SOUTHWEST OREGON DISTRICT 2018 ANNUAL OPERATIONS PLAN



View looking west from London Broil

SOUTHWEST OREGON DISTRICT FINAL 2018 ANNUAL OPERATIONS PLAN

OVERVIEW

This plan describes the activities and outcomes that Oregonians can expect to see on the Southwest Oregon District for 2018. A public comment period will be provided in which your comments will be considered for improvement of this plan within the scope of the Department's authority, in alignment with the longer term plans, budget and staff resources.

This plan supports a balance between, social, economic, and environmental benefits valued by Oregonians and described in the Greatest Permanent value rule for Board of forestry Lands that are detailed in the Southwest Oregon Forest Management Plan and OAR 629-035-0020. These benefits are sustainable over the long run.

The Annual Operations Plan incorporates Structure Based Management which over the landscape provides a mix of forest structures such as young and old stands. We accomplish these structures on the district through active management and natural processes that develop these stands. Layering of stands is often through mixes of conifer and hardwood stands. It is a challenge to manage the layered structure without creating ladders for fire to grow to the canopy. We try to achieve a balance between habitat and fuels management.

Habitat for spotted owls is a major consideration in harvest planning. The Department uses a policy regarding this species which is addressed in our biological assessments of each unit that evaluates available habitat.

Hunting, dispersed camping, education, hiking and off road vehicles make up the majority of our social and recreational opportunities on the forest. We are a part of the greater BLM and private ownership mix, but not the principle player or destination for recreation on our lands.

Finally, we achieve a harvest on this landbase consistent with sound harvest planning and environmental and social needs that are appropriate for a small landbase of scattered parcels throughout the BLM and Private landowners of the area.

We welcome your comments on our plan.

A short summary of activities planned for the coming year:

- **Harvesting:** Two Timber Sales and one alternate unit are presented in this AOP: Third Rock is a BOF sale in Douglas County that will raise approximately \$194,000 on 0.6 MMBF of timber. Third Rock is a 125 acre thinning sale in the Windy Creek drainage. London Broil is a combination sale on Board of Forestry land in Josephine County that is 73 acres of clearcut and 73 acres of thinning. It will raise approximately \$490,000 from 1.7 MMBF of timber. An alternate sale unit adjacent to London Broil is 89 acres of thinning estimated to raise \$133,000.
- **Projects:** There is a minor amount of new road construction at London Broil (0.62 miles) and road improvement totaling \$40,000.
- **Planting:** The total planting costs are \$36,979 which includes nursery seedling costs, initial planting of 97 acres and interplanting of 40 acres. Initial planting costs \$110 an acre and seedlings cost \$197 an acre. One of the planting units is a 42 acre common school lands piece. Costs to common school lands will be \$12,894 of the total.
- **Pre-commercial Thinning:** Pre-commercial Thinning (PCT) is not currently needed due to fuels treatment work done in recent years.
- **Vegetation Control:** Direct tree injection (Hack-n-squirt) to prepare the site for planting, will be done on 30 acres.
- **Big Game Repellent:** Big Game Repellent (BGR) will be a priority as funds allow.
- **Recreation:** Dispersed recreation such as hunting, camping, hiking is the norm on the forest with some designated trails at Onion Mountain, Kerby Peak, and London Peak. One recreation site in Windy Creek is maintained as a parking and day-use area.
- **Events:** ODF will work with students and volunteers in Glendale on a tree plant and on education field days. Other opportunities to work with the public to promote forest stewardship will be explored such as a forest clean-up days.

Table of Contents

0\	/ERVIEW	2
IN	TRODUCTION	6
IN [.]	TEGRATED FOREST MANAGEMENT	7
	Timber Harvest Operations	7
	Overview of Timber Harvest Operations	7
	Structural Habitat Components	8
	Summary of Timber Harvest Operations by Basin	9
	Forest Roads Management	10
	Overview	10
	Road Construction	11
	Road Improvement	11
	Road Access Management	11
	Road Maintenance	11
	Management of Rock Source/Supply	12
	Land Surveying	12
	Young Stand Management	12
	Site Preparation	12
	Seedlings / Nurseries	13
	Planting	13
	Vegetation Management	14
	Tree Protection	14
	Pre-commercial Thinning	14
	Pruning	14
	Invasive Species	15
	Roadside Spraying	15
	Stocking Surveys	15

Recreation Management	15
Overview of Recreation Management	15
Facilities and Trails (Campgrounds, View Points, Trail Heads, etc.)	15
Volunteer Program	16
Grants	16
Other Integrated Forest Management Projects	16
Aquatic Habitat Improvement	16
Land Exchange	16
Law Enforcement and Public Safety	16
Firewood Cutting Program	17
Non-Timber Forest Products	17
Planning	17
Stand Level Inventory and Other Vegetation Inventories	17
Fish and Wildlife Surveys	18
Research and Monitoring	18
Other Planning Operations	19
Public Information and Education	19
Administration	19
State Forests Unit Organization	19
APPENDIXES	21

SOUTHWEST OREGON DISTRICT DRAFT 2018 ANNUAL OPERATIONS PLAN

INTRODUCTION

This Annual Operations Plan (AOP) describes activities and projects designed to achieve the goals and objectives of the Southwest Oregon State Forest Management Plan (FMP) – April 2010, and the Southwest Oregon District Implementation Plan (IP) – March 2003 (modified in 2007). In addition, this plan is designed to comply with State Forest Policies governing Threatened and Endangered (T&E) Plants and Animals. The Southwest Oregon District manages approximately 16,793 acres of State Forest land in Douglas, Josephine, Jackson, and Curry counties. For more information regarding the strategies used to manage State Forests in Southwest Oregon, refer to the Southwest Oregon State Forest Management Plan – April 2010. For more information on the resources and characteristics specific to the Southwest Oregon District, refer to the Southwest Oregon District Implementation Plan – March 2003. This year a minor modification to the landscape design was done to better accomplish our objective (See Appendix F)

The Southwest Oregon District 2018 Annual Operations Plan is organized to include the following:

- 1. Annual Operations Plan Summary document which includes sections on timber harvest operations, forest roads, young stand management operations, and recreation.
- 2. Annual Operations Plan Summary tables
- 3. Pre-Operation Reports with unit maps (available upon request)
- 4. Preliminary Biological Assessments of the planned harvest operations (available upon request)
- 5. Public Involvement Summary (this section will be added prior to the approval of the AOP)
- 6. Consultation with Other Agencies (posted after comments are received).

Table 1 below documents the Southwest Oregon District Implementation Plan – March 2003 activities and the range of acreages that could be reasonably anticipated in a given year, as well as the acres proposed through this AOP. Further refinement of the acreage will occur during the field preparation of the planned commercial forest operation.

The management activities planned for FY 2018 are based on the range of objectives established in the Southwest Oregon District Implementation Plan (Table 1), as well as the assumption that budget allotments will be similar to fiscal 2017.

Silvicultural Activity	IP Annual	2018 AOP	
	Low	High	Objective
Partial Cut Harvest	140	220	198
Regeneration Harvest	50	80	73
Reforestation (All Planting)	0	270	137
Pre-commercial Thinning	0	500	0
Fertilization	0	250	0
Pruning	0	50	0

Table 1. Annual Operations Plan objectives compared to Annual Harvest Objectives identified in the Southwest Oregon District Implementation Plan. All values are acres, except for Volume.

The accomplishments of forest management objectives 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 internet.

According to the SWO Forest Management Plan, 2010, "The forest produces sustainable and predictable forest products that generate jobs and revenues for the benefit of the state, counties, and local taxing districts." The revenues generated from this plan are distributed to the counties less 36.4% for the Forest Development Fund. The 2018 plan has sales in both Josephine County and Douglas County, so each County would receive a share of the revenue. A report done on the Elliott State Forest (Gary Lettman 2001, 2010) determined that for every 1MMBF of timber harvested, 11 jobs would be created or supported in the industry, from mill workers to truck drivers, loggers and lumber stores. It follows that this plan would support 26 jobs with an average salary in Southwest Oregon of \$33,906 (in 2010).

The public comment period for the Draft 2018 annual operations plan will be from March 20th, 2017 through May 4th, 2017. When the comment period concludes, ideas from the public will be reviewed and incorporated appropriately into the plan. Interested parties may participate in this process by going to the ODF website State Forests Planning area and providing comments or by writing to the State Forests Department in Salem.

INTEGRATED FOREST MANAGEMENT

Timber Harvest Operations

Overview of Timber Harvest Operations

<u>Harvest Levels</u>: In accordance with the guidance on the 2018 harvest levels, the district has included 271 acres of timber harvest (198 net acres partial cut and 73 acres clear-cut) in this AOP (Table A-1). This harvest level is consistent with the district's intensive review of the outputs from the Department's Harvest and Habitat Model Project. The district is implementing the mix of clearcut and thinning acres identified in its review of the model outputs.

SOUTHWEST OREGON 2018 ANNUAL OPERATIONS PLAN FINAL – JUNE 2017

For 2018 we are submitting two main sales and one alternate. Two timber sales will produce 2.4 MMBF of timber from 271 acres (1.6% of the land-base). London Broil, a BOF sale in Josephine County, will raise approximately \$490,500 net revenue on 73 acres of selective thinning and 73 acres of clearcut. Third Rock, a BOF sale in Douglas County, will raise \$194,000 on 125 acres of thinning. Area 4 of London Broil will provide 89 alternate acres of thinning if adjustments to the sale plan have to be made. The value of the alternate acres is \$133,500.

All units were selected on the basis of stand management needs in light of the current stand structures and the desired future condition objectives. In all of the harvest units, stand complexity will progress toward the desired future condition through the retention of all "legacy" forest structure components (such as snags, down wood, old-growth trees etc.), the retention of the majority of the overstory, the utilization of a variety of residual densities and small open patches, site preparation, and underplanting of a variety of forest tree species. In addition, the structural components of snags and downed wood will be created where deficiencies exist.

The revenue projections on these sales use a stumpage value \$300 based on past stumpage prices and professional judgment. This value fluctuates based on market conditions. The sale volume is also an estimate based on the available inventory data and the final sale layout design.

All of the 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. Information on operations that occur within the provincial circle of a northern spotted owl will be 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 Oregon Department of Fish and Wildlife 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 D.

Some additional small operations such as salvage logging and commercial firewood will produce timber volume during the 2018 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. These sales will be less than \$100,000 in value and comply with all policies and plans.

Structural Habitat Components

Structural habitat components such as green trees, snags and down woody debris (DWD) are described in Chapter 4 of the SW FMP and may be considered for all harvest prescriptions; however, the emphasis will be placed on regeneration harvest.

<u>Green Tree Retention-</u> The green tree retention target for regeneration harvest units is five trees per acre. Green tree arrangements in SWO take the form of scattered individual trees, clumps of trees, and trees concentrated in and adjacent to riparian management areas. Scattered trees provide an immediate seed source and added structure within the unit. Trees that naturally blow over provide down wood in uplands or into streams. On south slopes in SWO scattered leave trees provide some shelter for seedlings over long hot summers.

<u>Snags-</u> 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. Across the landscape, snags may be overabundant in some areas and deficient in others. In SWO, the presence of bark beetles causes additional snags in the Windy Creek area, grand fir tend to die in dry years when drought stress and beetle infestations combine. These snags are softer than Incense Cedar and Douglas-fir, and do not stand as long after they are dead. In the south in Josephine and Jackson County, Ponderosa Pine are susceptible to drought and beetles as well, though we do not see the widscale die off as in eastern Oregon. In Curry County, there are an abundance of snags across the landscape as a result of the Biscuit Fire.

<u>Down Wood-</u> The FMP strategy for Down Woody Debris is to retain and supplement the supply of down wood during regeneration harvest and to manage for old growth forests in the future that contain an average of 250 to 300 cubic feet of hard conifer logs (class 1 & 2) across the landscape or 1,200 – 1,800 cubic feet total in all decay classes.

Stand Level Inventory data indicates that there is approximately 100 cubic feet of Class 1 & 2 DWD per acre over the district and 1,689 cubic feet in all size classes. These numbers do not include additions from recent fires, wind events or all of the snags & DWD created with recent timber sale contracts.

Summary of Timber Harvest Operations by Basin

The Rogue and Umpqua basins are the two main watersheds that encompass the SWO district land base. These basins are rather large compared to the total land of the district. The Umpqua Watershed encompasses most of Douglas County and is approximately 2.7 million acres. ODF managed lands in the Umpqua Watershed cover 8,134 acres of the basin. The Rogue Basin covers 3.25 million acres- 8,626 of which is managed by ODF.

Management Basin	Partial Cut	Clearcut
Rogue	73	73
Umpqua	125	

Rogue Basin

The London Broil sale is in Josephine County and the Rogue Basin. The upper reaches of tributaries to Wolf Creek in the north and Flume Gulch to the south flow into the Rogue River from Grave Creek. The stands in this sale are closed single canopy and are 85-97 years old according to inventory data. After the sale, 73 acres would become regeneration and 73 acres would become understory development. The sale will cover approximately 146 net acres, with stream buffers protecting those tributaries. This sale is a small percentage of the Rogue Basin.

<u>Umpqua Basin</u>

Third rock is in the Umpqua Watershed of Douglas County. Tributaries from the sale flow into Windy Creek to Cow Creek and eventually to the Umpqua River near Riddle/Canyonville. The 125 acre stand of timber is closed single canopy and will become understory development after

harvest. This stand is 82 years according to our inventory data. This sale is a small percentage of the Umpqua Basin.

Forest Roads Management

Overview

Southwest Oregon District will continue the development and maintenance of a low impact transportation system for the management of SWO State Forests. The typical transportation pattern for access to State Forest land is one primary haul route crossing a variety of landowners to one or more access spurs once within State Forest property. The primary roads needed to access State Forest property will be maintained at a level consistent with the access agreement developed by the District and the appropriate landowner.

Access spurs within State Forest properties are developed to maintain the appropriate management presence that is anticipated for a given tract. For tracts requiring an extended management presence, surface rock and drainage structures will be incorporated into the road design. For tracts requiring limited management presence, naturally surfaced, seasonal roads with temporary drainage structures will be utilized. Upon completion of the operation, all access spurs will be assessed for closure.

The level of new road construction and improvement is kept to a minimum in harvest planning to reduce costs where possible. Road building costs will be kept to a minimum, but not at the expense of best management practices aimed at controlling erosion.

Roads will be improved or constructed to meet the minimum design standards necessary to prevent impact to streams. Various prescriptions for road renovation will be required including but not limited to: resurfacing with rock, replacing undersized culverts, adding new culverts as needed for proper drainage, grading and ditching, and roadside brushing. Also, any potential hazards such as slides, sidecast material, and other drainage issues will be identified and corrected.

The primary objective is to minimize the effect forest roads have on water quality and slope stability and at the same time provide a safe and efficient transportation system. Some of the naturally surfaced roads will have the drainage reestablished, be grass seeded, and blocked upon completion of the operation to minimize erosion and sedimentation. In addition, Level III planning, in accordance with the State Forests Forest Roads Manual, is conducted for each operation. See the attached Pre-Operations Reports for more detailed information concerning road activities within each operation area.

During active timber harvest, the purchaser of the sale will maintain these roads. Upon completion of the sale, road maintenance responsibility on private and Federal land will be returned to the landowner.

Prior to any major forest activity such as logging, an inventory of noxious weeds will be conducted along the travel route. ODF will work with the BLM and other neighboring landowners to remove and control noxious weeds before they are spread by forest use activities.

See Table A-3 Forest Roads Summary for information on road activities.

SOUTHWEST OREGON 2018 ANNUAL OPERATIONS PLAN FINAL – JUNE 2017

Road Construction

Road construction will primarily focus on the development of low use spurs necessary for operation access. Most of these spurs will remain naturally surfaced during the operation and generally have natural drainage reestablished, be grass seeded, and blocked upon completion of the operation to minimize erosion and sedimentation. For this sale plan, approximately 0.62 miles of road will be constructed at a cost of \$25,000 to access Portions of the London Broil sale.

Road Improvement

Road improvement will focus on low use spurs on Department of Forestry managed lands. These roads may be open or closed to vehicular travel but will need to be improved for commercial activity. Upon completion of the operation, drainage will be reestablished, and natural surfaced roads will be grass seeded, and blocked to minimize erosion and sedimentation. Approximately seven miles of road will be improved in the 2018 sale plan at a cost of about \$15,000.

Road Access Management

The typical transportation pattern for access to State Forest land is to use one primary road crossing a variety of landowners and several access spurs once within State Forest ownership. This makes road access management difficult. When feasible, road systems currently in place will be utilized for State Forest access. This will require coordination and permission with adjacent landowners. At times, road maintenance on other forest landowner road systems will be required as a condition of use.

Once on State ownership, the road system will be maintained in a condition which best reflects use intensity, duration, and season. Roads receiving medium to high use, frequent use, or all season use, will be surfaced with rock to prevent damage to the road and the aquatic system. These roads will be ditched including cross drainage, and will have sufficient drainage to pass a 50 year flood event. Roads receiving medium to low use, infrequent use, or seasonal use will remain unsurfaced during the operation, outsloped with waterbars, and will generally have natural drainage reestablished, be grass seeded, and blocked upon completion of the operation to minimize erosion and sedimentation. Therefore, medium to high use roads will generally be maintained in an active use condition while medium to low use roads will be maintained in a closed to vacated condition.

Road Maintenance

Road maintenance is typically conducted with harvest operations as a means to conduct the operation as well as to maintain or improve the condition of the transportation system. Road maintenance conducted apart from harvest operations is accomplished as needed by the district. We expect to grade and spot rock 10 miles of road in Windy Creek this year with our road crew and 2 miles of road maintenance by our contractors on district sales.

As a means of reducing road induced sedimentation, the District actively grass seeds areas susceptible to erosion. Grass seed is obtained through the Oregon Department of Fish and Wildlife. The district typically grades high use rocked roads on a regular rotation, once per year if necessary. Maintenance rock is added as needed.

SOUTHWEST OREGON 2018 ANNUAL OPERATIONS PLAN FINAL – JUNE 2017 <u>Water Quality-</u> 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 are not limited to) maintaining culverts and other road drainage structures, using sediment control devices in road ditches when necessary, and seasonal restrictions on logging and hauling operations. Culvert installment and replacement in live streams will be conducted during inwater work periods when possible. Riparian management areas result in leave trees adjacent to the stream which protect stream temperature, provide nutrients, protect stream banks, and eventually provide wood to improve fish habitat.

Management of Rock Source/Supply

There are several rock sources on State Forests in SWO. Periodically, rock is crushed as part of a timber sale. The rock may be used to repair and maintain roads or to build new winterized roads where it is feasible. Rock may also be purchased locally by the Purchaser when it is closer to a scattered property with no gravel available. The Windy Creek block has a quality gravel pit which could be used to supplement Third Rock. There is a pit on the London property in the south and a stockpile in the northeast as well. For this sale plan, rock will not be crushed, but may supplement road repairs and maintenance.

Land Surveying

The Southwest Oregon District relies on expertise from the Salem Roads Engineer for surveying assistance when necessary. It is typical to assess the survey needs during sale preparation to determine whether to conduct a full cadastral survey or reestablish blazing. Many of the property boundaries have already been identified fro this AOP. Third Rock has no boundaries adjacent to landowners and will need no surveying. The west and east edges of London Broil have been surveyed. The north edge is not near the sale. Portions of the south edge appear to have been blazed. Further investigation will be needed during the sale planning process, but at this point no surveys will be needed.

Young Stand Management

Young Stand Management is related to activities that develop young stands into healthy vigorous growing trees; site preparation, reforestation, tree protection, and pre-commercial thinning. Under the Southwest Oregon State Forest Management Plan (FMP) and the Southwest Oregon District Implementation Plan, the objectives for the SWO District are to maintain the high level of biodiversity exhibited throughout the landscape as well as provide for economic and social sustainability in the future. This will be accomplished while functioning at the appropriate budget matrix level using the management activities below. See table A-4 in the appendix for the detailed reforestation plan.

Site Preparation

Site preparation is used to create planting space and reduce competing vegetation. In addition, site preparation is an excellent means to reduce the fuel loading following a commercial operation. Without slash management methods, one can expect to see higher rates of mortality, a higher risk of catastrophic loss from fire, and losses in growth, vigor, and overall health due to competition from surrounding vegetation. The goal of site preparation is to create excellent micro-sites that are free of competing vegetation which minimizes seedling mortality and creates an area relatively safe from loss due to wildland fire. Mechanical site preparation combined with

slash piling, slash burning and/or slash removal creates planting spaces. Slash removal may come in the form of yarding unmerchantable tree tops to landing areas combined with public or commercial wood cutting permits.

One of the most cost effective methods of site preparation involves hack and squirt of hardwoods prior to clearcutting. This prevents the stumps from sprouting after the harvest. In 2018 the district will treat approximately 30 acres (see Reforestation Summary Tables A-4 "Release".

The district also looks for opportunities to broadcast burn units where possible. In recent years it is getting difficult to find a weather window to do the burning. There are candidates for burning in the sale plan and we will look for opportunities to burn. Thirty acres are planned in this AOP for burning. The district does not typically do a pre-emergent spray, rather tries to plant as soon as possible to get ahead of the brush.

Seedlings / Nurseries

In the south where the climate is hot and dry, we grow drought tolerant seedlings. This is done at the J. Herbert Stone nursery in Jacksonville, a US Forest Service nursery. The district has an intergovernmental agreement to grow the seedlings there. We believe this nursery is the best option for SWO since we generally plant relatively few seedlings. This nursery grows seedlings in a Styrofoam container for three months, and then out-plants the seedlings in a nursery bed for another year of growth. This produces a thicker root and caliper and gives the seedlings a better chance of survival than the fast growing 2 year seedlings that are grown in other nurseries. The district plants on a 10 x 10 foot spacing (435 tpa), and may order between 20,000 and 50,000 seedlings per year in a normal year. Wildfires may change these numbers significantly which happened in 2013.

Planting

Planting helps to reestablish forest stands, or to create layering and diversity of canopies. Initial planting serves to reforest an area following a clearcut, patch cut, or severe wildfire. Interplanting helps to improve reforestation success when significant mortality results due to wildland fire, animal browse, drought, freeze, or other event usually targeting only a portion of the stand. Underplanting creates multiple forest canopy layers while maintaining or improving overall stand health and diversity. In addition, each of these planting strategies has a target stocking level for the planted species. Initial planting and interplanting attempt to achieve 250 to 300 viable trees per acre by age 15, while underplanting may only need 50 to 100 viable trees per acre. Most stands are initially planted to 435 trees per acre and may need interplanting in following years.

The 2018 planting will depend on the results of our stocking surveys and timber harvest. There are 97 acres planned for initial planting in the 2018 fiscal: from sales past. We are planning on 40 acres of interplanting in 2018 on units after stocking surveys reveal the locations. The cost of all seedlings and cost to plant them for initial plant and interplanting combined is estimated to be \$36,979 or \$270 per acre including seedlings. The Common School Lands will account for 42 acres (Trapper's Cabin) at a cost of \$12,979 of the total. BOF lands planting will cost \$24,894. (See Table A-4)

Vegetation Management

Vegetation management may be accomplished through foliar spray or manual release (chainsaws). Hack and squirt prior to harvesting a unit is a cost effective means of reducing future vegetation and minimizing vegetation management at a later date. Stump treatments may give greater flexibility and safety during harvest where the tree is cut and the cambium layer is treated on the stump immediately. Still another method is to treat suckers when they are about 1 inch thick by basal spray or hack and squirt. All of these methods are aimed at reducing competition from madrone, chinkapin, tanoak and other aggressive hardwoods allowing reestablishment of conifer stands.

Vegetation Management occurs on the district in a number of ways. Some of the techniques used in site preparation would be considered vegetation management for example. This year the vegetation management will come through the site prep mentioned above.

We have successfully treated grasses and young shrubs (early foliar) by spraying by hand around seedlings in the past.

The district will treat 30 acres this year with a hack and squirt treatment.

Tree Protection

Deer and elk have proven to browse aggressively on newly planted seedlings in this District. They often damage the terminal bud of young trees stunting tree growth and/or causing seedling mortality by browsing on the new growth. The damage done by deer and elk can have a significant effect on the stocking level. To avoid re-entry and future interplanting, an application of Big Game Repellant (BGR) has shown to be extremely successful in deterring animal browse.

In fiscal year 2018, the district may apply BGR on small areas as needed.

Pre-commercial Thinning

This treatment is used on stands that have over 250 trees or woody stems per acre. If these stands are not thinned it can significantly increase the number of growing years before the stand is merchantable as well as reducing the stand's health, vigor, and resistance to insects and disease. If the stand is not thinned, density-dependent mortality can take place along with interspecific competition for limited resources such as water and light. Stands will be thinned to a 14 foot spacing of approximately 222 trees per acre so that the next entry can be a commercial thin at 40-50 years of age. Pine stands may be thinned to a lower density of approximately 170 trees per acre to meet wildlife, structure, and silvicultural objectives.

The district has been able to accomplish pre-commercial thinning through fuels management over the previous several years through grants that have funded 1,500 acres of fuels reduction. The majority of this was understory thinning and a smaller portion was in the younger age classes (PCT). There are no PCT acres planned for the 2018 fiscal year.

Pruning

Pruning was done on the district in the 1980's and 1990's. Whether pruning provides an economic benefit is up for debate. The district is not currently doing any pruning. Often pruning

is done together with fuels treatment to reduce ladder fuels and help prevent fires from reaching the canopy. Pruning for fire resistance may be a better strategy then product values. Pruning for fuels treatments was done on approximately 2000 acres from 2009-2011 as part of the ARRA grant projects. As a result of this work, pruning is not a high level need for the district this year and will not be done.

Invasive Species

The district conducts a noxious weed program to control invasive weed species. The program involves identification, eradication and prevention of noxious weeds and their spread. The district inventories and maps noxious weeds, coordinates with the Douglas County Soil and Conservation District and Bureau of Land Management to identify and treat weed species. The majority of species are scotch broom and blackberries. Scotch broom is scattered and primarily near roads and powerline right-of-ways. Scotch broom is not at the level seen to the north of Roseburg. It is at a manageable level that needs constant treatment to control.

Roadside Spraying

Roadside spraying can keep right-of-ways clear, increasing visibility and clearing ditches which improve drainage. The district usually accomplishes road brushing with saws. There is no roadside spraying planned for fiscal year 2018.

Stocking Surveys

Stocking surveys are a fixed plot method of measuring seedlings on a unit. The results measure planting success, natural and planted seedlings densities, and seedling mortality. On SWO our reforestation forester measures seedlings in stocking surveys during the winter prior to planting season. Units that are understocked, below 250 tpa, are interplanted back to 435 tpa. Again this year, stocking surveys will be conducted.

Recreation Management

Overview of Recreation Management

There are currently four forest recreation sites located on State Forest land in the Southwest Oregon District. These include Windy Park, London Peak Trailhead, Onion Mountain Trail, and the Kerby Peak Trail. Recreational use of the forest is currently low and primarily consists of horseback riding, ATV use, hunting, and sightseeing. The district is open to working with volunteers and user groups on recreation needs.

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

Our trails are joint ventures with the BLM. London Peak starts on ODF at our rock quarry and runs to a point about a quarter mile out a ridge on BLM property. All signage was provided by the BLM. Kerby Peak starts on BLM, crosses ODF and ends on BLM. It's about a mile long. The Onion Mountain trail begins on BLM and crosses through a full section (1 mile) of ODF property. This trail became a dozer line during a fire that nearly burned ODF lands, but was actually a contingency line. The trail is maintained by volunteers. Windy Park is an undeveloped day-use

area with parking. It is used more on Friday nights by the Glendale High School then the general public.

Volunteer Program

The district occasionally hosts volunteers on a one-on-one professional basis. We had a volunteer in State Lands in 2016 and 2017 who was hired as a wildland firefighter. We have had high school kids volunteer for school senior projects. We hosted the Glendale High School in 2014-2016 to plant a small portion of the Douglas Complex fire. SWO will look for opportunities to host volunteers when possible.

Grants

The State Forests Program and local district look to leverage grants where possible. In 2009 State Forests used \$1.1 million in grants to treat 2000 acres for fuels reduction and wildfire prevention. In 2014-15 ODF benefitted from Arbor Day grants that paid the costs of seedlings planted in the Douglas Complex burn. The district is currently reviewing an opportunity to work with other agencies on Good Neighbor Authority which may be tied to Federal Forest Restoration funding. In fiscal 2017, the district was able to use \$10,000 in (FFR) funding on a joint project with Klamath Falls called Paddock Butte.

Other Integrated Forest Management Projects

Aquatic Habitat Improvement

The district will review each unit in the sale planning process to determine where fish habitat may be improved. Our Salem staff riparian specialist and biologists suggest streams that will benefit from fish log and rock placement in streams or culvert replacements that allow fish passage. Priority projects are those that improve fish habitat particularly Coho Salmon streams. Culverts are replaced that can be tied to other projects and benefit fish. SWO works with local watershed groups, Oregon Fish and Wildlife Department and Bureau Land Management whenever we can cooperate on a mutually beneficial project. We are currently working on a fish log placement project in McCullough Creek tied to the 2017 Little Mac timber sale.

Land Exchange

The district will not be doing any land exchange planning in fiscal year 2018.

Law Enforcement and Public Safety

Oregon Department of forestry works with local law enforcement agencies when issues arise. We work with State Police, County Sheriff's office, and BLM officers, leveraging help where possible. Recreational use is low level, but there is illegal activity, dumping, cedar bow theft, illegal firewood cutting, and unpermitted camping. These issues are dealt with on an individual incident basis. ODF staff clean up quickly to discourage dumping and use signage to communicate the rules.

Firewood Cutting Program

The Southwest Oregon District will continue to issue personal firewood cutting permits in the coming year for areas where it is available.

The public will be notified of firewood cutting permits through the district's telephone recording and posting at the district office. Permits will be issued for 3 week periods, during the months outside the fire season.

A limited number of personal firewood cutting permits will be issued, on a first come-first served basis, with a limit of 5 permits per individual or household within a 12 month period. A permit fee of \$20 for 2 cords of firewood is collected for each personal firewood permit. Oregon Department of Forestry (ODF) does not guarantee the quality or availability of wood when issuing firewood cutting permits.

Designated firewood cutting areas will be marked on the permit map, which excludes active and sold timber sales, recreation sites, and planned operations. Active timber sales will be posted with no firewood cutting signs.

Non-Timber Forest Products

There are price schedules for forest products besides firewood and timber. When snow is heavy in Washington state, we may get bear grass pickers on occasion, but no other forest product is in much demand.

Planning

Stand Level Inventory and Other Vegetation Inventories

The Stand Level Inventory began the year 2001 as an effort to replace the older OSCUR inventory conducted in the 1990's. A large effort was undertaken which sampled approximately 10,249 acres 61% of SWO acres to the new SLI inventory standards. From 2008 to 2014 because of budgetary constraints, statewide efforts to inventory were curtailed. There are 320 unique stand type polygons on the forest. Most of the original SLI inventory is now over 10 years old.

The inventory restarted in 2015, with 12 stands and 1,134 acres measured. In 2016, there were 11 stands measured across 700 acres. In the calendar year 2017 (FY 2018), there are 10 stands and 669 acres planned for inventory. These newest efforts account for 2,402 acres, 14% of the forest. Each year 10 stands or 3-5% of the forest is scheduled for inventory.

After timber sales and other events such as fires, some strands are changed and the inventory information is adjusted accordingly. Year-end updates are conducted by Salem staff and the SWO unit forester to improve and update the inventory.

Fish and Wildlife Surveys

<u>Northern Spotted Owl</u>: The district surveys to an established scientific protocol for Northern Spotted Owl Surveys and cooperates with the BLM to monitor nest sites on a number of other nests. NSO surveys are conducted and a biological assessment is written in order to assess the impacts to owls from harvest operations. The table below shows protocol surveys by timber sale for current operations and future sales. Sold sales receive spot checks.

Operation*	Survey	BA ²	Special Considerations					
Operation *	Years ¹	Required	Special considerations					
Buck Ridge	2013-16	No	Spot Checks in 2017					
Lawson	2014-17	Yes	Needs 5 years protocol survey					
Little Mac	2015-16	Yes	Spot Checks in 2017					
Rockpit 2015	2013-16	Yes	Incidental Spot Checks in 2017					
Southwest Kerby	2015-16	Yes	Spot Checks in 2017					
Tunnel West	2013-16	No	Spot Checks in 2017					
Trapper's Cabin No. 7	2014-16	Yes	Spot Checks in 2017					
Little Mac	2015-16	Yes	Spot Checks in 2017					
Third Rock	2015-17	Yes						
London Broil	2016-17	Yes						
Future Sales	2017-	Yes						

Table 3. Summary of Surveys for Northern Spotted Owls

* Indicates operations surveyed using the Density Survey Protocols.

¹Calendar years that surveys have been completed or are planned. Surveys begin in March and end around August.

²A Biologic Assessment is required for this operation due to the presence of NSO or MM in the vicinity of the operation.

Research and Monitoring

Research and monitoring takes many forms on the district. The largest statewide effort is to inventory our stands of timber. SLI data is used to monitor the results of timber sales after harvesting and in conjunction with the more detailed timber cruise prior to harvest. The SLI surveys provide data on snags, down wood, vegetation, and structural attributes that the traditional timber cruise does not measure. The district will continue to monitor the forest through the existing stand level inventory; however, new inventory plots are on hold due to current budget constraints.

A number of other monitoring processes take place in Southwest Oregon:

- Streams are monitored for fish presence and seasonal flows.
- Northern Spotted Owl monitoring surveys are conducted in and around ODF lands.
- An ongoing genetic study is located in the northeast of Windy Creek.
- A snag monitoring project is located at the completed Crossroads Combo timber sale.
- A crown closure study is looking at different levels of crown closure at different thinning densities.
- The southwest also has a pilot NSO project to monitor development of a new NSO policy.

Data for these studies is kept in Salem and the Grants Pass office.

Other Planning Operations

The Southwest Oregon Forest Management Plan was revised in 2010. For this AOP, the Implementation plan harvest levels are being used from the March 2003 plan, modified in 2007. This plan will be redone in the future; the analysis of the outputs from the State Forests harvest model will be conducted to set the harvest objectives for the new IP. In addition, the landscape design and Forest Land Classification maps will be revised and updated.

The district and State Forests Program are working on Good Neighbor Authority projects. One of the first projects is near Prospect on USFS lands, a thinning sale where ODF would act as the contractor. In Fiscal Year 2018 the staff will work on a Supplemental Project Agreement for this timber sale and write the timber sale contract. This will take creative planning to balance the workload but could potentially be another avenue for revenue generation and the infrastructure of the timber industry.

Public Information and Education

The State Forests Program is committed to the review of AOP and responding to comments from the public. It is the intent of the Southwest Oregon District to continue to serve the public by addressing their questions and concerns regarding the management of the State's natural resources.

The district has its outdoor education program with Glendale School District and Oregon State University. This program features a curriculum designed by the local teachers about forestry and biological sciences. BOF lands are within 5 miles of the school, which is a convenient place for outdoor labs.

ODF has also started an annual tree plant with kids from the Glendale school district to replant trees in the burned areas from the Douglas Complex fires of 2013.

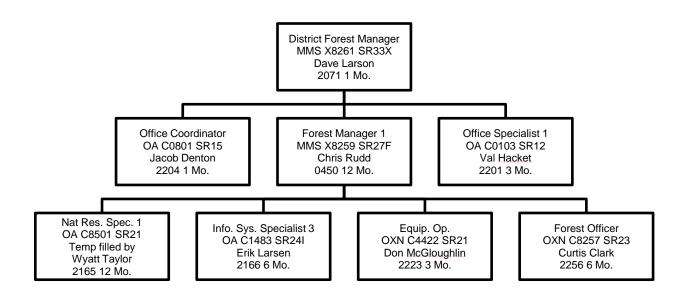
Administration

State Forests Unit Organization

The Southwest Oregon District State Forests Unit is staffed by two employees year-round and three employees that share time and funding with the Protection program (Figure 1). The Forest Manager 1 (FM1) and NRS1 Forester are fully funded by State Forests. The Information Systems Specialist (ISS3) has district-wide responsibilities and is split-funded by the State Forests and the Protection Program. A Forest Officer is split funded through Protection and State Forests Programs; his winter duties for SF include reforestation and timber sale preparation. We have an Equipment Operator that works in State Lands for a portion of the winter months. His duties include road maintenance, road development and quarry development. A Forest Technician (not shown below) is utilized "on the shoulders" of fire season when funds allow. Under this organizational structure the district is able to accomplish the goals and objectives of the Southwest Oregon District Implementation Plan – March 2003, and the Southwest Oregon District 2010 Annual Operations Plan, while remaining within budgetary means.

Figure 1. Southwest Oregon State Forests Organizational Chart.

SOUTHWEST OREGON 2018 ANNUAL OPERATIONS PLAN FINAL – JUNE 2017



APPENDIXES

A. Summary Tables

- a. Harvest Operations Financial Summary
- b. Harvest Operations Forest Resource Summary
- C. Forest Road Management Summary
- d. Reforestation and Young Stand Management Summary

B. Map Section

a. Harvest Operations 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. This appendix contains any written comments that we received from state agencies.

D. Public Involvement

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

E. Pre-Operations Reports

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

F. Forest Land Management Classification Changes

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

Appendix A - Summary Tables

a. Harvest Operations - Financial Summary

TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

	District: Sout	west OR	Fis	scal Year:	2018		Date: 06/02/2017												
]	und %		Sale	Net Acres		Vo	lume (MN	ABF)	Value									
Primary Operation	во	F CSL	County	Quarter	Partial Cut	Clear- cut	Con- ifer	Total Gro		Gross	Projects	Net							
Third Rock	100	% 0%	b Douglas	4	125	0	0.6		0.6	\$204,000	\$10,000	\$194,000							
London Broil	100	% 0%	6 Josephine	4	73	73	1.7		1.7	\$520,500	\$30,000	\$490,500							
									0.0										
				Total:	198	73	2.4	0.0	2.4	\$ 724,500	\$ 40,000	\$ 684,500							

Primary Operation	Fund %		County	Sale Quarter	Net Acres	5	Volume	(MMBF)			Value	Value		
	BOF	CSL			Partial Cut	Clear- cut	Con- ifer	Hard- woods	Total	Gross	Projects	Net		
Alternate Operations														
London Bridge	100%	0%	Josephine	4	89		0.4	0.4		\$133,500	\$0.00	\$133,500		

b. Harvest Operations - Financial Summary

PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

District: Southest OR

Fiscal Year 2018

Date: 06/02/2017

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	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 (BA Required)	Operating within a MMMA (BA Required)	relet Timbe ening Proco uired (MM 1	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
Third Rock												х									
London Broil	1		Х									Х									
London Broil	2		х	Х								Х									
London Broil	3		Х	Х								Х									

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.

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	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	Operating within a MMMA (BA Required)	Murrelet Timber Sale Screening Process Required (MM Policy 2.27)	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
London Bridge	1		х	х								х									

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.

c. Forest Road Management Summary

FOREST ROADS SUMMARY

District	: Southwest (Dregon			Fiscal Year:	2018		Date:	06/02/2017
Primary Operations	Constru Miles	uction Cost	Improv Miles	ement Cost	Other Projects	Total Project Costs	Gross Value of Operation	Total Cost as a percent of Gross Value	Comments
Third Rock	0.0	\$ -	2.0	\$ 10,000		\$ 10,000	\$ 204,000	5%	Winter Sale requires road rocking
London Broil	0.6	\$ 25,000	5.0	\$ 5,000		\$ 30,000	\$ 520,500	6%	Drill and shoot, alternate rd exists
Total Alternate Operations	0.6	\$25,000	7.0	\$15,000	\$0	\$40,000	\$724,500	5.5%	
London Bridge						\$-	\$ 133,500	0	
Road Projects Not Associat	ed with Harv	vest Operat	ions in this	AOP					
	Constr	uction	Improv	omont	Other	Total	Funding		

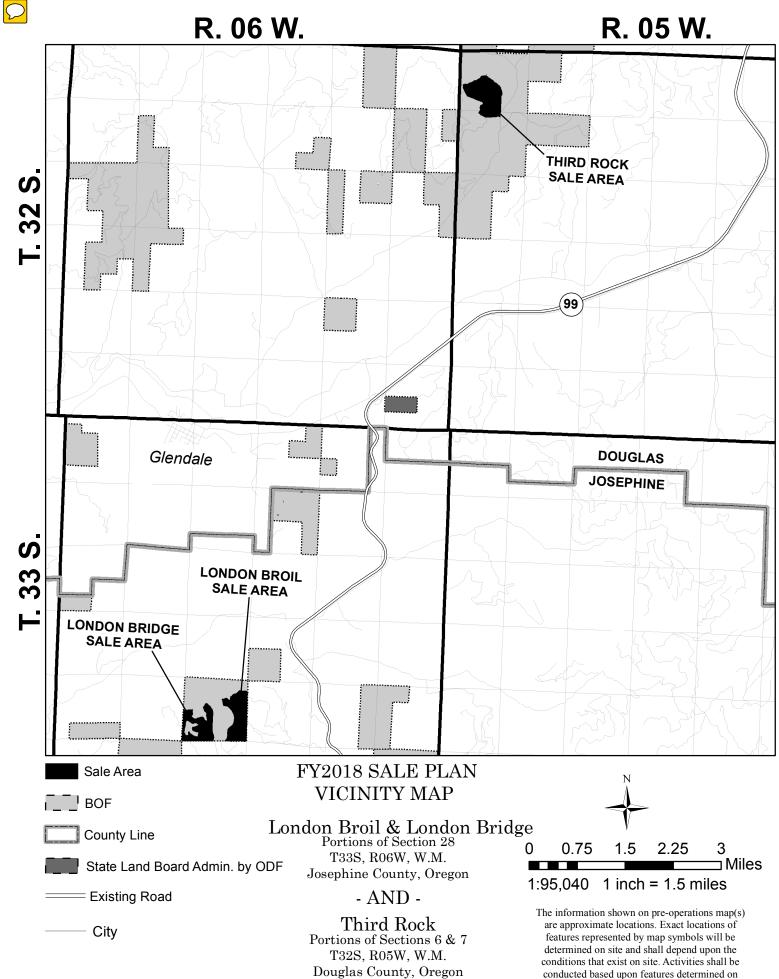
Operation	Construction	Imp	rovement	Other	Total	Funding	Commonto
Operation	Miles Cos	t Miles	Cost	Projects	Project	Source	Comments
	\$	•	\$ -		\$-		
	\$	•	\$-		\$-		
	\$		\$ -		\$-		

Total	0.0 \$ -	0.0 \$ -	0.0 \$ -

d. Reforestation and Young Stand Management.

REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY								
District:	Southwest O	R	Fiscal Year:	2018		Date:	06/02/2017	
Projects Conducted by ODE Staff	Board of Forestr		try	Common School Forest Lar		est Lands	District	
Projects Conducted by ODF Staff	Acres	Average		Acres	Average			
or Contractors	Planned	Cost*/Acre	BOF Cost	Planned	Cost*/Acre	CSL Cost	Total Acres	Total Cost
Seedling / Nursery Costs	55	\$197.00	\$10,835.00	42	\$197.00	\$8,274.00	97	\$19,109.00
Initial Planting (Buck, Rock)	55	\$110.00	\$6,050.00	42	\$110.00	\$4,620.00	97	\$10,670.00
Interplanting	40	\$180.00	\$7,200.00			\$0.00	40	\$7,200.00
Underplanting			\$0.00			\$0.00	0	\$0.00
Tree Protection - Barriers			\$0.00			\$0.00	0	\$0.00
Tree Protection - Direct Control			\$0.00			\$0.00	0	\$0.00
Site Prep - Chemical - Aerial			\$0.00			\$0.00	0	\$0.00
Site Prep - Chemical - Hand			\$0.00			\$0.00	0	\$0.00
Site Prep - Broadcast Burning	30	\$170.00	\$5,100.00			\$0.00	30	\$5,100.00
Site Prep - Piling Burning			\$0.00			\$0.00	0	\$0.00
Site Prep - Mechanical			\$0.00			\$0.00	0	\$0.00
Release - Chemical - Aerial			\$0.00			\$0.00	0	\$0.00
Release - Chemical - Hand	30	\$160.00	\$4,800.00			\$0.00	30	\$4,800.00
Release - Mechanical - Hand			\$0.00			\$0.00	0	\$0.00
Precommercial Thinning			\$0.00			\$0.00	0	\$0.00
Pruning			\$0.00			\$0.00	0	\$0.00
Invasive Species	10	\$100.00	\$1,000.00			\$0.00	10	\$1,000.00
Road Side Spraying			\$0.00			\$0.00	0	\$0.00
Stocking Surveys	110	\$0.00	\$0.00			\$0.00	110	\$0.00
Other			\$0.00			\$0.00	0	\$0.00
Totals	330		\$34,985.00	84		\$12,894.00	414	\$47,879.00

* Work to be completed by ODF staff; cost are for materials only



site rather than features shown on maps.

<u>Appendix C</u>

Consultations with Other State Agencies

This appendix summarizes the results of consultations with the Oregon Department Of Fish and Wildlife, the Oregon Department of Transportation and other cooperators.

- Proposed harvests within the Provincial Circle of northern spotted owls have been sent to US Fish and Wildlife Service for review.
- 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.
- No written comments from ODFW have been received to date.

<u>Appendix D</u>

The Oregon Department of Forestry held a formal public comment period for the FY 2018 Annual Operations Plans from March 20 through May 4, 2017.

The purpose of the Public Comment Period is 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.

No comments specific to Southwest Oregon were received during the formal comment period.

<u>Appendix E</u>

Pre-Operations reports available upon request

Appendix F - Changes to Landscape Design – Minor Modification to the Southwest Oregon District Implementation Plan

The Landscape Design for the Southwest Oregon District consists of 48 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 48 percent landscape design was adopted in 2003 as part of the Southwest Oregon District Implementation Plan (IP). The landscape design is a long term vision of the arrangement of stand structures to be developed across the district to achieve the landscape objectives set forth in the Southwest Oregon 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. In addition, various GIS layers including the DFC are always in need of aligning and fine tuning as part of the improvement and maintenance of the data. 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.

Edits made for this minor modification consisted of aligning and fine tuning the DFC boundary with stand boundaries, wildlife areas and new information on the stands potential to reach the complex forest condition. A total of 73 acres were modified; 0 acres were added to the DFC and 73 acres were removed.

Total LYR acres after this modification are 3,712 (22% of District Acres), and total OFS acres are 4,093 (24% of District Acres).

Summary of	Summary of Minor Landscape Design Changes						
Acres Removed							
DFC	Acres	Current Stand	Acres				
	110105	Condition	110100				
NF		NF					
REG		REG					
CSC		CSC	73				
UDS		UDS					
LYR	56	LYR					
OFS	17	OFS					
Total Acres Removed			73				

