



Oregon

Kate Brown, Governor

Department of Forestry

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"STEWARDSHIP IN FORESTRY"

To: Andy White, Area Director
From: Mike Totey, West Oregon District Forester

CC: Liz Dent, State Forests Division Chief
Ron Zilli, State Forests Deputy Division Chief
Colleen Kiser, State Forests Planning Manager

Re: Information Item – Approved Annual Operations Plan for FY 2021

The FY 2021 State Forests Annual Operations Plan (AOP) for the West Oregon District has been completed. During my review of this plan, I have found that it conforms to the Oregon Forest Practices Act and is consistent with the 2010 Northwest Oregon State Forest Management Plan, the 2012 District Implementation Plan, the 2021 Annual Operation Planning Standards and Guidance, and the FY 2021 State Forests budget instructions.

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

Also included in the AOP is a minor modification to the District IP. Appendix G summarizes the changes made to the District Landscape Design. Changes of up to 240 acres annually are considered minor changes and can be approved by the District Forester concurrently with the AOP. The signing of this letter will approve these proposed changes.

As prepared, this AOP consists of 13.2 MMBF of harvest volume. This volume will be achieved through 193 acres of partial cut harvest and 298 acres of regeneration harvest. There are 5 primary operations and 2 alternate operations within this plan. The operations are estimated to generate gross revenues of approximately \$2,327,000 and net revenues of \$2,213,969 within Benton County, gross revenues of approximately \$2,628,650 and net revenues of \$2,545,202 within Lincoln County, and gross revenues of approximately \$803,700 and net revenues of \$750,668 within Polk County. The volume is slightly over the IP target of 12.0 MMBF. The goal is to achieve the average of the Annual Harvest Objective (AHO) over the expected duration for the IP. Reforestation and young stand management activities and investments are aligned with FMP objectives and budget considerations. Recreation facilities and trails are managed and maintained for safety, positive experiences and protecting other resources like water quality and are consistent with the FY 2021 budget level.

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

could change due to market fluctuations. Harvest operations and the associated project work provide an accurate picture of what will be designed and prepared for contract in FY 2021. Due to the time lag with contract duration, most of the actual harvest operations with associated revenues will not occur for a period of one to two years beyond the end of the fiscal year. Forest management activities such as reforestation and recreation projects will occur in FY 2021

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

<http://www.oregon.gov/ODF/Pages/Reports.aspx>

Approved:



Mike Totey
West Oregon District Forester

West Oregon District 2021 ANNUAL OPERATIONS PLAN



West Oregon DISTRICT

FY 2021 ANNUAL OPERATIONS PLAN

OVERVIEW

This plan describes the activities and outcomes that Oregonians can expect to see on the West Oregon District for FY 2021. The state forest on the West Oregon District is an actively managed forest, valued by many Oregonians for its mixture of environmental, economic, and social benefits. This plan supports this mixture and provides a balance of these benefits as required by Oregon Administrative Rule (OAR 629-035-0020). We strive to manage the forest sustainably, so that the benefits from the forest can be delivered into perpetuity. The forest harvesting is planned at a sustainable level; a level that our computer models suggest can be harvested year after year without reduction.

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

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

Every year in the Forest, we learn new things and find new challenges and opportunities. In preparing this plan, we have consulted with geotechnical specialists, wildlife biologists, fish biologists, aquatic specialists, engineers, adjacent landowners, and a variety of interest groups and the plan will undergo a 45-day public comment period.

This Annual Operations Plan (AOP) will be reviewed by the Forest Trust Land Advisory Committee (representing the counties that deeded land to ODF), the State Forests Advisory Committee (SFAC - composed of Oregonians representing many interests), Oregon Department of Fish and Wildlife, motorized and non-motorized recreation users, hunters, fishermen, and wildlife advocates, as well as Oregonians in general.

A short summary of activities planned for the coming year:

- Planting 126,000 trees on 315 acres and conducting vegetation management on 1,196 acres and animal management activities on an additional 35 acres to ensure the survival and growth of these plantations.
- Conducting density surveys for northern spotted owls and operational surveys for marbled murrelets and surveying 1.1 miles of streams for the presence of fish habitat.
- Protecting streams and water resources through a series of buffers and seasonal restrictions.
- Stream improvement projects. An initial screen by ODF's Aquatic and Riparian Specialist suggests that there are no streams near planned harvest units that could benefit from large wood additions to the stream system.
- 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.
- Maintaining 24.3 miles of road and improving approximately 3.0 miles of road to ensure ditch water is dispersed and filtered as much as possible, keeping runoff from entering streams. These roads provide access to timber harvest as well as various recreational opportunities.
- Reviewing District roads to develop plans to block or vacate roads to help manage trash dumping, off-road use, and irresponsible target shooting.
- Proposing to harvest approximately 13.2 million board feet of timber volume, through modified clearcuts, and partial cuts generating revenue of an estimated \$5.5 Million net value. This harvest level is in alignment with longer-term plans and modeling to ensure it is sustainable and promotes the development of a mixture of habitat types across the landscape.
- 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, while striving to protect the trail investments, provide for user safety, and protect trees, wildlife and water quality.

- Supporting the pre-planned organized motorized and non-motorized events. Evaluating new recreational proposals for fit with forest goals.
- Providing a firewood cutting program and miscellaneous forest products permits (salal, mushrooms, etc.).
- Supporting ongoing research and educational opportunities on the district, in partnership with research cooperatives and universities. Among other opportunities, the district will install a 7-acre progeny site in cooperation with the NW Tree Improvement Cooperative. In addition, again this year, will likely present at and host Oregon State University's College of Forestry Reforestation Class and the Senior Capstone Class. District employees will also continue to accept speaking opportunities with local philanthropic organizations.

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INTRODUCTION

This annual operation plan (AOP) outlines operations on state-owned forestland managed by the West Oregon District for Fiscal Year 2021 (FY21), which begins July 1, 2020 and ends June 30, 2021. This document describes how the activities and projects undertaken by the district will achieve the goals, strategies, and objectives of the *NW Oregon Forest Management Plan (FMP)*, and the *West Oregon District 2012 (modified in 2015) Implementation Plan (IP)*. Please refer to the district IP's for more specific information on physical characteristics and other district resource information.

The AOP document is divided into five major categories: Integrated Forest Management; Planning and Information Systems; Public Information and Education; Administration and Appendices. A short summary of proposed activities is listed within this introduction. In addition to describing forest management activities for FY21, Appendix F describes any modifications to the Forest Land Management Classification System. Appendix G describes any modifications to the West Oregon District's Landscape Design*.

The proposed harvest operations and activities are planned to be designed, engineered, and submitted for processing during the FY21 time period. Actual on-the-ground operations will likely not occur during FY21 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 FY21.

A 45-day public comment period was held from March 23, 2020 through May 6, 2020. The District Forester has reviewed all comments received before approving this plan.

As the Division works on implementing its new organization under Work Force Futuring, many of the positions are not filled yet so districts are understaffed and have several employees in new positions. In the short term some work will not be accomplished especially in Recreation. Training at the district level will be occurring throughout FY21. This should improve over the course of this fiscal year and into the next.

Accomplishments of forest management activities that occurred under previous AOPs can be found in several reports, including the *State Forester's Annual Report for the Association of Oregon Counties* and the *Common School Forest Lands Annual Report*. These reports are available through the local district office or online.**

*Minor/major modifications and the procedures for making these changes are described in West Oregon District IP.

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

INTEGRATED FOREST MANAGEMENT

OPERATIONS

Timber Harvest Operations

Overview of Timber Harvest Operations

All of the Primary and Alternate harvest operations and many of the other forest management activities have been reviewed by ODF's wildlife biologists, aquatic specialist, geotechnical engineer, road engineer, and planning manager, as well as fish and wildlife biologists from the Oregon Department of Fish and Wildlife, and archeologists from Oregon Department of Transportation. Additionally in 2019 wildlife biologists from the US Fish and Wildlife Service reviewed the Eastern Yaq Combo sale for operations occurring within a MMMA. Occasionally, operations may contain a resource or activity where review with another state agency, such as the Department of Agriculture is warranted. Written comments from the external resource specialists and the resolution of those comments can be found in Appendix C.

The FY21 AOP is estimated to produce 13.2 million board feet in volume, generate gross revenues of approximately \$5,759,350 and net revenues of \$5,509,839. The goal is to achieve the average of the Annual Harvest Objective (AHO) of 12.0 MMBF over the expected duration for the IP. The slight increase in volume planned for harvest in this fiscal year will contribute toward realigning harvest volumes with the average AHO volume. Under normal circumstances, the volume proposed in an AOP will be near the AHO target. However, some events may result in an AOP volume that is farther from the AHO target. These events may consist of, but are not limited to, storm damage, insect and/or disease outbreaks, timber market conditions or other significant events. Alternate timber sales included in the AOP may be sold as primary operations in response to any of these circumstances.

Additional operations may produce timber volume for the district during the 2021 fiscal year but are not included in this AOP. These are small sales less than \$100,000 in value that affect small areas and produce little volume. These sales do not require significant effort to develop and execute and will comply with all policies and FMPs. Examples of these sales include salvage, pulp sales, removal of hazard trees, etc.

Refer to the attached West Oregon District Financial Summary Table (Appendix A, Table A-1) and vicinity map (Appendix B) for more detail.

Table 1. Annual Operations Plan objectives compared to annual objectives identified in the West Oregon District 2012 Implementation Plan (modified in 2015). Harvest values are acres, Volume is in MMBF.

Annual Harvest Objectives	IP Annual Objective		2021 AOP
	Low	High	
Volume (MMBF)	12		13.2
Partial Cut Harvest	0	1,200	193
Regeneration Harvest	255	400	298

Table 1 shows the proposed acres by harvest type. The 298 acres of regeneration harvest planned for FY21 represents <1 percent of the district acreage. All of the regeneration harvest acres will be designed as modified clearcuts. There is one first entry moderate partial cut in young stands to help improve the growing conditions within the sale. The anticipated harvest acres, volume, and revenue for each proposed operation in this AOP are listed in the “Harvest Operations – Financial Summary” Table A-1 in Appendix A.

Table 2. Accomplishment of AOP Harvest Volume Compared to IP Annual Objective (MMBF)

Fiscal Year	IP Annual Objective	AOP Planned Volume	AOP Sold Volume	Cumulative Difference from Objective ¹
FY 13	10.0	10.0	7.7	-2.3
FY 14	12.0	12.0	11.5	-2.8
FY 15	12.0	13.2	9.5	-5.3
FY 16	12.0	13.4	12.9	-4.4
FY 17	12.0	12.8	12.9	-3.5
FY 18	12.0	11.8	13.5	-2.0
FY 19 ²	12.0	12.4	10.8	-3.2
FY 20 ²	12.0	13.4	13.2	-2.0
FY 21	12.0	13.2		

1. IP Harvest Objective versus Sold Volume.

2. Estimated volume based on sold and remaining to be sold sales.

Overview of Structural Components

The guidelines for managing structural habitat components listed under Landscape Management Strategy 3 in the NWO State Forests Management Plan (pg. 4-52), will be followed for the FY21 Annual Operations Plan. Structural components may be retained at higher levels in some units and at lower levels in other units. The intent is to achieve the targets outlined in the Forest Management Plan strategies in a given annual operations plan.

The green tree retention target for regeneration harvest units is an average of five trees per acre in the NW FMP. Green tree arrangements for this AOP may include; scattered individual trees, clumps of trees, and trees concentrated in and adjacent to riparian management areas, inner gorge areas or headwalls. The final decision on the location and arrangement of the green trees is made while the sale is being laid out to incorporate information on potential minor tree species, unique stand features, steep slopes, visual considerations, reforestation considerations, etc. To promote diversity on the landscape a variety of green tree placement strategies will be used.

The NW FMP strategy for hard snags is to manage for at least two per acre on average across the landscape. 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. Strategies for retaining snags and down wood are determined using a current condition assessment from forest inventory data or timber cruising data. The need for snag creation in each unit is evaluated

based on cruise or inventory information that documents snags in decay class 1 and 2 in the sale and surrounding landscape. Areas with less than 2 hard snags per acre will be evaluated and an appropriate snag prescription will be developed as needed. Down Wood will continue to be created through bucking practices, leaving felled snags in the unit and tops on ground yarding areas.

The West Oregon District has experienced a number of large wind and snow break events over the last 10-15 years. This has produced a large number of residual snags and down woody debris components across the landscape where older stands are present. Due to this snag creation is not perused. If snags are found in an area during sale layout efforts are made to leave them on the landscape where safety permits.

Harvest Operations within Terrestrial Anchor Sites and Aquatic Anchors

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

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

Terrestrial Anchor Sites

Since the adoption of the TAS in 2012, the district has not planned 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 2021 AOP and the cumulative operations planned in TAS since the strategy was adopted (AOPs 2013 through 2021).

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

Acres within TAS	Current AOP (FY 2021)		Cumulative Harvest (Since FY 2013)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
AOP Acres	298	193	2,623	2,824
% of District Acres (36,743)	<1%	<1%	7.1%	7.7%
Terrestrial Anchor Site (TAS) Basins				
Green Mountain (1,625 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
Wolf Creek (1,001 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
All TAS (2,626 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%

Aquatic Anchors

Increased water protection measures will be implemented on regeneration harvest operations planned within the AA's as specified in the Species of Concern strategy. Table 4 shows the current harvest and the cumulative total from FY 2013

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

Acreages	Current AOP (FY 2021)		Cumulative Harvest (since FY 2013)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
AOP Acres	298	193	2,623	2,824
% of District Acres	<1%	<1%	7.1%	7.7%
Aquatic Anchor (AA) Basins				
Little Rock Creek (4,768 ac)	49	0	279	227
% of Acres	1%	0%	6%	5%
Upper Yaquina – Amphibian Emphasis (3,493 ac)	37	143	113	181
% of Acres	1%	4%	3.2%	5.2%
Wolf Creek (3,194 ac)	0	0	228	173
% of Acres	0%	0%	7.0%	5.5%
All Aquatic Anchors (11,455 ac)	86	143	620	581
% of Acres	<1%	1.2%	5.4%	5.1%

Summary of Timber Harvest Operations by Basin

In the following section, the harvest operations planned for FY21 will be summarized in the context of the five management basins on the West Oregon District. Since the Forest Management Plan strategies provide standards for structural components such as green trees, snags, down wood as well as riparian protection, these are not discussed in the summary. Road strategies and standards are discussed in the Forest Roads Management section. Additional information regarding the harvest operations may be found within Table A-2, the Forest Resources Summary in Appendix A.

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

Basin	2021 AOP	
	Partial Cut	Clearcut
Big Elk Creek	0	64
Luckiamute River	0	0
Marys River	26	110
Siletz River	0	49
Upper Yaquina River	167	75
Totals	193	298

Big Elk Creek Basin

Harlan Hangover (Primary Sale) – This sale is a modified clearcut of 64 acres in a stand of primarily 88 year-old mixed Douglas-fir, western hemlock, and red alder. The sale unit was previously commercially thinned. The current condition for stands within the operation is Understory. There are eight acres within the unit with a current classification of Older Forest Structure. This is a typing error and the older timber type will not be part of the harvest. The Desired Future Condition is for non-complex stands. Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

No new roads are needed for harvest. Approximately 0.6 miles of road are planned to be improved with the sale.

Approximately 33% of the sale is on Common School Land.

Grouse Bully Thin (Alternate Sale) – This sale consists of three partial cut units totaling 355 acres in 32-34 year-old Douglas-fir plantations. The current condition of stands within the operation is Understory. The Desired Future Condition of the stands is for non-complex stands.

Approximately 0.1 miles of new roads will be constructed to facilitate harvest. Approximately 1.5 miles of road are planned to be improved with the sale.

The FLMC layer shows that the stream through the middle of Unit 3 is a domestic water site stream, however no registered point of diversion or domestic water site is shown on the Water Resources Department Layer. During sale layout efforts will be made to look for this potential domestic site and contact the landowner if necessary.

Unit 2 is located within the Wolf Creek Aquatic Anchor Site.

Unit 1 of this sale is located within the within the Upper Yaquina River Basin.

Luckiamute River Basin

There are no primary or alternate operations planned in this basin for FY 2021.

Marys River Basin

Rebott (Primary Sale) – This sale consists of two modified clearcut units totaling 110 acres in stands of primarily 54 year-old mixed Douglas-fir, western hemlock, and red alder. The current condition for stands within the majority of the operation is Understory. The remaining 14 acres has a current condition of Layered. The Desired Future Condition of the stands is for non-complex stands. Following the completion of harvest, the units will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

Approximately 0.1 miles of new roads will be constructed to facilitate harvest. Approximately 0.2 miles of road are planned to be improved with the sale.

There is a potential cultural resource site (trail) south of Unit 1.

Unit 1 is visible from Shingle Creek County Road. Additionally there is a buried fiber optic line along Shingle Creek County Road.

The sale is 62 % Common School Land.

Eastern Yag – Approximately 26 acres (Unit 5) of this sale is within the Marys River Basin. The full sale description can be found under the “**Upper Yaquina River Basin**” heading listed below in this document.

Siletz River Basin

Just in Beaver (Primary Sale) – This sale consists of two modified clearcut units totaling 49 acres in stands ranging from 43-year-old red alder to 84 year-old mixed Douglas fir and hardwood. The current condition for stands within the operation is Understory. The Desired Future Condition is for non-complex stands. Following the completion of harvest, the units will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

No new roads are needed for harvest. Approximately 0.8 miles of road are planned to be improved with the sale.

In Unit 1, some of the alder trees have multiple tops likely from an event early in the life of the stand. This will cause some volume lose on these trees.

Both units are within the Little Rock Creek Aquatic Anchor Site.

This sale is 26% Common School Land.

Cool Hand Lucas (Alternate Sale) – This sale is a modified clearcut of 67 acres in a stand of 64 year-old mixed Douglas-fir, western hemlock, and red alder. Most of the unit was previously commercially thinned. The current condition for stands within the operation is Layered and

Understory. The Desired Future Condition of the stand is part of the proposed minor mod for FY21 to change this from a future condition of a complex stand to a non-complex stand. Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

No new roads are needed for harvest. Approximately 1.5 miles of road are planned to be improved with the sale.

The Knife River MMMA is being reconfigured to the west of the sale. It is not anticipated to affect the boundary of the sale.

Upper Yaquina River Basin

Crystal Clear (Primary Sale) – This sale is a modified clearcut of 38 acres in a stand of 91-96 year-old Douglas-fir and scattered red alder and bigleaf maple. The current condition for stands within the operation is 16 acres of Closed Single Canopy, 11 acres of Understory, and 11 acres of Non-Forest type described below. The Desired Future Condition is for non-complex stands. Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

No new roads are needed for harvest. Approximately 0.2 miles of road are planned to be improved with the sale.

Portions of Unit 1 were heavily damaged in a 2014 ice storm which resulted in broken tops and snags.

25% of the sale acreage is an administrative site and those funds will go towards the district protection fund.

A Mt. Baber ATV Club motorized trail runs along the south edge of the sale. A repeater site is located just outside the south boundary, which is also the site of the old Mt. Baber Lookout. There will be no impact to these resources.

Grouse Bully Thin (Alternate Sale) – Approximately 56 acres (Unit 1) of this sale is within the Upper Yaquina River Basin. The full sale description can be found under the “**Big Elk Creek Basin**” heading listed above in this document.

Eastern Yag: This combination sale consists of four partial cut units totaling 193 acres in 30-34 year-old Douglas fir and one modified clearcut unit totaling 37 acres in 40 year-old mixed conifer. All of the sale units are currently classified as Understory. The Desired Future Condition for the modified clearcut and 166 acres of the partial cuts is for non-complex stands. The remaining 27 acres within the partial cuts have a desired future condition of Older Forest Structure. These stands are within the MMMA buffer.

Unit 4 has a large number of snags and broken tops from an ice storm in 2014. There is false brome along the road leading to Units 2 and 4 that will need to be addressed prior to logging.

Approximately 0.2 miles of road will be constructed to facilitate harvest. Approximately 1.3 miles of road are planned to be improved with the sale.

There is a Domestic Water Site approximately 1.500 east of Unit 1 and another one 950 feet west of Unit 5. Both of these sites are automapped and don't correspond to any streams on LIDAR. It is not assumed that either of these Domestic Sites correspond to any of the streams within the units however this will be field verified when laying out the unit.

Portions of Units 2, 3, and 4 are within the Lower Yaquina Marbled Murrelet Management Area. These acres are thinning the younger timber type that is surrounding the occupied habitat. A biological analysis has been conducted with the Federal Fish and Wildlife services.

A small section of Unit 4 (less than one acre) is within the Granite Northern Spotted Owl Circle. However, due it being less than five acres a Biological Analysis is not required.

Units 1,2,3,4 and portions of 5 are within the Young Creek – Yaquina River Aquatic Anchor Site.

Unit 5 is visible from Eddyville – Blodgett Highway. As this unit is a partial cut the scenic impact is minimal and no further actions are anticipated.

Units 2 and 4 are near the Lower Yaquina Falls. Signage will be posted to ensure recreationists are aware of activity.

There are overhead transmission lines along the west edge of Unit 5.

Unit 5 is within the Marys River Basin

Forest Roads Management

Overview

The State Forest road network provides access for forest management activities, fire suppression, and recreation. Visions, guiding principles, and goals for managing the road network are discussed in the Northwest Oregon State Forests Management Plan (April 2010) and the State Forest Roads Manual (July 2000). The State Forest Roads Manual also provides standards and guidance for all road management activities and definitions, road classifications and other terms.

Most of the roadwork in this AOP is related to constructing spur roads and for improving haul routes for the FY21 timber sales. Some roadside vegetation management and rock stockpile creation will benefit access outside of the FY21 timber sale haul routes. This section describes the types of road management activities that will occur in FY21 and the attached Forest Roads Summary Table (Appendix A, Table A-3) describes the anticipated total amounts.

Road Construction

Road construction and improvement identified in this plan will be primarily achieved through project work connected with timber sales. New LiDAR based slope information is helpful in locating roads away from locally steep slopes.

Road Improvement

Road improvement projects will use ODF road inventory protocols to assess existing road drainage, stability, surfacing and vegetation conditions, and to aid in the development of transportation system improvement plans. The majority of this improvement work will be performed on collector and spur roads and will consist of installing new cross drains and disconnect culverts, replacing culverts, ditchline improvements, and new surfacing.

Road Access Management

Access to the State Forest is generally not restricted. However, roads that pose a high risk of damage to water quality are candidates for closure. Closing and vacating roads reduces the district's maintenance cost and helps to minimize impacts to the environment from roads. We retain the option of closing roads if vandalism, neighbor concerns, or excessive road damage from public use becomes a problem in particular areas. Several sales are accessed across private land with two sales on gated roads.

Road Maintenance

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

Management of Rock Source/Supply

The District plans for durable rock to be used on in-sale spurs and haul routes, which allows for year-round harvest opportunities on most timber sales. Purchasing rock from commercial sources is necessary to provide road rock for planned road construction, road improvement, and road maintenance activities. The district has not been successful in locating viable rock sources on district lands.

Land Surveying

Every year surveying needs are analyzed and planned to be kept at a minimum level while ensuring property lines and corners are clearly marked. Survey work may be accomplished through service contracts with licensed professional land surveyors, cost sharing with adjacent landowners or utilizing the licensed surveyor on staff with ODF. Land surveying may be necessary on the following sales:

- Eastern Yaq (2,000 feet)
- Harlan Hangover (1 mile)
- Cougar Divide (2,000 feet)

Young Stand Management

The State Forest strategy is to use a range of silvicultural tools to establish and maintain diverse stands of well-adapted natural species throughout the landscape to meet the objectives and goals in the Forest Management Plan and District Implementation Plan. These tools include site preparation, planting, tree protection, vegetation management, pre-commercial

thinning, early commercial thinning and interplanting or replanting. Each practice must be considered and prescribed for individual stands on a site-specific basis.

This section describes the types of reforestation and young stand management activities that will occur in FY21 and the attached Young Stand Management Table (Appendix A, Table A-4) describes the anticipated total amounts. The location and amount (acres) of these activities are estimates based on plans, information and conditions as known at this point in time. The type, amount and specific stand management prescriptions will be further adjusted based on when existing harvest units are completed and on updated assessments and surveys that will occur during and after the 2020 growing season.

Reforestation activities will be completed by using experienced contractors. A portion of the activities will be completed by utilizing crews from Mill Creek Correctional Institution. These crews work on activities such as inter-planting, tree protection, mechanical hand release, and noxious weed control.

Seedlings / Nurseries

In order to meet the goals of the Forest Management Plan, the State Forests Program requires tree seedlings that are physiologically healthy and best suited for the planting sites. A wide variety of native species seedlings is grown through contracts at forest nurseries throughout the Pacific Northwest to meet the reforestation needs. Seedlings are grown in three different stock types: 1) plug seedlings or one-year-old container grown seedlings, 2) plug +1 seedlings which are grown one year in a container followed by a second year in a bare root bed, and 3) straight bare root seedlings grown from seed in a bare root seed-bed and then transplanted to a wider spacing transplant bed. The budget accounts for a string of growing costs over several years rather than just those costs of the trees being grown and planted in the winter. The budget for seedlings includes portions of the costs for growing seedlings for three planting years. Additionally, there are costs associated with the seed that is used for starting the seedlings, estimated transportation costs and various costs associated with packaging and freezer and/or cooler storage. The individual species mixture and stock type used for a particular reforestation unit is determined after the final inventory from the forest nursery and varies by District.

All State Forest's Douglas-fir seedlings are grown from improved seed. Most minor species seed also comes from tree improvement coop orchards. This year, district seedlings are being grown at the Washington Department of Natural Resources, IFA, and Lewis River nurseries. Species consist of Douglas-fir, western redcedar, western hemlock and grand fir. Some of the Douglas-fir is from Swiss Needle Cast (SNC) resistant stock, to be planted in SNC prone areas.

Site Preparation

Site preparation is any planned measure to prepare a site to allow for favorable growing conditions for newly planted seedlings. More than one of these techniques may be used for any given site based on the attributes and reforestation prescription for the site. The three main site preparation techniques are mechanical, chemical and slash burning.

- 1) Slash Burning: Slash burning can be accomplished by broadcast burning the entire unit or burning piles that result from mechanical site preparation.

- 2) Mechanical: Mechanical site preparation is the use of mechanized equipment to rearrange or alter forest slash and/or disturb the forest surface layer and vegetation to create seedbeds or planting spots. Planting spots are created in a fairly even distribution. Dense slash concentrations created during timber harvest may be mechanically piled as part of the timber sale contract.
- 3) Chemical: Chemical site preparation involves the application of herbicides to control competing vegetation before planting or natural regeneration and during the early stages of seedling establishment. Applications occur by two primary methods: aerially by helicopter or ground based with the use of backpack application equipment. The objective is to control brush species to allow stand establishment and maintain 2-3 years free of significant competing vegetation. The actual site preparation plan will be prepared in late spring when harvest unit availability and brush development is better known.

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. Planting is comprised of matching the appropriate species and stock type to the planting site. Forest health strategies are addressed on a site specific basis when the planting plan is developed. Site specific prescriptions consider target species, aspect, elevation, soil types, Swiss Needle Cast risk where applicable, *Phellinus weirii* (laminated root rot) presence, required stocking guidelines, natural advanced regeneration, and the desired future condition of the stand. To accomplish this, a mixture of species is planted to provide for a healthy, productive, and sustainable forest ecosystem over time. The following are different types of planting.

- 1) Initial Planting: Planting activities establish the desired species and stocking levels to meet the goals in the Forest Management Plan and Forest Practices Laws. Planted seedlings will be well suited and adapted to the reforestation site and where appropriate, a mixture of species may be planted to increase diversity on the landscape.
- 2) Interplanting: Interplanting may occur when stocking levels fall below or are at risk of falling below Forest Practices Act (FPA) minimums. In certain instances, interplanting will occur to increase stocking on high quality sites to fully capture the site. In other areas, lower stocking will be acceptable, as it will provide high quality early seral habitat while still meeting FPA requirements.
- 3) Underplanting: This type of planting is occasionally conducted after thinning in order to introduce both species diversity and an additional future layer of structure into a stand.
- 4) Natural Regeneration: Units or portions of units are assessed prior to planting. Natural regeneration is considered primarily in western hemlock stands that have been salvaged from wind storms, where small gaps and holes less than 2 acres have been created in partial cut units, and in unit rock outcrops or cliffs. Natural regeneration of red alder and other minor species is used to provide diversity in all harvest units.

Tree Protection

Animal damage on newly planted seedlings reduces their overall size, health and vigor. Extensive damage can lead to plantation failure and require interplanting, may extend the time

to achieve free to grow status as defined by the Forest Practices Act and prevent meeting Forest Management Plan goals. Deer and elk, as well as mountain beaver, can heavily damage young seedlings. Various tree protection strategies are applied to help re-establish trees in areas with high concentrations of these species. Most commonly, various types of physical barriers (bud caps, vexar tubes, etc.) help prevent damage from big game. Direct control includes trapping mountain beaver in highly populated areas prior to planting in order to prevent damage to trees once they are planted.

Vegetation Management – Release Treatments

Vegetation management is done to reduce light, moisture or nutrient competition from undesirable vegetation in a young stand of trees to improve survival and growth. It can also be used to alter tree species composition under pressure from insect and disease and favor species that are tolerant or resistant to the threat. Vegetation management may be required to meet Forest Practices reforestation stocking requirements, the NW Oregon State Forests Management Plan and the District Implementation Plans. There are two types of vegetation management, chemical and manual release treatments. They are described below.

Chemical Release: Chemical release treatments involve the application of herbicides to control undesirable vegetation. Typical application methods are broadcast, directed spray, and hack and squirt. Broadcast application treatments are sprayed over the top of seedlings and undesirable vegetation using either aerial or backpack methods. Directed spray applications are made with a backpack and target individual plants. This method is often used to remove invasive species such as Scotch broom from young stands. Hack and squirt involves basal or stem injection of chemicals. This method is typically applied to hardwoods as a way to release conifers from hardwood competition.

Manual Release: Manual release can include cutting down of noxious weeds or hardwoods. Hardwood release is used when ingrowth of hardwoods, mainly red alder in the northwest and madrone and tanoak in the southwest, threaten to change the stand from conifer dominate to hardwood dominate. In this treatment, hardwoods are removed using chainsaws leaving all of the conifer trees. This differs from PCT (described below) in the fact that conifer spacing and species are not manipulated. While hardwoods are important on the landscape, long-term conifer production is the goal for many stands across the district.

Pre-Commercial Thinning (PCT)

PCT is a silviculture activity used to manipulate the density, structure or species composition of overstocked young forest stands. Generally, the purpose of a PCT operation is to release the biggest and best growing trees so they can maintain their growth. PCT is normally conducted in a stand between the ages of 10 and 20 years old. In areas of disease such as Swiss Needle Cast or *Phellinus weirii*, PCT can be used to favor species other than impacted Douglas-fir trees in the residual stand.

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. No pruning is planned for FY 2021.

Stocking Surveys

The State Forests Unit has the responsibility of ensuring that the goals of the Forest Management Plan are met. Stocking surveys is one tool to ensure the stands are on track for the desired future condition. The surveys are done in order to check initial plantation survival at a time when the seedlings are vulnerable and there is still time to remedy problems, by using interplanting and animal damage control measures as examples. In addition, stocking surveys are conducted in order to assess free-to-grow status and to get baseline data on the stand for future management planning, for example evaluating release treatments and pre-commercial thinning candidates.

Invasive Species

Most noxious weeds or invasive plants are found along roads and have spread into plantations. The main sources for the weed introduction into the forest are vehicle tires, equipment moved into and out of district, and where soil disturbance occurs. 100% weed-free grass seed and certified weed-free straw used for mulch is required for project work on roads. Equipment washing is required in timber sale contracts to prevent the introduction of weed seed from other sites. It is also required that weed-free hay is used for feeding stock on State Forest Lands.

The State Forests Unit continues to identify appropriate steps they can take to prevent the introduction and spread of invasive plants. Knotweed, Scotch broom, and false brome are the primary species known to exist in the District. Active control measures are being planned and prioritized for roadside, in-unit, and trail treatment.

Roadside Vegetation Management

The State Forests Unit manages vegetation alongside forest roads. Vegetation management protects the investment by preventing damage from unchecked vegetation growth, helps to maintain a safe driving environment by maintaining clear sight distance, controls noxious weeds, and reduces fire hazards. Roadside vegetation will be controlled manually, mechanically or chemically where necessary. The method used will depend on the characteristics of the vegetation and its location. During the spring of 2020, roadside vegetation surveys will be conducted to determine roadside treatment needs for FY21. In most cases, roadside chemical applications and roadside mechanical brushing will be part of a timber sale's project work, conducted by an experienced contractor and roadside manual treatment will be conducted by Mill Creek Crews.

Recreation Management

Overview of Recreation Management

The FY21 AOP will be a time of transition for ODF's Recreation Program. This AOP will see a shift of recreation personnel being managed out of a specific district to all recreation personnel being part of the NWOA Recreation Team. This shift, which is aligned with the much larger Workforce Futuring organizational shift, will provide a more holistic planning approach, improved better consistency, and more effective use of resources across districts. Keys to successful

implementation of this shift in organizational structure will be good communication and ensuring the continued fostering of relationships with our user groups.

Current recreational activities on the District consist of dispersed camping, sightseeing, hiking, hunting, fishing and ATV and mountain bike riding. There are four sites that receive 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/camping 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 (BRMBA), 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.
4. Yaquina Falls. This area was the focus of a commercial special use permit in the recent past. There are currently no organized activities on-going here, but the falls receive frequent visits on un-improved trails.

Recreation planning and management are covered in the 2012 IP in detail.

Facilities

The facilities at Baber Meadows include a restroom, an informational kiosk, a kid's ATV 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 district pays for the pumping of the pit toilet. 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 with portable toilet and changing station, a staging area/gathering area and two informational kiosks.

See Table 6 below for developed and dispersed facility maintenance and improvement projects planned for FY21.

Table 6. Developed and Dispersed Facility Projects

Project Type	Project Name	Work Resources	Project Description
None	Baber Meadows		
Trail Access ¹	Black Rock Alternate Access	Recreation Planning, Engineering and Grant Funding	ODF has made an offer on Weyerhaeuser land adjacent to ODF's Black Rock parcel. If acquisition goes through, the District will begin work with ODF's REI Team and BRMBA to secure grant funding for a parking lot, trail bridge and trail tie-ins to the existing trail system.

- Existing access to the Black Rock Trail system is through private property owned by Camp Tapawingo, a church camp. The new access would alleviate the impact to this property and would provide a larger parking area.

OHV Trails

No projects are planned for FY21.

Non-motorized Trails

Table 7. Non-Motorized Trail Projects

Project Type	Project Name	Project Mileage	Work Resources	Project Description
New Trails	Black Rock Alternate Access	1.0	Planning and engineering	Add new trail to tie in new parking area to existing trail system.

Trail Maintenance (OHV and Non-motorized)

Motorized: 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 the trail system is on State land.

Non-motorized: 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.

Volunteer Program and Partnerships

All volunteer activities are focused on the Mt. Baber ATV Club and Black Rock Mountain Biking use areas and are organized and managed by the two organizations.

Event Management

The Mt. Baber ATV club generally holds 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 (BRMBA) may have some organized riding events along with scheduled “work party” events. The trail system is used continuously throughout the year.

Grants

ODF will be pursuing grants to fund the above mentioned Black Rock Alternate Access Project in the FY21 plan.

Other Integrated Forest Management Projects

Aquatic & Riparian Management

All fish bearing streams found in State Forests are subject to the Management Standards for Aquatic and Riparian Areas as outlined in Appendix J found in the Northwest Oregon State Forests Management Plan (2010). An objective of State Forests' aquatic resources is to maintain, enhance, and restore quality fish habitat. This is achieved primarily through riparian buffer strategies specific to the aquatic resource characteristics such as presence of fish, size, and flow duration. The goal of all riparian management prescriptions is to obtain mature forest conditions (e.g., development of the natural community appropriate for that site) as expediently as possible. Aquatic Anchors (AA) have been established on watersheds in the District in which additional aquatic conservation measures are applied when regeneration harvesting. Small, perennial, non-fish bearing streams will be protected with 50 foot no harvest buffers and all fish bearing streams and large and medium non-fish bearing streams will be protected with 100 foot no harvest buffers as per AA Species of Concern strategies.

Several strategies, described in the Forest Management Plan, dictate protection measures designed to protect, maintain, and restore aquatic and riparian functions. These strategies are employed during harvest activities and include but are not limited to: leave trees adjacent to streams to protect stream temperature, provide nutrients, protect stream banks, and eventually provide wood to improve fish habitat. Best management practices for road construction, reconstruction, and maintenance minimize impacts to water quality.

Threatened and Endangered Fish Species: Federally Threatened Salmon and Steelhead listed species with Critical Habitat Designations found within the District include Upper Willamette Winter Steelhead and Coastal Coho Salmon.

Fish Distribution Surveys: Streams are classified in part as supporting fish (Type F) or not supporting fish (Type N). Riparian protection measures depend in part on the presence of fish. Many streams in the past have been surveyed with electro-fishing techniques that established the upper extent of fish use. However, many small streams have not yet been surveyed for fish presence. Streams needing classification in the AOP will be evaluated with a Physical Habitat Survey. The physical methodology was developed in conjunction with Oregon Department of Fish and Wildlife. The seasonal/perennial break in the streams will be evaluated during fish distribution surveys or during sale layout.

Restoration Goals and Identification Process: The overarching principles for fish habitat restoration are described in the Forest Management Plan. There are no stream enhancement opportunities identified in association with the sales in this AOP.

Restoration accomplishments are reported to Oregon Watershed Enhancement Board using the Oregon Watershed Restoration Inventory electronic filing process and reported by ODF annually in our report to the counties, board of forestry, and Division of State Lands.

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.

Law Enforcement and Public Safety

The District expects to contribute \$6,000 total during FY 2021 to help fund one forest deputy in each of the following counties: Lincoln, Benton and Polk. Other agencies and private forest land owners also contribute to the funding of these law enforcement officers.

The forest deputies patrol forest lands in their respective counties to enforce laws relating to fire and recreation; prevent vandalism, theft of forest products and dumping of trash; and aid in search and rescue efforts. The forest deputies are essential to the success and overall management of the forest and their presence benefits all forest users.

Firewood Cutting Program

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. The permit fee for personal firewood cutting is \$20 for two cords. Permits are issued for a period of two weeks. Historically personal use firewood cutting has only been allowed outside the months of fire season. The District typically sells 80-150 woodcutting permits each year. In addition, the District issues between 5 to 10 commercial firewood permits per year with an estimated revenue of \$500 to \$1,000.

Non-Timber Forest Products

The District typically issues between 30 and 50 miscellaneous forest product permits for salal, vine maple, forest plants, chanterelle mushrooms and Oregon grape each fiscal year. Permits are sold for \$100 per permittee and may have more than one permittee per permit. Revenue from these permits ranges from \$7,000 to \$10,000 per fiscal year.

Planning

Below are the significant district-level planning projects currently scheduled for commencement, completion, or both in FY21.

Stand Level Inventory

No SLI data acquisition is planned for this AOP.

Wildlife Surveys

Northern Spotted Owl Surveys

For the FY21 AOP, the District will continue the northern spotted owl (NSO) survey program, in order to comply with federal and state Endangered Species Acts and to contribute to Forest Management Plan (FMP) goals. Survey requirements are determined in accordance with *ODF Northern Spotted Owl Operational Policies*, November 2017.

Marbled Murrelet Surveys

In FY21, the District will continue its marbled murrelet survey program in order to comply with Federal and State Endangered Species Acts and to contribute to Forest Management Plan goals. Survey requirements are determined in accordance with ODF policy, guidance, and survey protocols.

T&E Plants

The District will continue to screen harvest operations against the Oregon Biodiversity Information Center (Orbic) database and other known locations on the District to identify potential conflicts with plant species listed in the District IP.

Species of Concern Wildlife

The District will continue to screen harvest operations against several wildlife databases to identify potential conflicts with wildlife of concern listed in the District IP.

Research and Monitoring

Districts will assist in a variety of research and monitoring projects in FY21. Examples include:

- Bumble Bee Populations within Managed Conifer Forests in the Oregon Coast Range (Zitomer/OSU) Influence of Forest Management Activities/Intensity on Pollinators in the Oregon Coast Range (Galbraith/OSU)
- Growing stock study of thinned stands at Black Rock (McGuire/OSU)
- Managing Young Plantations for Wood Production and Biodiversity (Puetzman/OSU)
- Watershed Monitoring Study (Coble/NCASI)
- Effects of thinning in Swiss needle cast infected Douglas-fir stands (Mainwaring/OSU)
- Nursery Seedling Stock trials (District).

Other Planning Operations

The district will continue collecting additional data to enhance road inventory information and rock inventories as workload permits. In conjunction with the REI Team the District will provide input and context to recreation planning. The district will also continue to participate in FMP and HCP reviews as needed.

Public Information and Education

Forestry Education

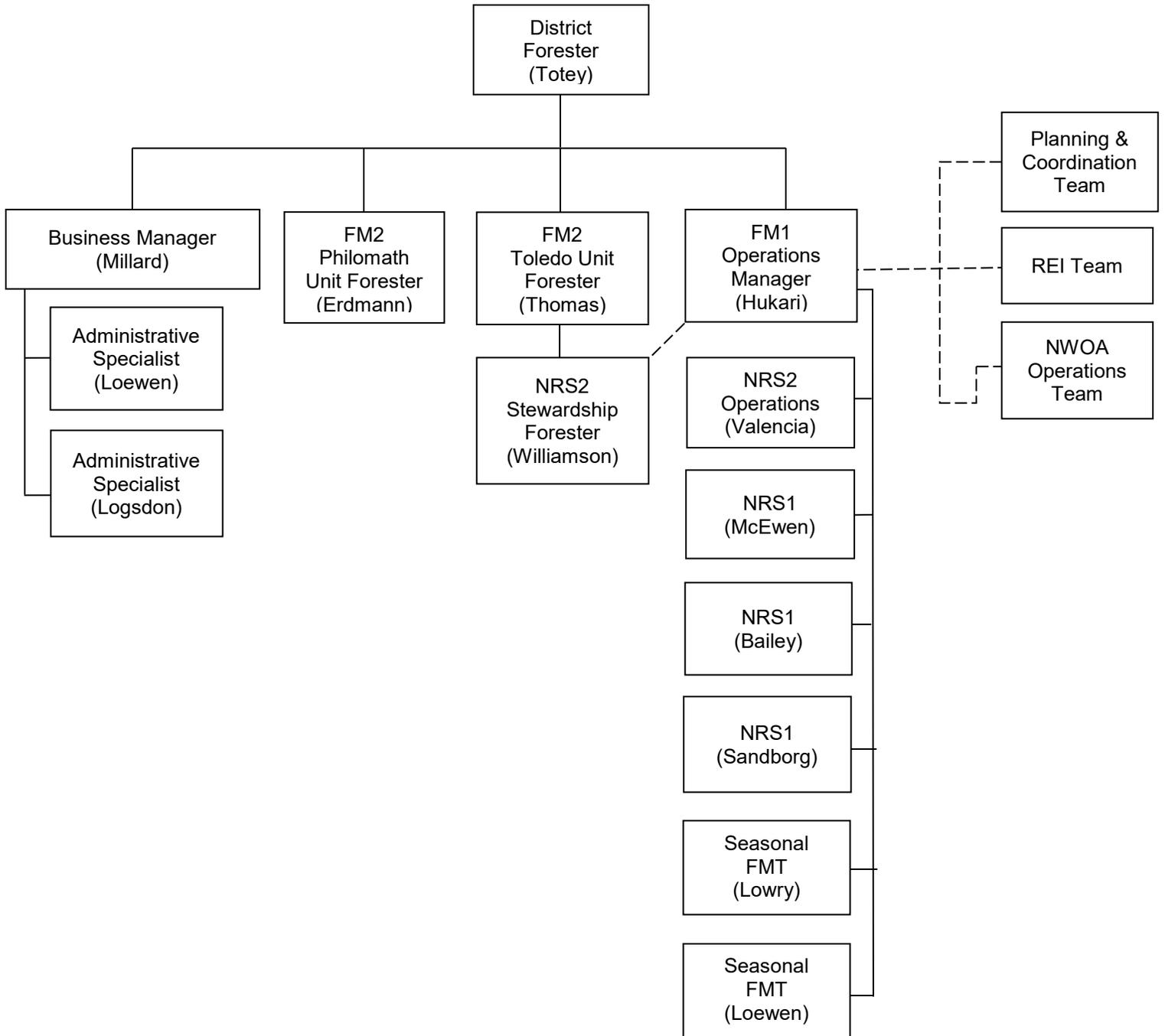
The District maintains supporting information on the Implementation Plan, Forest Land Management Classification System, and Annual Operations Plans for public review. In addition, District personnel will attempt to participate in outdoor school presentations, OSU College of Forestry class presentations (the Capstone Class and the Reforestation class field trips to ODF nursery stock trials), high school career fairs, sponsorship of local high school senior internships,

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

During FY21 the district will be transitioning to a new organization. There will be 5 permanent positions whose full-time function is to manage State Forest land on the District, 5 permanent positions who work part-time on management of State Forest land, and 2 seasonal positions who work on management of State Forest land. In addition, the District will be supported by the NWOA REI Team and the NWOA Operations Team as well as the Division Planning and Coordination Team. All are responsible for implementing the 2021 Annual Operations Plan. The State Forest Unit is responsible for ensuring that all management approaches, activities and projects for timber marketing, road management, recreation and young stand management are designed to meet the goals, strategies and objectives of the FMP, Implementation Plan, AOP, and Recreation Plan. The sales and projects are coordinated across the district and with the NWOA and Division Teams from the development of the AOP to the final sale administration for consistency within and between units to meet common goals.

West Oregon District Organization Chart



APPENDICES

A. Summary Tables

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

B. Maps

1. 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, Oregon Department of Transportation and other agencies as appropriate.

D. Public Involvement

This appendix will describe the results of the public involvement process of this AOP.

E. Pre-Operations Reports

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

F. Forest Land Management Classification

G. District Implementation Plan Minor Modification – Landscape Design

Appendix A

Summary Tables

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

TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

District: West Oregon

Fiscal Year: 2021

Date: 06/30/2020

Primary Operation	Fund %		County	Sale Quarter	Net Acres		Volume (MMBF)			Value		
	BOF	CSL			Partial Cut	Clear-cut	Conifer	Hardwoods	Total	Gross	Projects	Net
Eastern Yaq Combo	100%	0%	Benton	4	193	37	2.2	0.0	2.2	\$550,500	\$71,339	\$479,161
Harlan Hangover	67%	33%	Lincoln	2	0	64	3.4	0.1	3.5	\$1,672,000	\$40,678	\$1,631,322
Crystal Clear	75%	0%	Lincoln	3	0	38	2.0	0.0	2.0	\$956,650	\$42,770	\$913,880
Just in Beaver	74%	26%	Polk	1	0	49	1.6	0.2	1.8	\$803,700	\$53,032	\$750,668
Rebott	38%	62%	Benton	3	0	110	3.2	0.5	3.7	\$1,776,500	\$41,692	\$1,734,808
Sub-total:					193	298	12.4	0.8	13.2	\$5,759,350	\$249,511	\$5,509,839
Project WOC Sub-total:					0	0	0.0	0.0	0.0	\$0		
Total:					193	298	12.4	0.8	13.2	\$5,759,350	\$249,511	\$5,509,839

Alternate Operations

Cool Hand Lucas	100%	0%	Polk		0	67	2.2	0.1	2.3	\$879,375	\$59,373	\$820,002
Grouse Bully Thin	100%	0%	Lincoln		355	0	3.0	0.0	3.0	\$596,000	\$72,067	\$523,933
Total:					355	67	5.2	0.1	5.3	\$1,475,375	\$131,440	\$1,343,935

PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

District: West Oregon

Fiscal Year 2021

Date: 06/30/2020

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)	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
Eastern Yaq Combo		-	X	-	X	-	X	X	-	X	-	X	X	X	X	-	X	X	-	X	less than 5 acres within NSO circle.
Harlan Hangover		-	-	X	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	
Crystal Clear		X	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	X	-	-	Funding distribution
Just in Beaver		X	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	Develop helispot / SLI cruise to be conducted on Imputed OFS stand
Rebott		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	X	

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	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
Cool Hand Lucas		-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Grouse Bully Thin		-	-	-	-	-	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.

FOREST ROADS SUMMARY

District: West Oregon

Fiscal Year: 2021

Date: 06/30/2020

Primary Operations	Construction		Improvement		Other Projects	Total Project Costs	Gross Value of Operation	Total Cost as a percent of Gross Value	Comments
	Miles	Cost	Miles	Cost					
Eastern Yaq	0.20	\$10,428	1.20	\$9,667	\$51,244	\$71,339	\$550,500	13.0%	other = brush/maintain
Harlan Hangover	0.00	\$0	0.60	\$14,743	\$25,935	\$40,678	\$1,672,000	2.4%	other = maintain
Crystal Clear	0.00	\$0	0.20	\$5,504	\$37,266	\$42,770	\$956,650	4.5%	other = brush/spray/maintain
Just in Beaver	0.00	\$0	0.80	\$40,377	\$12,655	\$53,032	\$803,700	6.6%	other = maintain
Rebott	0.10	\$8,060	0.20	\$3,065	\$30,567	\$41,692	\$1,776,500	2.3%	other = maintain
Total	0.30	\$18,488	3.00	\$73,356	\$157,667	\$249,511	\$5,759,350	4.3%	

Alternate Operations

Cool Hand Lucas	0.00	\$0	1.50	\$27,592	\$31,781	\$59,373	\$879,375	6.8%	other = maintain
Grouse Bully Thin	0.05	\$797	1.50	\$43,939	\$27,331	\$72,067	\$596,000	12.1%	other = maintain
Total	0.05	\$797	3.00	\$71,531	\$59,112	\$131,440	\$1,475,375	9%	

Road Projects Not Associated with Harvest Operations in this AOP:	Roadside Veg Mgt & Rd Maint	\$9,900
--	-----------------------------	----------------

Road Projects to be Completed as a Work Order Contract

Operation	Construction		Improvement		Other Projects	Total Project Costs	Funding Source	Comments
	Miles	Cost	Miles	Cost				
Total	0.00	\$0	0.00	\$0	\$0	\$0		

REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY

District: West Oregon

Fiscal Year: 2021

Date: 06/30/2020

ODF Funded Activities Management Activity	Board of Forestry			Common School Forest Lands			District	
	Acres Planned	Average Cost*/Acre	BOF Cost	Acres Planned	Average Cost*/Acre	CSL Cost	Total Acres	Total Cost
Seedling / Nursery Costs	315	\$162.00	\$51,030.00	10	\$162.00	\$1,620.00	325	\$52,650.00
Initial Planting	315	\$148.00	\$46,620.00	10	\$148.00	\$1,480.00	325	\$48,100.00
Interplanting	0	\$50.00	\$0.00	0	\$50.00	\$0.00	0	\$0.00
Underplanting	0	\$200.00	\$0.00	0	\$200.00	\$0.00	0	\$0.00
Tree Protection-Barriers	0	\$272.00	\$0.00	0	\$272.00	\$0.00	0	\$0.00
Tree Protection-Direct Control	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Site Prep-Chemical- Aerial	0	\$70.00	\$0.00	0	\$70.00	\$0.00	0	\$0.00
Site Prep-Chemical- Hand	315	\$100.00	\$31,500.00	10	\$100.00	\$1,000.00	325	\$32,500.00
Site Prep -Slash Pile Burning	0	\$17.00	\$0.00	0	\$17.00	\$0.00	0	\$0.00
Site Prep -Mechanical	65	\$250.00	\$16,250.00	6	\$250.00	\$1,500.00	71	\$17,750.00
Release-Chemical- Aerial	0	\$80.00	\$0.00	0	\$80.00	\$0.00	0	\$0.00
Release-Chemical-Hand	405	\$100.00	\$40,500.00	95	\$100.00	\$9,500.00	500	\$50,000.00
Release-Mechanical-Hand	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Precommercial Thinning	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Pruning (for disease control only)	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Invasive Species	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Road Side Spraying	0	\$154.00	\$0.00	0	\$154.00	\$0.00	0	\$0.00
Stocking Surveys (district employees)	400	\$0.00	\$0.00	100	\$0.00	\$0.00	500	\$0.00
Totals	1,500	--	\$185,900.00	221	--	\$15,100.00	1721	\$201,000.00

Projects Conducted by Mill Creek Crews	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	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Interplanting (seedlings)	20	\$50.00	\$1,000.00	5	\$50.00	\$250.00	25	\$1,250.00
Underplanting	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Tree Protection - Barriers	15	\$272.00	\$4,080.00	0	\$272.00	\$0.00	15	\$4,080.00
Tree Protection - Direct Control	20	\$0.00	\$0.00	0	\$0.00	\$0.00	20	\$0.00
Site Prep. - Chemical Aerial	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Site Prep - Chemical - Hand	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Site Prep - Broadcast Burning	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Site Prep - Piling Burning (materials)	116	\$17.00	\$1,972.00	6	\$17.00	\$102.00	122	\$2,074.00
Site Prep - Mechanical	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Release - Chemical - Hand	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Release - Mechanical - Hand	80	\$0.00	\$0.00	20	\$0.00	\$0.00	100	\$0.00
Precommercial Thinning	176	\$0.00	\$0.00	10	\$0.00	\$0.00	186	\$0.00
Pruning	0	\$0.00	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Invasive Species	16	\$20.00	\$320.00	4	\$20.00	\$80.00	20	\$400.00
Other		\$0.00	\$0.00		\$0.00	\$0.00	0	\$0.00
Totals	443	--	\$7,372.00	45	--	\$432.00	488	\$7,804.00

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		\$0.00	0		\$0.00	0	\$0.00	

RECREATION MANAGEMENT SUMMARY

District: West Oregon

Fiscal Year: 2021

Date Filled Out: 06/30/2020

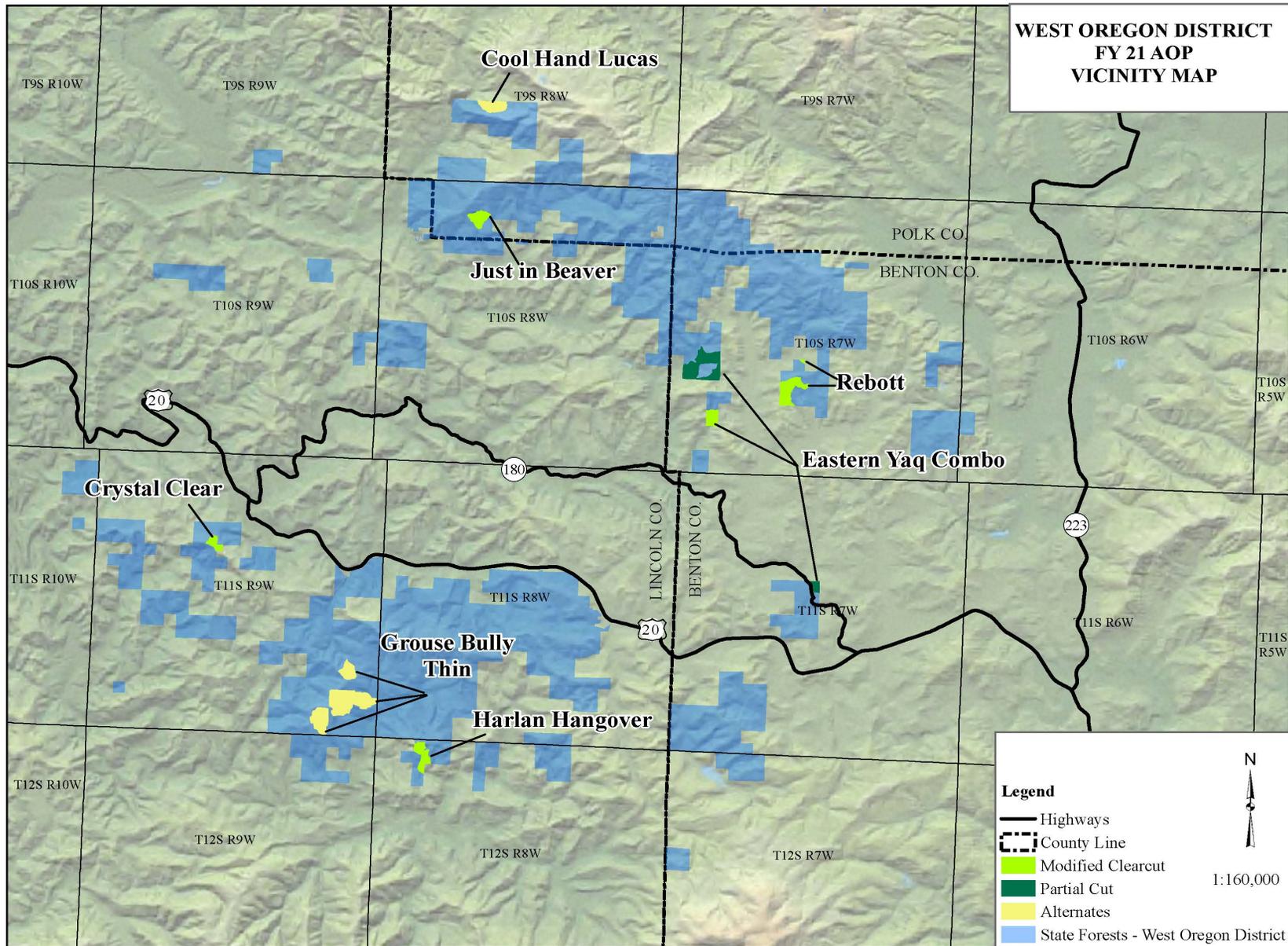
Operation	Construction Projects	Construction Cost (Funding)		Improvement Projects	Improvement Cost (Funding)		Operations and Maintenance	Operations/Maint. (Funding)		Total Costs	Comments
		ODF	Other		ODF	Other		ODF	Other		
Facilities											
Campgrounds											
Baber Meadows								\$1,000		\$1,000	Maintained mostly by Mt Baber ATV Club; ODF pumps pit toilet.
Designated Dispersed Campsites											
Big Elk								\$0		\$0	
Day Use Areas											
Black Rock Parking Area								\$0		\$0	Maintained entirely by Black Rock Mountain Bike Association.
Black Rock Riding Area								\$0		\$0	Maintained entirely by Black Rock Mountain Bike Association.
Trailheads											
None										\$0	
Interpretive Sites											
None										\$0	
Trails											
Non-Motorized											
Black Rock Bike Trails								\$0		\$0	Maintained entirely by Black Rock Mountain Bike Association.
Motorized											
Mt. Baber ATV Trails								\$0		\$0	Maintained entirely by Mt. Baber ATV Club.
Other Operations											
Law Enforcement								\$6,000		\$6,000	L, B & P County Forest Patrol Deputies
Dumpsites Cleanup								\$0		\$0	
Special Projects								\$0		\$0	
										0	
										District Total	\$7,000
										Other Total	\$0
										TOTAL	\$7,000

Appendix B

Vicinity Maps

- **Harvest Operations Vicinity Map**

**WEST OREGON DISTRICT
FY 21 AOP
VICINITY MAP**



Legend

- Highways
- County Line
- Modified Clearcut
- Partial Cut
- Alternates
- State Forests - West Oregon District



1:160,000

Appendix C

Consultations with Other State Agencies

Oregon Department of Fish and Wildlife (ODFW):

ODFW biologists attended a FY21 AOP review meeting for resource specialists, and were provided the Summary and Pre-Operations Reports for review. No written comments have been received at this time.

Oregon Department of Transportation – Archaeologists:

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

The following areas (listed by historic activity) will be reviewed on the ground to determine if cultural artifacts are present:

- Potential Indian Trail from Kings Valley to Siletz River: Rebott Unit 1

Appendix D

Public Involvement and Summary of Changes

The Oregon Department of Forestry Issued a Press Release in March 2020, announcing a formal 45 day public comment period for the FY 21 Annual Operation Plans from March 23, 2020 through May 6, 2020.

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

The following changes have been made to the West Oregon District FY21AOP since the Public Comment period:

- Additional acres were added to the planned reforestation and vegetation management projects. The reforestation summary tables and related summary paragraphs were updated to reflect those changes and the associated cost.

Public comments and the responses are available upon request.

Appendix E

Pre-Operations Report

Pre-Operations Reports are available online through a Web Application at the following link:

<https://geo.maps.arcgis.com/apps/webappviewer/index.html?id=ae569c1ff445457eb8fe1b556699bce8>

Just zoom to the District you are interested and click on any sale. A pop-up box should show up with a link to the Pre Op Report for the sale.

APPENDIX F

Forest Land Management Classification System (FLMCS) Modification Notification

No modifications are proposed with the FY21 AOP.

Appendix G

Landscape Design – West Oregon District Implementation Plan Minor Modification Notice

As described in the 2012 District IP (modified in 2015), the district has mapped a Landscape Design that designates 30% of the district acres in a future complex condition, either Layered (LYR) or Older Forest Structure (OFS). The term General management (GEN) or non-complex will be used to describe the desired future condition (DFC) of stands that are not planned for OFS or LYR in the West Oregon District’s landscape design. The DFC landscape design for the West Oregon district was done using a “broad brush” method incorporating a variety of landscape design principles and strategies. The original Landscape Design mapping process used stand types instead of geographical breaks to define the future complex stand boundaries with the intent that the boundaries could be fine-tuned during the planning process. Actual boundaries between complex and general DFC’s are determined on the ground during the sale planning and preparation process. Minor changes in the DFC landscape design may occur on an annual basis due to a variety of reasons. These reasons may include; refinement of the DFC boundary on the ground, forest health issues, and fitting a stand to a more appropriate or realistic pathway based on additional data collected through Stand Level Inventory (SLI) and field observations during the AOP planning process. Changes of up to 240 acres annually are considered minor changes and can be approved by the District Forest concurrent with the Annual Operation Planning process.

Description of change: The district is proposing to change 78 acres that have a current DFC of Layered to non-complex or “general”. These acres are primarily 64 year old mixed species stands. This area was reviewed with various ODF resource specialists and biologists.

The district intends to change 142 acres from a DFC of non-complex to Older Forest Structure. These acres are within the Bear Creek and Broken Horn MMMA areas and primarily 77-157 year old mixed species stands with the majority being over 150 years old.

This new complex designation will expand upon areas that already have a DFC of complex structure and will also replace those acres of complex from the proposed DFC changes mentioned above. (See map below.)

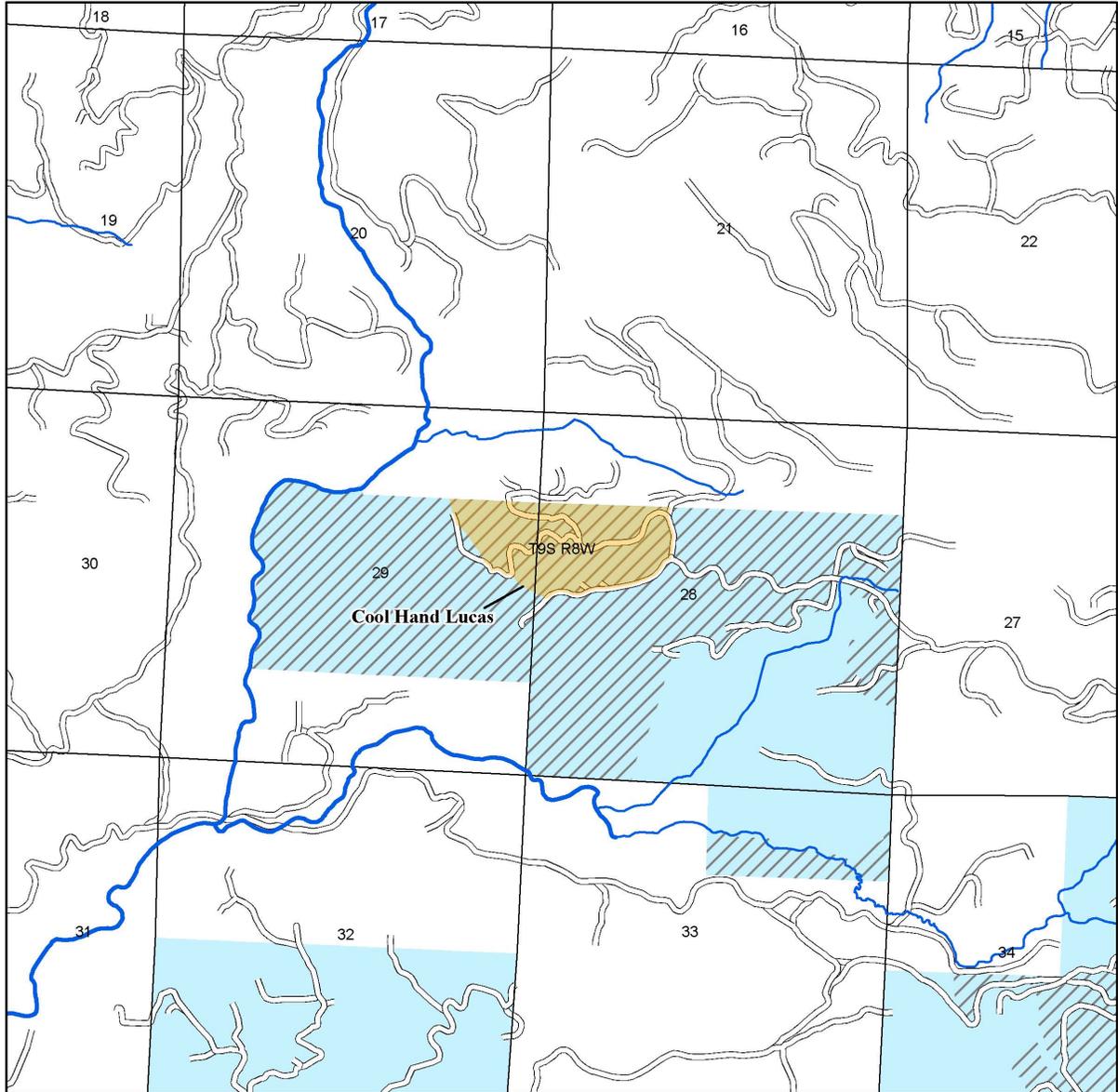
The designation of DFC complex on the West Oregon District is 31.0% following the proposed changes.

Summary of Minor Landscape Design Modification			
Acres Removed		Acres Added	
Desired Future Condition	Acres	Desired Future Condition	Acres
OFS	0	OFS	142
LYR	78	LYR	0
Total Acres Removed	78	Total Acres Added	142

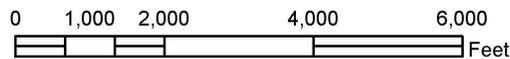
West Oregon District

Map 1 of 3

Landscape Design - Desired Future Condition Revision



-  Large Stream
-  Medium Stream
-  Change From DFC Complex to Non-Complex
-  Change from DFC Non-Complex to Complex
-  Existing Road
-  DFC Complex
-  State Forest Land



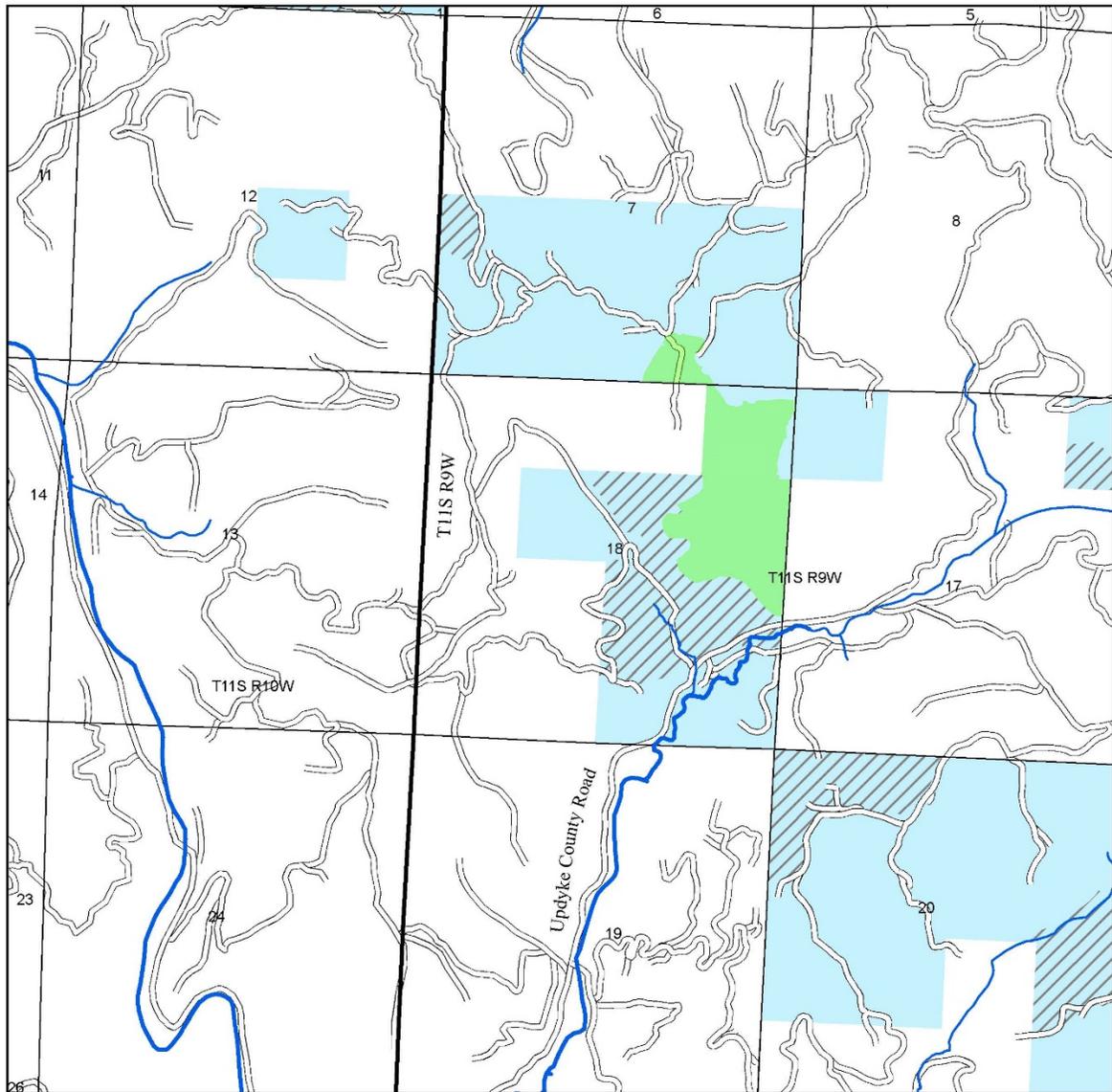
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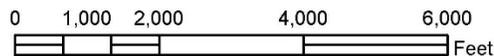
West Oregon District

Map 2 of 3

Landscape Design - Desired Future Condition Revision



-  Large Stream
-  Medium Stream
-  Change From DFC Complex to Non-Complex
-  Change from DFC Non-Complex to Complex
-  Existing Road
-  DFC Complex
-  State Forest Land



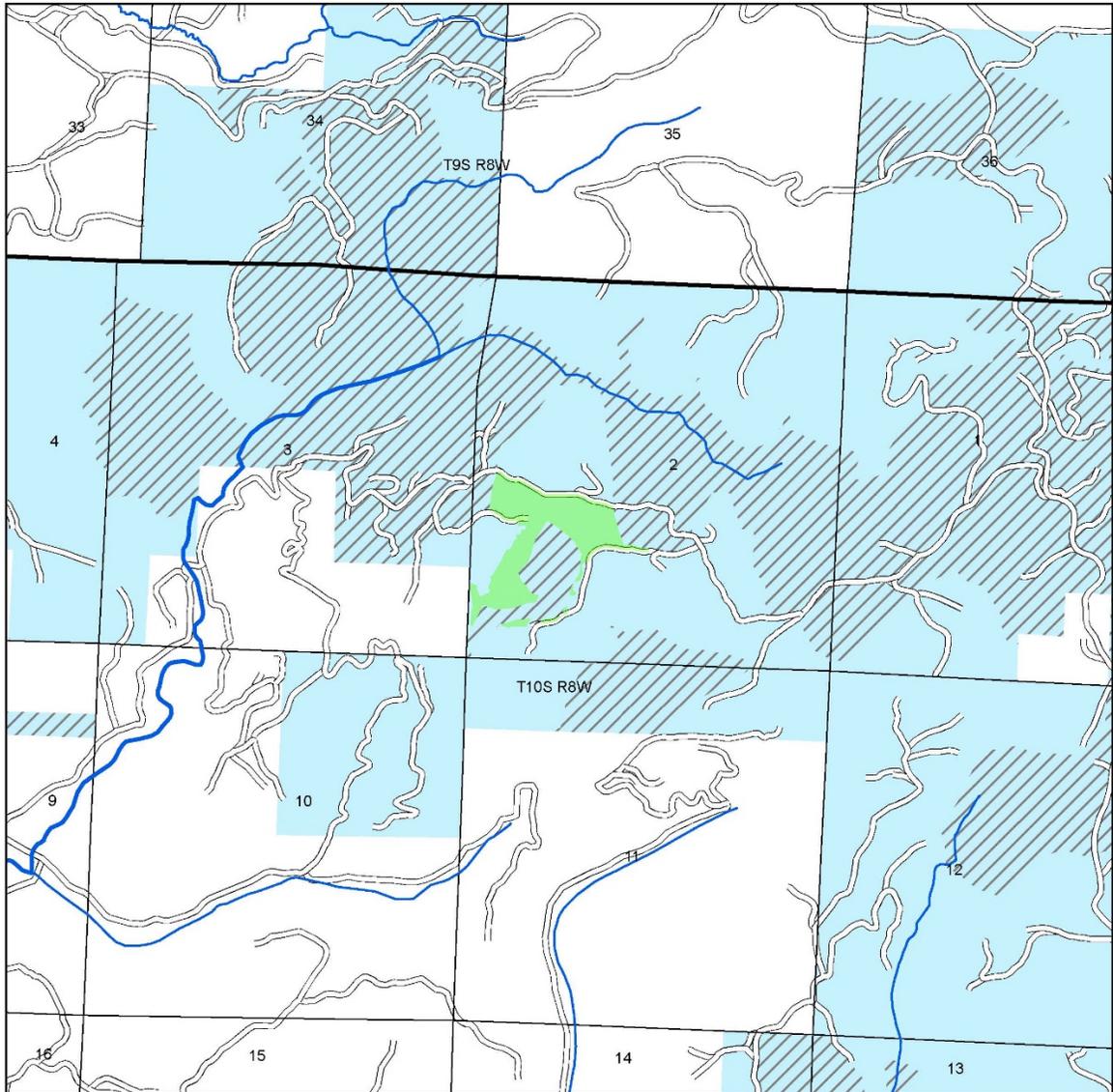
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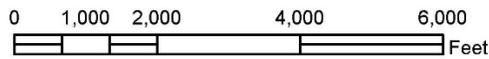
West Oregon District

Map 3 of 3

Landscape Design - Desired Future Condition Revision



-  Large Stream
-  Medium Stream
-  Change From DFC Complex to Non-Complex
-  Change from DFC Non-Complex to Complex
-  Existing Road
-  DFC Complex
-  State Forest Land



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