

WEST OREGON DISTRICT 2016 ANNUAL OPERATIONS PLAN

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OVERVIEW

This plan describes the activities and outcomes that Oregonians can expect to see on State Forests in the West Oregon District for Fiscal Year 2016 (July 2015 - June 2016). 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.

Forests on the West Oregon District are actively managed, 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 Board of Forestry (Forest Development Fund (FDF)) timber sales go to local counties and other taxing districts, including schools. The revenue on "Common School Fund" Lands (CSL), owned by the State Land Board, goes directly to the Common School Fund which is managed by the Department of State Lands. ODF uses the remaining third of the FDF 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. These activities on CSL are funded by billing the State Land Board. 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.

Every year on the West Oregon District, 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.

Over the next two months, ODF will request review and comments on our plan from others, including Benton, Lincoln, and Polk County Commissioners, the Forest Trust Land Advisory Committee (representing the counties that deeded land to ODF), the State Forests Advisory Committee (SFAC - composed of Oregonians representing many interests), 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.

During this time, we want to hear your feedback, suggested revisions. In addition, any *thank you* messages to staff and volunteers are welcomed and appreciated. Thanks in advance for your review and engagement.



A short summary of activities planned for the coming year:

- Planting 110,000 trees on 255 acres and conducting vegetation and animal damage management activities on an additional 480 acres to ensure the survival and growth of these plantations.
- Maintaining a 313 mile road network that provides access to timber harvest, other forest management activities, as well as various recreational opportunities. Improve and maintain roads to ensure ditch water is dispersed and filtered, keeping runoff from entering streams.
- Conduct surveys for northern spotted owls and marbled murrelets to protect their habitat and comply with federal laws. Survey numerous streams for the presence of fish.
- Protecting streams and water resources through a series of buffers and seasonal restrictions activities.
- Continue to assess and address ice damaged stands from the November 2014 Ice Storm. This will most likely result in additional salvage timber sales.
- Providing large wood for a partnership with the Oregon Dept of Fish & Wildlife. These projects include wood placement in Bottger Creek, Wolf Creek, and Big Elk Creek in the Marys River and Big Elk Drainages. Wood for these projects will be addressed in timber sales associated with this AOP but the actual instream work will most likely occur in FY2017 or 2018.
- Habitat development projects such as retaining green trees in clearcut areas, and leaving down wood, all for wildlife benefits in harvest areas and future forests.
- Review 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 13 million board feet of timber volume, through timber harvest operations, generating revenue of an estimated \$4 Million. 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.
- Providing a safe and clean environment for the myriad of dispersed activities that occur across the forest – hunting, camping, angling, sight-seeing, target shooting, mushroom picking, etc.
- Maintaining and managing the existing motorized and non-motorized trail networks through adopt-a-trail agreements, striving to protect the trail investments, provide for user safety, and protect water quality.
- Supporting the pre-planned organized motorized and non-motorized events. Evaluate new proposals for fit with forest goals.
- 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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WEST OREGON DISTRICT

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INTRODUCTION

This annual operations plan (AOP) is written in concurrence and alignment to the district's 2012 Implementation Plan. The AOP covers the State Forest lands managed by the West Oregon District for Fiscal Year (FY) 2016, which begins July 1, 2015 and ends June 30, 2016. It describes how the activities and projects undertaken by the district will achieve the goals and objectives of the 2012 West Oregon District Implementation Plan (IP) and the Northwest Oregon State Forest Management Plan (FMP). Refer to the district IP for more specific information on history, physical characteristics, and other resource information on the district.

The management activities planned for FY 2016 are based on the range of objectives established in the *2012 West Oregon District Implementation Plan* (Table 1 below), which are described in the IP Minor Modification addressed below, as well as the assumption that budget allotments will be similar to FY 2015.

The Board of Forestry directed the State Forests Division to develop a new FMP to replace the current NW Oregon Forest Management Plan. The new plan is currently being written and Board adoption of the new FMP is anticipated to occur in the fall of 2015 that is during the implementation of this AOP. The strategies in the new plan may impact the goal and/or design of the harvest operations described in this AOP. Some of the changes may be minor, such as a change in the width of a riparian area or in the number and location of green trees retained in clearcuts. Other changes may be more significant, such as changing a partial cut to a clearcut, where there is no longer a goal of developing a Layered stand on that site (this AOP has been designed to minimize the number of instances where this may occur). Finally, the new FMP may result in increased harvest levels for this district that may be achieved by changing one or more of the Alternate Operations into Primary Operations.

The summary document of the AOP is divided into five categories: Integrated Forest Management, Planning and Information Systems, Public Information and Education, Administration, and Appendices.

The proposed harvest operations are planned to be laid out, contracts completed, and auctioned or submitted to Salem for processing during FY 2016 time period. The actual on-the-ground operations will likely not occur during FY2016 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 the FY 2016 time period.

A 45-day public comment period runs from April 6, 2015 through May 20, 2015. The District Forester will consider the comments received during this period and make any changes or modifications that are determined necessary, prior to approving the AOP.

At the close of the public comment period, the District Forester will forward these changes with any public comments to the Area Director and State Forester for review and approval.

The accomplishment 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 the 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 through the internet¹.

INTEGRATED FOREST MANAGEMENT OPERATIONS

Timber Harvest Operations

Overview of Timber Harvest Operations

The planned timber harvest operations are within the total acres objective in the 2012 West Oregon District IP. Activities in the AOP will contribute revenue to the counties with the overall objective of 13.4 MMBF.

It is estimated that active management will result in producing approximately 11.9 million board feet of conifer volume and 1.5 million board feet of hardwood volume, for a total of 13.4 million board feet. These FY2016 harvest operations are projected to generate gross revenues of approximately \$4,232,250. With an approximate total project work cost of \$237,000 anticipated, the net revenue produced is expected to be about \$3,995,250. Of this net revenue, approximately \$3,318,220 will be generated from Board of Forestry lands and

¹ The State Forests’ annual reports individual district annual reports are available on the Oregon Department of Forestry web site under publications.

Link: <http://www.oregon.gov/odf/Pages/pubs/publications.aspx>

the remaining \$667,030 will come from Common School lands. Refer to the Appendix A, “Timber Harvest Operations - Financial Summary” table for more detail on volumes and values.

In addition to revenue from timber sales, the district is anticipating selling approximately 70 minor forest products permits resulting in an additional \$7,000.

Table 1 compares the proposed acres by harvest type² in this AOP to the harvest acre ranges specified in the 2015 IP Minor Modification. Total planned acres in this AOP are 377 net acres (approximately 1.0% of the district’s total acreage) which achieves the annual volume objective, in addition to making up for some of the 2 MMBF which was not accomplished in the FY13 and FY14 AOP’s. Harvest activities (net acres) in this AOP consist of 100% regeneration harvest. The anticipated harvest acres, volume, and revenue for each proposed operation in this AOP are listed in the “Harvest Operations – Financial Summary” table in Appendix A, while a vicinity map of these harvest operations can be found in Appendix B.

Table 1. Annual Operations Plan objectives compared to annual objectives identified in the 2012 West Oregon District Implementation Plan. All values are in net acres.

Silvicultural Activity	Modified IP Annual Objective		2016 AOP Objective
	Low	High	
Partial Cut Harvest	0	1,200	0
Regeneration Harvest	225	400	377

The district has included 9 alternate operations in this AOP. These alternate operations may be used to replace primary operations that cannot be completed as planned or if a change is needed as a result of the new Forest Management Plan.

The net acres listed in Table 1 and the individual Pre-Operation Reports excludes the acreage contained in roads, stream buffers and no-harvest areas within the operation areas. The net acres reflect the amount of ground that will actually be in the operations.

All of the primary and alternate harvest operations and many of the other forest management activities have been review by ODF’s wildlife biologists, aquatic specialist, geotechnical engineer, staff engineer, and operations coordinator, as well as fish and wildlife biologists from the Oregon Department of Fish and Wildlife. Information on operations that will occur within non-habitat buffers of Marbled Murrelet Management Areas has been provided to the US Fish and Wildlife Service. 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.

² The definitions of the harvest types used to describe timber harvesting on State Forests can be found on the [State Forests website](#) under Forest Management and Planning. Briefly, a Modified Clearcut is the most common of three type of Regeneration Harvest (or clearcut) that may occur on State Forests. The defining characteristics of Modified Clearcuts are that they meet the structural component standards of the FMP (green tree, snag, and down wood).

Some smaller additional operations targeting infrastructure maintenance may also produce timber volume during the 2016 fiscal year. These small operations are not included as part of the AOP because they affect a very small area, produce little volume or revenue, and do not require significant effort to develop and execute. This is most likely on some stands with severe damage resulting from the November 2014 ice storm.

The landscape design associated with the IP shows the Desired Future Condition (DFC) for state forest land in the district. Areas designated to become complex forest are indicated as either Layered (LYR) or Older Forest Structure (OFS). Stands not planned for LYR or OFS are designated as General (GEN). A stand with a DFC of GEN may develop into any of the five stand structures defined in the Northwest Forest Management Plan.

During FY 2016, regeneration harvests on the District will all be modified clearcuts.

Regeneration Harvest - The IP states that regeneration harvesting will occur primarily in areas designated as DFC GEN. Most of these harvests will be in Understory (UDS) stands and some will be in Closed Single Canopy (CSC) stands. Regeneration harvests may also occur in stands designated for DFC Complex structure where it is determined that the fastest pathway to complexity is to start over (see IP for details). The 377 acres of modified clearcut harvest (Primary Operations) in this plan consists of seven harvest units which support 35 -130 year old Douglas-fir and 43-59 year old Red Alder trees. In these units, 352 acres are located in areas designated as DFC GEN and 25 acres are located in areas designated as DFC Complex. The DFC of these 25 acres will be changed in a minor modification to the IP (see Table 2). The current condition of these stands by acreage is 73% UDS, 26% CSC, and 1% LYR. Some of these acres include some stands identified with severe ice damage.

In order to protect water quality during active operations, a variety of methods will be used to prevent sediment from entering live streams. These methods include (but not limited to) maintaining culverts and other road drainage structures, using sediment control devices in road ditches when necessary, and seasonal restrictions on logging roads and hauling operations. Culvert installment and replacement in live streams will be conducted between July 1 and September 15. Operations outside of this period will be reviewed with Oregon Department of Fish and Wildlife (ODF&W). Riparian management areas result in leave trees adjacent to the stream which protect stream temperature, provide nutrients, protects banks, and eventually provide wood to improve fish habitat.

Structural Habitat Components

Structural habitat components such as green trees, snags and Down Woody Debris (DWD) are described in Chapter 4 of the NW FMP and may be considered for all harvest prescriptions.

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 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 FMP strategy for Down Woody Debris 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 data indicates that there is approximately 175 cubic feet of Class 1 & 2 conifer 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.

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. Post harvest DWD results can be attributed to natural recruitment from green tree retention, residual logging slash, and tree topping.

Snag and Down Wood Inputs - In all five of the proposed primary sale modified clearcuts, five trees per acre will be left standing in the units which should provide future legacy trees. In time through natural processes, some of them will become down wood and snags. There are abundant snags and down wood in three of the five primary sales due to ice damage which occurred in November 2014. So no effort will be made to add more.

Landscape Design

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

The District's vision for future development of complex and general stands on the landscape is described and mapped in the 2012 District Implementation Plan. The Landscape Design is composed of stands occupying at least 31 percent of the district and the stands are to be managed for DFC – Complex structure, either Layered (LYR) or Older Forest Structure (OFS). The “Timber Harvest Operations – Forest Structure Summary” table in Appendix A provides an overview of the current condition of the

Primary Harvest Operations and their anticipated stand structure five to ten years after harvesting has been completed. In addition, this table provides a summary of the Desired Future Condition of the Primary Harvest Operations.

The district will implement silvicultural prescriptions that are consistent with the mapped DFC, which take into account stand health and the ability of the present stand to achieve the DFC designation.

The development of the landscape design during implementation planning generally conducted at the stand level or higher using the best available information at the time, with the recognition that some minor changes will be necessary during operational planning.

Table 2. Minor changes to the Landscape Design.

Operation/Unit	Modification	Acres Added	Acres Removed
Switch Up (primary)	Remove DFC - LYR	0	5
Fern Hill Area 2 (primary)	Remove DFC – LYR	0	18
Filched (primary)	Remove DFC – LYR	0	2
Lucki-Bonny Area 2 (alt.)	Remove DFC - OFS	0	1
Hot Plunkett Area 2 (alt.)	Remove DFC - OFS	0	1
Hot Plunkett Area 2 (alt.)	Remove DFC – LYR	0	1
Little Elk Thin Area 3 (alt.)	Remove DFC - GEN	0	9
Salmon Creek MMMA	Add DFC – LYR	9	0
Rudder Road (alt.)	Remove DFC - LYR	0	1
Little Thin on the Prairie (alt)	Remove DFC - GEN	0	36
West Prairie MMMA	Add DFC – OFS	36	0
Bear Creek MMMA	Add DFC – LYR	29	0
Cell-Maker Area 2	Remove DFC – OFS	0	12
Salmon Creek MMMA	Add DFC – OFS	12	0
Total Change		86	86

As illustrated in Table 2, these modifications are necessary to create logical harvest boundaries. In these cases, the current landscape design employed stand polygons which did not match the actual on ground stand condition. The DFC-OFS or LYR acres removed from the six sale areas will be replaced by the current DFC-GEN acres contained in the newly redesignated Salmon Creek and West Prairie Marbled Murrelet Management Areas. Due to heavy ice storm damage in November of 2014, a portion of Cell-Maker Area 2, a primary sale in 2013 AOP, needed to be clearcut. The DFC-OFS acres removed from this sale will be replaced by the current DFC-GEN acres contained in the newly redesignated Salmon Creek Marbled Murrelet Management Area.

Harvest Operations within Terrestrial Anchor Sites and Aquatic Anchor

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

Terrestrial Anchor Sites (TAS) areas intended to benefit terrestrial wildlife species of concern, especially those associated with older forest or interior habitat conditions, sensitive to forest fragmentation, or do not readily disperse across younger forest conditions. Management within TAS is intended to 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, with the management activities within those areas 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.

Since the adoption of the TAS in the 2012, the district has not proceeded with an operation in these areas. In the future, great care will be given in selecting stands for harvest and developing prescriptions in these areas to ensure that these harvest activities achieve the goals of the TAS. Table 3 summarizes harvest operations within the TAS proposed in the 2016 AOP and the cumulative operations in TAS since the strategy was adopted (AOPs 2013 through 2016).

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

Acres within TAS	Current AOP (2016)		Cumulative Harvest (Since 2013 AOP)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Entire District	377	0	1,153	1,220
Total – 36,633 ac % of Acres	1.0%	0%	3.1%	3.3%
Green Mountain	0	0	0	0
Total – 1,625 ac % of Acres	0.0%	0.0%	0.0%	0.0%
Wolf Creek	0	0	0	0
Total – 1,001 ac % of Acres	0.0%	0.0%	0.0%	0.0%
All TAS	0	0	0	0
Total – 2,626 ac % of Acres	0.0%	0.0%	0.0%	0.0%

Table 4 summarizes harvest operations within the AAs proposed in the 2016 AOP and the cumulative operations in AAs since the strategy was adopted (AOPs 2013 through 2016).

Table 4. Summary of Harvest Operations within AA (Net Acres and Percent on ODF)

Acres within AA's	Current AOP (2016)		Cumulative Harvest (Since 2013 AOP)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Entire District	377	0	1,153	1,220
Total – 36,633 ac. % of Acres	1.0%	0.0%	3.1%	3.3%
Rock Creek	0	0	63	47
Total – 4,768 ac % of Acres	0%	0.0%	1.3%	1.0%
Upper Yaquina – Amphibian Emphasis	0	0	70	0
Total – 3,493 ac % of Acres	0.0%	0.0%	2.0%	0.0%
Wolf Creek	77	0	139	0
Total – 3,194 ac % of Acres	2.4%	0.0%	4.4%	0.0%
All Aquatic Anchors	77	0	272	47
Total – 11,455 ac % of Acres	0.7%	0.0%	2.4%	0.4%

Summary of Timber Harvest Operations by Basin

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

Basin	2016 AOP	
	Partial Cut	Clearcut
Big Elk Creek	0	137
Luckiamute River	0	0
Marys River	0	240
Siletz River	0	0
Upper Yaquina River	0	0

Big Elk Creek Basin

Primary Sales

King Wolf – This proposed sale consists of two modified clearcut areas totaling 77 net acres. The timber type ranges from a 44 - 101 year-old DF stands with hardwoods. The current condition is UDS and the DFC is GEN. Areas 1 and 2 are within the Wolf Creek Aquatic Anchor. Increased protection measures along small perennial Type N streams will be implemented.

Doe Over – This proposed sale consists of one, 60 net acre modified clearcut containing 73-79 year old Douglas-fir with some scattered hardwood. The current condition is CSC and UDS in addition to a little of LYR (3 acres). The DFC is GEN.

Alternate Sales

Little Elk Thin – This proposed sale consists of three partial cut units totaling 278 net acres. A small portion of Area 2 is within this management basin. These areas consist of 28-31 year old Douglas-fir plantations. The current condition of these Areas are UDS or CSC and the DFC is GEN. Area 3 is thinning in non-habitat buffer of Salmon Creek MMMA. Seasonal restrictions and other protection measures will be required. A portion of this sale is also in the Upper Yaquina River Basin.

Aire Apparent – This proposed sale consists of four partial cut units totaling 189 net acres. These areas consist of 27-38 year old Douglas-fir plantations. The current condition of these Areas are UDS or CSC and the DFC is GEN. All Areas are within the Wolf Creek Aquatic Anchor. No additional stream protection measures required since these are thinning operations.

Powerline Thin – This proposed sale consists of two partial cut units totaling 256 net acres. These areas consist of 28 year old Douglas-fir plantations. The current condition of these Areas is CSC and the DFC is GEN.

Luckiamute River Basin

Primary Sales

There are no primary operations planned in this basin for FY 2016.

Alternate Sales

Lucki-Bonny – This proposed sale consists of two modified clearcut areas totaling 37 net acres of 78-91 year old Douglas-fir with some scattered hardwood. The current condition is UDS in addition to a little of LYR (2 acres). The DFC is GEN. Area 2 was commercially thinned in 1999.

Marys River Basin

Primary Sales

Switch Up – This proposed sale consists of one 60 net acre modified clearcut. The timber types are predominately 35-37 year-old Douglas-fir plantations which were severely

damaged by the November 2014 ice storm. The current condition is predominately CSC and the DFC is GEN.

Fern Hill – This proposed sale consists of two modified clearcut areas totaling 105 net acres. The timber type ranges from a 63 - 130 year-old DF stands with hardwoods. The current condition is UDS and the DFC is GEN.

Area 1 and portions of Area 2 were commercially thinned in 2004.

Filched – This proposed sale consists of one 75 net acre modified clearcut. The timber types ranges from a 43 - 94 year-old DF stands with hardwoods. The current condition is UDS and the DFC is GEN. A Portion of this sale was commercially thinned in 2001.

Alternate Sales

Hot Plunkett – This proposed sale consists of two modified clearcut areas totaling 119 net acres. The timber types ranges from a 65 - 84 year-old DF stands with hardwoods. The current condition is UDS, in addition to a little of LYR (1 acre) and OFS (less than 1 acre) and the DFC is GEN. A portion of this sale is also in the Upper Yaquina River Basin.

Siletz River Basin

Primary Sales

There are no primary operations planned in this basin for FY 2016.

Alternate Sales

Rudder Road – This 44 net acre proposed modified clearcut is comprised of one area, the majority of which is 79 year-old Douglas-fir with scattered hardwood. The current condition is UDS and the DFC is GEN. This sale is within the Rock Creek Aquatic Anchor. Increased protection measures along all Type F and small perennial Type N streams will be implemented. Most of this sale area was commercially thinned in 2002.

Thin Woman – This proposed sale consists of three partial cut units totaling 145 net acres. These areas consist of 26-29 year old Douglas-fir plantations. The current condition of these Areas is CSC and the DFC is GEN. Areas 1 and 2 are within the Rock Creek Aquatic Anchor. Increased protection measures along all Type F and small perennial Type N streams will be implemented. Area 3 is thinning in non-habitat buffer of Upper Fall Creek MMMA. Seasonal restrictions and other protection measures will be required.

Little Thin on the Prairie – This proposed sale consists of three partial cut units totaling 129 net acres. These areas consist of 35 year old Douglas-fir plantations. The current condition of these Areas is UDS and the DFC is GEN. All Areas are thinning in non-habitat buffer of West Prairie MMMA. Seasonal restrictions and other protection measures will be required.

Upper Yaquina River Basin

Primary Sales

There are no primary operations planned in this basin for FY 2016.

Alternate Sales

Half Pipe – This proposed sale consists of one 45 net acre modified clearcut. The timber types ranges from a 49 - 82 year-old DF stands with hardwoods. The current condition is UDS and the DFC is GEN.

Hot Plunkett – This proposed sale consists of two modified clearcut areas totaling 119 net acres. The timber types ranges from a 65 - 84 year-old DF stands with hardwoods. The current condition is UDS, in addition to a little of LYR (1 acre) and the DFC is GEN. A portion of this sale is also in the Marys River Basin.

Little Elk Thin – This proposed sale consists of three partial cut units totaling 278 net acres. All of Areas 1 and 3 and the majority of Area 2 are within this management basin. These areas consist of 28-31 year old Douglas-fir plantations. The current condition of these Areas are UDS or CSC and the DFC is GEN. Area 3 is thinning in non-habitat buffer of Salmon Creek MMMA. Seasonal restrictions and other protection measures will be required. A portion of this sale is also in the Big Elk Creek Basin.

Forest Roads Management

The primary transportation focus is to protect and secure access for forest management activities. This involves constructing new roads where needed, vacating old roads that no longer meet current standards, and maintaining or upgrading existing roads. Other resource management activities and other users are also considered in the transportation planning. The approximately 313 mile transportation system provides access for timber removal, recreation, fire control and removal of other forest products.

Visions, guiding principles, and techniques that are the framework of the District's road management program are discussed in detail in the IP and the Forest Roads Manual (2000), and govern the planning and implementation of the activities discussed in this section. Planning of these activities are Level III plans, as discussed in the Forest Road Manual.

As listed in Appendix A "Forest Roads Summary" table, it is estimated that 0.9 miles of new road construction and 0.4 miles of road improvement will be included with the FY 2016

operations plan. These roads will provide improved access for hauling forest products from the operation areas.

The District has conducted a detailed inventory of the District's road system, collecting information on road surfacing, condition, drainage, and stream crossings. This inventory was completed in conjunction with the Oregon Salmon Plan. This inventory will continue to be updated as staff time permits. For the FY 2016 operations plan, existing roads and drainage systems on designated haul routes of timber sales have been evaluated to determine high priority road or drainage structure maintenance, abandonment, replacement, or improvement projects.

All road maintenance and improvement will be confined to the haul routes. There will be no road vacating. The District has planned for wet weather, limited wet weather, and dry weather hauling by using existing rocked roads, improving existing dirt roads to a surfaced condition and surfacing some new construction. Drainage structures that are in need of replacement, and are on the haul routes, will be replaced with the timber sale that will use that haul route. One temporary fish stream crossing is planned, which will be removed upon completion of harvest activity on that sale area. Activities under this Plan will add approximately 0.9 miles of road to the District's active road system.

Road maintenance will consist of re-shaping roads with a road grader, and applying spot rock where needed. Replacement of wear rock due to hauling will be applied post harvest. Road improvement will consist of re-opening existing unsurfaced roads and applying a lift of rock for winter harvest operations. Drainage structure maintenance will be cleaning culvert inlets and outlets.

District activities to control noxious weeds consist primarily of controlling Scotch broom (and other brooms) in and around plantations. Most of these infestations start along roads and spread from there. Other species, which are occasionally targeted for control, include knotweed, false brome and Himalayan blackberry. Approximately 10 miles of Noxious weed control is planned during this fiscal year and will be accomplished using District personnel and equipment. Much of this is spot treatment. All logging equipment will be inspected for cleanliness and washed if necessary before entering and leaving STATE lands to control the spread of noxious weeds.

Road Construction

Since the mainline roads are already in place on the district, these new roads will be short, low use, single lane spur roads averaging 14 feet wide. Approximately 56% of the roads to be constructed will be rocked with base rock, providing an all season surface for harvest operations only. Natural surfacing will be the final condition for the remaining new roads. The natural surface roads will be water barred, and blocked to restrict public vehicle access after harvest and/or prior to the beginning of the wet season. Restricting access to natural surface roads will control soil erosion and ensure that the drainage systems remain intact.

All roads to be constructed will be built on gentle, stable topography, to minimize slope stability concerns, soil erosion, and downstream water quality issues. However, if it is determined during timber sale layout that a new road must be constructed through steeper terrain, the staff engineer and area geo-technical specialist may be contacted and requested to conduct an onsite inspection and provide input related to mitigating any negative effects of road construction.

All road construction is classified as surfaced or unsurfaced spurs. All newly constructed roads will be built on side slopes less than 50% or on ridge tops, requiring no end-haul. All excavated material will be used in the constructed road prism. All road construction projects are directly associated with this year's sale plan.

Road Improvement

All road improvement projects are associated with commercial forest management operations and consist of re-opening existing over-grown unsurfaced spurs and landings or upgrading the wet weather haul capacity of the road. All of the improvement activities will be performed on low use spur roads and will be accomplished using a dozer or road grader. There are no drainage structure issues associated with any spur improvement.

Road Access Management

All surfaced and newly constructed or improved unsurfaced roads are categorized as active use roads. The unsurfaced roads will be blocked and water barred in the wet season. After the wet season, these roads may be re-opened and harvest activities may resume. Once harvesting is completed, these roads will be blocked, water barred, and temporary culverts removed until the next harvest entry. Road surfaces may be grass seeded to reduce erosion and protect water quality.

All haul routes which access the FY2016 timber sales are surfaced, all weather roads and are generally accessible to the public. There are exceptions where these roads access private timber lands and are gated. Unsurfaced roads that originate from non-gated public access roads will be blocked in wet weather to prevent the public from gaining access. All primary haul route roads accessing the FY2016 timber sales have easements. Temporary access permits across private lands or approach permits to county roads may be required for several of the sales. One alternate sale will require a permit to yard over private land from an existing landing.

Road Maintenance

District roads that are not under timber sale contracts will be maintained by a service contract. District personnel and equipment are utilized to control roadside brush and spread grass seed along dirt road where needed. All maintenance required for timber

sales will be limited to haul routes only. Graded haul routes will have the ditches and culvert catch basins cleaned where needed. Where significant, slough material will be removed from ditch lines or road surfaces and placed in stable waste areas.

Road maintenance for roads being used for timber sale access becomes the responsibility of the timber sale purchaser once sale activity has begun.

Roadside vegetation control, utilizing District personnel and equipment, will be conducted along roads with encroaching vegetation. The objective is to reduce vegetation along “right-of-ways” for improved sight distance for safety, maintaining access, and protect the investment in the transportation infrastructure.

Land Surveying

Approximately 1.5 miles of property line previously surveyed will need to be reflagged. Approximately 1.5 miles of property line will need to be surveyed and established. There are 11 property corners which will need to be located and their associated bearing trees painted. This survey work will be accomplished with District personnel and equipment and/or through professional contracts.

Young Stand Management

The purpose of conducting young stand management operations is to prepare for, establish, or maintain a new forest, or new forest layer, through operations such as site preparation, tree planting and protection, vegetation management, pre-commercial thinning, and pruning. Another operation often associated with, but not limited to, young stand management is invasive species control. Through the use of these operations many of the silvicultural goals and objectives of the FMP and IP are met.

Specific information regarding operations can be found in Appendix A, “Reforestation and Young Stand Management Summary” table, and in the discussion, below.

Due to current budget limitations, most young stand management activities are limited to those essential to forest establishment. Accordingly, these activities are readily supported within the base budget. Alternatively, other management operations such as stocking density control (Pre-commercial Thinning), and low priority vegetation management (release), may not be fully funded.

Site Preparation

The purpose of site preparation is to prepare areas for replanting after harvest operations or rehabilitation activities by removing or controlling the vegetative or slash cover. This allows seedlings to become established while reducing the competition with other vegetation for

moisture, sunlight, and nutrients. Both chemical and mechanical (slash piling and burning) site preparation may be used on the same acreage. During this operations plan period, one or more site preparation activity will be conducted on approximately 400 acres. This work includes mechanical brush and slash piling, pile burning, and chemical site preparation. Site preparation activities will be conducted in the following basins:

Big Elk Creek Basin – Three sale areas totaling 84 acres will receive a chemical site prep treatment. Another sale will have 10 acres of machine piling and another 22 acre sale area will have piles burned that were piled in FY '15.

Luckiamute River Basin – There are no site preparation activities planned in this basin in the 2016 FY.

Marys River Basin – Two harvest units totaling 65 acres will have a chemical site preparation application, one of these units will also have 10 acres of piles burned. Two other sale areas will have 80 acres of machine piling and pile burning.

Siletz Basin – 60 acres in two sale areas will have a chemical site preparation application.

Upper Yaquina River Basin – One 41 acre harvest area will have a chemical site preparation application, about 35 acres of this same area will have piles burned (piled in FY 15). Another 40 acres in two sale areas will have slash mechanically piled.

Planting

Tree planting operations are conducted for various reasons. These include meeting Forest Practices Laws, quickly establishing a new stand of trees after timber harvesting, and increasing species diversity in the area and across the landscape. Some planting (under planting) is intended to create an additional tree layer in a partial cut stand for increased structure and diversity. Planting will also ensure future opportunities and options for the management of stands to produce desired structures across the landscape. The IP indicates that annual reforestation acreage will be between 200 and 400 acres. About 265 acres is scheduled to be planted (initial planting, under planting and interplanting) during FY 2016.

Initial Planting:

This type of planting is conducted after a timber harvest reduces the stocking level to a degree that more trees are required on the site. Approximately 255 acres will have initial planting. Seedlings will be planted at a rate of 435 trees per acre (TPA). Initial planting will occur in the following basins:

Big Elk Creek Basin – Two clearcut harvest areas (71 acres total) will be planted. Both will be planted to Douglas-fir (75%), western hemlock and western redcedar (20%) and Sitka spruce (5%).

Luckiamute River Basin – No planting will occur in this Basin during FY 2016.

Marys River Basin – Three clearcut harvest areas (totaling 83 acres) will be planted to Douglas-fir (75%), western hemlock (10%) and western redcedar (15%).

Siletz River Basin – 60 acres in two clearcut harvest areas will be planted to Douglas-fir (65%), western hemlock and western redcedar (30%) and Sitka spruce (5%).

Upper Yaquina River Basin – 41 acres in one area will be planted to Douglas-fir (75%), western hemlock and western redcedar (20%) and Sitka spruce (5%).

Underplanting:

This type of planting is conducted after thinning in order to introduce both species diversity and an additional future layer of structure into a stand. No underplanting will occur during FY 2016.

Interplanting:

This type of planting will occur on areas that were initially planted one to three years previous, but for various reasons (animal damage, disease, seedling/planting quality, etc) seedlings did not survive in sufficient numbers. It is estimated that approximately 10 acres will need interplant. A variety of tree species will be planted, depending on the site conditions and availability of stock.

Vegetation Management

Release operations are conducted in established plantations to control undesirable vegetation that competes for moisture, sunlight, and nutrients. The objective is to retain preferred trees in the stand and maintain acceptable growth rates of the established stands. Vegetation management operations are also used to eradicate noxious weeds which may not actually threaten seedlings but which have the potential to spread and displace desirable vegetation. Vegetation management methods are either manual or chemical.

Manual Release:

Areas of manual release are typically small areas in young plantations that are either too close to streams or private property to treat with chemicals or where target vegetation is too large to be effectively treated with chemicals. This type of release will keep preferred trees from being overtopped by competing vegetation. About 200 acres of manual release is forecast to be needed. This work will be accomplished by inmate crews. The work could occur in any of the management basins.

Chemical Release:

These operations vary from aerial applications targeting multiple weed species growing over entire young plantations to ground based backpack applications targeting individual undesirable plants. Approximately 200 acres of both ground-based and aerial chemical vegetation management is forecast for this period. This work will occur in the following basins:

Big Elk Creek Basin – One plantation (48 acres) is planned for an aerial release herbicide application. One plantation (25 acres) will likely receive a ground-based herbicide application.

Luckiamute River Basin – No chemical release is planned to occur in this Basin during FY 2016.

Marys River Basin – Two plantations (totaling 69 acres) will likely receive an aerial herbicide release application.

Siletz River Basin – No chemical release is planned to occur in this Basin during FY 2016.

Upper Yaquina River Basin – One plantation (58 acres) is planned for an aerial release herbicide application.

Noxious Weeds

Sites will be evaluated for treatment as they are identified. Roughly 20 acres of chemical and manual vegetation treatment targeting noxious weeds is forecast for FY 2016. This acreage does not include roadside management. These operations are typically on small acreage and will target such noxious weeds as Scotch broom, false brome, and spotted knapweed. The treatment areas will be scattered through most all of our management basins.

Tree Protection

Tree protection operations are conducted to reduce, control, or mitigate animal damage on desired trees in the stands. These operations are intended to maintain stocking and growth rates at acceptable levels. The District uses three methods to provide protection to trees: installing tubes over seedlings, applying a big game repellent to the seedling, or trapping animals (mountain beaver).

Tubing:

On this District, tubing has proven effective in most cases in keeping animal browse on cedar to an acceptable level. Tubes will be installed on all of the approximately 10,000 western redcedar planted during this period. The work will be done by the Mill Creek inmate crew. Western redcedar will be planted on portions of all of the areas designated for initial planting during this period.

Big Game Repellant (BGR):

BGR (Plantskydd) has been applied from time to time on western redcedar in the past and more recently to western hemlock and Douglas-fir on a trial basis. It appears to have helped prevent near total removal of western hemlock by big game species in problem areas. Plantskydd will not be applied during FY 2016 due to budget constraints.

Direct Control:

Mountain beaver trapping will likely occur on all of the units that are planned for planting during this period (approximately 255 acres). Assessments will be made after the units are harvested as to the need for control work. Maintenance trapping will also occur in portions of units that were trapped previously that show continued high levels of mountain beaver damage (approximately another 50 acres). During FY 2016, this work will be done by the Mill Creek inmate crew.

Pre-commercial Thinning

Pre-commercial thinning (PCT) operations are conducted on stands that are above a desired stocking level. The operations generally have several objectives including the following: 1) reduce stocking to levels which will maintain diameter growth, and to a lesser extent height growth; 2) provide an opportunity for selecting residual trees based on initial growth, form, and defect, and 3) favor particular species that are needed to improve stand composition and diversity. The IP states that annual PCT acreage will be between 200 and 800 acres. Approximately 130 acres of plantations or patchcuts would benefit from PCT during the FY 2016 AOP period. These are stands that are currently stocked with 400 or more trees/acre. In order for these stands to become financially viable commercial thinning within 10-15 years, they will need to be thinned. Any PCT conducted during this period will be done by the Mill Creek inmate crew.

The plantations needing PCT, listed below, range from 13 to 16 years old and are stocked with an average of 400 TPA of Douglas-fir and other conifer. PCT would increase the health and vigor of the stands by removing an average of 150 TPA of the smallest and/or most defective Douglas-fir trees. Most conifers other than Douglas-fir and most hardwoods would be reserved from cutting, thus maintaining the present diversity. Due to budget constraints, these stands may not be thinned at this time.

Big Elk Creek Basin – Approximately 42 acres in one plantation.

Luckiamute River Basin – Approximately 50 acres in one plantation.

Marys River Basin – Approximately 34 acres in one plantation.

Siletz River Basin – None.

Upper Yaquina River Basin – Approximately 4 acres in one plantation.

Fertilization

No fertilization activities will occur during FY 2016.

Pruning

The purpose of pruning is to remove limbs in order to create future high quality clear wood, or to reduce the potential for disease. The IP states that annual pruning acreage may vary between 0 and 50 acres.

Pruning for Clear Wood:

No new pruning for clear wood will be initiated during this period.

Pruning for White Pine Blister Rust:

Approximately 30 acres of white pine pruning may occur during FY2016. Any work done will be by inmate crews. Most work would occur in the Marys and Luckiamute Basins.

Recreation Management

Current recreational activities on the District consist mostly of dispersed camping, sightseeing, hiking, hunting, and fishing. However, there are three sites that do receive some level of consistent visitor use during certain periods of the year. They are:

1. Big Elk Creek. This area has two primitive campsites along Big Elk Creek that have all weather access. These campsites are consistently used during summer weekends and through much of the hunting seasons.
2. Baber Meadows. The Mt. Baber ATV Club uses Baber Meadows as an ATV staging/riding area. This staging area provides access to a 32.6 mile trail loop on ODF and private land. The club schedules some organized riding events but riders use the trail system at other times of the year, as well. The other staging area at Salmon Creek provides closer access to the Mt. Baber trail system for those riders coming from the Willamette Valley.
3. Black Rock. A mountain bike club, the “Black Rock Mountain Bike Association” has created and maintains about 9.5 miles of trails in the eastern portion of ODF ownership at Black Rock. The club schedules some organized riding events but riders use the trail system at all times of the year, as well.

Recreation planning and management are covered in the 2012 IP in detail. Current economic and funding constraints do not allow for development of additional recreation infrastructure. However, long term vision and goals (given improved economic conditions) are outlined in the IP.

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

The facilities at Baber Meadows include a restroom, an informational kiosk, an adjacent kid's track, all weather access roads to camping and staging areas, nine surfaced trailer sites with picnic tables and fire rings, and two primitive camp sites. There is also an overflow parking area to the west of the meadows. The facilities at the Salmon Creek Staging Area consist of a surfaced parking lot and an informational kiosk.

Facilities at Black Rock include a small parking area and an informational kiosk.

Trails

The 32.6 mile ATV trail loop on ODF and private forest land will be maintained throughout the year by the Mt. Baber ATV club members. About 4.2 miles of trail system is on State land.

The 9.5 mile mountain bike trail system in the Black Rock area will be maintained throughout the year by the Black Rock Mountain Bike Association.

Management Activities

The Mt. Baber ATV club generally hold a number of organized riding events during the fiscal year. Riders use the staging areas and trails throughout the year unless restrictions are in place that would temporarily curtail activities (i.e. fire season restrictions, active timber sales, etc.).

The Black Rock Mountain Bike Association may have some organized riding events along with scheduled "work party" events. The trail system is used continuously throughout the year.

Land Exchange

There are currently no land exchanges planned, however assessment and evaluation of other potential land exchanges will be on going throughout the year. The district's "Land Acquisition and Exchange Plan" was updated in FY 2013.

Other Integrated Forest Management Operations

Aquatic and Riparian Resources

Stream restoration is a Forest Management Plan aquatic and riparian strategy for maintaining and improving aquatic functions. Within the West Oregon District Implementation plan, in the Aquatic Resources section, it is stated as a goal that the district will implement restoration projects to improve aquatic habitat, riparian function, and water quality where appropriate and feasible. Another goal in the IP is to implement 0-2 opportunistic projects per year if resources and partners are available. To work towards this goal in this AOP, there are three potential stream restoration projects being considered for the primary timber sales. One restoration project is wood placement along a portion of Bottger Creek. This project will be planned with the Fern Hill timber sale. Another wood placement project along Wolf Creek and planned with the King Wolf timber sale. The last one is associated with the Doe Over timber sale placing wood in Big Elk Creek. The District will provide logs for placement in each selected stream to improve juvenile fish habitat. An ODF&W fish biologist will design and administer these projects.

Minor Forest Products

District Firewood Cutting Program

West Oregon District typically issues between 50 and 90 personal use firewood cutting permits each fiscal year, producing an estimated revenue through administrative fees of \$1,000 to \$1,800. In addition, the District issues between 5 to 10 commercial firewood permits with an estimated revenue of \$500 to \$1,000. This represents a significant workload, in the fall through spring months, for the forester in charge of permits. No personal use firewood permits are issued during closed fire season.

Purpose:

The primary objective of the District Firewood Cutting Program is to provide a source of firewood from State Forests to the public for personal use and secondarily to reduce fuel hazards, improve visibility along roads, and provide a recreational opportunity. The District's Firewood Cutting Program is tied to the completion of timber sales. Timber sale contracts require any non-merchantable wood or cull material that has been yarded to the landing and is suitable for firewood to be placed in a pile.

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

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

Permit Fee:

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

When:

By phoning the Philomath office, the public may have their names put on a permit list opened each year on October 1st and again on March 1st. Persons will be notified, in order, when permits become available. Occasionally, if there is no wood forecast to be available during one of these periods, the district may opt not to maintain a list until the next period. Permits will be issued for a 2 week period, during the months outside of fire season. Fire season is generally from July 1st through October 15th, but actual dates can vary dramatically from year to year..

Who:

A limited number of personal firewood cutting permits will be issued to the public, on a first on the permit list-first served basis, with a limit of 2 permits per individual or household within a 12 month period. The permit cannot be used to sell firewood to another party. Firewood cutting permits will be sold and administered to public employees under the same processes used by the public. Oregon Department of Forestry does not guarantee the quality or availability of wood when issuing firewood cutting permits, as such, permit fees will not be refunded. Exceptions to the two cord limit may be made for non-profit organizations, with prior district authorization.

Where:

Designated firewood cutting areas will be marked on the permit map, which excludes active and sold timber sales, recreation sites, and planned operations. There is no guarantee that units or travel routes will be posted in the field.

How:

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

Commercial Firewood Permits:

In areas behind locked gates or on unsurfaced road systems only open during dry weather, a limited number of commercial permits may be offered. The district maintains an on-going list of interested parties. Permits are sold for \$100 and the permittee is allowed up to 10 cords per permit. Permits are for a one-month time period. This wood may be sold by the permittee and therefore requires that the permittee fill out a Notification of Operations which

is filed with the Oregon Department of Forestry and results in notification to the Department of Revenue. Permittee must fill out this notification regardless of whether they intend to sell the firewood or not.

Miscellaneous Forest Products

The District typically issues between 30 and 50 miscellaneous forest product permits for salal, vinemaple, forest plants, chanterelle mushrooms and Oregon grape each fiscal year. Permits are sold for \$100 per permittee . The estimated revenue from these permits is \$6,000 to \$9,000 a year.

Planning (and Information Systems)

Stand Level Inventory and Other Vegetation Inventories

There are approximately 25 stands which are planned for Stand Level Inventory in FY 2016.

Stocking surveys of two, six, and thirteen-fifteen year old plantations will continue. Approximately 1,500 acres are planned for surveying by district personnel.

Fish and Wildlife Surveys

There are numerous streams identified for fish presence surveys within or adjacent to all operation areas. The ODF&W fish biologists will be contacted for their assistance in conducting fish presence surveys for those streams currently classified as unknown associated with the harvest operations. If they are not available to provide assistance then District personnel will work with ODF Aquatic Specialist in utilizing the physical characteristic survey protocol to determine stream classification.

Surveys for northern spotted owls will be conducted for six operations. Surveys for marbled murrelets will be conducted for seven operations.

Table 3. Summary of Surveys for Threatened and Endangered Species

Operation	Species ¹	Survey Years ²	Species ¹	Survey Years ²	BA ³ Required	Special Considerations
Switch Up	MM	14&15	NSO	Not required	No	
Filched	MM	14&15	NSO	14&15	No	
Fern Hill	MM	14&15	NSO	14&15	No	
King Wolf	MM	14&15	NSO	12,13,14 &15	No	
Doe Over	MM	13&14	NSO	13,14&15	No	MM surveys valid until 4/1/20
Alt - Lucki-Bonny	MM	13&14	NSO	13,14 & 15	No	MM surveys valid until 4/1/20
Alt – Half Pipe	MM	12 &13	NSO	14&15	Yes	Tailholding in MMMA
Alt – Hot Plunkett	MM	14&15	NSO	14&15	No	
Alt – Little Elk Thin	MM	14&15	NSO	Not required	Yes	Harvest operation in non-habitat buffer of MMMA
Alt – Aire Apparent	MM	14&15	NSO	14&15	No	
Alt – Powerline Thin	MM	14&15	NSO	Not required	No	
Alt – Rudder Road	MM	14&15	NSO	13,14&15	No	
Alt – Thin Women	MM	13,14&15	NSO	Not required	Yes	Harvest operation in non-habitat buffer of MMMA
Alt – Little Thin on the Prairie	MM	Survey Waiver	NSO	Not required	Yes	Harvest operation in non-habitat buffers of MMMA

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.

Research and Monitoring

The following research and monitoring projects are on-going during this fiscal year, but it is not expected that any active measurements will be taken during the year. Any monitoring/measurement work will be done mainly by the cooperators:

1. Vegetation and wildlife response to gaps in young stands (Peuttman/OSU)
2. Growing stock study of thinned stands at Black Rock (McGuire/OSU)
3. Effects of sulfur applications on Swiss needle cast infected Douglas-fir (Kanaskie/OSU)
4. Effects of thinning in Swiss needle cast infected Douglas-fir stands (Mainwaring/OSU)

Other Planning Operations

During FY 2016, the District will be involved in the following planning activities:

1. FY 2017 AOP - This plan will cover all management operations on State Forest lands on the District for FY 2017, which begins July 1, 2016 and ends June 30, 2017.
2. Collecting additional data to enhance road inventory information.
3. Potential development of the new FMP and/or IP.

Public Information and Education

Forestry Education

The District maintains supporting information on the Implementation Plan, Forest Land Management Classification System, and Annual Operations Plans for public review. In addition, District personnel will attempt to participate in watershed council meetings, outdoor school presentations, ATV club meetings, and other public events as the opportunity arises and time permits. The District will continue to meet with concerned citizens or groups when they have questions or as needed. Participation in all of these activities will be driven by staffing and workload limitations.

Administration

There are thirteen positions on the West Oregon District that are fully or partially funded for the management of State Forest lands. The District Forester, Assistant District Forester, administrative support staff, a Forest Officer and a seasonal forest management technician are partially funded. These positions are divided into two functional groups: Administration and State Forests (See Figure 1).

Administration is composed of the District Forester, Assistant District Forester, Office Manager and two Office Specialists. The District Forester and Assistant District Forester provide the following functions for the management of State Forest lands on the District: policy direction; budgeting; coordination between units and programs; and oversight to the field units. The Office Specialists provide administrative support for the management of State Forest lands. They are responsible for initial public contact, distribution and filing of documents, and providing assistance at timber sale auctions. They are also responsible for assisting with permits for firewood cutting and special forest products harvesting.

The State Forests Unit consists of six fully funded positions and two partially funded positions. The unit is responsible for young stand management; timber sale preparation and administration; forest planning; geographic systems coordination; and road maintenance.

The State Forests Unit Supervisor (who is also a licensed land surveyor) coordinates all of the activities in the unit. The duties include employee supervision, reforestation oversight, contract review and approval, and timber sale planning, and establishing and maintaining the property lines of all state forest land on the District. The Unit Supervisor prepares the annual operations plans for the District's state forest lands and is active in implementation of the District's IP and Northwest Oregon State FMP. The Unit Supervisor is also responsible for all recreation management on state forest lands.

Young stand management is accomplished by the District Silviculturalist and two seasonal assistants. They are responsible for all activities conducted in forest plantations from the time harvesting is completed through reforestation and stand establishment. Their activities include site preparation, tree planting, vegetation management, pruning, tree improvement, and pre-commercial thinning. The District Silviculturalist is also responsible for providing input on timber sale planning and recommending pathways and prescriptions for all stands that will lead to achieving the District's desired future condition. In addition, this position is responsible for invasive species surveying, monitoring and treatment.

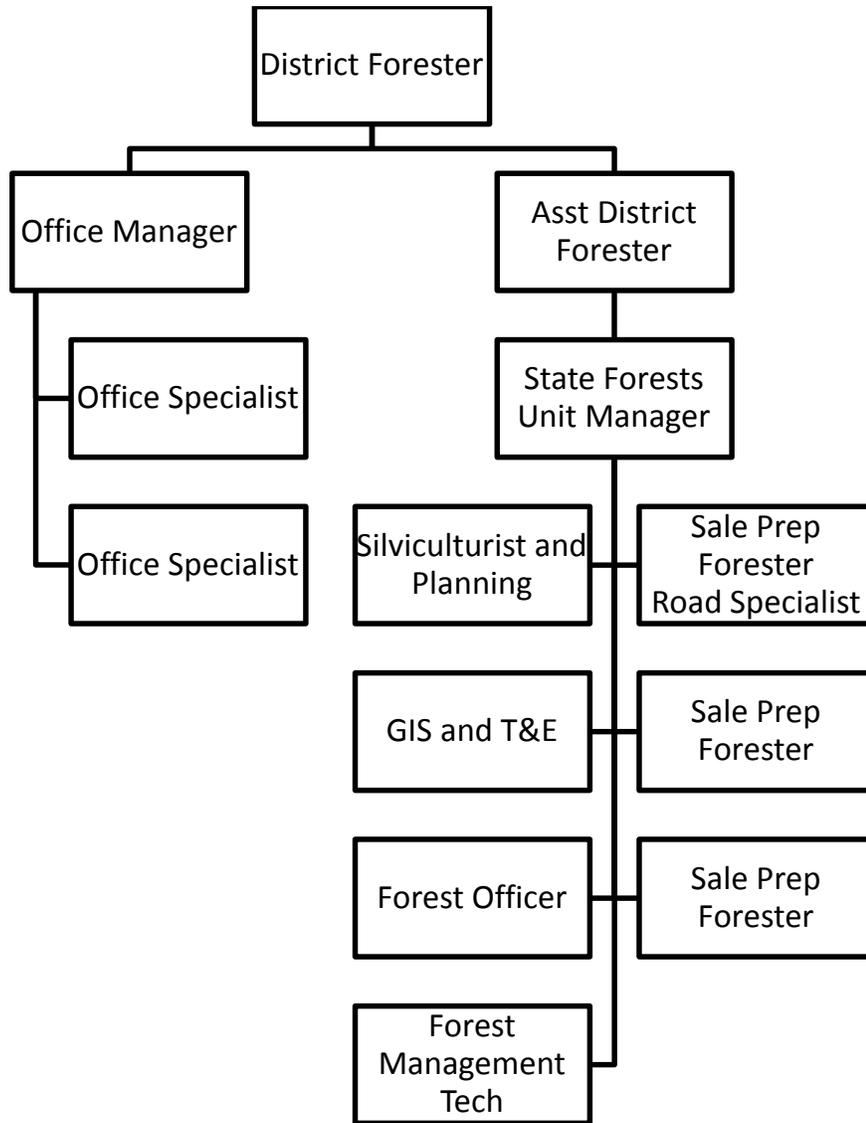
The GIS Coordinator is also the Threatened and Endangered Species Coordinator.

The timber sale preparation and administration is accomplished with a staff of three Sale Preparation Foresters. Their responsibilities include all aspects of timber harvesting, from unit layout through the completion of the harvest contract. The activities include unit layout, cruising, appraisal, contract preparation, and contract administration. They also ensure

that current standards for retention of snags, green trees, and down wood are met and that riparian management strategies are correctly applied to the harvest units. They also assist with the layout and design of new roads. One Sale Preparation Forester is also a Road Specialist who is responsible for securing access to all state forest lands. One Sale Preparation Forester is responsible for managing the cutting of firewood and sale of miscellaneous forest products, such as salal and Oregon grape.

The portion of road maintenance not associated with timber sale contracts is accomplished through a service contract and a Sale Prep Forester who possesses a Pesticide Applicator License for vegetation control along forest roads.

West Oregon District
 State Forest Management Organization
 Figure 1



All personnel involved with the management of state forest lands spend some portion of their time in public information and education, generally one to three days per year. The District Forester, Assistant District Forester, State Forests Unit Forester spend considerably more time on public information and education, because of their involvement with the Northwest Oregon State FMP.

APPENDIXES

A. Summary Tables

Timber Harvest Operations – Fiscal Summary
Timber Harvest Operations – Forest Resource Summary
Timber Harvest Operations – Forest Structure Summary
Forest Roads Management Fiscal Summary
Reforestation and Young Stand Management Summary
Recreation Management Summary

B. Maps

Vicinity Map (showing all Commercial Operations) relative to the District ownership.

C. Public and Other Agencies Involvement

See following page.

D. Pre-Operations Reports

Available upon request.

Appendix A - Summary Tables

TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

District: West Oregon

Fiscal Year: 2016

Date: 02/23/2015

Primary Operation	Fund %		County	Sale Quarter	Net Acres		Volume (MMBF)			Value		
	BOF	CSL			Partial Cut	Clear-cut	Conifer	Hardwoods	Total	Gross	Projects	Net
Switch Up	79%	21%	Lincoln	1	0	60	1.2	0.1	1.3	\$213,000	\$10,000	\$203,000
Filched	100%	0%	Benton	2	0	75	2.2	0.1	2.3	\$783,850	\$62,000	\$721,850
Fern Hill	100%	0%	Benton	2	0	105	3.3	0.9	4.2	\$1,335,350	\$52,000	\$1,283,350
King Wolf	100%	0%	Lincoln	3	0	77	3.0	0.2	3.2	\$1,075,050	\$81,000	\$994,050
Doe Over	20%	80%	Lincoln	4	0	60	2.2	0.2	2.4	\$825,000	\$32,000	\$793,000
Total:					0	377	11.9	1.5	13.4	4,232,250	237,000	\$3,995,250

Alternate Operations

Lucki-Bonny	100%	0%	Benton	Alt	0	37	2.1	0.0	2.1	\$724,150	\$23,000	\$701,150
Half Pipe	100%	0%	Lincoln	Alt	0	45	1.9	0.3	2.2	\$715,500	\$21,000	\$694,500
Hot Plunkett	100%	0%	Lincoln	Alt	0	119	3.6	0.3	3.9	\$1,322,050	\$18,000	\$1,304,050
Little Elk Thin	86%	14%	Lincoln	Alt	278	0	1.3	0.0	1.3	\$173,940	\$37,000	\$136,940
Aire Apparent	100%	0%	Lincoln	Alt	189	0	1.2	0.0	1.2	\$153,140	\$38,000	\$115,140
Powerline Thin	69%	31%	Lincoln	Alt	256	0	1.8	0	1.8	\$231,920	\$41,000	\$190,920
Rudder Road	100%	0%	Polk	Alt	0	44	1.1	0.1	1.1	\$387,200	\$61,000	\$326,200
Thin Women	54%	46%	Polk	Alt	145	0	0.8	0.0	0.8	\$102,050	\$35,000	\$67,050
Little Thin on the Prairie	0%	100%	Lincoln	Alt	129	0	0.8	0.0	0.8	\$99,060	\$27,000	\$72,060

Appendix A - Summary Tables

PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

District: West Oregon

Fiscal Year: 2016

Date: 02/23/2015

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
Switch Up		X	X		X			X								X				
Filched					X													X		Parent tree(s)
Fern Hill			X		X	X	X		X									X		Phellinus
King Wolf						X			X	X				X		X				
Doe Over			X	X					X					X		X	X			Public Safety along Big Elk Co. Road

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 (LYR/OFS)

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 whether T&E fish are present in the basin.

Appendix A - Summary Tables

ALTERNATE HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

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

Alternate Harvest Operations	Unit (Optional)	Forest Health Issues ¹	Invasive Species	LYR/OFS Structures ²	Landcape 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
Lucki-Bonny			X	X	X									X				X		Parent tree(s)
Half Pipe			X						X				X	X		X	X			
Hot Plunkett		X		X	X									X		X				Parent Trees
Little Elk Thin			X		X		X	X					X	X		X	X	X	X	Permanent plot (Area 2) & Phellinus
Aire Apparent							X		X	X						X				
Powerline Thin							X							X			X			Permanent plot (Area 2)
Rudder Road					X			X		X				X						
Thin Women		X	X				X			X			X?	X						Sulfur trial plots & pruned trees
Little Thin on the Prairie		X			X		X		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 (LYR/OFS)

⁴ The final decision on these projects will occur during sale preparation and inconsultation 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 whether T&E fish are present in the basin.

Appendix A - Summary Tables

TIMBER HARVEST OPERATIONS - FOREST STRUCTURE SUMMARY

Primary Operations

District: West Oregon

Fiscal Year 2016

Date: 03/02/2015

Current Structure	
	Total
REG	0
CSC	98
UDS	276
LYR	3
OFS	0
Total	377

Post Harvest Structure ¹				
REG	CSC	UDS	LYR	OFS
377	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
377	0	0	0	0

Desired Future Condition ²		
GEN	LYR	OFS
377	0	0
0	0	0
0	0	0
0	0	0
0	0	0
377	0	0

1. Expected structure 5 - 10 years after FY 2016 operations are completed.

2. This table reflects the landscape design after the modifications described in the Forest Management Operations section have been approved.

Appendix A - Summary Tables

REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY

District: West Oregon

Fiscal Year: 2016

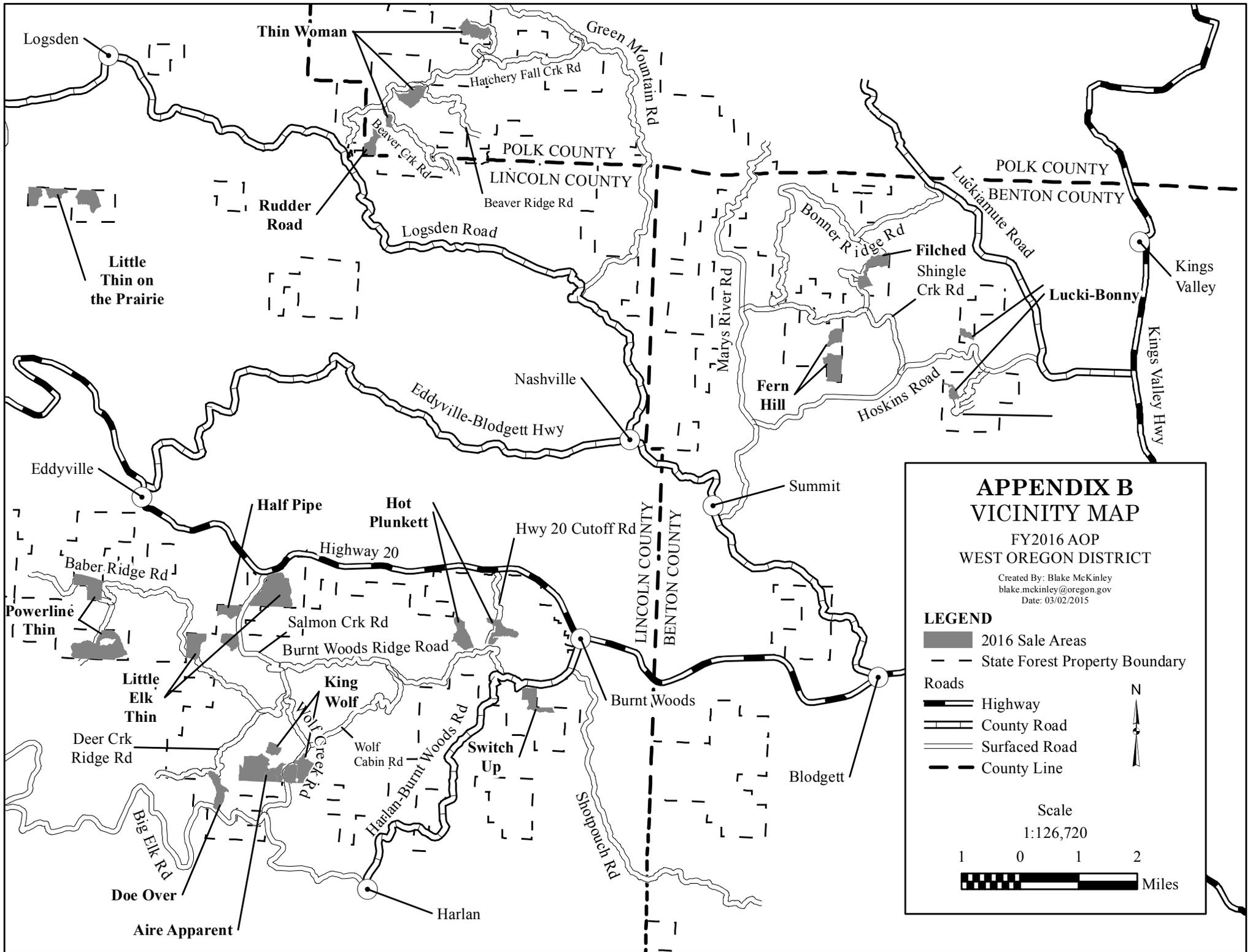
Date: 01/28/2015

ODF Funded Activities Management Activity	Board of Forestry			Common School Forest Lands			District	
	Acres Planned	Average Cost*/Acre	BOF Cost	Acres Planned	Average Cost*/Acre	CSL Cost	Total Acres	Total Cost
Initial Planting*	255	\$295.00	\$75,225.00	0	\$295.00	\$0.00	255	\$75,225.00
Interplanting*	7	\$175.00	\$1,225.00	3	\$175.00	\$525.00	10	\$1,750.00
Underplanting*	0	\$200.00	\$0.00	0	\$200.00	\$0.00	0	\$0.00
Tree Protection-Barriers	255	\$75.00	\$19,125.00	0	\$75.00	\$0.00	255	\$19,125.00
Tree Protection-Direct Control	295	\$40.00	\$11,800.00	10	\$40.00	\$400.00	305	\$12,200.00
Site Prep-Chemical- Aerial	275	\$60.00	\$16,500.00	0	\$60.00	\$0.00	275	\$16,500.00
Site Prep-Chemical- Hand	5	\$225.00	\$1,125.00	0	\$225.00	\$0.00	5	\$1,125.00
Site Prep -Slash Burning	135	\$25.00	\$3,375.00	0	\$25.00	\$0.00	135	\$3,375.00
Site Prep -Mechanical	120	\$200.00	\$24,000.00	20	\$200.00	\$4,000.00	140	\$28,000.00
Fertilization	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Noxious weeds	16	\$75.00	\$1,200.00	4	\$75.00	\$300.00	20	\$1,500.00
Release-Chemical- Aerial	100	\$85.00	\$8,500.00	75	\$85.00	\$6,375.00	175	\$14,875.00
Release,-Chemical-Hand	0	\$225.00	\$0.00	25	\$225.00	\$5,625.00	25	\$5,625.00
Release-Mechanical-Hand	160	\$75.00	\$12,000.00	40	\$75.00	\$3,000.00	200	\$15,000.00
Precommercial Thinning**	130	\$150.00	\$19,500.00	0	\$150.00	\$0.00	130	\$19,500.00
Pruning (for disease control only)	25	\$200.00	\$5,000.00	5	\$200.00	\$1,000.00	30	\$6,000.00
Stocking Surveys	1,500	\$5.00	\$7,500.00	300	\$5.00	\$1,500.00	1,800	\$9,000.00
Totals	3,278	--	\$206,075.00	482	--	\$22,725.00	3,760	\$228,800.00

*Planting costs include all costs including seedlings

** Mill Creek Inmate Crew

Grant Funded Activities Management Activity	Board of Forestry			Common School Forest Lands			District		Funding
	Acres Planned	Average Cost*/Acre	Cost	Acres Planned	Average Cost*/Acre	Cost	Total Acres	Total Cost	
			\$0.00			\$0.00	0	\$0.00	
			\$0.00			\$0.00	0	\$0.00	
			\$0.00			\$0.00	0	\$0.00	
			\$0.00			\$0.00	0	\$0.00	



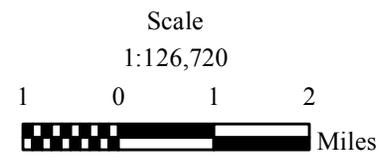
APPENDIX B VICINITY MAP

FY2016 AOP
WEST OREGON DISTRICT

Created By: Blake McKinley
blake.mckinley@oregon.gov
Date: 03/02/2015

LEGEND

-  2016 Sale Areas
-  State Forest Property Boundary
- Roads**
-  Highway
-  County Road
-  Surfaced Road
-  County Line



APPENDIX C

Consultation with other agencies

This appendix is used to report written comments received from other governmental agencies regarding the activities described in this draft plan and the district's response or resolution of those comments. As of the preparation of this draft plan, the district has only received written comments from the Oregon Department of Transportation (ODOT). Should the district receive Agency comments prior to the approval of this AOP, they will be incorporated into this appendix.

- No written comments from Oregon Department of Fish and Wildlife have been received, however, verbal comments from field and office reviews were considered while preparing this AOP.
- Archaeologists from (ODOT) have reviewed the proposed timber harvests, road construction and recreation projects to review potential impacts to cultural resources. Two archaeological resources were identified during this review. However, ODOT's review of historical 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) were identified as known or potential cultural resource sites:

- Archaeological resource sites (2): Little Elk Thin Area 1. While archaeological resource sites are in the vicinity of the operation, there is no potential for the operation to impact these sites, so no follow up recommended by ODOT.
- Potential Adjacent Trail: Fern Hill and Lucki-Bonny sales. During sale preparation, Sale Prep forester will explore the project area for trail remains.