



Oregon

Kate Brown, Governor

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June 30, 2021

To: Brian Pew, Area Director
From: Dennis Lee, Klamath-Lake 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 2022

The FY 2022 State Forests Annual Operations Plan (AOP) for the Klamath-Lake 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 1995 Eastern Region Long-Range Forest Management Plan, the 2022 Annual Operation Planning Standards, and the FY 2022 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.

On the Sun Pass Tract, there are 2 BOF sales, totaling 1,086 acres of partial cut harvest, harvesting 7.6 mmbf and generating \$1,101,550 in net revenue.

On the Gilchrist Tract, there are 3 BOF sales, totaling 3,038 acres of partial cut harvest, harvesting 3 mmbf and generating \$30,380 in net revenue.

There are 5 primary operations and 3 alternate operations within this plan. The operations are estimated to generate gross revenues of approximately \$1,170,680 and net revenues of \$1,131,930 within Klamath County. The planned merchantable timber sales are 50 acres above the decade three average annual harvest objective (AHO) of 1036 acres in the 1995 Eastern Region Long-Range Forest Management Plan. Annual harvests have been higher in some years and lower in others, but over the period, the total decade three harvest of 10,360 acres will be met.

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 2022 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 2022. 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 2022

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:



Dennis Lee

Klamath-Lake District Forester

**Klamath-Lake
District
2022 ANNUAL
OPERATIONS PLAN**



Klamath-Lake DISTRICT

FY 2022 ANNUAL OPERATIONS PLAN

OVERVIEW

This overview describes the planned activities that Oregonians can expect to see on Oregon Department of Forestry (ODF) managed lands located in Klamath County, Oregon. ODF manages approximately 105,600 acres of forest within Klamath County including two state forests. The Sun Pass State Forest (21,500 acres) located adjacent to Crater Lake National Park and the Gilchrist State Forest (71,900 acres) located near the towns of Crescent and Gilchrist. ODF also manages a number of smaller parcels within the county ranging in size from 40 to approximately 4,000 acres. These lands are managed under the Eastern Region Long-Range Forest Management Plan (October 1995) (ERLRFMP) to provide a mixture of economic, environmental, and social benefits to the citizens of Oregon.

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.

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, including schools. Oregon Department of Forestry (ODF) uses the remaining third of the revenue to manage the forests and keep them healthy, through activities including fire protection, tree planting, thinning, research and monitoring, recreation services, road maintenance and stream habitat 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 has undergone a 45-day public comment period.

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

The activities shown in the Summary Document and appendixes are estimates based on plans, information, and conditions as known at this point in time. The type, amount, and specific activities will be further adjusted based on field work conducted and on updated assessments that occur during the 2022 fiscal year.

A short summary of activities planned for the coming year:

- Proposing to harvest 7.6 MMBF on 1,086 acres in the Sun Pass State Forest, with an estimated net revenue of \$1,101,550.
- Proposing to harvest 3 MMBF of pulp from 3,038 acres on the Gilchrist State Forest, with an estimated net revenue of \$30,380.
- Protecting streams and water resources through a series of buffers and seasonal restrictions.
- Improving 7 miles of existing road. No new road construction planned.
- Continue to work with Trout Unlimited and Crater Lake National Park to restore Bull Trout to the lower reaches of Sun Creek.

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INTRODUCTION

This annual operation plan (AOP) outlines state-owned forestland managed by the Klamath-Lake District for Fiscal Year 2022 (FY22), which begins July 1, 2021 and ends June 30, 2022. This document describes how the activities and projects undertaken by the district will achieve the goals, strategies, and objectives of the Eastern Region Long-Range Forest Management Plan.

The Klamath-Lake Annual Operations Plan (AOP) is divided into five major categories: Integrated Forest Management, Planning Activities, Information Systems, Public Information and Education, Administration, and Appendices. Specific details for items in each of these categories are described using a combination of tables and written narratives. The intent of this overview is to briefly summarize some of the items identified in the five categories so that the reader can more efficiently review the proposed activities in the 2022 AOP.

The proposed harvest operations and activities are planned to be designed, engineered, and submitted for processing during the FY22 time period. Actual on-the-ground operations will likely not occur during FY22 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 FY22.

A 45-day public comment period was held from May 7, 2021, through June 21, 2021. No specific comments for the Klamath-Lake District were received, but there were several comments that applied to all the proposed district AOP's. A summary of these comments can be found in Appendix D. The District Forester reviewed and considered all comments received before approving this plan.

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.**

**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. 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 FY22 AOP is estimated to generate 7.6 MMbf of saw timber from the Sun Pass State Forest, valued at \$1,101,550. In addition to saw timber, these sales may produce wood suitable for the production of pulp or fuel wood (biomass and firewood). The amount and value of these additional products is difficult to predict during the planning process due to stand variability and market conditions.

In addition to merchantable timber harvests, there are pulp sales planned on 3,038 acres on the Gilchrist State Forest. This will be 38 acres above the district annual target of 3,000 acres. The intent of these sales is to primarily reduce young, overstocked stands on the forest but the sales are still expected to produce 3,038 tons of pulp valued at \$30,380.

The planned merchantable timber sales are 50 acres above the decade three average annual harvest objective (AHO) of 1036 acres in the ERLRFMP. Annual harvests have been higher in some years and lower in others, but over the period, the total decade three harvest of 10,360 acres will be met.

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 2022 fiscal year but are not included in this AOP. These are generally small areas, produce little volume, and/or are time sensitive in nature. These sales do not require significant effort to develop and execute and will comply with all policies, the district IP, and the FMP. Examples of these sales include salvage, pulp sales, removal of hazard trees, pole sales, etc.

Refer to the attached Klamath-Lake 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 Eastern Region Long-Range Forest Management Plan.

Annual Harvest Objectives	FMP Annual Objective	2022 AOP
Partial Cut Harvest (acres)	1,036	1,086
Regeneration Harvest (acres)	0	0
Pulp Harvest (acres)	3,000	3,038

Table 1 shows the proposed acres by harvest type. 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 Acres Compared to FMP Annual Objective

Fiscal Year	IP Annual Objective	AOP Planned Acres	AOP Sold Acres	Cumulative Difference from Objective¹
FY 17*	1036	1035	1075	207
FY 18	1036	1043	1063	234
FY 19	1036	1115	1095	293
FY 20	1036	1021	1021	278
FY 21	1036	840	N/A	N/A
FY22	1036	1,086	N/A	N/A

1. FMP Harvest Objective versus Sold Acres.
2. *2017 was beginning of “Decade 3” harvest period.

Overview of Structural Components

Desired Future Condition for Large Trees in Sun Pass State Forest:

A guidance document was prepared in January of 2003 in an effort to emphasize the importance of retaining large trees, primarily ponderosa pine, on the forest. It also identified the need to select and retain individual larger trees, greater than 30 inches in diameter, to retain through subsequent harvest entries.

Stands will be managed to achieve a target of 10 trees per acre 20” DBH and larger, at least two of which are 30” DBH or larger. This is a long-term goal that could take several decades to achieve. Stand management prescriptions in the area described will be designed to guide stands towards the future target, and to create stands of vigorous, fast-growing trees. This type of stand has the best chance of providing the large tree component in the future. Existing large trees (up to the 10 tree standard) are a priority to leave as long as doing so contributes to the long-term forest health goal. Existing large trees that exhibit decadence that is of value to wildlife will also be left at least to the level prescribed in the FMP (0.2 per acre).

Monitoring:

Summer/Fall of 2016 stand level inventory was conducted within Sun Pass. These measurements confirmed that stands were meeting or growing these stands towards this target.

Snags/Downed wood:

In order to ensure snags and downed wood become components in the harvested areas, the following steps will be taken:

- All snags, unless determined to be a safety hazard, will be reserved from cutting.
- Highly defective trees will be reserved from cutting.
- Trees with minor defects will be mechanically high-stumped as appropriate for snag creation.
- Non-merchantable segments of felled trees will bucked out and left on site or returned from the landing and scattered within the harvest unit.

Summary of Timber Harvest Operations by Basin

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 3. Summary of Timber Harvest Operations in each forest. All values are in net acres.

Basin	2021 AOP	
	Partial Cut	Clearcut
Sun Pass State Forest	1,086	0
Gilchrist State Forest	3,038	0
Totals	4,124	0

Sun Pass State Forest

Two timber harvest operations (3peat and At any Koss) in Sun Pass for FY 2022 will be partial cut harvests intended to reduce stocking levels while retaining the uneven aged characteristics of the stands. Thinning will be primarily from below, removing suppressed understory or codominant individuals, but overstory trees will be cut as needed to ensure continued stand growth. Group selection cuts will be incorporated into the marking prescription. These 2-5 acre patches will typically be tied into existing stand openings and will provide planting sites to ensure a new cohort. Group selections will be limited to 10% or less of the total sale area. Highly defective trees will be reserve marked in order to provide snags and down wood for wildlife habitat and will be retained throughout subsequent harvest entries.

Post-harvest the group selects will be planted with ponderosa pine seedlings. Interplanting of understocked areas may occur as needed. The remaining stands will be grown forward with another entry anticipated in approximately 20 years.

Gilchrist State Forest

This plan proposes 3 timber sales (Cattfish, High Life, and Promised Land) located in the Gilchrist State Forest. These sales consist of 3,038 acres of partial cut harvest. Rather than the removal of saw timber, these sales are focused on the removal of overstocked, small diameter, sub-merchantable trees which will be typically removed as wood pulp. These projects are supported by the management strategies from the 1995 Eastern Region Long-Range Forest Management Plan and policy direction as stated during the February, 2010 Board of Forestry meeting that approved the initial acquisition of the 43,235 acres of the Gilchrist State Forest:

“It is proposed that the lands acquired shall be designated as approximately 42,535 acres Silviculturally Capable and 700 acres Non-Silviculturally Capable. The Gilchrist tract forestlands will be managed consistent with the approved Eastern Region Long-Range Forest Management Plan, which calls for uneven-aged management to provide a range of forest values. Following a post-acquisition study and planning phase, specific plans for managing the Gilchrist lands will be incorporated into the implementation plan and annual operations plans for the Klamath-Lake District.”

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 Eastern Region Long-Range Management Plan (October 1995) 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.

All of the road management activities proposed in FY22 will be associated with the proposed timber sales. No new road construction is anticipated, and road improvements will be limited to that which is necessary to conduct timber harvest operations. Where feasible, roads that will not be utilized until the next harvest entry, approximately 20 years, will be closed following harvest. This section describes the types of road management activities that will occur in FY22 and the attached Forest Roads Summary Table (Appendix A, Table A-3) describes the anticipated total amounts.

Road Improvement

All timber sales will require road improvement either to access the sale area or to open interior roads to facilitate logging. Road improvement will consist of opening previously closed roads, removing encroaching brush, and minor reshaping of the roads surface as necessary for travel and drainage.

Road Access Management

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.

A seasonal closure currently in place is the "Sun Creek Cooperative Road Closure" area. This area encompasses much of the Northwestern portion of the Sun Pass Forest and is approximately 7,500 acres in size. Roads in this area are closed to the public from November 1st through June 30th of each year to reduce harassment to calving elk. Management activities can still occur during this period, except between May 1 – June 30, during which only critical road maintenance will occur.

Whenever possible, existing roads are used to access sale areas. Emphasis is placed on closing or vacating roads; whether or not they are constructed for a particular sale. Most fiscal year 2022 sales will be accessed using ODF owned road systems, however, the Bucktooth timber sale will require the use of roads owned by the U.S. Forest Service and Green Diamond.

Road Maintenance

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 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, additional maintenance, and where necessary, stopping heavy truck use during periods when roads cannot handle traffic without damage to water quality or the road asset.

Management of Rock Source/Supply

There are no established rock sources on state owned property in the district. All needed rock will be purchased from local suppliers. Rocking will be limited to what is necessary for road maintenance associated with timber harvests.

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:

- No surveys are anticipated for FY22.

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 Eastern Region Long-Range Management Plan (October 1995). 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 FY22 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 2021 growing season.

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: aurally 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, Annosum (Root rot), mistletoe, *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 and to be more resilient to climate change. The following are different types of planting.

- 1) Initial Planting (Regeneration harvest units): 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 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. Most natural regeneration occurs in the smaller gaps between the larger group-select harvest areas that do get planted. Natural regeneration in these areas normally consist of mostly shade tolerant species such as white fir, but may also include Douglas-fir, and ponderosa or lodgepole pine.

Tree Protection

Animal damage on newly planted seedlings reduces their overall size, health and vigor. Extensive damage can lead to 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 helps prevent damage to newly planted trees.

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 and the Eastern Region Long-Range Management Plan (October 1995). 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.

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.

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.

Isolated patches of Klamath weed (*Hypericum perforatum*) have been observed and treated adjacent to Sun Mountain Road in Sun Pass State Forest. These areas will continue to be monitored and treated as necessary by district staff.

No other operations are planned for FY 2022.

Recreation Management

Overview of Recreation Management

The primary recreation strategy in the Eastern Region Long-Range Forest Management Plan (October 1995) is to make District forests available for informal dispersed recreation. During development of the FMP, it was determined that current users value this type of opportunity because surrounding agencies and private landowners are providing a full spectrum of more developed as well as more primitive recreation opportunities.

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 the Eastern Region Long-Range Forest Management Plan (October 1995). 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.

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: Bull trout were listed as threatened in June 1998. Critical habitat was designated in 2005. In January 2010, the USFWS proposed a revision of critical habitat. On September 3, 2014, the USFWS announced a Revised Draft Recovery Plan, updating the recovery criteria proposed in the 2002 and 2004 draft recovery plans.

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

District personnel will work on developing the Land Acquisition and Exchange Plan as time and workload allow.

Firewood Cutting Program

The Klamath-Lake District will continue to issue personal firewood cutting permits for areas where sufficient amounts of wood are available. The public may call our office to inquire about the availability of wood cutting areas. Permits will be issued only during the months outside of fire season.

A limited number of personal firewood permits will be issued, on a first come-first served basis with a limit of one per individual or household within a calendar year. At this time, there is no fee for the permit which allows removal of 4 cords of firewood. The Oregon Department of Forestry does not guarantee the quality of 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, seasonal cooperative road closure areas, and planned operations. Active sales will be posted with "No Firewood Cutting" signs.

Non-Timber Forest Products

Mushroom picking and cone collection permits are offered on the district.

Planning

Below are the significant district-level planning projects currently scheduled for commencement, completion, or both in FY22.

Forest Inventory

The State Forests Division is developing a lidar-based inventory that will replace SLI when completed. Lidar data was collected in 2020 for most ODF lands in the Northwest Oregon Area. Contract crews collected USFS FIA plot data on the majority of the proposed plots. The remaining plots will be sampled in 2021. The State Forest

Division's Inventory Program is in the process of developing a raster-based estimate of forest biometrics across most of its ownership in Astoria, Tillamook, Forest Grove, North Cascade, and West Oregon Districts.

Wildlife Surveys

Planned timber sales will have pre-operational surveys for northern goshawks conducted if habitat is present and surveys are recommended by the area wildlife biologist.

Crater Lake National Park staff will continue to monitor Bull trout migration above the barriers that were installed on Sun Creek.

Research and Monitoring

None planned for FY22.

Other Planning Operations

Currently working with the Deschutes National Forest, Crescent District on a planned prescribed fire within the Rim Paunina EIS. This will be a cross boundary prescribed burn located on the southern border of the Gilchrist State Forest.

Public Information and Education

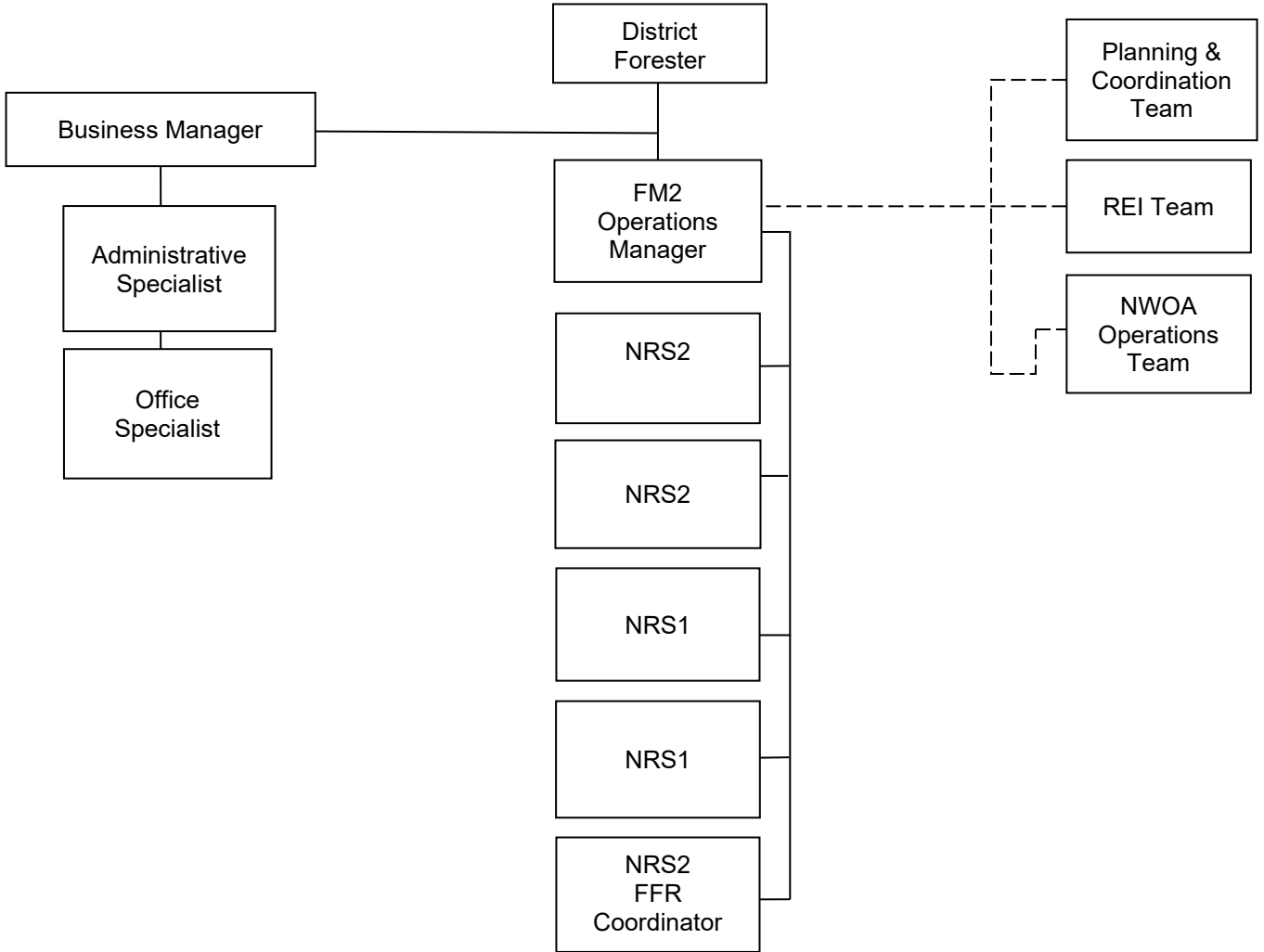
Public Information and Involvement

Public information and involvement activities will include public review and comments on the 2022 AOP. In addition, informal public review and comment on all district State Forest management activities on an ongoing basis is expected and welcomed.

Administration

During FY22 the district will be transitioning to a new organization. There will be 4 permanent positions whose full-time function is to manage State Forest land on the District and 5 permanent positions who work part-time on management of State Forest land. In addition, the District will be supported by the Division Planning and Coordination Team. All are responsible for implementing the 2022 Annual Operations Plan. The State Forest Unit is responsible for ensuring the all management approaches, activities and projects for timber marketing, road management and young stand management are designed to meet the goals, strategies and objectives of the FMP and AOP.

Klamath-Lake District



APPENDICES

A. Summary Tables

1. Harvest Operations – Financial Summary
2. Harvest Operations – Forest Resource Summary
3. Forest Road 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**

TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

District: Klamath-Lake (Sun Pass)

Fiscal Year: 2022

Date: 02/09/2021

Primary Operation	Fund		County	Sale	Net		Volume			Value		
	BOF	CSL			Partial Cut	Clear-cut	Con-ifer	Hard-woods	Total	Gross	Projects	Net
3peat	100%	0%	Klamath	4	452	0	3.2	0.0	3.2	\$474,600	\$21,500	\$453,100
At any Koss	100%	0%	Klamath	4	634	0	4.4	0.0	4.5	\$665,700	\$17,250	\$648,450
Sub-total:					1,086	0	7.6	0.0	7.6	\$1,140,300	\$38,750	\$1,101,550
Project WOC Sub-total:											\$0	
Total:					1,086	0	7.6	0.0	7.6	\$1,140,300	\$38,750	\$1,101,550

District: Klamath-Lake (Gilchrist)

Fiscal Year: 2022

Date: 12/07/2020

Primary Operation	Fund %		County	Sale Quarter	Net Acres		Volume (MMBF)			Value		
	BOF	CSL			Partial Cut	Clear-cut	Con-ifer	Hard-woods	Total	Gross	Projects	Net
Catfish	100%	0%	Klamath	3	1,593	0	1.6	0.0	1.6	\$15,930	\$0	\$15,930
High Life	100%	0%	Klamath	3	637	0	0.6	0.0	0.6	\$6,370	\$0	\$6,370
Promised Land	100%	0%	Klamath	3	808	0	0.8	0.0	0.8	\$8,080	\$0	\$8,080
Sub-total:					3,038	0	3.0	0.0	3.0	\$30,380	\$0	\$30,380
Project WOC Sub-total:											\$0	
Total:					3,038	0	3.0	0.0	3.0	\$30,380	\$0	\$30,380

Alternate Operations

Dogwood 22'	100%	0%	Klamath		251	0	1.8	0.0	1.8	\$320,600	\$21,500	\$299,100
No Mans Land 22'	100%	0%	Klamath		655	0	0.7	0.0	0.7	\$6,550	\$0	\$6,550
Noggin Toboggan 22'	100%	0%	Klamath		552	0	0.6	0.0	0.6	\$5,520	\$0	\$5,520
Total:					1,458	0	3.1	0.0	3.0	\$332,670	\$21,500	\$311,170

PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

District: Klamath-Lake

Fiscal Year 2022

Date: 02/01/2021

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
3peat		X	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	"Sun Creek Cooperative Road Closure" Seasonal Restriction
At any Koss		-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	X	-	-	-	"Klamath Outdoor Science School" site in sale area
Catfish		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
High Life		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	
Promised Land		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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' indicates that the operation contains areas that have been designated for the development of complex forest stands (LYR/OFS)

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

⁵ This table lists harvest operations (units or log haul routes) that are adjacent to streams that are known to contain T&E fish (i.e. Bull Trout).

ALTERNATE HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

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

Alternate Harvest Operations	Unit (Optional)	Forest Health Issues ¹	Invasive Species	LYR/OFS Structures ²	Landscape Design LYR/OFS ³	Install/Replace Culverts on Fish Bearing / Perennial Streams	Harvesting within 100' of Fish Bearing Stream	Domestic Water Source	Potential Stream Habitat Improvement ⁴	Within Aquatic Anchor	Within Terrestrial Anchor	Operating within a NSO Provincial Circle	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
Dogwood 22'		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	"Sun Creek Cooperative Road Closure" Seasonal Restriction
No Mans Land 22'		X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	
Noggin Tobaggan 22'		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

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

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

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

⁵ This table lists harvest operations (units or log haul routes) that are adjacent to streams that are known to contain T&E fish (i.e. Bull Trout).

FOREST ROADS SUMMARY

District: Klamath-Lake

Fiscal Year: 2022

Date: 02/09/2021

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					
3peat	0.00	\$0	2.00	\$1,500	\$20,000	\$21,500	\$474,600	4.5%	
At any Koss	0.00	\$0	3.00	\$2,250	\$15,000	\$17,250	\$665,700	2.6%	
Catfish	0.00	\$0	0.00	\$0	\$0	\$0	\$15,930	0.0%	
High Life	0.00	\$0	0.00	\$0	\$0	\$0	\$6,370	0.0%	
Promised Land	0.00	\$0	0.00	\$0	\$0	\$0	\$8,080	0.0%	
Sub-total	0.0	\$0	5.0	\$3,750	\$35,000	\$38,750	\$1,170,680	3.3%	
Sub-total WOC (see below)	0.0	\$0	0.0	\$0	\$0	\$0	\$0		
Totals	0.0	\$0	5.0	\$3,750	\$35,000	\$38,750	\$1,170,680	3.3%	

Alternate Operations

Dogwood 22'	0.00	\$0	2.00	\$1,500	\$20,000	\$21,500	\$320,600	6.7%	
No Mans Land 22'	0.00	\$0	0.00	\$0	\$0	\$0	\$6,550	0.0%	
Noggin Tobaggan 22'	0.00	\$0	0.00	\$0	\$0	\$0	\$5,520	0.0%	
Total	0.0	\$0	2.0	\$1,500	\$20,000	\$21,500	\$332,670	6.5%	

Road Projects Not Associated with Harvest Operations in this AOP: **None**

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: Klamath-Lake

Fiscal Year: 2022

Date: 03/11/2021

Projects Conducted by ODF Staff or Contractors	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	95	\$215.00	\$20,425.00		\$215.00	\$0.00	95	\$20,425.00
Site Prep - Broadcast Burning	0		\$0.00			\$0.00	0	\$0.00
Site Prep - Piling Burning	0		\$0.00			\$0.00	0	\$0.00
Site Prep - Mechanical	0		\$0.00			\$0.00	0	\$0.00
Site Prep - Chemical - Aerial	0		\$0.00			\$0.00	0	\$0.00
Site Prep - Chemical - Ground	0		\$0.00			\$0.00	0	\$0.00
Initial Planting	0		\$0.00			\$0.00	0	\$0.00
Interplanting	0		\$0.00			\$0.00	0	\$0.00
Underplanting	0		\$0.00			\$0.00	0	\$0.00
Tree Protection - Barriers	0		\$0.00			\$0.00	0	\$0.00
Tree Protection - Direct Control	0		\$0.00			\$0.00	0	\$0.00
Release - Chemical - Aerial	0		\$0.00			\$0.00	0	\$0.00
Release - Chemical - Ground	0		\$0.00			\$0.00	0	\$0.00
PCT-Cut,skid,chip*	240	\$0.00	\$0.00			\$0.00	240	\$0.00
Precommercial Thinning*	125	\$400.00	\$50,000.00			\$0.00	125	\$50,000.00
Pruning	0		\$0.00			\$0.00	0	\$0.00
Stocking Surveys	0		\$0.00			\$0.00	0	\$0.00
Invasive Species	0		\$0.00			\$0.00	0	\$0.00
Roadside Spraying	0		\$0.00			\$0.00	0	\$0.00
Other	0		\$0.00			\$0.00	0	\$0.00
Totals	460	--	\$70,425.00	0	--	\$0.00	460	\$70,425.00

* Work to be completed by contractor.

Projects Conducted by Adults in Custody	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
Site Prep - Broadcast Burning	0		\$0.00			\$0.00	0	\$0.00
Site Prep - Piling Burning	0		\$0.00			\$0.00	0	\$0.00
Site Prep - Mechanical	0		\$0.00			\$0.00	0	\$0.00
Site Prep - Chemical - Aerial	0		\$0.00			\$0.00	0	\$0.00
Site Prep - Chemical - Ground	0		\$0.00			\$0.00	0	\$0.00
Initial Planting	0		\$0.00			\$0.00	0	\$0.00
Interplanting	0		\$0.00			\$0.00	0	\$0.00
Underplanting	0		\$0.00			\$0.00	0	\$0.00
Tree Protection - Barriers	0		\$0.00			\$0.00	0	\$0.00
Tree Protection - Direct Control	0		\$0.00			\$0.00	0	\$0.00
Release - Chemical - ground	0		\$0.00			\$0.00	0	\$0.00
Release - Manual	0		\$0.00			\$0.00	0	\$0.00
Precommercial Thinning	0		\$0.00			\$0.00	0	\$0.00
Pruning	0		\$0.00			\$0.00	0	\$0.00
Invasive Species	0		\$0.00			\$0.00	0	\$0.00
Other	0		\$0.00			\$0.00	0	\$0.00
Totals	0	--	\$0.00	0	--	\$0.00	0	\$0.00

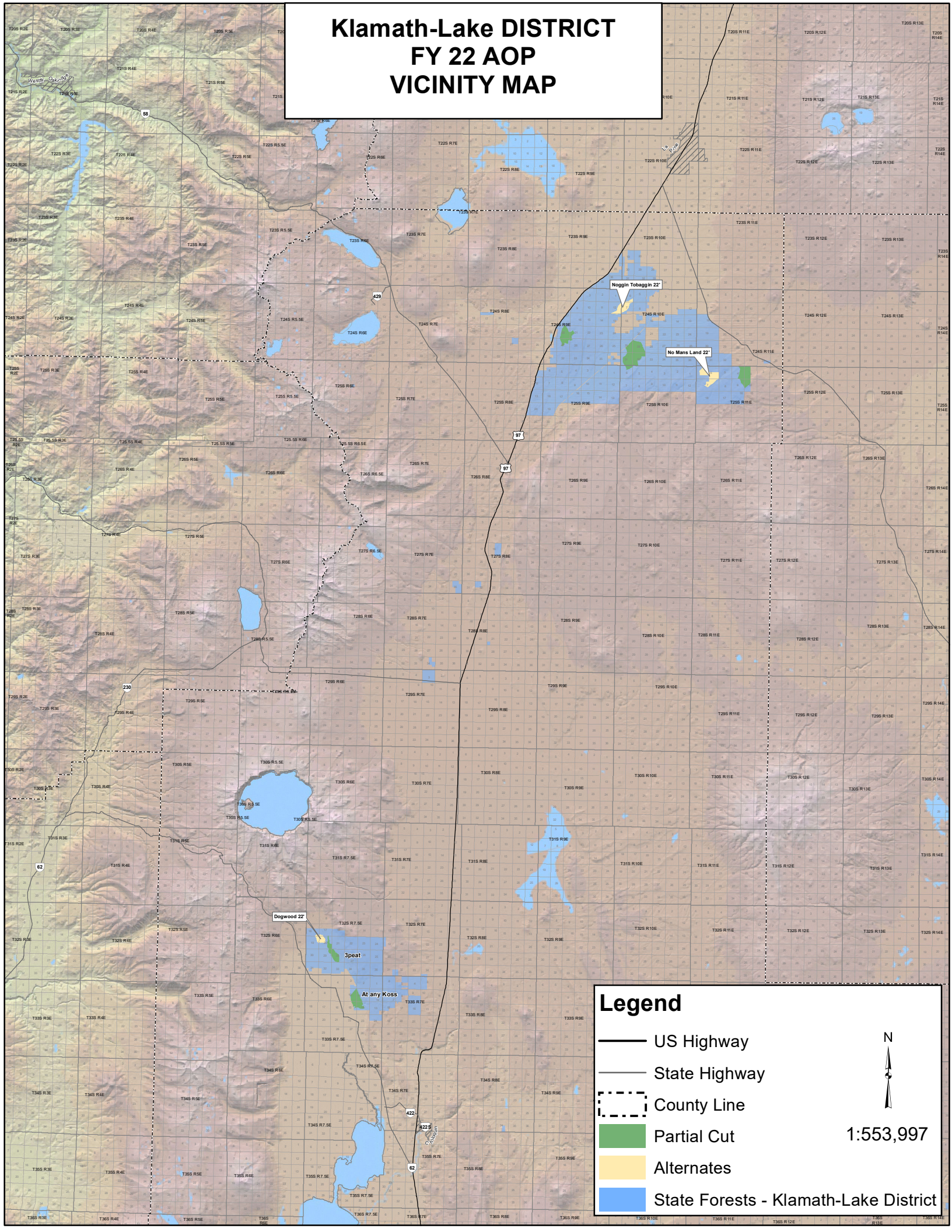
Grant Funded Activities	Board of Forestry			Common School Forest Lands			District	
Project	Acres Planned	Average Cost*/Acre	Cost	Acres Planned	Average Cost*/Acre	Cost	Total Acres	Total Cost
			\$0.00			\$0.00	0	\$0.00

Appendix B

Vicinity Maps

- **Harvest Operations Vicinity Map**

Klamath-Lake DISTRICT FY 22 AOP VICINITY MAP



Legend

-  US Highway
-  State Highway
-  County Line
-  Partial Cut
-  Alternates
-  State Forests - Klamath-Lake District



1:553,997

Appendix C

Consultations with Other State Agencies

Oregon Department of Fish and Wildlife (ODFW):

No written comments were received from ODFW.

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 within any timber sale areas. However, the “Shevlin-Hixon Townsite” was identified as being adjacent to the planned Rim Paunina cross boundary prescribed burn area.

The site will be reviewed on the ground to determine if any town remains are present.

Appendix D

PUBLIC COMMENT PROCESS FOR THE FY22 ANNUAL OPERATIONS PLAN

The Oregon Department of Forestry issued a Press Release in March 2021, announcing a formal public comment period for the FY22 Annual Operations Plans from May 7 through June 21, 2021. The purpose of the Public Comment Period is to provide an opportunity for the public to review the AOP, 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 changes were made to the Klamath-Lake District AOP during the public comment period.

Below is a link to a summary of all comments received for the Astoria, Forest Grove, Klamath-Lake, West Oregon, Western Lane and Tillamook district FY22 AOPs and ODF's responses to those comments.

<https://www.oregon.gov/odf/working/documents/aop-public-comments-astoria-forestgrove-klamathlake-tillamook-westoregon-westernlane-fy22.pdf>

Appendix E

Pre-Operations Report

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

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

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