ◆ OSU Intensive Forest Management study.

Other Planning Operations

Other planning activities will include road inventory updates and road closure opportunity plans.

Public Information and Education

Public Information and Involvement

Public information and involvement activities will include review and input regarding the FY17 Annual Operations Plan. In addition, public involvement activities concerning the Recreation program will include planning and facilitating Volunteer Trail Patrol meetings, participating and presenting at user group club meetings, and involving individuals or clubs in various district projects.

Public Education

The district is involved in a variety of projects focused on informing and educating the public and interpreting the natural and cultural history of the Tillamook State Forest.

Associated activities will include:

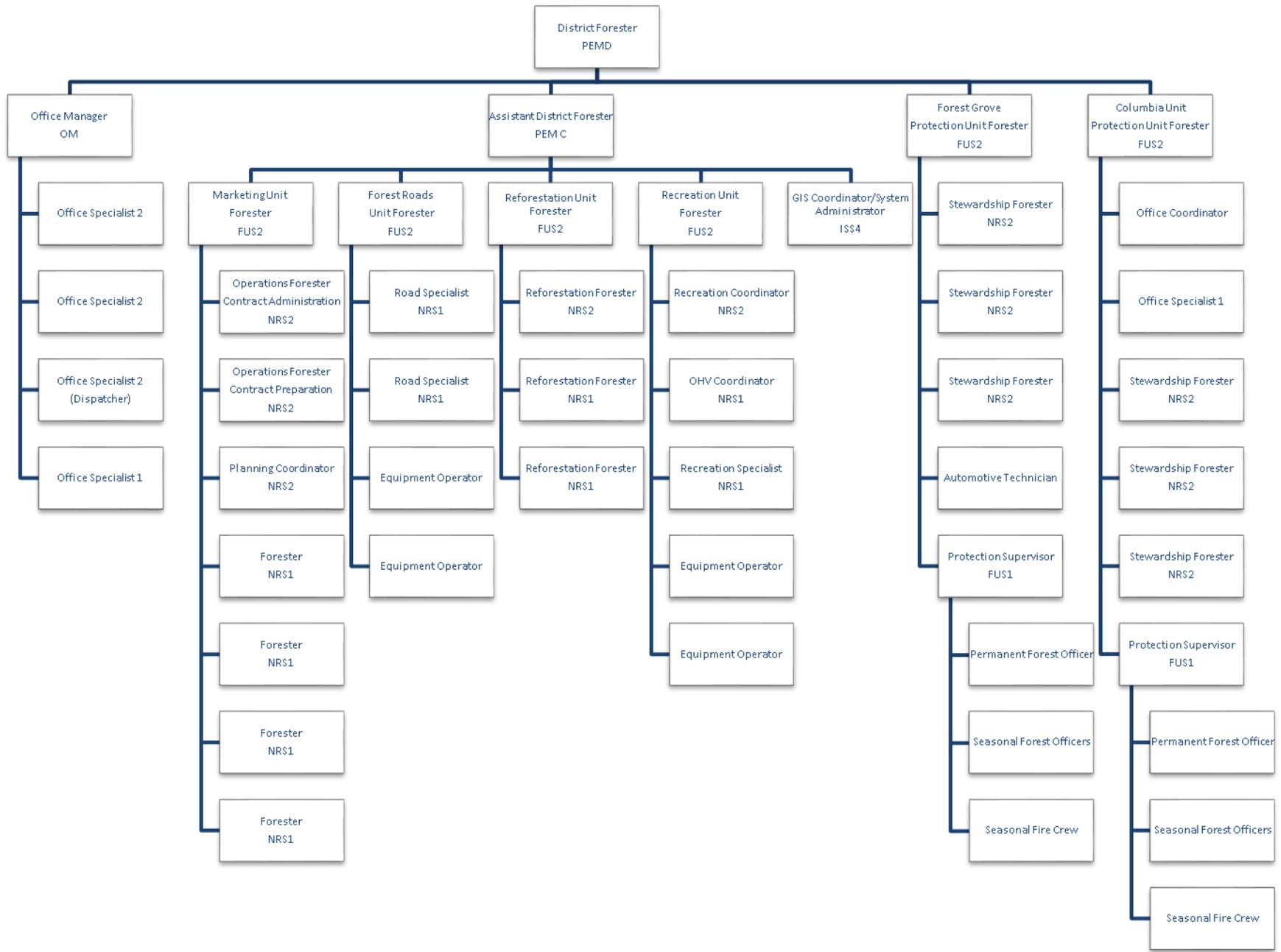
- ◆ Maintenance of the Tillamook State Forest web page and recreation information phone line.
- ◆ Development of information board messages and content.
- ◆ Updating and reprinting OHV and Non-motorized trail guides.
- ◆ Writing press releases about Recreation program projects and recreation opportunities on the Tillamook State Forest.

- ◆ Writing articles for user group newsletters, ODF website, The Lookout, and other publications.
- ◆ Developing tools and displays to recognize and recruit volunteers and to inform and educate the public about Tillamook State Forest recreation opportunities.
- ◆ Supporting local OHV user group education programs.
- ◆ Supporting and participating in NWOA Forestry education and interpretive programs.

Administration

The State Forest Program in Forest Grove District is organized into five separate functional work units. The five 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 staff is also responsible for assisting with special forest products permits and firewood permits.
- ◆ The **Forest Roads Unit** is responsible for the planning and maintenance of the district State Forest road network, the design and administration of all timber sale road development and the establishment and maintenance of State Forest property lines.
- ◆ The **Forest Management / Marketing Unit** is responsible for the planning, preparation and administration of all State Forest timber sales on the district, planning and administering threatened and endangered (T&E) species surveys, and developing and maintaining GIS data and map products related to these functions.
- ◆ The **Recreation Unit** is responsible for the planning and development of new trails and facilities, management of existing trails and facilities (campgrounds, day-use sites trailheads, and staging areas), development and management of volunteer programs, public contact and information, and monitoring and assessment of overall recreational use patterns.
- ◆ The **Reforestation / Young Stand Management Unit** is responsible for all the planning, prescription determination and administration of all reforestation and young stand management activities on State Forest land, including all the associated monitoring and record keeping.



APPENDIXES

A. Summary Tables

1. Harvest Operations – Financial Summary
2. Harvest Operations – Forest Resource Summary
3. Harvest Operation – Stand Structure Summary
4. Forest Road Management Summary
5. Reforestation and Young Stand Management Summary
6. Recreation Management Summary

B. Maps

1. Harvest Operations Vicinity Map
2. Recreation Projects Vicinity Map
3. Recreation Facilities Vicinity Map

C. 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.

D. Public Involvement

This appendix describes the results of the public involvement process of this AOP.

E. Pre-Operations Reports

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

F. Major Revision to the Landscape Design

This appendix describes major revisions to the District's Landscape Design for Desired Future Condition.

G. Minor Revision to the District Implementation Plan

This appendix contains information on a minor revision to the harvest acreage range in the District Implementation Plan.

Appendix A

Summary Tables

- **Table A-1: Commercial Forest Management Operations - Financial Summary**
- **Table A-2: Commercial Forest Management Operations – Forest Resource Summary**
- **Table A-3: Commercial Forest Management Operations – Forest Structure Summary**
- **Table A-4: Forest Roads Summary**
- **Table A-5: Reforestation and Young Stand Management Summary**
- **Table A-6: Recreation Management – Financial Summary**

TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

District: Forest Grove

Fiscal Year: 2017

Date: 05/10/2016

Primary Operation	Fund %		County	Sale Quarter	Net Acres		Volume (MMBF)			Value		
	BOF	CSL			Partial Cut	Clear-cut	Conifer	Hardwoods	Total	Gross	Projects	Net
Beside Eastside	100%		Columbia	4	110		1		1	\$249,613	\$5,000	\$244,613
Blind Ambition	100%		Washington	2		97	3.8		3.8	\$1,337,563	\$270,000	\$1,067,563
Boxcar Willie	100%		Washington	3		113	4.5		4.5	\$1,577,433	\$248,900	\$1,328,533
Camp View	100%		Tillamook	4		151	6.1		6.1	\$2,136,271	\$291,500	\$1,844,771
Josey Gales	100%		Washington	1		103	3.9		3.9	\$1,358,324	\$181,100	\$1,177,224
Kirk To Enterprise	100%		Columbia	2	341	0	3.4		3.4	\$852,050	\$122,700	\$729,350
Mega Lou Mania	100%		Washington	3		117	5.4		5.4	\$1,875,894	\$140,000	\$1,735,894
My Mulligan	100%		Washington	3		108	2.4		2.4	\$837,295	\$0	\$837,295
Old Norse	89%		Tillamook	1		103	4.4		4.4	\$1,558,450	\$0	\$1,558,450
	11%		Washington			13	0.6		0.6	\$192,617	\$0	\$192,617
Roger That	100%		Washington	1		114	3.5		3.5	\$1,219,880	\$194,300	\$1,025,580
Salmonberry Bends	100%		Tillamook	1		116	4.3		4.3	\$1,502,624	\$30,000	\$1,472,624
Schetky Green	100%		Washington	2		113	4.8		4.8	\$1,673,438	\$202,800	\$1,470,638
Voltaire's Flair	76%		Tillamook	4	279		2.5		2.5	\$607,321	\$0	\$607,321
	24%		Washington		84		0.7		0.7	\$191,785	\$12,500	\$179,285
Woods Way	69%	31%	Tillamook	3		110	4.8		4.8	\$1,684,704	\$175,800	\$1,508,904
					814	1,258	56.1		56.1	\$18,855,262	\$1,874,600	\$16,980,662

Alternate Operations

Moving Music	100%		Clatsop			119	6.0		6.0	\$2,093,868	\$208,900	\$1,884,968
Step Over	100%		Washington			113	5.0		5.0	\$1,753,989	\$53,100	\$1,700,889
Upper Deck	100%		Washington			111	4.5		4.5	\$1,573,283	\$26,500	\$1,546,783

Table A-1 Financial Summary

PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

District:

Forest Grove

Fiscal Year 2017

Date: 02/16/2016

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 ¹	Invasive Species	LYR/OFS Structures ²	Landscape Design LYR/OFS ³	Install/Replace Culverts on Fish Bearing / Perennial Streams	Harvesting within 100' of Fish Bearing Stream	Domestic Water Source	Potential Stream Habitat Improvement ⁴	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 ⁵	T&E Plants	Geotechnical Issues Needing Field Review	Recreation Sites	Cultural Resources	Scenic Resources	Other Resources or Issues
Beside Eastside	1		x																	
Blind Ambition	1		x																	
Boxcar Willie	1		x	x										x						
Camp View	1, 2		x						x					x						South Fork Camp is located downstream of the sale.
Josey Gales	1		x	x						x				x						
Kirk To Enterprise	1, 2, 4		x											x						
	3		x				x							x						
Mega Lou Mania	1		x	x						x				x						
	2		x							x										
My Mulligan	1		x	x						x										
Old Norse	1	x	x	x	x					x				x				x		
Roger That	1	x	x											x						
Salmonberry Bends	1		x																	
Schetky Green	1		x																	
Voltaire's Flair	1		x							x				x			x	x		
Woods Way	1		x	x										x				x		

¹ 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

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

³ A 'x' indicate that the operation contains areas that have been designated for the development of complex forest stands

⁴ The final decision on these projects will occur during sale preparation and in consultation with ODFW.

⁵ 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

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 ¹	Invasive Species	LYR/OFS Structures ²	Landscape Design LYR/OFS ³	Install/Replace Culverts on Fish Bearing / Perennial Streams	Harvesting within 100' of Fish Bearing Stream	Domestic Water Source	Potential Stream Habitat Improvement ⁴	Within Aquatic Anchor	Within Terrestrial Anchor	Operating within a NSO Provincial Circle	Within 1/4 mile of MIMA	T&E Fish Adjacent to Harvest Unit / Haul Route ⁵	T&E Plants	Geotechnical Issues Needing Field Review	Recreation Sites	Cultural Resources	Scenic Resources	Other Resources or Issues
Moving Music	1		x	x	x	x						x								The operation is not located within an NSO Circle, however 1 acre of new road construction is required within the circle to access the sale.
Step Over	1		x		x			x		x				x						
Upper Deck	1, 2																			

¹ 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

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

³ A 'x' indicate that the operation contains areas that have been designated for the development of complex forest stands

⁴ The final decision on these projects will occur during sale preparation and in consultation with ODFW.

⁵ 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

Table A-2 Forest Resource Summary

TIMBER HARVEST OPERATIONS - FOREST STRUCTURE SUMMARY

District: Forest Grove

Fiscal Year 2017

Date: 02/10/2016

Current Structure	
	Total
REG	
CSC	595
UDS	1,027
LYR	450
OFS	
Total	2,072

Post Harvest Structure				
REG	CSC	UDS	LYR	OFS
232		363		
576		451		
450				
1,258	0	814	0	0

Desired Future Condition		
GEN	LYR	OFS
595		
1,027		
450		
2,072	0	0

Table A-3 Harvest Structure

FOREST ROADS SUMMARY

District: Forest Grove

Fiscal Year: 2017

Date: 01/08/2016

Operation	Construction		Improvement		Other Projects	Total Project Costs	Gross Value of Operation	Total Cost as a percent of Gross Value	Comments
	Miles	Cost	Miles	Cost					
Beside Eastside	0.03	\$1,800	0.1	\$3,200	\$0	\$5,000	\$249,613	2.0%	
Blind Ambition	0.00	\$0	3.4	\$170,000	\$100,000	\$270,000	\$1,337,563	20.2%	
Boxcar Willie	0.00	\$0	8.7	\$248,900	\$0	\$248,900	\$1,577,433	15.8%	
Camp View	0.58	\$52,200	2.4	\$121,300	\$118,000	\$291,500	\$2,136,271	13.6%	
Josey Gales	0.87	\$87,000	0.6	\$34,100	\$60,000	\$181,100	\$1,358,324	13.3%	
Kirk To Enterprise	0.38	\$24,700	4.5	\$91,000	\$7,000	\$122,700	\$852,050	14.4%	
Mega Lou Mania	1.00	\$90,000	0.0	\$0	\$50,000	\$140,000	\$1,875,894	7.5%	
My Mulligan	0.00	\$0	0.0	\$0	\$0	\$0	\$837,295	0.0%	
Old Norse	0.00	\$0	0.0	\$0	\$0	\$0	\$1,751,067	0.0%	
Roger That	0.00	\$0	5.3	\$194,300	\$0	\$194,300	\$1,219,880	15.9%	
Salmonberry Bends	0.00	\$0	1.5	\$30,000	\$0	\$30,000	\$1,502,624	2.0%	
Schetky Green	0.57	\$51,200	2.0	\$122,600	\$29,000	\$202,800	\$1,673,438	12.1%	
Voltaire's Flair	0.00	\$0	0.5	\$12,500	\$0	\$12,500	\$799,106	1.6%	
Woods Way	0.87	\$78,300	2.3	\$57,500	\$40,000	\$175,800	\$1,684,704	10.4%	
Total	4.29	\$385,200	31.3	\$1,085,400	\$404,000	\$1,874,600	\$18,855,262	9.9%	

Alternate Operations

Moving Music	1.42	\$127,900	1.0	\$30,000	\$51,000	\$208,900	\$2,093,868	10.0%	
Step Over	0.76	\$53,100	0.0	\$0	\$0	\$53,100	\$1,753,989	3.0%	
Upper Deck	0.18	\$9,000	0.7	\$17,500	\$0	\$26,500	\$1,573,283	1.7%	

Road Projects Not Funded by Harvest Operations

Operation	Construction		Improvement		Other Projects	Total Project Costs	Funding	Comments
	Miles	Cost	Miles	Cost				

REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY

District: Forest Grove

Fiscal Year: 2017

Date: 01/07/2016

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
Seedling Acquisitions/Delivery	1,250	\$191	\$238,750				1,250	\$238,750.00
Initial Planting-Contract Labor	800	\$118	\$94,400				800	\$94,400.00
Interplanting-Contract Labor	75	\$84	\$6,300				75	\$6,300.00
Underplanting	0	\$0	\$0				0	\$0.00
Tree Protection-Barriers Supplies	145	\$122	\$17,690				145	\$17,690.00
Tree Protection-Direct Control-Contract Labor	200	\$75	\$15,000				200	\$15,000.00
Site Prep-Chemical-Aerial/Contract	800	\$58	\$46,400				800	\$46,400.00
Site Prep-Chemical-Hand-Contract Labor	75	\$130	\$9,750				75	\$9,750.00
Site Prep -Slash Burning Piles	1,200	\$5	\$6,000				1,200	\$6,000.00
Site Prep -Slash Burning Brdcast	116	\$200	\$23,200				116	\$23,200.00
Fertilization	0	\$0	\$0				0	\$0.00
Noxious weeds-Chemical-Contract Labor	10	\$127	\$1,270				10	\$1,270.00
Release-Chemical-Aerial/Contract	300	\$57	\$17,100				300	\$17,100.00
Release,-Chemical/Hand-Contract Labor	50	\$127	\$6,350				50	\$6,350.00
Precommercial Thinning	0	\$0	\$0				0	\$0.00
Other -- stocking surveys	2,000	\$0	\$0				2,000	\$0.00
TOTALS	5,771	--	\$482,210	0	--	\$0	5,771	\$482,210

*South Fork Inmate Crews (SFK) will perform these activities.

Labor Allocated to South Fork Camp Management Activity	Board of Forestry			Common School Forest Lands			District	
	Acres Planned	Average Cost/Acre	Cost	Acres Planned	Average Cost/Acre	Cost	Total Acres	Total Cost
*Initial Planting	300	\$133	\$39,900				300	\$39,900.00
*Interplanting	75	\$92	\$6,900				75	\$6,900.00
*Tree Protection-Barriers	145	\$110	\$15,950				145	\$15,950.00
*Tree Protection-Direct Control	450	\$142	\$63,900				450	\$63,900.00
*Noxious weeds-Hand	10	\$210	\$2,100				10	\$2,100.00
*Release-Mechanical/Hand	100	\$165	\$16,500				100	\$16,500.00
*Pruning-white pine blister rust	40	\$200	\$8,000				40	\$8,000.00
TOTALS	1,120	--	\$153,250	0	--	\$0	1,120	\$153,250
GRAND TOTALS	6,891	--	\$635,460		--	\$0	6,891	\$635,460

Table A-5 Reforestation and Young Stand Management

RECREATION MANAGEMENT SUMMARY

District: Forest Grove

Fiscal Year: 2017

Date Filled Out:

Operation	Construction Projects	Construction Cost (Funding)		Improvement Projects	Improvement Cost (Funding)		Operations and Maintenance	Operations/Maint. (Funding)		Total Costs	Comments
		ODF	Other		ODF	Other		ODF	Other		
Facilities											
Campgrounds											
Stagecoach HC							X	\$ 1,000.00		\$ 1,000.00	Operations = Vault service only
Gales Creek CG				1	\$ 885.00		X	\$7,000		\$ 7,885.00	Operations = garbage (2500) vault service (4500) Improvement = 10' picnic table host site (800)
Reehers Camp				1	\$ 400.00		X	\$ 5,800.00		\$ 6,200.00	Operations = garbage (1800) vault service (4000) Improvements = Replace 2 trailhead information boards (400)
Lyda Camp							X		\$ 2,400.00	\$ 2,400.00	Operations = Portable toilet-ATV Transfer Funds
Browns Camp				2	\$ 3,000.00	\$ 3,675.00	X		\$ 16,400.00	\$ 23,075.00	Operations = garbage (9400) vault service (7000) Improvement = picnic table replacement (5 @ 735 = 3675) - ATV Transfer Fund. New gate helipad spur (3000)
Elk Creek				1	\$10,290.00		X	\$ 5,600.00		\$ 15,890.00	Operations = Vault service CG (3200) Portable Toilets TH (2400) Improvement = picnic table replacement (14 @735 ea = 10290)
Other Operations Expenses							X	\$ 50,000.00		\$ 50,000.00	Well testing, county well reviews, well maintenance, fee envelopes, host support, dust abatement, CXT toilet painting, hazard tree removal, facility operations supplies, signs, operations and maintenance of day use and dispersed facilities etc.
Designated Dispersed Campsites											
Lyda Camp and Woods Point Dispersed Site Improvement				1						\$ -	Planning and design project to upgrade sites to better accommodate use and reduce staff safety, user conflict, and resource impact issues.
Wilson River and Idiot Creek Dispersed Sites				4 to 8 sites FY17						\$ -	Planning, site design, and site improvement work to address safety, sanitation, and resource impact issues. Cost TBD
Day Use Areas											
										\$ -	
Trailheads											
Rogers Camp				1	\$ 1,500.00		X	\$ 1,700.00	\$ 1,700.00	\$ 4,900.00	Operations = vault service (3400) - split ODF and ATV Transfer. Improvements = Interp site install (1500)
Gales Creek Trailhead										\$ -	
Deyoe Creek										\$ -	
University Falls										\$ -	
Summit Trailhead										\$ -	
Four County Point TH										\$ -	
Storey Burn Trailhead										\$ -	
Kings Mountain TH							X	\$ 2,500.00		\$ 2,500.00	Operations = vault service (2500)

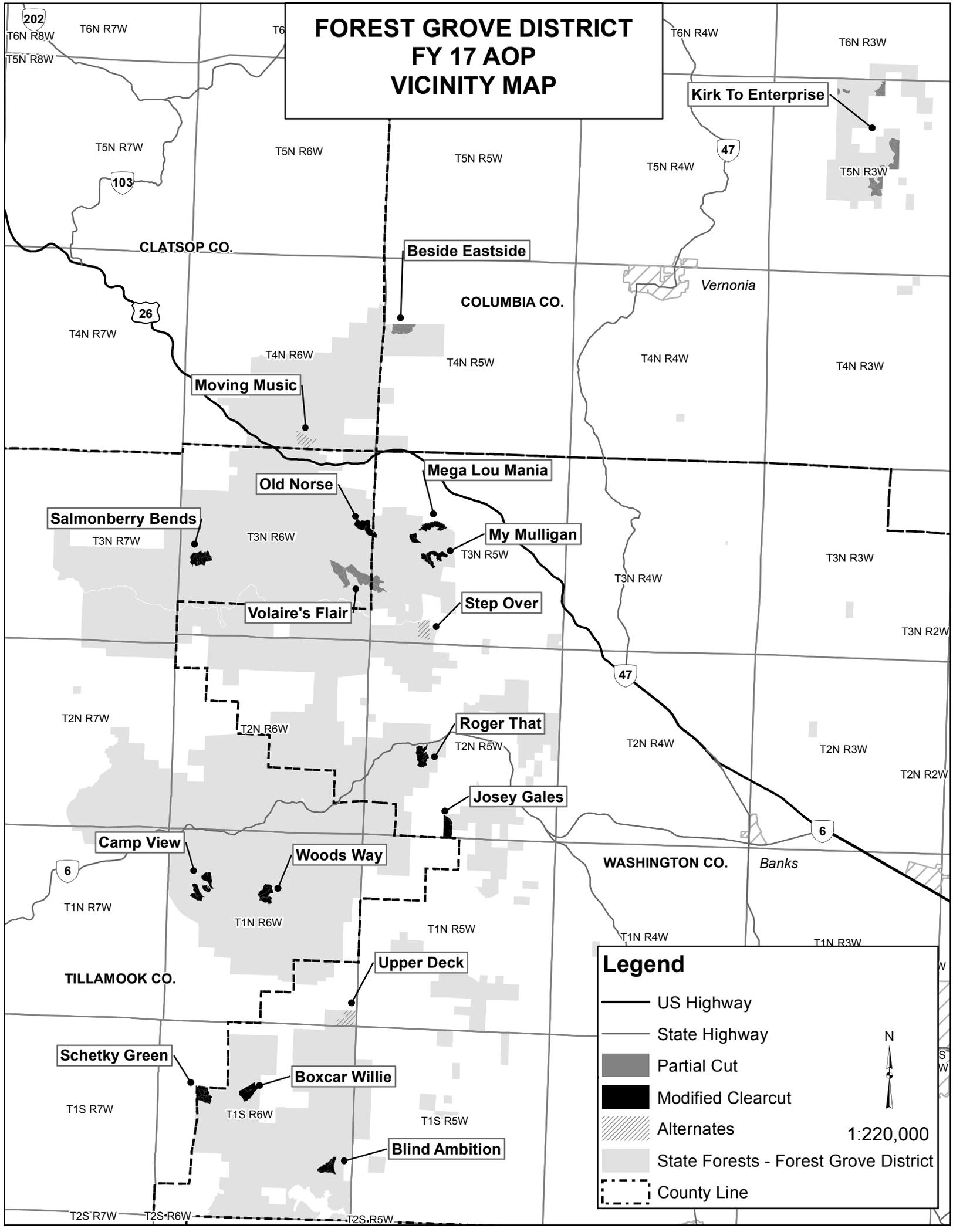
Table A-6 Recreation Management Summary

Appendix B

Vicinity Maps

- **Harvest Operations Vicinity Map**
- **Recreation Projects Vicinity Map**
- **Recreation Facilities Vicinity Map**

FOREST GROVE DISTRICT FY 17 AOP VICINITY MAP



Kirk To Enterprise

Beside Eastside

Moving Music

Old Norse

Mega Lou Mania

Salmonberry Bends

My Mulligan

Volaire's Flair

Step Over

Roger That

Josey Gales

Camp View

Woods Way

WASHINGTON CO.

Banks

TILLAMOOK CO.

Upper Deck

Schetky Green

Boxcar Willie

Blind Ambition

Legend

- US Highway
- State Highway
- Partial Cut
- Modified Clearcut
- Alternates
- State Forests - Forest Grove District
- County Line



1:220,000

FY2017 RECREATION PROJECT VICINITY MAP

CLATSOP

COLUMBIA

Dooley Spur Loop Trail
Bridge Replacement

26

Timber Rd

WASHINGTON

Gales Creek Trail
Segment C Reroute

Gales Creek Trail
Segment A Reroute

Wilson River Dispersed
Sites Improvement

Idiot Creek Dispersed
Sites Improvement

6

Back to
Back Trail

TILLAMOOK

Powerline
Trail Reroute

Lyda Camp & Woods Point
Dispersed Site Improvement

Trestle Trail

Elliott Creek
Trail Reroute

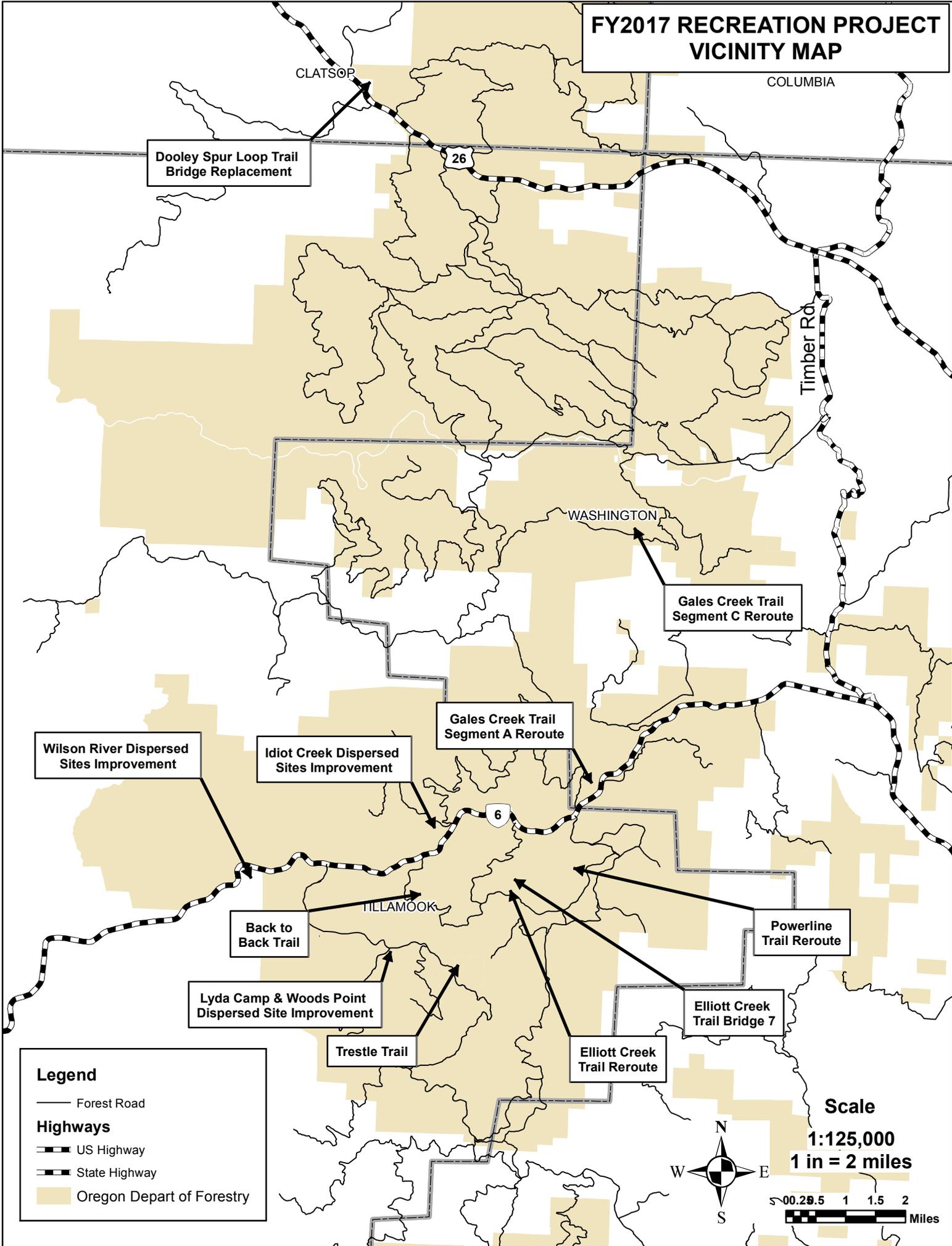
Elliott Creek
Trail Bridge 7

Legend

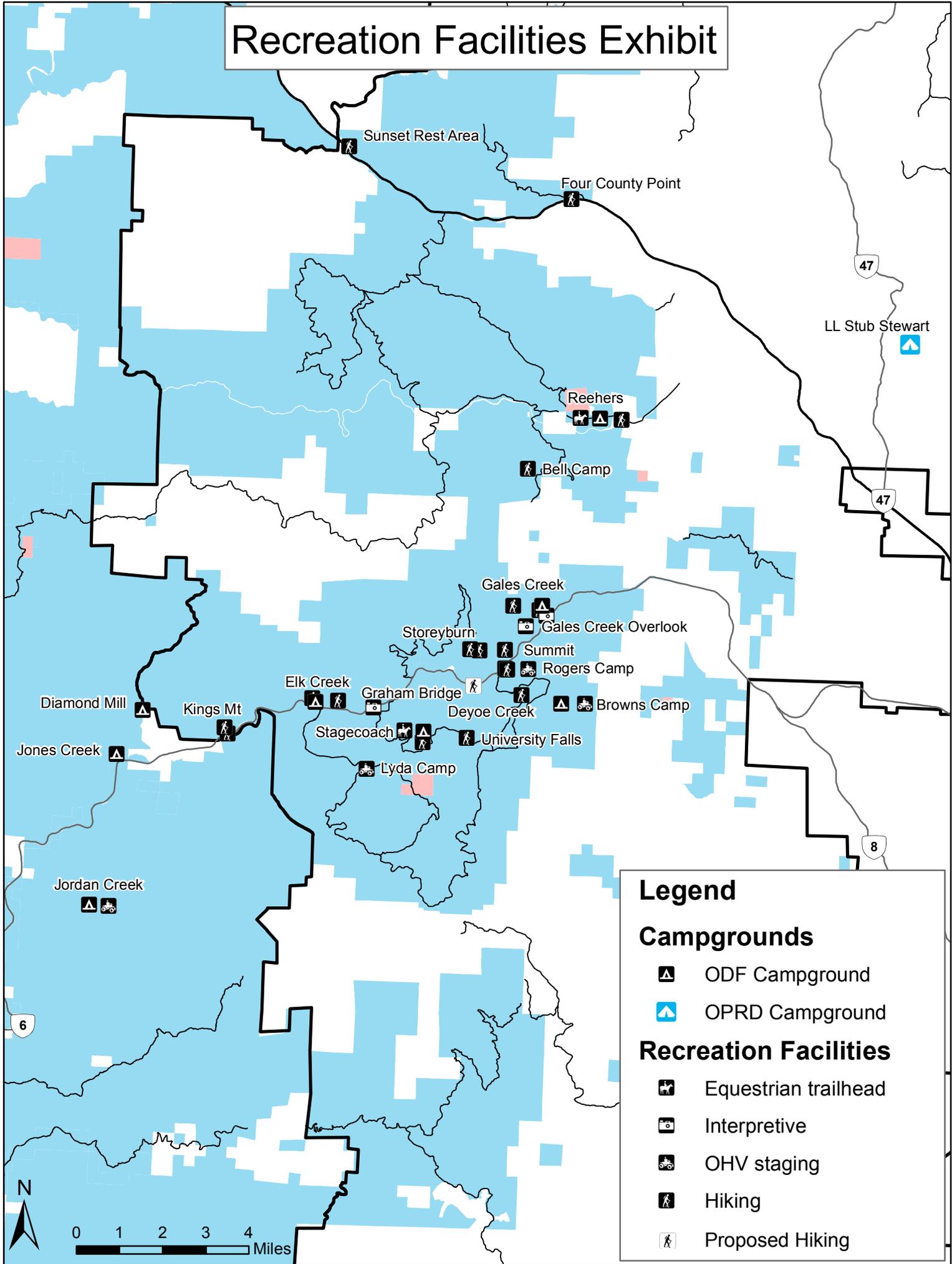
- Forest Road
- Highways**
- ▬ US Highway
- ▬ State Highway
- Oregon Depart of Forestry



Scale
1:125,000
1 in = 2 miles



Recreation Facilities Exhibit



LL Stub Stewart

47

47

8

6

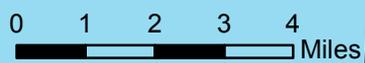
Legend

Campgrounds

-  ODF Campground
-  OPRD Campground

Recreation Facilities

-  Equestrian trailhead
-  Interpretive
-  OHV staging
-  Hiking
-  Proposed Hiking



Appendix C

Consultations with Other State Agencies

This Appendix summarizes results of consultations with the ODFW, and ODOT.

Oregon Department of Fish and Wildlife – District Wildlife Biologist Review – Herman Biederbeck, general comments:

1. **Green Trees:** Optimal green tree (GT) placement for wildlife is scattered or clumped distribution in the upland portions of the harvest units; this is especially true for GTs left in lieu of created down wood or snags. Some of the pre-op reports specify that GTs are to be left adjacent to RMAs and/or within green tree areas (GTAs). RMA prescriptions for GTs should stand alone in their adequacy, and not need additional GTs for augmentation. Green trees in GTAs offer minimal value to wildlife unless protecting sensitive wildlife sites (e.g. nests) from wind-throw or edge effects.
2. **Snags:** Strategies for addressing snag standards in the FMP are generally not mentioned in the AOP. If larger diameter trees are in the stand that is deficient in hard snags, ODFW recommends creating snags (topping is best method) rather than leaving extra GTs. If GTs are left in lieu of snag creation, they should be scattered or clumped in the harvest unit.
3. **Down Wood:** Strategies for meeting down wood standards in the FMP are generally not mentioned in the AOP. How will standards be met? If GTs are left in lieu of down wood creation, they should be scattered or clumped in the harvest unit.
4. **Roads:** The dirt spurs in this AOP are slated for physical closure after use; this is very appropriate as vehicle traffic on dirt roads can be a significant source of stream sedimentation. ODFW recommends physical closure for rocked spurs, especially if they have no immediate need in further management and/or maintenance (e.g. culverts). If new spur roads have immediate further needs, consider closing them physically in later AOPs to keep open road densities down.

The district will keep these recommendations in mind during sale layout.

Oregon Department of Transportation – Archaeologists:

Archaeologists from the Oregon Department of Transportation (ODOT) have reviewed the proposed timber harvests, road construction and recreation projects to review potential impacts to cultural resources. No known historical or archaeological sites were found during this review. However, ODOT's review of historic maps and other information indicates there was human activity near some of our planned operations that could have led to the presence of cultural artifacts today.

The following areas (listed by the historic activity) will be reviewed on the ground prior to sale or project layout to determine if any cultural artifacts are present:

- Potential Old Military Wagon Road: Gales Creek Trail Segment C Reroute, Rock Creek Ridge Road pit,
- Potential Adjacent Trail: West C-Line Pit,

The following areas (listed by historic activity) have already been reviewed on the ground and determined that no cultural artifacts are present:

- Potential Old Military Wagon Road: Step Over sale
- Potential Trail and Old Houses: Voltaire's Flair sale

Appendix D

PUBLIC COMMENT PROCESS FOR THE FY 2017 ANNUAL OPERATIONS PLAN

The Oregon Department of Forestry issued a Press Release in April 2016, announcing a formal public comment period for the FY 2017 Annual Operations Plans from April 4 through May 20, 2016.

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.

The Forest Grove District received two comments specific to the district. Public comments and the Program's responses are available upon request.

- *Request similar information regarding the Major Modification to the Landscape Design as provided by Tillamook and Astoria Districts Figures 1 and 2 in Appendix F –*

Forest Grove has added these Figures showing the current condition and age class of areas added to and removed from the district Landscape Design.

- *My Mulligan, Mega Lou Mania, and Step Over are all located near Lousignont Creek, a spawning stream for coastal coho salmon. These sales also include clearcutting relatively old forest stands. We are interested in learning more about these operations. It is concerning to see expansive clearcutting of old stands in this Aquatic Anchor.*
 - Step Over is an alternate sale and is not near Lousignont Creek. However, it is within the Lousignont/Wheeler Aquatic Anchor.
 - Mega Lou Mania is a 79 year old Douglas-fir stand selected for modified clearcut because of the extensive laminated root rot (*Phellinus Weirii*). In addition, the trees not infected are high value transmission pole quality trees not found everywhere on the district. Due to the sale proximity to North Lousignont Creek this sale will be used to do a large wood placement stream enhancement project.
 - My Mulligan is a 76 year old Douglas-fir stand that was a heavy partial cut (SDI 20%) back in 2010 when the landscape design designation was Complex. With the 2011 Implementation Plan revision the landscape design designation was changed to General because it became clear to us that this sparse overstory Douglas-fir stand (30 TPA) with a brush understory would not develop into a complex stand.

Regarding the comment on “clearcutting relatively old forest stands”, I would point out that 48% of the Lousignont/Wheeler Aquatic Anchor is greater than 70 years old.

The following changes to the Forest Grove FY 2017 AOP since the Public Comment Period:

- Added Figures 1 and 2 to Appendix F to show the current condition and age class of the revised acres in the Landscape Design.

Appendix E

Pre-Operations Report

Pre-Operations Reports are available from the District by request.

APPENDIX F



Oregon

Kate Brown, Governor

Department of Forestry

State Forester's Office
2600 State Street
Salem, OR 97310-1336
503-945-7200
FAX 503-945-7212
www.oregon.gov/ODF

To: Doug Decker, State Forester

From: Andy White, Northwest Oregon Area Director

Date: June 21, 2016

Subject: Approval of Modifications to Astoria, Forest Grove and Tillamook District Implementation Plans and Astoria District Forest Land Management Classifications.



"STEWARDSHIP
IN FORESTRY"

Introduction

This memo conveys approval of modifications to the Implementation Plans (IPs) for the Astoria, Forest Grove and Tillamook Districts and the Astoria District Forest Land Management Classifications (FLMC). Since the approval of the IPs for Astoria and Forest Grove Districts in 2011 and Tillamook District in 2009, and Astoria District's FLMC in 2012, changes have occurred on these districts that necessitate updating the desired future condition landscape design component of the IPs. Additionally, Astoria District made corresponding updates to the FLMC based on these changes.

Implementation Plan Changes

The landscape design for the Astoria and Forest Grove Districts consists of 30 percent of the land base which is designated to achieve a Desired Future Condition (DFC) of either Layered or Older Forest Structure. On the Tillamook District the designation is 40 percent. The purpose of the landscape design is to communicate where on the landscape older forest conditions will be developed to achieve the objectives set forth in the Northwest Forest Management Plan (FMP).

In order to adapt to new information such as: updated forest inventory, new threatened and endangered species sites, forest land management classification updates, landscape changes due to storm damage, insect and/or disease or other significant events; the landscape design was anticipated to change over time. Changes of up to 240 acres annually are considered minor changes and can be approved by the District Forester concurrent with the Annual Operation Planning (AOP) process. Changes that are greater than 240 acres are considered major and require a public comment period and are approved by the State Forester. The current changes are relatively small (less than one percent of each districts acreage) but are greater than the 240 acre administrative threshold qualifying them as a major change.

These revisions in the landscape designs are being proposed for four reasons: 1) discovering areas where DFC complex would provide more resource protection in a different location such as within new northern spotted owl site, along streams containing listed Coho salmon, recreation areas, scenic resources and areas which tie into stands currently designated as complex or provide connectivity between patches of land designated for complex; 2) fitting a stand to a more appropriate or realistic pathway based on additional data obtained from updated inventory and field observations during the AOP planning process; 3) refinement of the DFC boundary on-the-ground for more

efficient operational implementation; and 4) GIS “housekeeping” to remove gaps and align the designations to our ownership layer.

Forest Land Management Classification Changes

The 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 Astoria FLMC was last updated in June of 2014. Since that time, the district has been in the process of reclassifying many of their Marbled Murrelet Management Areas (MMMA), as well as continuing to conduct fish presence surveys on streams with unknown fish use. This FLMC update incorporates the new MMMA acres and stream classification acres – no other changes were made to the 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 requiring State Forester approval.

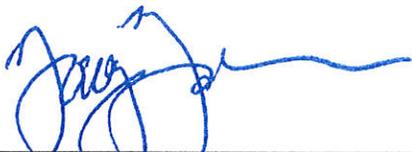
Public Comment

Both the major modifications to the IPs and updates to Astoria’s FLMC required a public comment period. The public comment period occurred between April 4, and May 20, 2016 concurrent with the Annual Operations Plan public comment period. In response to the public comment period, two comments were received regarding the modifications to the IPs and no comments were received regarding Astoria’s changes to the FLMC.

The two comments received regarding the IP modifications (attached) were from the North Coast State Forests Coalition and a citizen of Clatsop County, Tom Scoggins, who had one specific comment on Astoria’s proposed changes. The Astoria District responded to the comment from Tom Scoggins. Ron Zilli responded to the comment from the North Cost State Forests Coalition via a phone conversation with Chris Smith on June 9, 2016 and answered his questions regarding the basis for the landscape design changes.

After reviewing the described changes in Appendixes F and G of the respective districts Annual Operation Plans, corresponding maps/data, the public input, the recommendations from the District Foresters and Area Directors, and consistent with OARs 629-035-0030, 629-035-0060(3) and 629-035-0105(1)(a); I am approving the Implementation Plan modifications for Astoria, Forest Grove and Tillamook, and the Forest Land Management Classification changes for Astoria.

Approved by:



Doug Decker, Oregon State Forester

6.21.16

Date

Attachments:

- (1) Appendixes F and H - Astoria FY2017 Annual Operations Plan
- (2) Appendix F - Forest Grove FY2017 Annual Operations Plans
- (3) Appendixes F - Tillamook FY2017 Annual Operations Plan
- (4) Public comment from North Coast State Forest Coalition
- (5) Public Comment from Tom Scoggins

Appendix F - Changes to Landscape Design – Major Modification to the Astoria District Implementation Plan

The Landscape Design for the Astoria District consists of 30 percent of the land base which is designated to achieve a Desired Future Condition (DFC) of either Layered (LYR) or Older Forest Structure (OFS). The 30 percent landscape design was adopted in July of 2011 as part of the revised Astoria District Implementation Plan (IP). The IP describes the purpose of the landscape design is to achieve landscape objectives set forth in the Northwest Forest Management Plan (FMP).

In order to adapt to new information such as: updated forest inventory, new threatened and endangered species sites, forest land management classification updates, landscape changes due to storm damage, insect and/or disease or other significant events; the landscape design was anticipated to change over time. Changes of up to 240 acres annually are considered minor changes and can be approved by the District Forester concurrent with the Annual Operation Planning (AOP) process. Changes that are greater than 240 acres are considered major and require a public comment period and are approved by the State Forester.

The proposed changes are driven by four factors: 1) new threatened and endangered species sites; 2) updated inventory information of stands that have recently grown into OFS or are approaching OFS; 3) forest land management classification updates (See Appendix A of the FY17 AOP); and 4) GIS "housekeeping" to removing gaps and snapping the DFC layer to our ownership layer.

The currently proposed changes consist of adding 1,645 acres and removing 1,725 acres. The resulting total district acreage within the mapped DFC landscape design is 41,118 acres (30.05%). A summary of the current forest condition of the proposed changes is shown in Figure 1. A summary of the current stand age of the proposed changes is shown in Figure 2. The spatial location of the changes is shown in Figure 3.

Summary of the basis for stands added to the mapped DFC landscape design:

- Threatened and Endangered Species Sites: The Astoria District has been revising existing MMMA boundaries to meet new policy standards. In 2011 all the district MMMA's were placed into the landscape design. As the district has been revising boundaries to the MMMA's, many of the newly designated MMMA's were not within the district DFC. Approximately 722 acres of MMMA not within the district DFC and has now been added.
- Threatened and Endangered Species Sites: Stands with recent NSO activity
- Update Inventory – Stands currently OFS or nearly at that condition after field review
- GIS housekeeping – snapping boundaries to ownership, removing gaps, etc.

Summary of the basis for stands removed from the mapped DFC landscape design:

- Stands not adjacent or within a Threatened and Endangered Species Site
- Stands not currently OFS
- Stands not expected to reach the DFC goal due to silvicultural limitations.
- Stands meeting the criteria above that also have high revenue generating potential.
- GIS housekeeping – snapping boundaries to ownership, removing overlaps, etc.

This proposed major modifications to the IP requires a 30 day public comment period which will be held in conjunction with the Districts 2017 AOP public 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.

Figure 1.

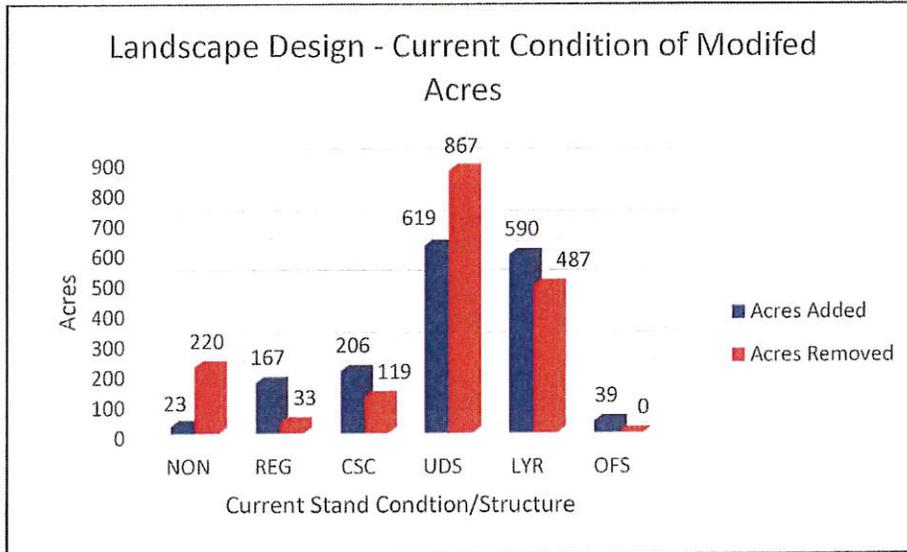


Figure 2.

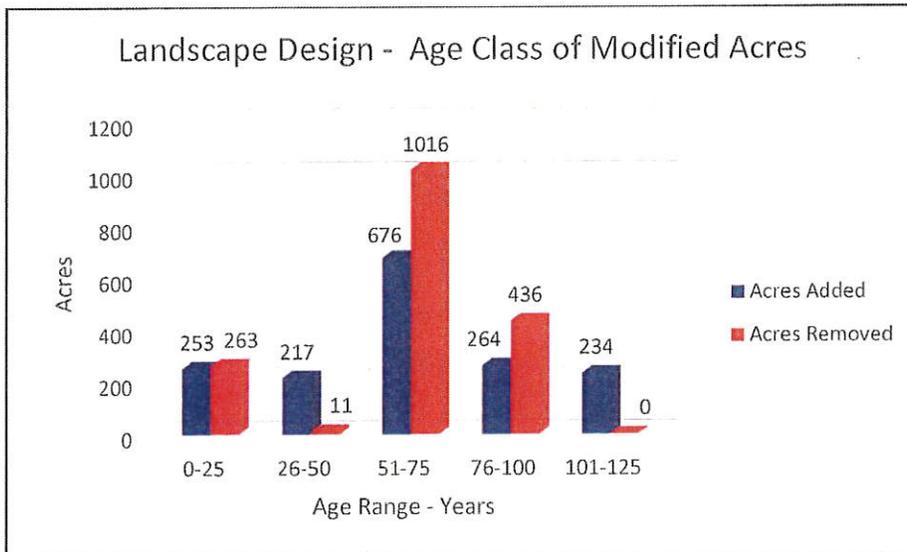
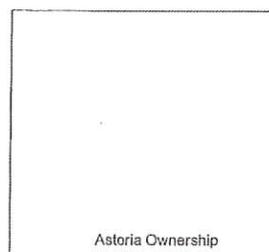
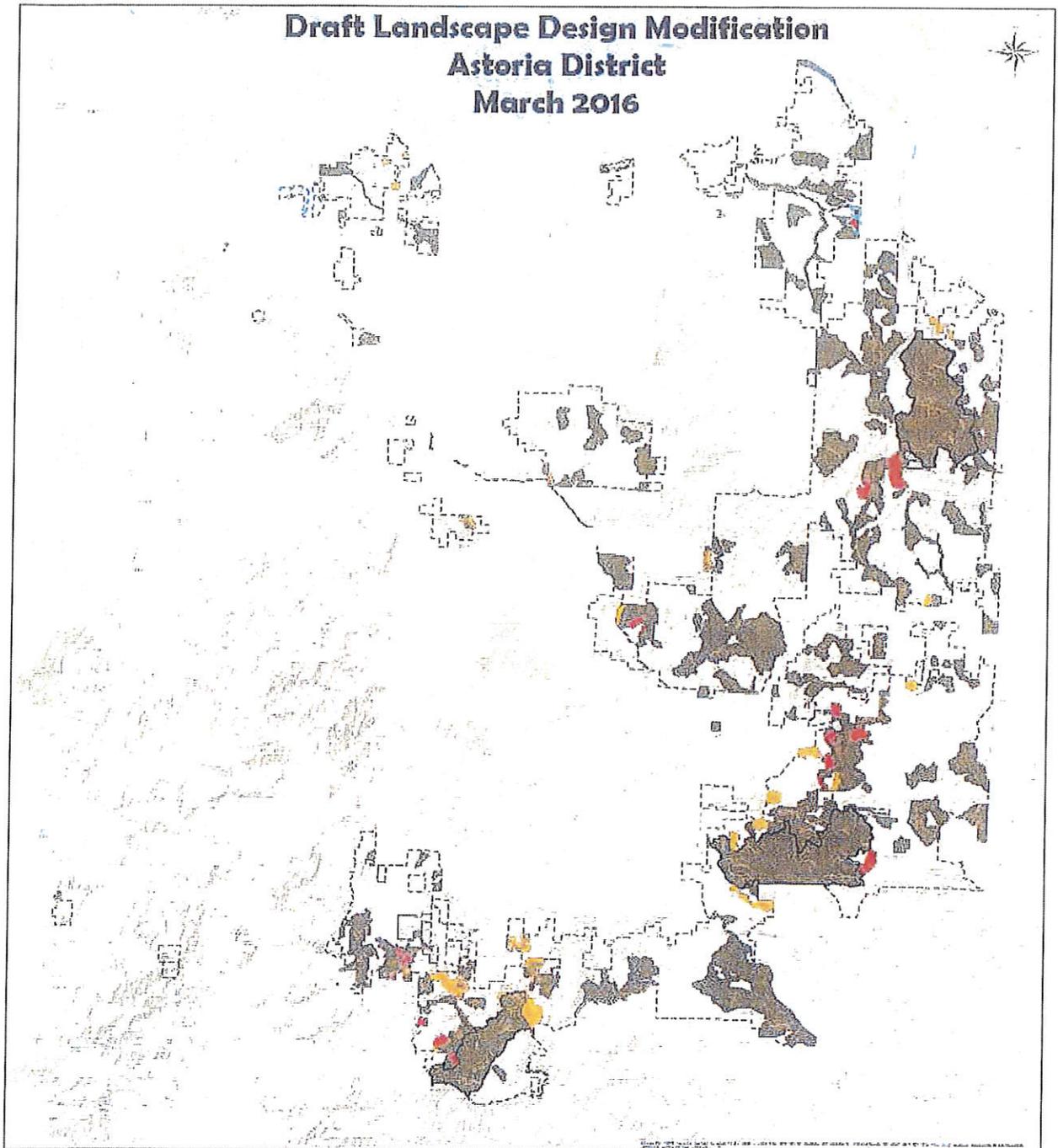


Figure 3.



Appendix H – 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 2017 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 June of 2014. Since that time, the District has been in the process of reclassifying many of their Marbled Murrelet Management Areas (MMMA), as well as continuing to conduct fish presence surveys on streams with unknown fish use. These two processes affect the acres of both Focused Stewardship and High Value Conservation in the Wildlife Habitat and Aquatic & Riparian Subclasses. This FLMC update incorporates the new MMMA acres and stream classification acres – no other changes were made to the FLMC. All acres are 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

Classification	BOF	CSL	Total Acres
High Value Conservation	24,380	250	24,629
Focused Stewardship	62,624	1,379	64,003
Special Use	1,264	64	1,328
General Stewardship	46,554	312	46,866

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

	Focused	Special Use	High Value Conservation
Administrative Sites	0	76	0
Agriculture, Grazing	0	11	0
Aquatic & Riparian	48,589 47,642	0	43,058 13,713
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	250 249	91	0
Transmission	0	214	0
Visual	9,237 9,236	33	0
Wildlife Habitat	37,088 37,532	0	12,027 12,132

APPENDIX F

Changes to the Landscape Design – Major Modification to the Forest Grove Implementation Plan

As described in the 2011 Forest Grove Implementation Plan, the district has mapped a Landscape Design that designates 30% of the district acres in a future complex condition, either Layered (LYR) or Older Forest Structure (OFS). The term General management (GEN) or non-complex will be used to describe the desired future condition (DFC) of stands that are not planned for OFS or LYR in the Forest Grove District's landscape design.

In order to adapt to new information such as: updated forest inventory, new threatened and endangered species sites, forest land management classification updates, landscape changes due to storm damage, insect and/or disease or other significant events; the landscape design was anticipated to change over time. Changes of up to 240 acres annually are considered minor changes and can be approved by the District Forest concurrent with the Annual Operation Planning (AOP) process. Changes that are greater than 240 acres are considered major and require a public comment period and are approved by the State Forester.

Major revisions in the DFC landscape design are being proposed for a 3 reasons: 1) discovering areas where DFC complex would provide more resource protection in a different location such as within new northern spotted owl site, along streams containing listed Coho salmon, recreation areas, scenic resources and which tie into stands currently designated as complex or provide connectivity between patches of land designated for complex; 2) fitting a stand to a more appropriate or realistic pathway based on additional data collected through Stand Level Inventory (SLI) and field observations during the AOP planning process; and 3) refinement of the DFC boundary on the ground.

The proposed changes consist of adding 4,536 acres and removing 3,641 acres. The resulting total district acreage within the mapped Landscape Design is 35,076 acres (30.5%). A summary of the current forest condition of the proposed changes is shown in Figure 1. A summary of the current stand age of the proposed changes is shown in Figure 2. The spatial location of the changes is shown in Figure 3.

Summary of the basis for stands added to the DFC Landscape Design:

- Areas where DFC complex would provide more resource protection such as new northern spotted owl site, streams which contain Coho salmon, recreation and scenic areas.
- Areas that provide connectivity between larger areas of DFC complex
- GIS refinement of the DFC boundary after field review.

Summary of the basis for stands removed from the DFC Landscape Design:

- Stands not currently within a threatened and endangered species site
- Stands not expected to reach DFC complex due to silvicultural limitations
- Stands meeting the criteria above that also have high revenue generation potential
- GIS refinement of the DFC boundary after field review.

This proposed major modification went through a public comment period from April 4 through May 20, 2016. There were no comments received that were opposed to the modification.

Figure 1. Current Condition of Revised Acres

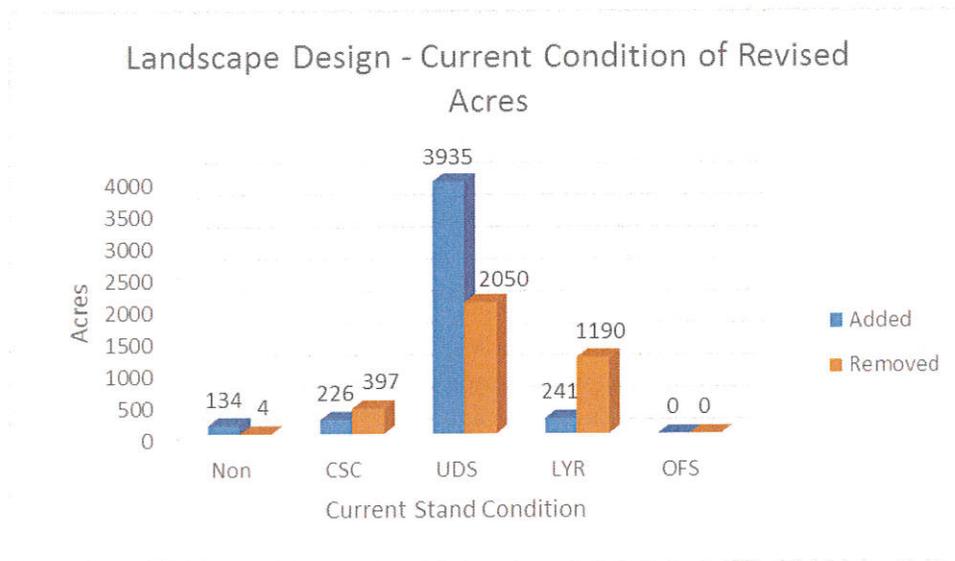
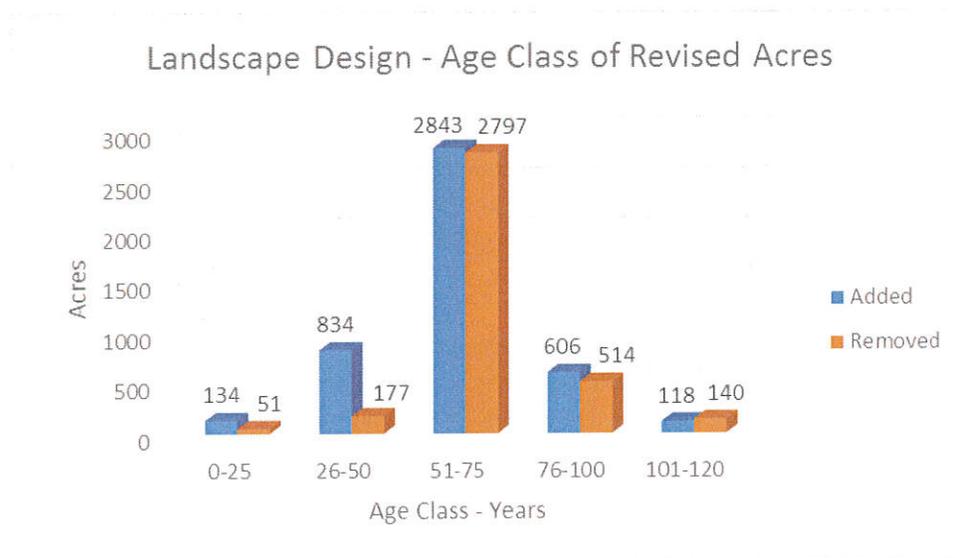
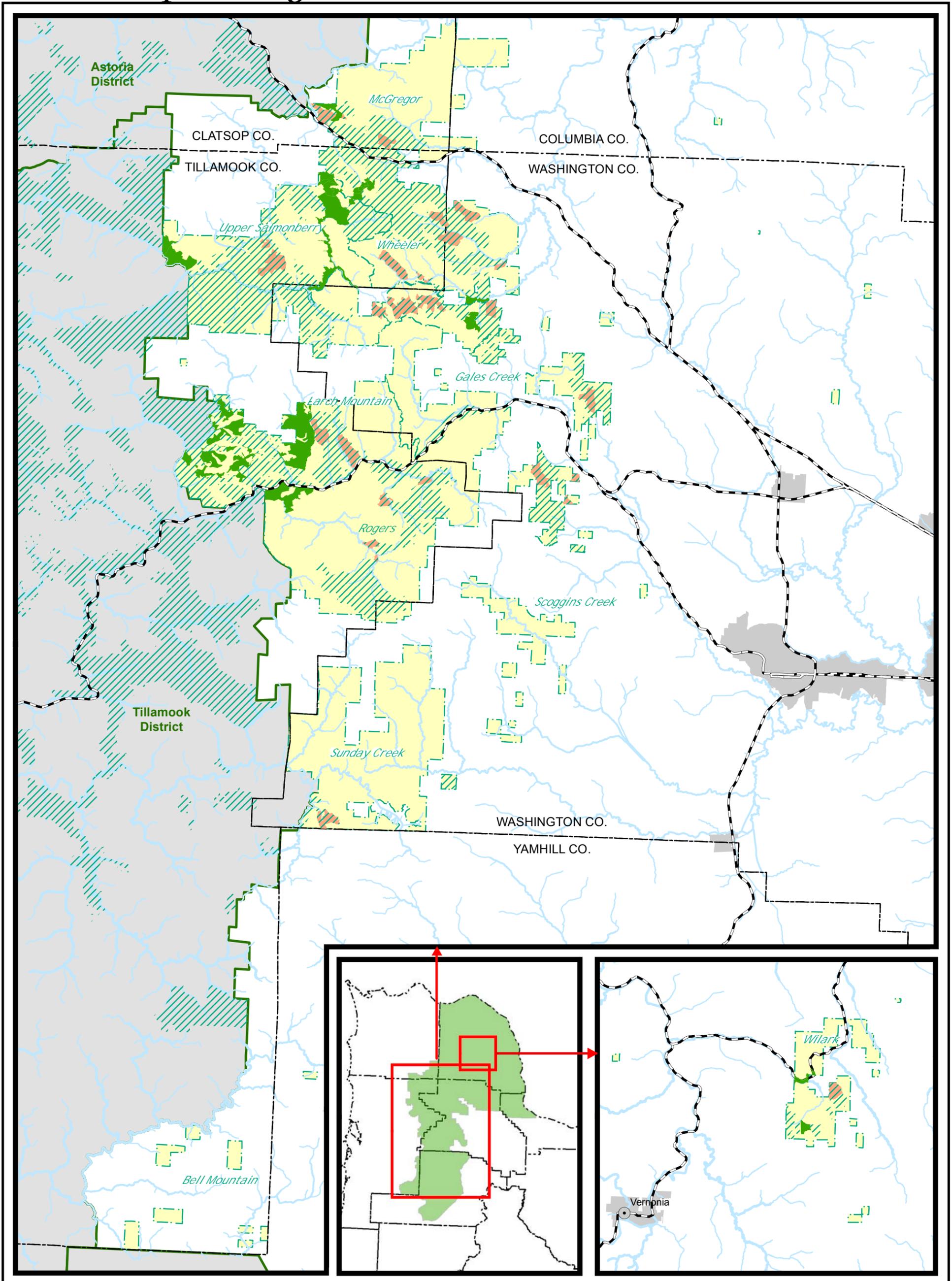


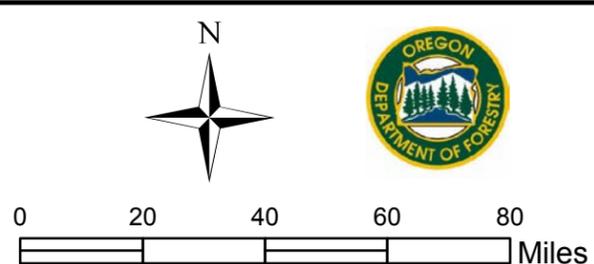
Figure 2. Age Class of Revised Acres



Forest Grove District Landscape Design - Desired Future Condition Revision



- Large Stream
- Medium Stream
- Highways
- Current DFC Complex
- Change From Complex to Non-Complex
- Change From Non-Complex to Complex
- Management Basins
- Adjacent Districts



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 F

Changes to Landscape Design – Major Modification to the Tillamook District Implementation Plan

The Landscape Design for the Tillamook District consists of 40 percent of the land base which is designated to achieve a Desired Future Condition (DFC) of either Layered (LYR) or Older Forest Structure (OFS). 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 silviculture prescriptions across diverse stands types.

The Landscape Design was revised in the 2009 Tillamook District Implementation Plan. The IP describes the purpose of the landscape design is to achieve landscape objectives set forth in the Northwest Forest Management Plan (FMP).

In order to adapt to new information such as: new and updated threatened and endangered species sites, landscape changes due to storm damage, insect and/or disease or other significant events; the landscape design was anticipated to change over time. Changes of up to 240 acres annually are considered minor changes and are approved by the District Forester concurrent with the Annual Operation Planning (AOP) process. Changes that are greater than 240 acres are considered major and require a public comment period and are approved by the State Forester.

The proposed changes are driven by four factors: 1) threatened and endangered species sites updates; 2) Terrestrial Anchor Site (TAS) desired future condition updates; 3) updated inventory information of stands that have recently grown into complex structure (LYR or OFS) or are approaching complex; and 4) changes to the desired future condition from OFS to LYR due to field review of stands.

The currently proposed changes consist of adding 4,365 acres to the DFC complex structure categories, removing 2,644 acres from the DFC complex structure categories, and changing 131 acres from OFS to LYR. The resulting total district acreage changes within the mapped DFC landscape design is 7,140 acres (2.8%). A summary of the current forest condition of the proposed changes is shown in Figure 1. A summary of the current stand age of the proposed changes is shown in Figure 2. The spatial location of the changes is shown in Figure 3.

Summary of the basis for stands added to the mapped DFC complex landscape design:

- Threatened and Endangered Species Sites: The Tillamook District has begun work on revising existing MMMA boundaries and drafting new MMMA boundaries to meet new policy standards. Approximately 1,987 acres of MMMA, not currently in DFC complex will be added.
- Terrestrial Anchor Sites (TAS): The Tillamook District TASs were created after the last Landscape Design update for the district (2009). Approximately 2,154 acres in the TASs are not designated as DFC complex and now will be added.
- Update Inventory – Stands currently LYR, OFS, or nearly at that condition after field review. Approximately 224 acres has now been added to DFC complex.
- Approximately 131 Acres will be changed from a DFC of OFS to LYR due to current stand conditions.

Summary of the basis for stands removed from the mapped DFC complex landscape design:

- Stands not within a known Threatened and Endangered Species Site
- Stands not currently in OFS or LYR structures
- Stands not expected to reach the DFC complex goal due to silvicultural limitations.

This proposed major modifications to the IP requires a 30 day public comment period which will be held in conjunction with the Districts 2017 AOP public 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.

Figure 1.

DFC - Current Condition of Modified Acres

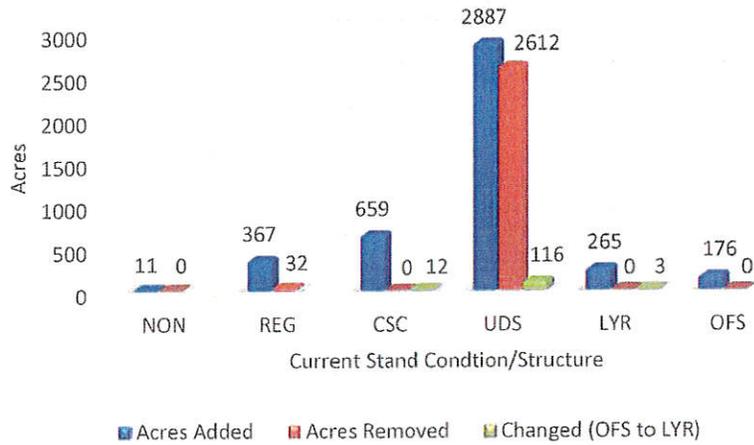


Figure 2.

DFC - Age Class of Modified Acres

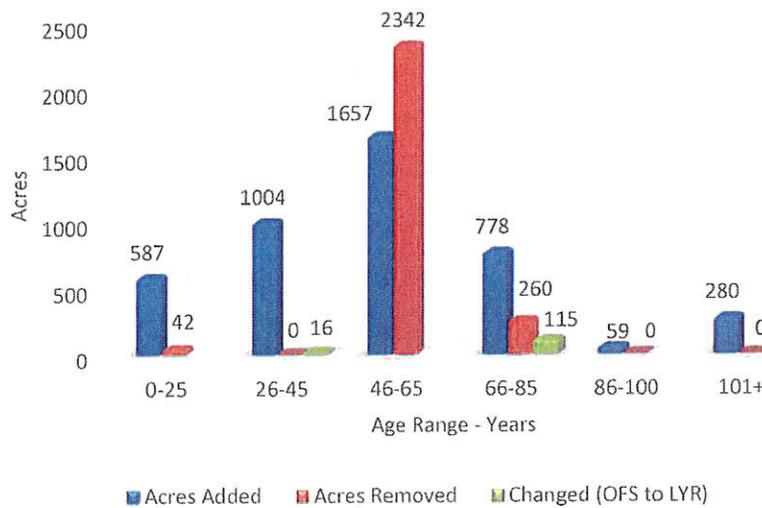
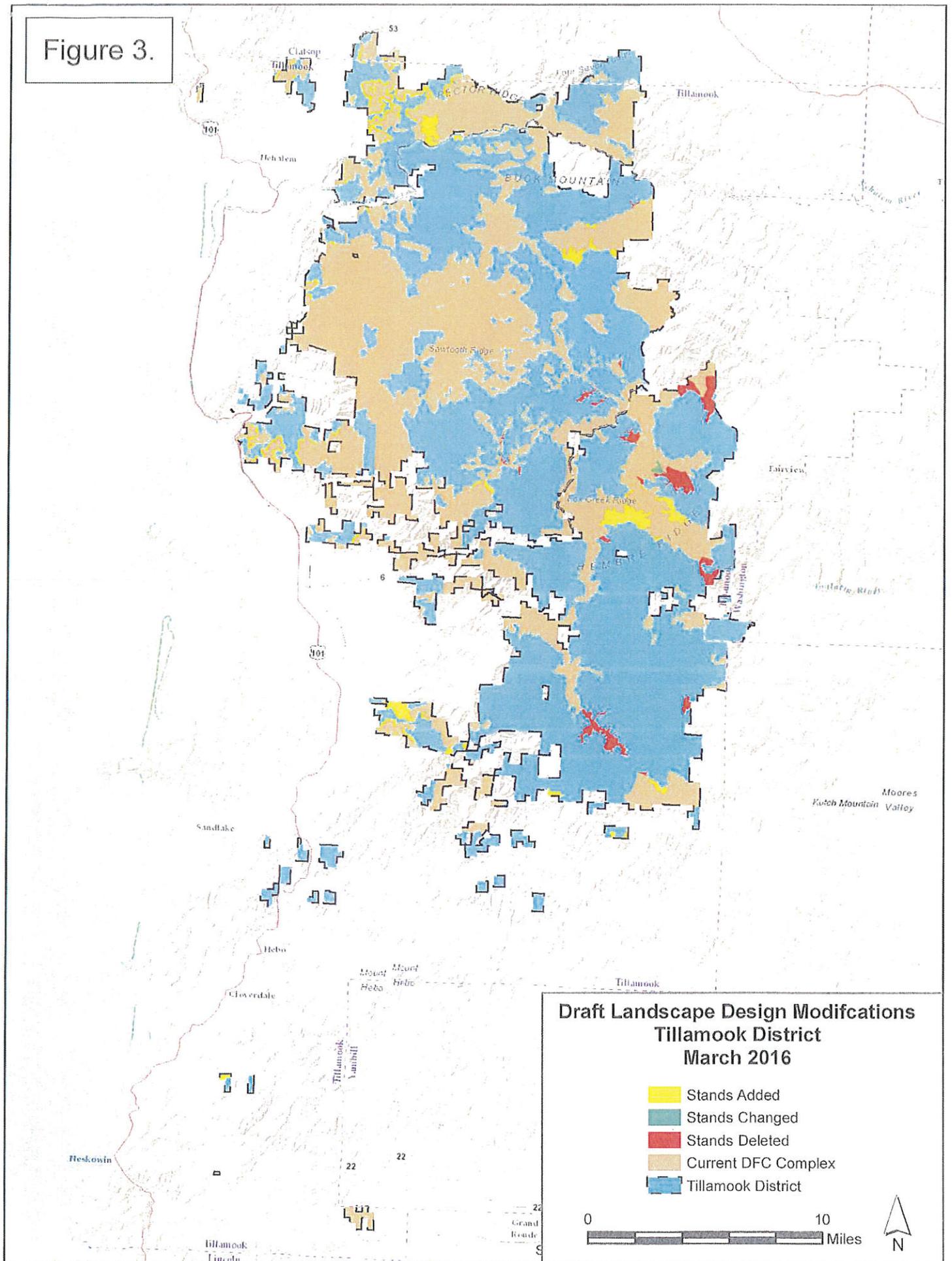


Figure 3.





North Coast State Forest Coalition

North Coast State Forest Coalition

C/o Northwest Steelheaders
6641 SE Lake Rd. • Milwaukie OR 97222
503-653-4176 • office@anws.org
www.forestlegacy.org

To the Oregon Department of Forestry,

Thank you for considering the North Coast State Forest Coalition's comments on FY2017 Annual Operations Plans for the Tillamook, Astoria, and Forest Grove Districts. We appreciate the time and care that went into these AOPs and would encourage Salem and district staff to engage us regarding any of our remarks below. Several remarks are similar or identical to those made by our Coalition regarding previous AOPs and reflect ongoing themes in the yearly plans that we would like to see addressed.

General comments regarding all three districts:

- Our primary concern with these AOPs is the **significant increase in clearcut acreage** on all three districts. Meanwhile partial cut ranges have been decreased on all three districts (to a low of 0 acres in the Forest Grove and Tillamook Districts and 100 acres in the Astoria District). Clearcutting and associated activities are often detrimental to fish & wildlife habitat, clean drinking water, public health, and slope stability. This move from a balance between thinning and clearcutting has been explained in Appendix G of all three AOPs, but signals a lack of available acres for partial cuts and calls to question the overall sustainability of harvest levels and the ability to grow various forest structures across the landscape. State forest clearcutting contributes minimal habitat value on the north coast, while thinning has the potential to contribute to harvest levels and habitat value simultaneously.

If this move is primarily driven by a lack of thinning opportunities, it would be desirable to know when those opportunities will reemerge. If this is a long term concern, harvest levels should be lowered.

If this move is driven by the economics of clearcutting vs. thinning, we would urge you to not only consider the environmental and social impacts of clearcutting, but also review a recent publication by the USDA which indicates the habitat *and* timber value increases associated with thinning in the coast range: *Effect of Habitat-Improvement Thinnings on Lumber Products from Coastal Douglas-fir* by Dennis P. Dykstra, Patricia K. Lebow, Stephen Pilkerton, R. James Barbour, Susan Stevens Hummel, and Stuart R. Johnston, April 2016 (http://www.fs.fed.us/pnw/pubs/pnw_rp605.pdf).

- We are glad to see that district staff is contributing its time and expertise to help with **inventory questions** which are critical to any long term planning. Accurate inventory and growth data is obviously a priority.
- The amount of **aerial pesticide application** is troubling. Pesticide drift can cause public health problems and pesticides that find their way into waterways degrade water quality for humans and aquatic wildlife. These AOPs indicate that site preparation and vegetation management will require nearly 5,000 acres to be sprayed, much of it aerially. For public lands, this is unacceptable.

A coalition of conservation and fishing groups working together for a balanced plan to protect the
Tillamook and Clatsop State Forests' natural legacy

Association of NW Steelheaders ~ Oregon Chapter Sierra Club ~ Oregon Council Trout Unlimited ~ Pacific Rivers Council
Northwest Guides and Anglers Association ~ Wild Salmon Center ~ Native Fish Society

- The massive **road network** across all three districts continues to grow. The AOPs indicate a net increase of 24.5 miles to the already dense road network. While road improvement is welcome, we believe that the road network should be reduced to improve watershed health. The density on private land holdings in these watersheds is also very high and ODF holdings should mitigate for the private road network. Furthermore, an ever increasing road network footprint decreases land for marketable timber.
- It is disappointing that the FY2017 AOPs only support base level maintenance of existing **recreational infrastructure** due to budget constraints. We will continue to advocate for supplemental financial support and alternative revenue sources for important recreation programs and we urge the Department to do the same. We are excited for an updated version of the Tillamook State Forest Recreation Map and would be keen to support the Department in this venture.
- It is welcome to see no planned clearcuts in **Terrestrial Anchor Sites**.
- There are high clearcut levels in several **Aquatic Anchors**, including Buster Creek, Upper North Fork Nehalem, Lousignont Creek/Upper Nehalem (nearly 1000 clearcut acres), East Fork South Trask, and Little North Fork Wilson. These areas are obviously critical for a variety of fish species. While slightly improved buffers are welcome in AAs, we would recommend focusing harvest away from these anchors.
- All three districts note extensive plans for **mountain beaver** trapping. We understand the importance of protecting young trees. The Forest Grove District remarks that mountain beaver populations are increasing and are historically high. It may be beneficial to examine the causes of this rather than only focus on trapping.
- We encourage the Department to support the **Salmonberry Trail project**, but we would request that the Salmonberry conservation commitments and their promotion be a priority.
- We urge you to take seriously and follow the recommendations in the **ODFW Biologist Review**.
- **Policy Bulletin SFB 13-02** runs counter to the ODFW recommendations that “GTs should be avoided in or adjacent to RMAs and GTAs as their functions as structural components are minimized.” The proper scientific function of green trees and snags should certainly take priority over “efficient harvest units.” *The Policy Bulletin is only referenced in the Tillamook AOP, but the ODFW recommendations are found across all three Districts.*
- We encourage the Department to be aggressive in seeking **restoration project opportunities**. To our mind, it is unfortunate that these important projects are only done opportunistically. Watershed restoration should be a priority.

Comments specific to Astoria District operations:

- We are keen to better understand the **Major Modification to the IP** as described in Appendix F and would like to meet with ODF staff to discuss the modification. The amount of 76-100 year old acres being replaced by 26-50 year old acres in the DFC Complex allotment is concerning.

- Area 1 of **Rector Quad** appears to offer uncommon habitat type as a mixed age stand with older trees. We would be keen to view this sale with ODF staff to understand the forest structure and prescription better. This sale also includes management activity within ¼ mile of a marbled murrelet management area.
- The Astoria District AOP is unique in that it explicitly omits **right-of-way acres** for new road construction in harvest acreage (page 4). This seems counterintuitive as those acres are typically logged before road construction and no longer offer conservation value. We would like to know if this practice is the same for the Tillamook and Forest Grove District AOPs.

Comments specific to Tillamook District operations:

- We are keen to better understand the **Major Modification to the IP** as described in Appendix F and would like to meet with ODF staff to discuss the modification.

Comments specific to Forest Grove District operations:

- We are keen to better understand the **Major Modification to the IP** as described in Appendix F and would like to meet with ODF staff to discuss the modification. It would be helpful to have the type of information that the Tillamook and Clatsop District AOPs articulates in Figures 1 and 2 of Appendix F.
- **My Mulligan, Mega Lou Mania, and Step Over** are all located near Lousignont Creek, a spawning stream for coastal coho salmon. These sales also include clearcutting relatively old forest stands. We are interested in learning more about these operations. It is concerning to see expansive clearcutting of old stands in this Aquatic Anchor.

Sincerely,

Rhett Lawrence, Oregon Chapter Sierra Club
 Tom Wolf, Oregon Council of Trout Unlimited
 Bob Rees, Northwest Guides & Anglers Association
 Ian Fergusson, Association of Northwest Steelheaders
 Bob Van Dyk, Wild Salmon Center
 Greg Haller, Pacific Rivers Council
 Conrad Gowell, Native Fish Society

NALL Rob * ODF

From: ZILLI Ron F * ODF
Sent: Thursday, April 14, 2016 2:09 PM
To: TILLOTSON John E * ODF
Cc: CHOATE John W * ODF; GOODY Dan B * ODF; WILLIAMS Ty * ODF; LERTORA Frank T * ODF; MOYER Charley * ODF; NALL Rob * ODF
Subject: FW: Astoria District 2017 AOP

Follow Up Flag: Follow up
Flag Status: Flagged

FYI – AOP comments from Tom Scoggins.

Ron

From: Thomas Scoggins [mailto:tvscoggins733@gmail.com]
Sent: Thursday, April 14, 2016 1:59 PM
To: ZILLI Ron F * ODF <Ron.F.ZILLI@oregon.gov>
Subject: Astoria District 2017 AOP

Hi Ron-

Thanks for making the Pre-Operations Reports for the 2017 AOP available to me. I have reviewed them and have the following comments:

1. By and large, I find the plan agreeable, especially realizing the mandate to increase volume sold, particularly in the form of clearcuts (MC). It does look like the planned harvesting will be spread fairly equitably across the district, ensuring that no parts of the forest are "forgotten" for long.
2. The only planned sale I have any problems with would be "Harkin Larkin," planned as an Alternate for 2017. Most of Area 1 and all of Area 2 were thinned for the second time in the mid-90's, with the effect of producing "layered" stands that were well on their way to OFS, particularly in Area 2. In fact, portions of Area 2 were a special stop for many tours in which we were showing what could be done in the FMP to move stands rapidly toward OFS. However, the "current condition" shown in Table IV, shows most of Area 1 and all of Area 2 as "CSC." I have a hard time believing these thinned stands are in a CSC condition. Actually, I believe Area 2 should have a DFC of OFS. perhaps in place of some other nearby stands which are not so far along in their development.
3. Other than that, I did notice a number of typos and misspellings, which someone might want to check.
4. I found many of the maps a bit hard to follow, mostly because very few roads and streams were labeled. In fact, one map, for "Rector Quad," did not even show section lines! (There may have been others also). Perhaps this lack of labeling is by design, to make it harder for reviewers to accurately locate these planned operations, but I doubt it.

Thank you for the opportunity to comment on this plan.

Tom Scoggins

APPENDIX G

Memo

To: Andy White, NWO Area Director

From: Mike Cafferata, Forest Grove District Forester

CC: Liz Dent, State Forest Division Chief
Brian Pew, State Forest Deputy Division Chief
Wayne Auble, Forest Grove Assistant District Forester
Ron Zilli, State Forest Field and Policy Manager

Date: July 6, 2016

Re: Minor Revision to the Forest Grove District Implementation Plan

The Forest Grove District Implementation Plan (IP) under the Northwest Oregon State Forests Management Plan was approved in 2011. The approved plan provides for minor revisions as approved by the Area Director. Minor modifications are any modification to the approved document that does not meet the definition of major modification included in the approved IP document. (Major modifications are those revisions that result in major changes to the Forest Land Management Classifications as defined in OAR 629-053-0060; or those that result in changes to the annual harvest level ranges of more than 25% based on the combined acreage of regeneration and partial cut harvests.)

Background:

Since the 1980's, the Forest Grove District has been steadily partial cutting stands to improve growing conditions and since 2001 to also encourage complex stand structure where desired. The district has come to a point where the majority of the partial cuts within older stands have been accomplished. As such, the district will be refocusing our management activities on first entry partial cuts within young plantations. This will require a drop in the partial cut acreage range in the district IP to accommodate the lower amount of acres in younger stands that are ready for a partial cut. In addition, the volume harvested from these younger stands is less than harvest volume removed from the partial cuts done on older stands. As a result, the regeneration harvest acreage range will need to be adjusted to make up for the volume loss in order to achieve the harvest volume target of 61 MMBF as required by the current IP.

Forest Grove District Implementation Plan Minor Modification:

Current FG Implementation Plan (2011) Table 13. Annual Partial Cut and Regeneration Harvest Objectives, by Volume and Acres

Volume (MMBF)	Regeneration Harvest Acres	Partial Cut Harvest Acres
61	300 - 1,300	850 - 3,450

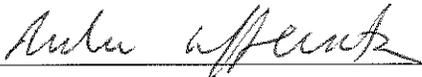
The following is the Minor Modification to the Forest Grove Implementation Plan.

Revised (2016) Table 13. Annual Partial Cut and Regeneration Harvest Objectives, by Volume and Acres

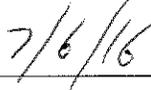
Volume (MMBF)	Regeneration Harvest Acres	Partial Cut Harvest Acres
61	500 - 2,000	0 - 2,100

This revision went through public review April 4, 2016 through May 20, 2016. General comments were received regarding being against increased regeneration harvest and reducing partial cut harvest. This revision will take effect from the signed date below.

APPROVED:



Mike Cafferata, Forest Grove District Forester



Date