

Memo

To: Travis Medema, Eastern Oregon Area Director

From: Dennis Lee, Klamath-Lake District Forester

CC: Liz Dent, Division Chief, State Forests Division
Brian Pew, Deputy Chief, State Forests Division
Ron Zilli, Operations Coordinator, State Forests Program

Date: June 8, 2016

Re: Information Item – Annual Operations Plan for 2017

The 2017 State Forests Annual Operations Plan for the Klamath-Lake District is attached for your approval. This plan is consistent with the Eastern Region Long-Range Forest Management Plan, and the 2017 Annual Operations Planning Standards and Guidance memorandum.

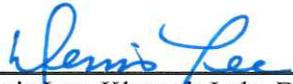
There are 5 primary sales this year totaling 1,035 acres. The 5 sales would harvest 5.075 million board feet and \$922,000 in revenue.

This annual operations plan covers proposed forest management activities for fiscal year 2017. This plan was reviewed by technical specialists from within the department and biologists from the Oregon Department of Fish and Wildlife and USFWS. Their comments were received verbally and in writing (written comments are on file at the district office. The draft annual operations plan also underwent a 45-day public comment period. No district specific public comments were received.

Approval of this plan does not constitute final approval of individual project details. Individual timber sales are subject to additional review processes at the district and division staff level before approval for auction. The type of auction, stumpage or delivered log, will be decided during timber sale preparation and will be based on the timber sale cruise, market conditions and other factors affecting the outcome of the operation. The operations described in this plan may be modified during the final preparation and/or implementation. Modifications to these operations will conform to the process included in the draft Annual Operations Planning Directive.

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

APPROVED:


Dennis Lee, Klamath-Lake District Forester

7/19/16
Date

**KLAMATH-LAKE
DISTRICT
2017 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 105,780 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 (72,100 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 to provide a mixture of economic, environmental, and social benefits to the citizens of Oregon.

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 2017 AOP.

Over the next two months, ODF will request review and comments on our plan from others, including Klamath County Commissioners, the Forest Trust Land Advisory Committee (representing the counties that deeded land to ODF), Oregon Department of Fish and Wildlife, the US Fish and Wildlife Service, recreationalists, and wildlife advocates, as well as Oregonians in general.

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

A short summary of activities planned for the coming year:

- Proposing to Harvest 5.0 MMbf on 1,035 acres with an estimated net revenue of \$856,741.
- Constructing 0.5 miles of new road.
- Improving 7.5 miles of existing road.
- Planting 30,000 seedlings on 100 acres.
- Conduct operational surveys for Northern Goshawk.
- Continue working with US Fish and Wildlife to restore Bull Trout to the lower reaches of Sun Creek.

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KLAMATH-LAKE DISTRICT

2017 ANNUAL OPERATIONS PLAN

INTRODUCTION

This document describes activities planned on the Eastern Region State Forest lands during Fiscal Year 2017 (July 1, 2016 to June 30, 2017). All the eastern region state forest lands are located on the Klamath-Lake District in Klamath County. With the establishment of Gilchrist State Forest, the district manages approximately 105,780 acres of forest land, 98,953 acres of Board of Forestry lands and 6,827 acres of Common School Forest lands. Management of these lands is guided by the Eastern Region Long- Range Forest Management Plan (LRFMP), which was approved in October, 1995.

This Annual Operations Plan (AOP) describes how the Long-Range Plan will be implemented during the 2017 fiscal year. The AOP includes this summary document with sections on commercial forest management operations, roads and engineering, cultural resources surveys, wildlife surveys, etc. It also includes summary tables. Pre-operations reports that describe the individual timber sales being proposed are available upon request. The final plan will contain a public involvement summary that describes the results of the public involvement activities related to this AOP.

Keep in mind as you read the AOP summary, the document describes management activities for contracts which will be prepared during the fiscal year (commercial forest management operations and roads) as well as activities that will occur on the ground during the fiscal year (site prep, tree planting, pre-commercial thinning, fuels reduction).

Table 1. Annual Operations Plan objectives compared to annual objectives identified in the Eastern Region Long-Range Management Plan. All values are acres.

| Silvicultural Activity | FMP Annual Objective | 2017 AOP Objective |
|----------------------------------|-----------------------------|---------------------------|
| Partial Cut Harvest | 1036 | 1035 |
| Reforestation (Initial Planting) | | 100 |

INTEGRATED FOREST MANAGEMENT OPERATIONS

Timber Harvest Operations

Overview of Timber Harvest Operations

This plan proposes 5 timber sales; four in the North Block, Annie Creek, Huck Hound OSR, Shoestring and Steep Puppy, all located in Sun Pass State Forest, and one in the East Block, Buckeye. All sales will be partial cut harvests with a combined acreage of 1,035. The Eastern Region Long-Range Plan calls for an average of 1,036 acres to be harvested this year.

Annie Creek – This Sale combines two previously non-entered stands located in the southwest corner of Sun Pass adjacent to Annie Creek. This sale has been divided into two areas; area 1 is previously non-forested area that has been colonized by Ponderosa pine. It is currently characterized by two age classes the larger scattered pioneer trees which initially established above a thicker younger cohort. Due to the age and open grown character of the overstory tree selection will focus on removing these individuals while reducing stocking of the younger trees to maintain stand health. Area 2 is mixed conifer uneven aged stand that is part of the Annie Creek “Special Stewardship Area.” Harvest in this area will be aimed at reducing stocking in order to maintain the health of the stand. Thinning will generally be done “from below” but trees across all age classes will be removed in order to create space for younger individuals to grow maintaining the uneven aged character of the stand. The next entry will be planned for approximately 20 years.

Buckeye – The Buckeye Timber Sale was moved from our FY 2016 and is a 158 acre scattered parcel east of our Yainax Butte tract. This partial cut harvest is intended to be a maintenance entry, reducing stand stocking, increasing vigor, and keeping the uneven aged stand structure. Trees across all species and age classes will be selected for removal but ponderosa pine and incense cedar will be favored leave species. Patch cuts may be incorporated into the harvest prescription, if so, patch acres will not exceed 10 percent of the sale area. The next entry will be planned for approximately 20 years.

Huck Hound OSR – The Huck Hound OSR Timber Sale was previously entered in 2005 at which time the merchantable lodgepole pine was removed while other species were reserved. Post-harvest the stand was interplanted with Ponderosa pine. The planted trees have established but are being suppressed by the remnant overstory. The prescription for this entry will be a partial cut overstory removal taking most of the remaining merchantable trees and allowing the new cohort to grow. Some large trees will be reserved individually and in clumps in order to provide stand structure and wildlife habitat. Due to the young age of the post-harvest stand the next entry will be expected to be in 40-60 years.

Shoestring – This sale combines two stands; one not previously entered, and the other last entered in 1991. Both are currently uneven aged mixed conifer stands but are in an area heavily infected with Armillaria root rot. Current stocking levels combined with recent drought conditions have increased mortality due to the root disease. The prescription for this entry

will be a single tree selection partial cut across all age classes. Removal will favor more susceptible species, white fir and sugar pine, while reserving the more resistant Ponderosa pine and incense cedar. Existing stand openings at root rot centers will be expanded through the removal of fading individuals at the perimeter and will be planted with Ponderosa pine. Going forward this area will be managed at a lower stocking level in order to maintain stand resistance. Another entry will be planned in 20-30 years.

Steep Puppy – Steep Puppy is located in a previously non-entered stand. The prescription will be a single tree selection harvest thinning generally “from below” where understory and subordinate trees will be removed in order to maintain stand health. Dominant overstory trees will also be selected for removal where they are showing signs of deteriorating vigor or are impeding the establishment or growth of a new cohort of trees. Tree selection will favor Ponderosa pine and Douglas-fir but will ensure a healthy component of white fir and sugar pine remain. A portion of the stand, not expected to exceed 10% of total acreage, will be cut in group selections in order to create planting sites. These groups will be between one and five acres in size and will be selected utilizing existing openings and understocked areas within the stand. Another entry will be planned in 20 years.

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

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).

Prescriptions for Steep Puppy, Huck Hound OSR and Annie Creek will all be written to meet the above mentioned guidelines. Shoestring is located within an Armillaria Root Rot zone. This sale may reduce tree numbers below the overall target in order to deal with individual tree health.

Monitoring:

Summer/Fall of 2015 stand level inventory was conducted on 20 stands within Sun Pass. These measurements confirmed we were meeting or growing these stands towards this target.

Forest Roads Management

Overview

All of the road management activities proposed in 2017 will be associated with the proposed timber sales. Road construction and improvement 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.

Refer to Summary Table A-3 for the Forest Roads Summary of the 2017 AOP

Road Construction

A short, less than half mile, spur will need to be constructed in order to access area 2 of the Annie Creek Timber Sale. This segment will be closed following harvest.

Road Improvement

All timber sales will require road improvement either to access the sale area or to open interior roads to facilitate logging. This AOP proposes to improve 7.5 miles of road. 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.

- Buckeye: 2 miles
- Huck Hound OSR: 1 miles
- Shoestring: 2 miles
- Steep Puppy: 3.5 miles

Road Access Management

Whenever possible, existing roads are used to access the sale area. Emphasis is placed on closing or vacating roads; whether or not they are constructed for a particular sale. The Huck Hound OSR, Shoestring, and Steep Puppy Timber sales will all be access from ODF owned road systems. Buckeye will require road use agreements with the adjacent private landowner. Annie Creek will require an ODOT permit to construct a temporary approach from Hwy 62.

Road Maintenance

Nearly all of the road maintenance is accomplished through timber sale contracts as project work. Most of this involves brushing roads along the haul route as well as spot rocking, reshaping, and maintaining drainage on portions of our main road systems to keep it in good condition for seasonal traffic. During the summer months, road watering is utilized to keep the road surface intact as well as providing good visibility for any traffic using the roads during active hauling.

Land Surveying

No land surveys are anticipated.

Young Stand Management

Due to budget constraints only those activities that are required by the Forest Practices Act, identified in the Eastern Oregon Long-Range Forest Management Plan, or are essential for establishment of a new stand will be undertaken.

Refer to Summary Table A-4 for the Reforestation and Young Stand Management Summary of the 2017 AOP

Site Preparation

No site prep is planned other than what is indirectly accomplished through timber harvest activities. Tree planting is planned for the first planting season following harvest operations utilizing the disturbance from the harvest to minimize competition from competing vegetation.

Planting

Approximately 30,000 Ponderosa pine seedlings will be planted on Board of Forestry lands in Sun Pass State Forest and on scattered tracts. Trees will be planted in group selection areas within timber sales created to ensure a new cohort of trees is established. Planting is anticipated to be all initial planting at a rate of 302 trees per acre (TPA).

Vegetation Management

No management anticipated for FY 2017.

Tree Protection

None anticipated for FY 2017.

Pre-commercial Thinning

Approximately 1500 acres in the Sun Pass State Forest are in need of pre-commercial thinning and would be scheduled if funds were to become available.

Fertilization

None anticipated for FY 2017.

Gilchrist Activities

The recently acquired Gilchrist State Forest is comprised of high stocking levels of young Ponderosa pine and Lodgepole pine. The current appraisal shows only 1500 board feet of sawlog material per acre, but there is a significant component of submerchantable stems. Due to the overabundance of seedling and pole size trees the current density levels put the Gilchrist State Forest at a high risk for pest-caused damage. The district has implemented a thinning program that will help reduce stand density to acceptable levels. Approximately 3,000 acres will be treated with 3-4 operations. Diseased and overstocked material from 5.0 inches to 12.0 inches DBH will be removed, while retaining most of current sawlog material. Ponderosa pine will be the preferred species to leave. The removed material will be sold as sawlog and pulp volume. It is expected that this project will result in a break-even cash flow. The district will identify the highest priorities on the forest and take advantage of specific market conditions to make this program successful. The ensuing stand will be a Fire, Insect and Disease resistant stand.

This project is 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 Oregon Region 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.”

Recreation Management

Overview of Recreation Management

The primary recreation strategy in the Eastern Oregon Long-Range Forest Management Plan 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.

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

The Klamath Outdoor Science School (KOSS) will continue to develop facilities at the site as funding becomes available.

Trails

The KOSS nature trail will continue to be maintained by seasonal staff as well as KOSS volunteers.

In Gilchrist maintenance will continue on the footpath connecting the high school to the bike path.

A new trail will be constructed in the Gilchrist State Forest east of the town of Gilchrist. This trail will start at the parking area south of the football field and end at the top of Crescent Butte. The construction will be performed by Gilchrist High School personnel.

Management Activities

An Adopt-a-Trail agreement has been completed with the "Klamath Trail Alliance" for a trail head, located off of a scattered Board of Forestry tract off Highway 140 w. This agreement authorizes KTA to establish a graveled parking area and construct a Kiosk on site.

Land Exchange

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

Acquisition of the remaining 23,000 acres from The Conservation Fund was completed in FY 16. This now brings the total Gilchrist acreage to 72,040 acres.

Other Integrated Forest Management Operations

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 12 month period. 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, and planned operations. Active sales will be posted with "No Firewood Cutting" signs.

Sun Creek Bull Trout Restoration Project

The Klamath-Lake District in partnership with Trout Unlimited/Klamath Basin Rangeland Trust, Oregon Department of Fish and Wildlife, Crater Lake National Park, and USF&W have implemented a project to expand bull trout distribution downstream from Crater Lake National Park (Park) onto the State Forest portion of Sun Creek. This effort supports a USFW Draft Recovery Plan for Bull Trout in the Klamath Basin. Reestablishing headwater populations and increasing downstream distributions of bull trout have been presented by USFWS and ODFW as the most important recovery actions for bull trout in the Klamath Basin.

The first action completed for this restoration project was installing two temporary barriers that will prevent upstream migration of non-native fish into the bull trout recovery reach, but allow for downstream migration of bull trout. This was completed in the fall of 2010. The barriers can eventually be removed when bull trout have been established throughout Sun Creek and the threat from non-native fish has been mitigated.

Channel construction began FY 16 and will continue through FY17 as funding becomes available. The end result of this project is to divert Sun creek from its Current channel downstream of these barriers and realign it with its historic channel and connect to the head of the Wood River.

This approach (installation of barriers and removal of non-native fish with chemical treatment) was used in the upstream portion of Sun Creek flowing through the Park. The Park project has been declared a success with large increases in bull trout population and distribution within the park. Crater Lake National Park will continue to monitor the Sun Creek barriers and bull trout populations in Sun Pass.

Planning (and Information Systems)

Stand Level Inventory and Other Vegetation Inventories

District personnel will work on SLI as time and workload allow. Additional SLI data may be collected through a statewide contract if funds become available.

Fish and Wildlife Surveys

Monitoring for Northern Goshawks will be conducted prior to auction if suitable habitat is present and if surveys are recommended by Salem staff.

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

Research and Monitoring

None planned for FY 2017.

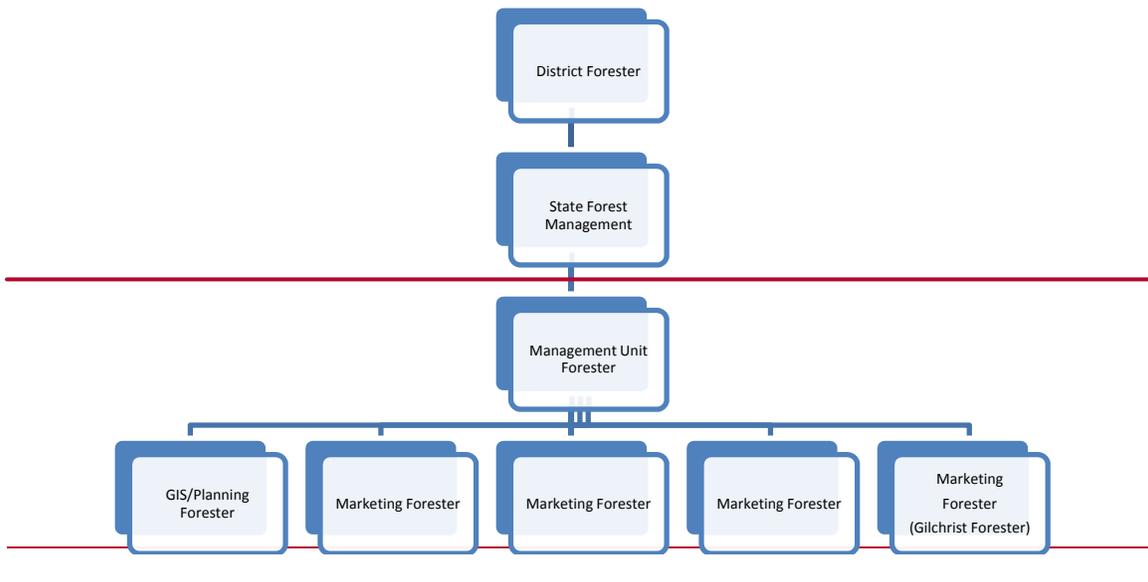
Public Information and Education

The District will conduct public involvement activities related to the Annual Operations Plan. In addition to a general public comment period, the district will continue to work with the Klamath-Lake Forest Health Partnership as a focus group for the AOP process.

The Klamath Outdoor Science School (KOSS) has been operating since 2006. This site is a resident outdoor science school that serves primarily grade school students, in Sun Pass State Forest. This program provides an opportunity to provide youth, teachers, and parents with education about the working forest. ODF renewed the Special Use Permit that allows KOSS to develop a site near Kimball State Park. Over 350 students, teachers, and parent chaperones attended the camps in 2015. The permit requires review and approval of annual development plans. The program will continue to have day and overnight camps.

KOSS is currently in the process of construction of a pavilion and bathhouse. Two concrete pads were poured during the summer of 2013. The organization is still working on securing funds to develop the infrastructure.

Administration



APPENDIXES

A. Summary Tables

B. Maps

C. Public Involvement

D. Pre-Operations Reports

TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

District: Klamath-Lake

Fiscal Year: 2017

Date: 06-Jan-16

| 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 |
| Annie Creek | 100% | 0% | Klamath | 4 | 123 | 0 | 584.0 | 0.0 | 584.0 | \$108,040 | \$10,000 | \$98,040 |
| Buckeye | 100% | 0% | Klamath | 4 | 158 | 0 | 348.0 | 0.0 | 348.0 | \$64,306 | \$8,000 | \$56,306 |
| Huck Hound | 100% | 0% | Klamath | 4 | 151 | 0 | 378.0 | 0.0 | 378.0 | \$55,870 | \$10,000 | \$45,870 |
| Shoestring | 100% | 0% | Klamath | 4 | 277 | 0 | 831.0 | 0.0 | 831.0 | \$153,735 | \$15,000 | \$138,735 |
| Steep Puppy | 100% | 0% | Klamath | 4 | 326 | 0 | 2934.0 | 0.0 | 2934.0 | \$542,790 | \$25,000 | \$517,790 |
| Total: | | | | | 1,035 | 0 | 5,075 | 0 | 5,075 | \$924,741 | \$68,000 | \$856,741 |

Alternate Operations

| | | | | | | | | | | | | |
|------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| (Operation Name) | | | | | | | | | | | | |
| None | | | | | | | | | | | | |

PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

District: Klamath-Lake

Fiscal Year 2017

Date: 01/11/2016

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

| Primary Harvest Operations | Unit (Optional) | Forest Health Issues ¹ | Invasive Species | LYR/OFS Structures ² | Landscape Design LYR/OFS ³ | Install/Replace Culverts on Fish Bearing / Perennial Streams | Harvesting within 100' of Fish Bearing Stream | Domestic Water Source | Potential Stream Habitat Improvement ⁴ | Within Aquatic Anchor | Within Terrestrial Anchor | Operating within a NSO Provincial Circle | Within 1/4 mile of MMMA | T&E Fish Adjacent to Harvest Unit / Haul Route ⁵ | T&E Plants | Geotechnical Issues | Needing Field Review | Recreation Sites | Cultural Resources | Scenic Resources | Other Resources or Issues | |
|----------------------------|-----------------|-----------------------------------|------------------|---------------------------------|---------------------------------------|--|---|-----------------------|---|-----------------------|---------------------------|--|-------------------------|---|------------|---------------------|----------------------|------------------|--------------------|------------------|---------------------------|----------------------|
| Annie Creek | | | | | | | x | | | | | | | | | | | | | | | Irrigation diversion |
| Buckeye | | | | | | | | | | | | | | | | | | | | x | | |
| Huck Hound Osr | | | | | | | | | | | | | | | | | | | | | | |
| Shoestring | | x | | | | | | | | | | | | | | | | | | | | |
| Steep Puppy | | 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 inconslutation with ODFW.

⁵ This table lists harvest operations (units or log haul routes) that are adjacent to streams that are known to contain T&E fish. The Pre-Operation Report identifies whether T&E fish are present in the basin.

ALTERNATE HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

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

| Alternate Harvest Operations | Unit (Optional) | Forest Health Issues ¹ | Invasive Species | LYR/OFS Structures ² | Landscape Design LYR/OFS ³ | Install/Replace Culverts on Fish Bearing / Perennial Streams | Harvesting within 100' of Fish Bearing Stream | Domestic Water Source | Potential Stream Habitat Improvement ⁴ | Within Aquatic Anchor | Within Terrestrial Anchor | Operating within a NSO Provincial Circle | Within 1/4 mile of MMMA | T&E Fish Adjacent to Harvest Unit / Haul Route ⁵ | T&E Plants | Geotechnical Issues | Needing Field Review | Recreation Sites | Cultural Resources | Scenic Resources | Other Resources or Issues | |
|------------------------------|-----------------|-----------------------------------|------------------|---------------------------------|---------------------------------------|--|---|-----------------------|---|-----------------------|---------------------------|--|-------------------------|---|------------|---------------------|----------------------|------------------|--------------------|------------------|---------------------------|--|
| None | | | | | | | | | | | | | | | | | | | | | | |

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 inconslutation 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: Klamath-Lake

Fiscal Year: 2016

Date: 01/11/2016

| Operation | Construction | | Improvement | | Other Projects | Total Project Costs | Gross Value of Operation | Total Cost as a percent of Gross Value | Comments |
|----------------|--------------|-------|-------------|---------|----------------|---------------------|--------------------------|--|----------|
| | Miles | Cost | Miles | Cost | | | | | |
| Annie Creek | 1 | \$500 | | | \$9,500 | \$10,000 | \$108,240 | 9.2% | |
| Buckeye | | | 2 | \$1,060 | \$6,940 | \$8,000 | \$69,600 | 11.5% | |
| Huck Hound OSR | | | 1 | \$250 | \$9,750 | \$10,000 | \$55,870 | 17.9% | |
| Shoestring | | | 2 | \$500 | \$14,500 | \$15,000 | \$145,410 | 10.3% | |
| Steep Puppy | | | 3 | \$1,500 | \$23,500 | \$25,000 | \$542,790 | 4.6% | |

| | | | | | | | | | |
|--------------|------------|--------------|------------|----------------|-----------------|-----------------|------------------|-------------|--|
| Total | 0.5 | \$500 | 7.5 | \$3,310 | \$64,190 | \$68,000 | \$921,910 | 7.4% | |
|--------------|------------|--------------|------------|----------------|-----------------|-----------------|------------------|-------------|--|

Alternate Operations

| | | | | | | | | | |
|------|--|--|--|--|--|-----|--|------|--|
| None | | | | | | \$0 | | 0.0% | |
|------|--|--|--|--|--|-----|--|------|--|

Road Projects Not Funded by Harvest Operations

| Operation | Construction Miles | Construction Cost | Improvement Miles | Improvement Cost | Other Projects | Total Project | Funding | Comments |
|-----------|--------------------|-------------------|-------------------|------------------|----------------|---------------|---------|----------|
| None | | | | | | \$0 | | |

REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY

District: Klamath-Lake

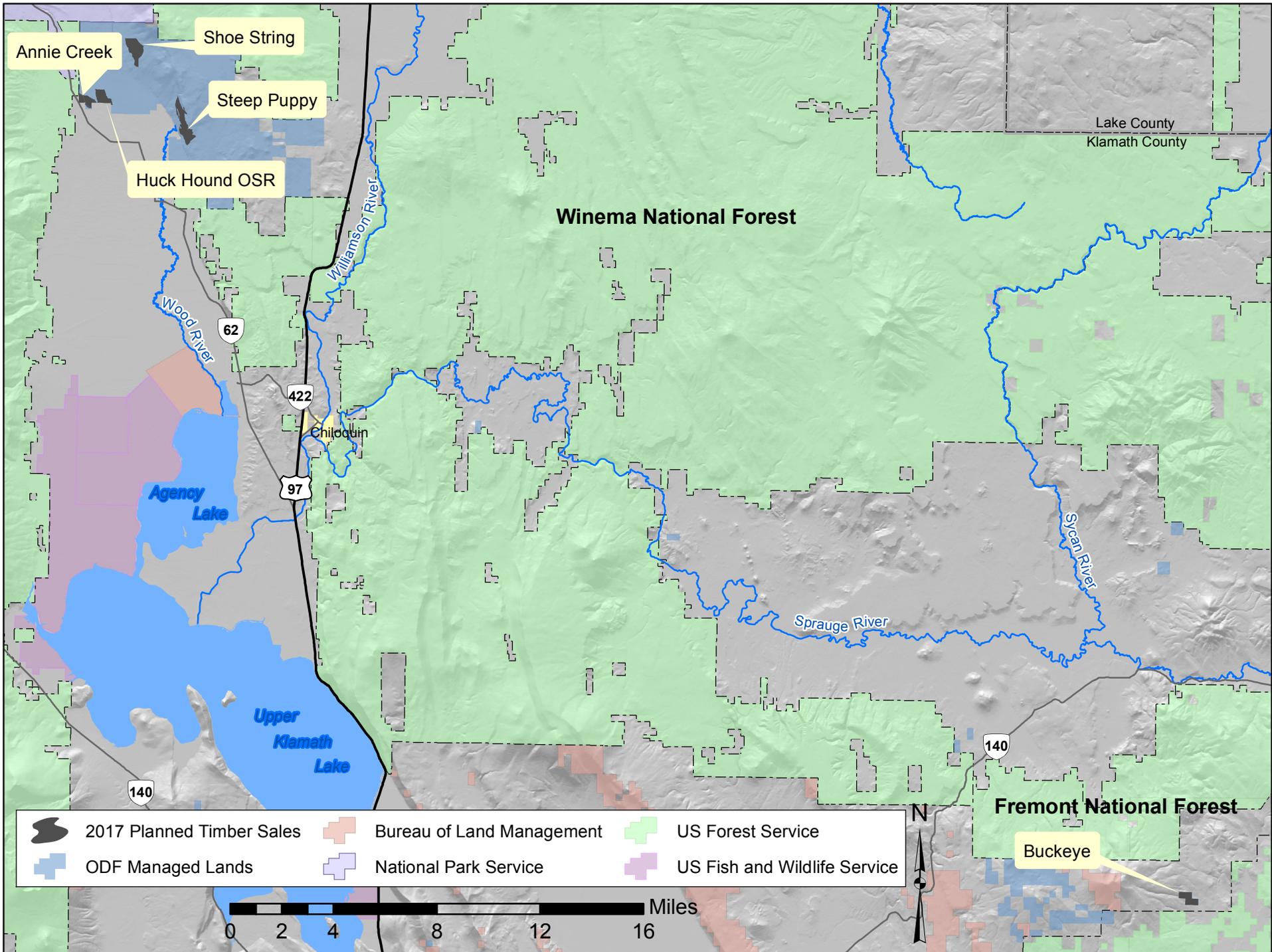
Fiscal Year: 2017

Date: 01/11/2016

| ODF Funded Activities Management Activity | Board of Forestry | | | Common School Forest Lands | | | District | |
|--|-------------------|--------------------|--------------------|----------------------------|--------------------|---------------|-------------|--------------------|
| | Acres Planned | Average Cost*/Acre | BOF Cost | Acres Planned | Average Cost*/Acre | CSL Cost | Total Acres | Total Cost |
| Initial Planting | 100 | \$210.00 | \$21,000.00 | 0 | | \$0.00 | 100 | \$21,000.00 |
| Interplanting | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Underplanting | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Tree Protection-Barriers | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Tree Protection-Direct Control | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Site Prep-Chemical- Aerial | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Site Prep-Chemical- Hand | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Site Prep -Slash Burning | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Site Prep -Mechanical | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Fertilization | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Noxious weeds | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Release-Chemical- Aerial | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Release,-Chemical-Hand | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Release-Mechanical-Hand | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Precommercial Thinning | 150 | \$300.00 | \$45,000.00 | | | \$0.00 | 150 | \$45,000.00 |
| Pruning | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Other | | | \$0.00 | | | \$0.00 | 0 | \$0.00 |
| Totals | 250 | -- | \$66,000.00 | 0 | -- | \$0.00 | 250 | \$66,000.00 |

*Planting costs include all costs including seedlings

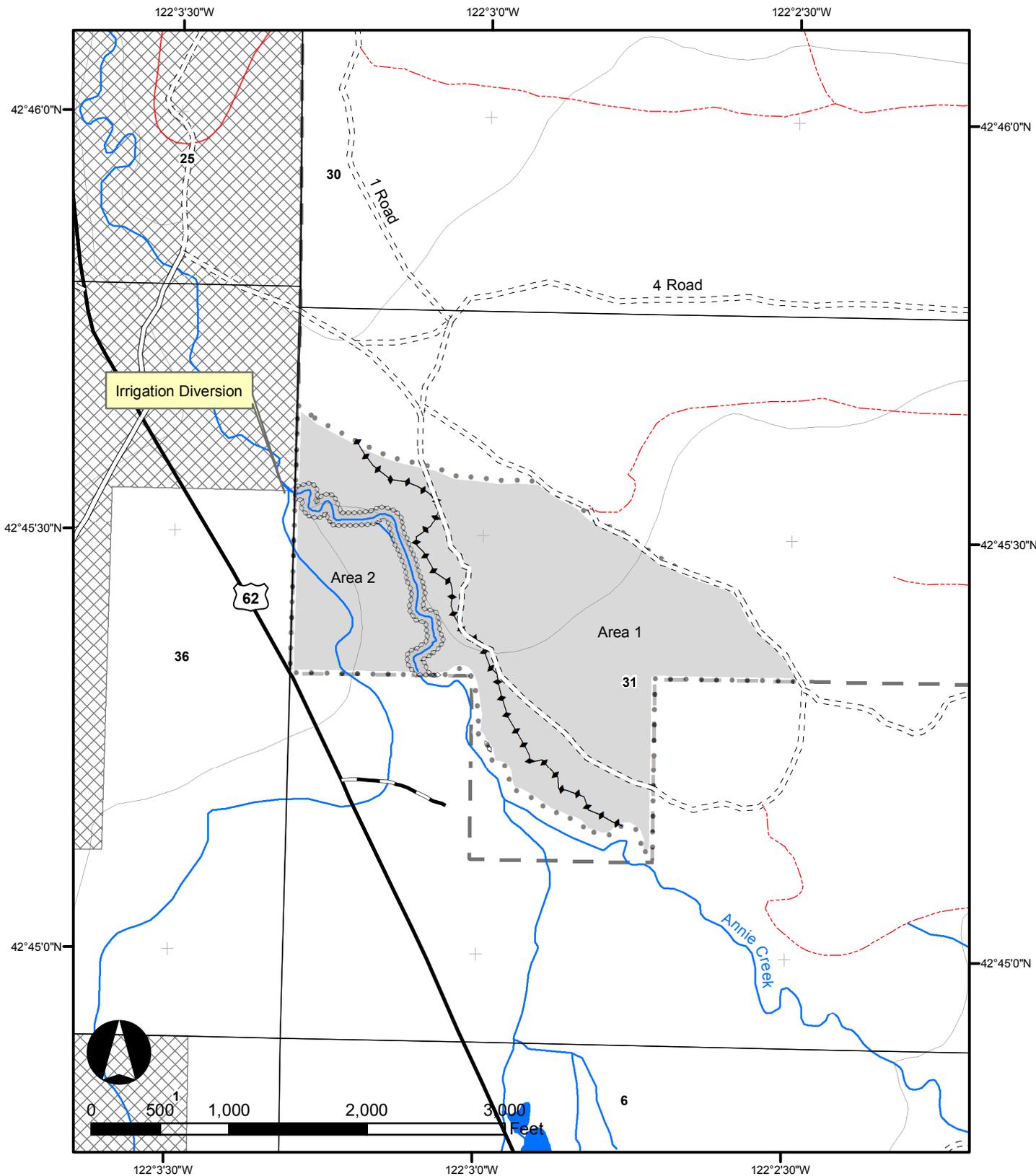
| Grant Funded Activities Management Activity | Board of Forestry | | | Common School Forest Lands | | | District | | Funding |
|--|-------------------|--------------------|--------|----------------------------|--------------------|--------|-------------|------------|---------|
| | Acres Planned | Average Cost*/Acre | Cost | Acres Planned | Average Cost*/Acre | Cost | Total Acres | Total Cost | |
| None | | | \$0.00 | | | \$0.00 | 0 | \$0.00 | |



- | | | | | | |
|---|---------------------------|---|---------------------------|---|------------------------------|
|  | 2017 Planned Timber Sales |  | Bureau of Land Management |  | US Forest Service |
|  | ODF Managed Lands |  | National Park Service |  | US Fish and Wildlife Service |

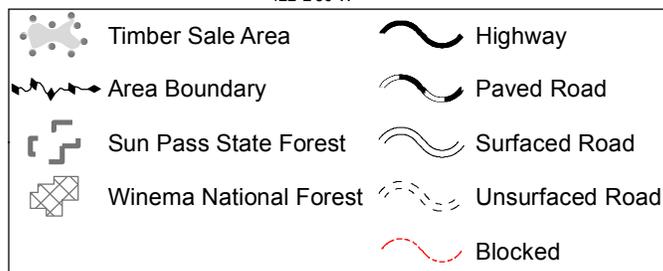
0 2 4 8 12 16 Miles

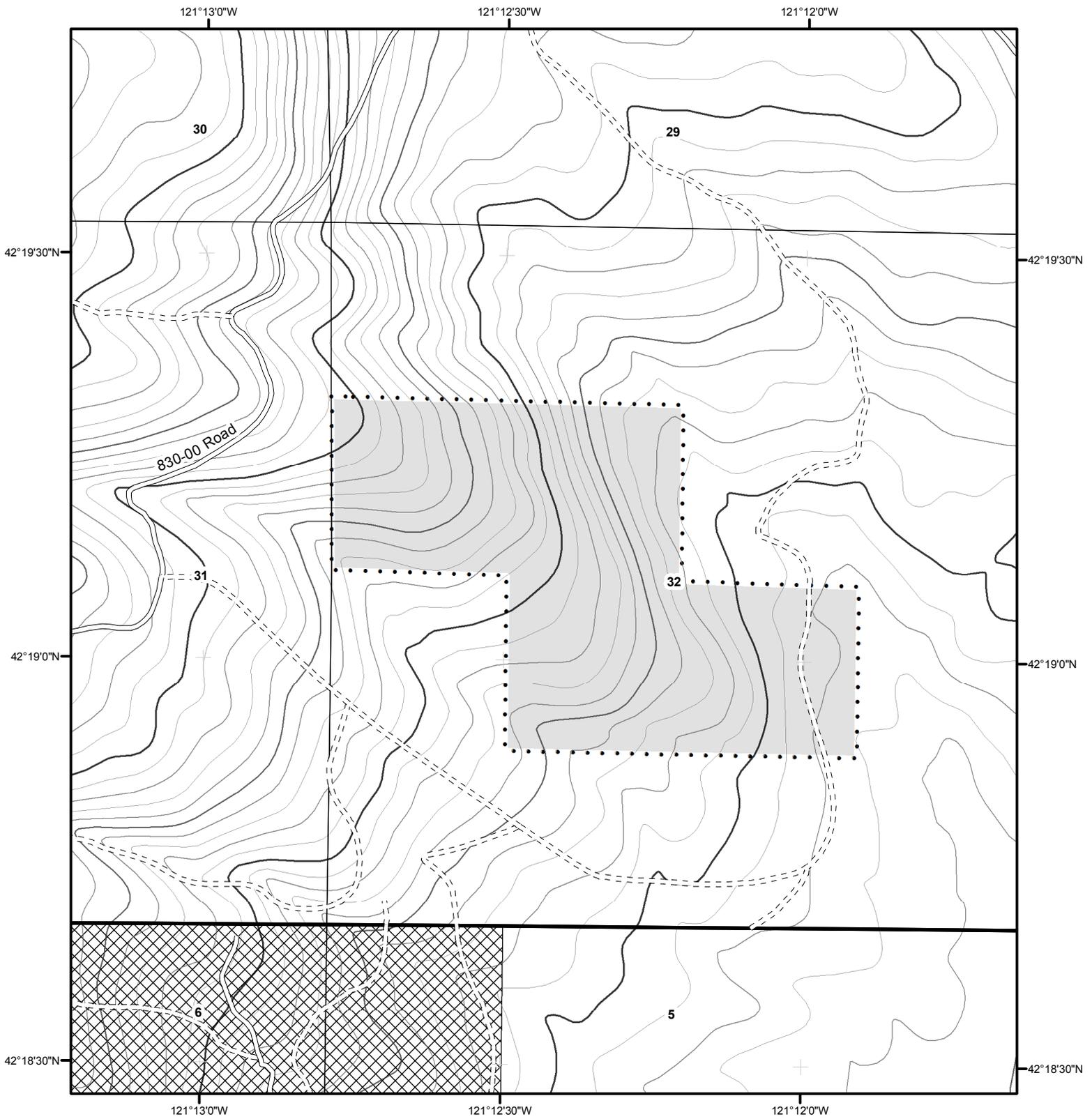




FY 17
 Klamath-Lake District
 Annie Creek Timber Sale
 T32S, R7.5E, Portions of
 Section 31, W.M.
 Klamath County, Oregon
 Approximately 123 acres

Created: January 6, 2015, KLD GIS



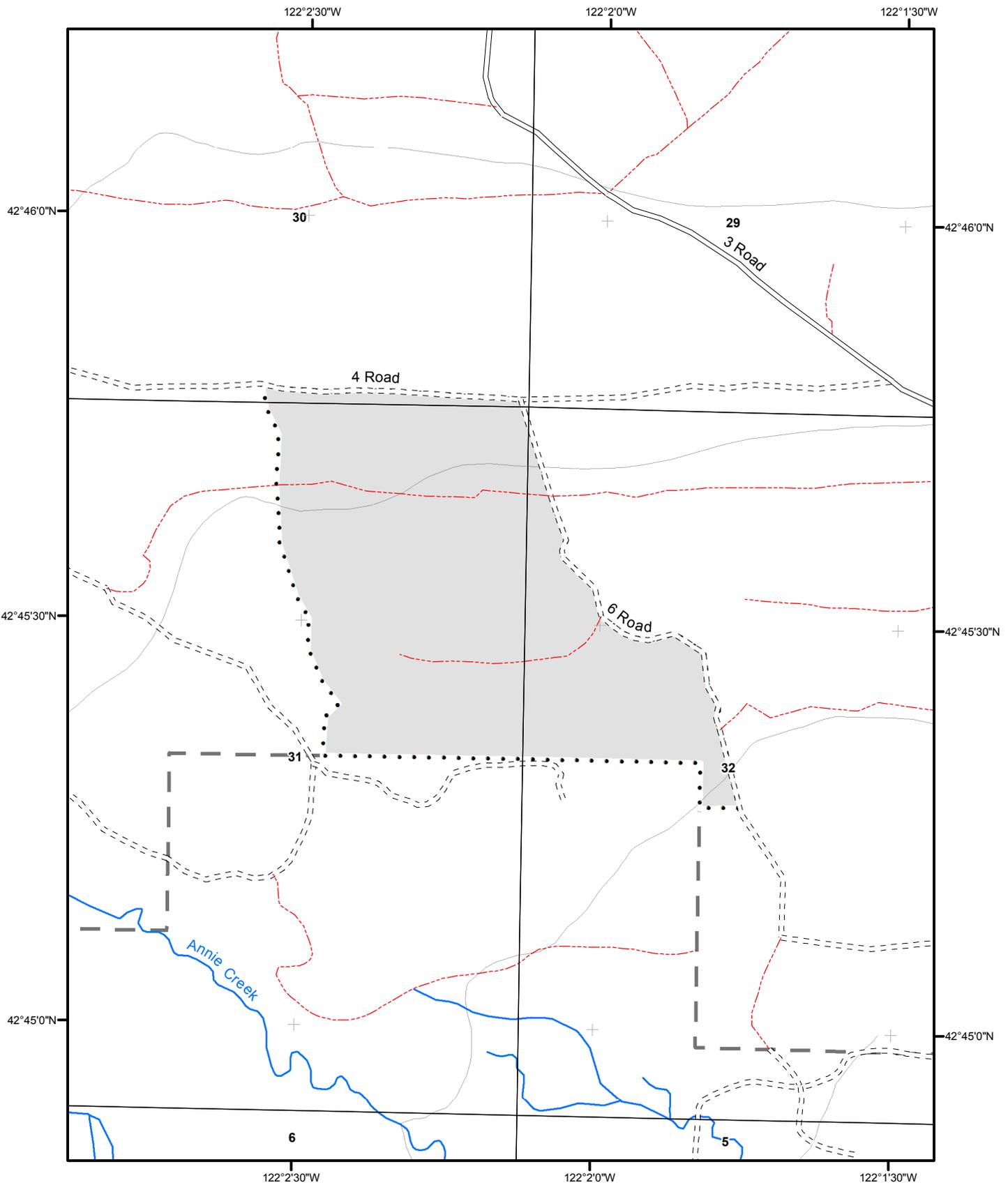


FY 16
 Klamath-Lake District
 Buckeye Timber Sale
 T37S, R13E, Section 32, W.M.
 Klamath County, Oregon
 Approximately 158 acres

Created: January 28, 2016, KLD GIS



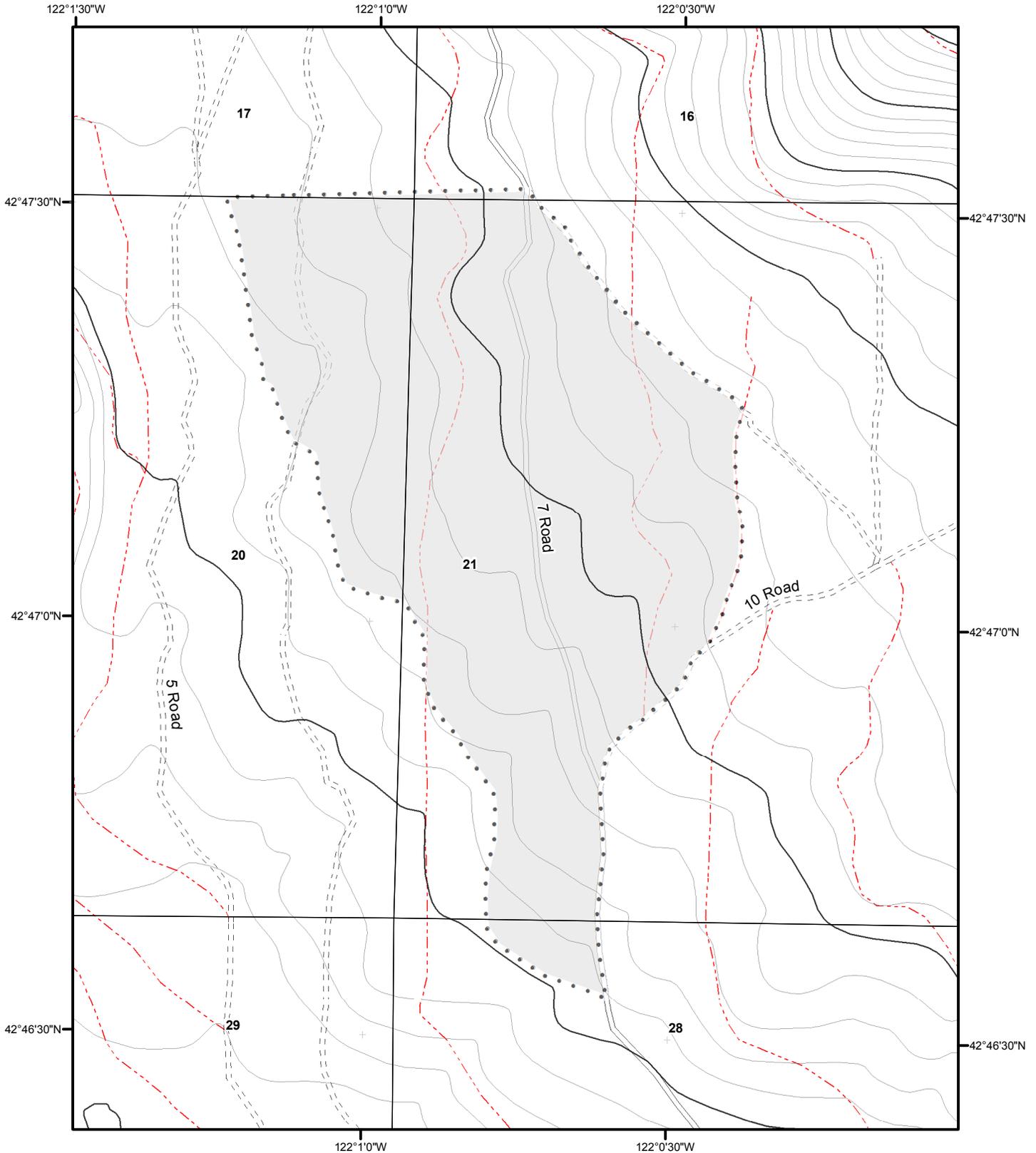
-  Buckeye Timber Sale
-  Fremont National Forest
-  Surfaced Road
-  Unsurfaced Road



FY 17

Klamath-Lake District
 Huck Hound OSR Timber Sale
 T32S, R7.5E, Portions of
 Section 30, 31, and 32, W.M.
 Klamath County, Oregon
 Approximately 151 acres

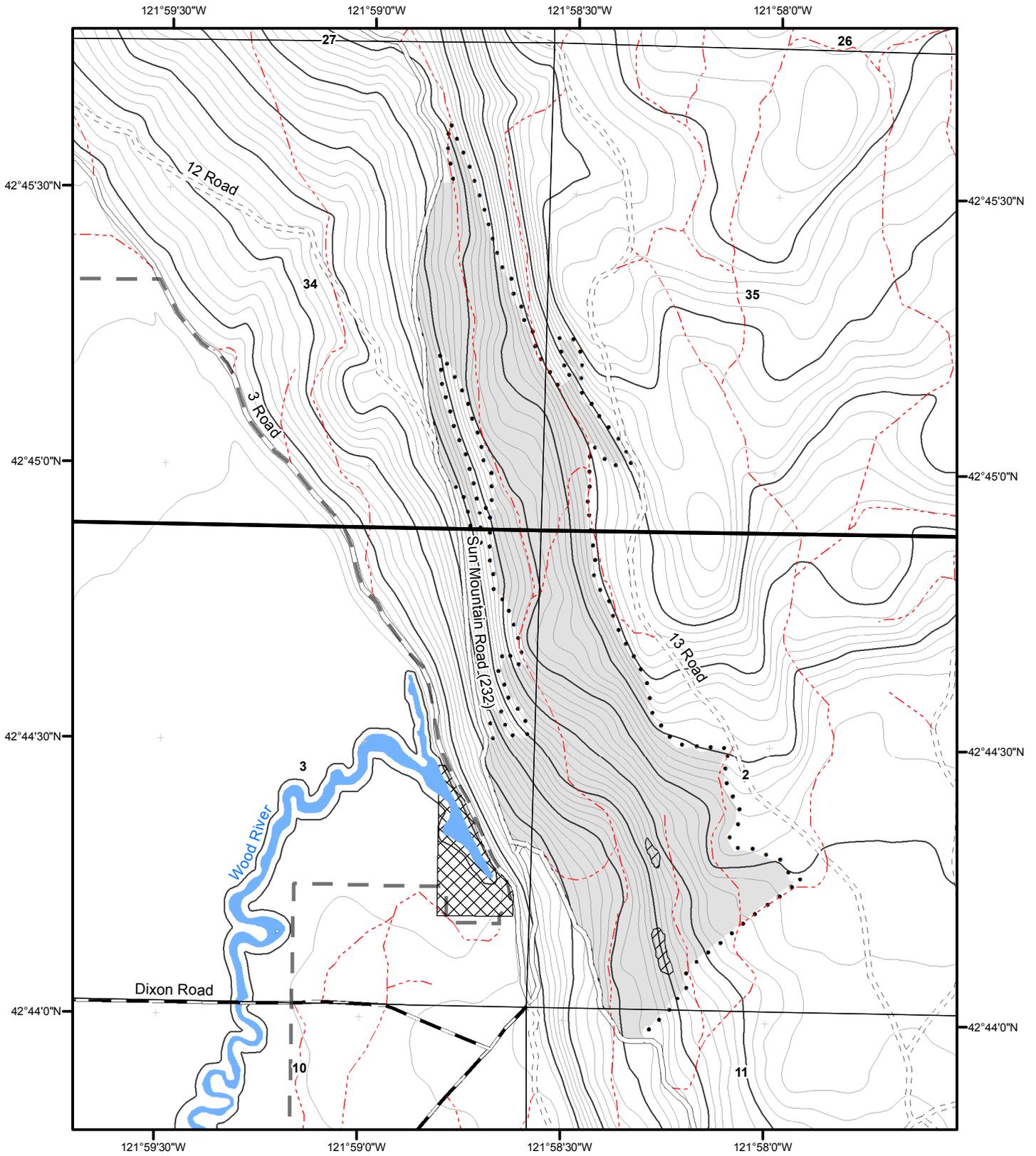




FY 17
 Klamath-Lake District
 Shoestring Timber Sale
 T32S, R7.5E, Portions of
 Sections 16, 17, 20, 21 and
 28, W.M. Klamath County, Oregon
 Approximately 277 acres



| | | | |
|--|------------------|--|-----------------|
| | Timber Sale Area | | Unsurfaced Road |
| | Paved Road | | Blocked Road |
| | Surfaced Road | | |



FY 17
 Klamath-Lake District
 Steep Puppy Timber Sale T32S,
 R7.5E, Portions of Sections 34
 and 35, T33S, R7.5E, Portions
 of Sections 2, 3, and 11, W.M.
 Klamath County, Oregon
 Approximately 328 acres



| | | | |
|--|-------------------------------|--|-----------------|
| | Timber Sale Area | | Paved Road |
| | Exclusion | | Surfaced Road |
| | Sun Pass State Forest | | Unsurfaced Road |
| | Jackson F. Kimball State Park | | Blocked Road |

Appendix C

Consultations with Other State Agencies

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

- No written comments from ODFW have been received.
- Archaeologists from the Oregon Department of Transportation (ODOT) have reviewed the proposed timber harvests, road construction and recreation projects to review potential impacts to cultural resources. ODOT identified cultural resources on the Buckeye, Bad Ham and Alter Eagle Timber Sales. All sites had been previously documented in the Cultural Resource Inventory of the Oregon Department of Forestry Eastern Region (2008). All sites will be reviewed on the ground during project layout.

Appendix D

Public Involvement

Received one public comment in support of the AOP.

Appendix E

Pre-Operations Reports

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