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Mike Bordelon, Northwest Oregon Area Director
Dan Shults, Southern Oregon Area Director

From: Roy Woo, Acting State Forester

CC: NWOA and SOA District Foresters

Date: 03/10/03

Re: District Implementation Plan and Forest Land Management Classification
Approval

The Board of Forestry adopted the *Northwest Oregon and Southwest Oregon State Forests Management Plans (FMPs)* in January 2001. Each plan included direction for the development of "implementation plans that describe the management approaches and activities each district in the planning area will pursue in order to carry out" the plans.

Districts developed draft Implementation Plans (IPs) and made them available for a 90-day public comment period from June 12 to September 14, 2001. Jim Brown reviewed the initial recommended IPs and the *Resolution Team Report for Implementation Plan Comments*. Jim Brown required the recommended implementation plans (dated May 2001) be modified before receiving final State Forester approval.

The final IPs I am approving incorporate the State Foresters recommended modifications outlined in the memo in July 2002, "Direction to Modify IPs1.doc", and the following modifications resulting from public comment and Board of Forestry discussion on March 5, 2003. The "Current Stand Structure" chart on page 14 of the Astoria District IP has been modified to reflect updated data. The West Oregon District and Western Lane District IPs have been modified to include the projected timeline for reaching the desired future condition. This is consistent with the FMPs requirement that states "The State Forester shall approve, modify, or deny the recommended implementation plans. If the State Forester modifies a recommended plan, the modifications will be incorporated into the original plan and appropriate revisions made to land management classifications."

My approval of this document individually approves the district implementation plans included in this document. As such, revisions to individual IPs will not require review and re-approval of other IPs included in this package.

Forest Land Management Classification (FLMC)

The districts' initial draft of the forest land management classification was completed and subject to public review in accordance with OAR 629-035-0050. The final FLMC district maps I am approving have incorporated public comment where appropriate and the previous State Forester's recommended modifications.

I am approving the final IPs for Astoria, Forest Grove, Tillamook, Clackamas-Marion (Cascades), West Oregon, Western Lane and Southwest Oregon Districts, and the final FLMC maps for those districts. I am directing the State Forests Program Director and the Area Directors for Northwest and Southern Oregon Area to carry out the projects and plans described in the later sections of the IP notebook.

Roy Woo, Acting State Forester

Date



Western Lane District

Implementation Plan

March 2003

This implementation plan describes the management approaches and activities that the Western Lane District will pursue in order to carry out the *Northwest Oregon State Forests Management Plan* and the proposed *Western Oregon State Forests Habitat Conservation Plan* (HCP).

The *Western Lane District Implementation Plan* (and earlier drafts) guides forest management for all forest resources on Oregon Department of Forestry managed lands in Lane County from July 1, 2001 through June 30, 2011.

The main headings in this plan are listed below. A detailed table of contents begins on the next page.

District Overview _____	4
Management Activities _____	14
Landscape Design Overview _____	30
Expected Outputs and Habitat Achievements _____	32
Appendix A. Determining Levels of Harvest and Other Silvicultural Activities _____	35
Appendix B. References _____	42
Map Section _____	43

TABLE OF CONTENTS

	Page
District Overview _____	4
Land Ownership _____	4
History _____	5
Physical Elements _____	5
Geology and Soils _____	5
Topography _____	6
Water _____	6
Climate _____	6
Biological Elements _____	7
Vegetation _____	7
Insects and Disease _____	7
Fish and Wildlife _____	7
Human Uses _____	8
Forest Management _____	8
Roads _____	8
Recreation _____	11
Scenic _____	11
Forest Stand Structure Types — Current Condition _____	11
Management Activities _____	14
Current Condition Analysis _____	14
Stand Structure Interaction _____	14
Hardwoods _____	15
Regeneration (REG) _____	15
Closed Single Canopy (CSC) _____	16
Understory (UDS) _____	16
Layered (LYR) _____	17
Older Forest Structure (OFS) _____	17
Management Activities in Each Stand Type _____	17
Regeneration Stands _____	17
Closed Single Canopy Stands _____	18
Understory Stands _____	19
Layered Stands _____	19
Older Forest Structure _____	20
Proposed Management Activities _____	21
Silvicultural Operations _____	21
Roads _____	23
Recreation _____	26
Cultural Resources _____	26
Aquatic Resources: Stream Enhancement Projects _____	27
Energy and Mineral Resources _____	27
Lands and Access _____	27
Scenic Resources _____	28
Plants _____	28
Special Forest Products _____	29

Landscape Design Overview	30
Management Basins	30
Desired Future Stand Structure	30
Assigning Forest Structure Pathways	31
Threatened, Endangered, or Sensitive Species	31
Predicted Potential of Hemlock/Redcedar Natural Regeneration under Partial Cuts	31
Predicted Potential of Successful Hemlock and Cedar Regeneration (Natural and Planted) in Clearcuts	32
Operational Feasibility of Partial Cut Harvesting	32
Expected Outputs and Habitat Achievements	32
Timber Outputs	33
Habitat Achievements	33
Appendix A	35
Determining Levels of Harvest and Other Silvicultural Activities for Northwest State Forests	35
Appendix B	42
References	42
Map Section	43

District Overview

Land Ownership

The Western Lane District manages 24,525 acres of forest in western Lane County between the Willamette Valley and the Siuslaw National Forest, and 1,477 acres in eastern Lane County. The Oregon Department of Forestry manages only 1 percent of the forest land in Lane County, while the federal government (U.S. Forest Service and BLM) manages 67 percent and the timber industry 23 percent.

Most of the land base was tax-delinquent land that Lane County transferred to the state for management in the 1940s. In Lane County, 7 percent of the state forest land is Common School land. In the early 1990s the department began forming larger, more manageable blocks of forest land by exchanging some of the scattered tracts with private industry. The blocks created were in the Tilden Ridge area south of Deadwood and in the Nelson Creek drainage.

Table 7-1. Western Lane District Acreage Breakdown by County and Fund

County	Board of Forestry	Common School	Total Acres
Lane	24,231	1,771	26,002

Table 7-2 shows the classified acres in each of the three stewardship classes, with the overlap included. Table 7-3 shows the gross classified acres in both the Focused Stewardship and Special Stewardship subclasses.

Table 7-2. Western Lane District Acres, by Stewardship Class and Fund

Classification	BOF	CSL	Total Acres
Focused Stewardship	36,649	1,412	38,061
Special Stewardship	4,357	305	4,662
General Stewardship	3,395	725	4,120

* A parcel of land may be classed as both Focused and Special, depending upon the resource considered.

Table 7-3. Western Lane District Acres, Focused and Special Stewardship Subclasses

	Focused	Special
Administrative Sites	0	0
Aquatic and Riparian Habitat	6,273	1,889
Cultural Resources	0	0
Deeds	0	21
Domestic Water Use	5	0
Easements	0	0
Energy and Minerals	0	0
Operationally Limited	0	0
Plants	0	0
Recreation	0	0
Research/Monitoring	0	0
Transmission	0	53
Visual	0	164
Wildlife Habitat	31,783	2,397

History

Intense fires swept much of western Lane County in the Walton/Nelson Mountain/Blachly area several times this century. Afterward, natural reseeding created vast tracts of almost pure Douglas-fir, now 50 to 80 years old, mixed with multi-stemmed bigleaf maple that resprouted from the roots. In the wetter areas, regenerating red alder generally shaded out the conifer seedlings and created mixed, alder-dominated forests.

The fires were less intense in the Tilden Ridge area south of Deadwood, leaving scattered unburned trees and patches. Much of these remaining trees and patches were logged from 1945 to 1955. Since there was considerable ground disturbance, no tree planting, and no attempt to control hardwood competition, the stands grew up to be mixed conifer and hardwoods of various ages.

Physical Elements

Geology and Soils

The geology of the Coast Range portion of the district is sedimentary rock, mostly sandstones and siltstones deposited over igneous rocks of an older seamount terrain. The

deposition of these sedimentary rocks began approximately 50 million year ago. The area has been uplifted and eroded to form the landforms of the present time. The Eastern Lane portion of the district is in the western Cascades. The geologic history of the western Cascades began 40 million years ago with the eruption of a chain of volcanoes just east of the Eocene shoreline. The area tilted and folded during the middle Miocene (approximately 15 million years ago) followed by outpouring lava. These rocks are mostly basalt and andesitic flows, volcanic breccia, tuff, and lesser amounts of other igneous rocks.

The landforms of the Oregon Coast Range are geologically youthful as a result of ongoing lift and erosion. The high precipitation levels combined with steep slopes results in high erosion rates dominated by mass wasting. Forest landslides that result in debris slides are a dominant geologic process on this landscape.

Topography

The state forest land is rugged and mountainous, with half the forest on slopes over 65 percent and two-thirds on slopes over 40 percent. In western Lane County, elevations range from 500 to 2,000 feet. In eastern Lane, state forest lands are on elevations up to 2,600 feet.

Water

About 90 percent of the state forest land in Lane County drains into the Siuslaw River system. The remainder drains into the Willamette via the Long Tom, the McKenzie, and minor tributaries.

State forest land comprises 5 percent of the Siuslaw River drainage basin. In the Siuslaw system, state land management activities can affect the headwaters of major tributaries of Lake Creek, such as Nelson Creek and Greenleaf Creek. State land management can also affect the headwaters of other major streams such as Chickahominy Creek, a tributary of Wildcat Creek, and San Antone Creek, a direct tributary of the Siuslaw.

The district is aware of five individual domestic water intakes on state land. As timber sales are reconned, foresters will examine the area for unrecorded intakes and downstream use.

Climate

Winters are wet and mild, with little snow most years. State forest lands are no closer than 20 miles to the coast, so summers are warm and dry with only a minor marine influence.

Rainfall has been extremely variable this century. For example, Eugene's annual rainfall in the 1920s was 20 to 30 inches but was over 100 inches in 1996. On average, Eugene receives 40 to 50 inches, the Coast Range 80 to 100 inches, and the west slope of the Cascades 60 to 80 inches annually.

Natural Disturbance

Fire, wind, flood, and major earthquakes can occasionally have significant effects on the forest ecosystem and disrupt the most carefully crafted plans.

Biological Elements

Vegetation

The forest is primarily Douglas-fir interspersed with bigleaf maple clumps, but red alder/bigleaf maple stands dominate wet areas and ground that was heavily disturbed during early logging. Hemlock occurs sporadically on north slopes district-wide, and also on south slopes in the westernmost portion of the district. Western redcedar occurs, but is not common outside of riparian areas. Grand fir, Sitka spruce, incense cedar, and pines are very rare. The forest floor is typically covered with a tall, dense brush layer.

The district has about 560 acres of forest stands over 200 years old. All these stands are classed as Special Stewardship and will not be harvested.

Forests in the district contain a great variety of microsites, so most of the common understory species of northwestern Oregon are found here: rhododendron, evergreen huckleberry, red huckleberry, salal, swordfern, vine maple, Oregon grape, salmonberry, trailing blackberry, devil's club, poison oak, etc.

Various noxious weed species such as tansy, scotch broom, knapweed, Himalayan and evergreen blackberry, and thistles are widespread throughout the agricultural and forest areas of Lane County in the district forests, particularly along roads. The county has no noxious weed ordinances, but the Extension Service encourages landowners to control noxious weeds.

Insects and Disease

At this time the district has no serious insect or disease problem. Swiss needle cast exists in the westernmost portion of the district, but, so far, is not causing much of a problem. Laminated root rot can be found county-wide but is important only in small, localized areas.

Fish and Wildlife

The forestlands on the Western Lane District support a variety of wildlife species including the following listed threatened and endangered species: northern spotted owl, marbled murrelets, and anadromous fish stocks.

Northern Spotted Owl

Western Lane County has 10 northern spotted owl activity centers on state lands as of 2000. There are an additional 42 activity centers that affect state lands. Over 80 percent of the state forest land is within 1.5 miles of an owl activity center.

Marbled Murrelet

The district identified approximately 1,287 acres in 12 marbled murrelet management areas. These areas include both habitat and buffer.

Anadromous Fish

Oregon Department of Fish and Wildlife notes only a few streams that flow through state land as coho core areas: Chickahominy Creek and some of its tributaries, Swartz Creek, and Rock Creek.

San Antone Creek is an important steelhead stream, and Nelson Creek is a coho stream as well as having steelhead populations.

Game Animals

Game animals such as deer, elk, ruffed grouse, and mountain quail are present, but not often seen. Evidence of bears is widespread.

Human Uses

Forest Management

During the past 40 years, Western Lane's harvest has mostly involved the forest patches that escaped the twentieth century fires. The district thinned a few 45-year-old stands during the 1970s.

The district has always had a very small harvest level. Previous forest plans called for a clearcut harvest of about 120 acres per year, less than 0.5 percent of the land base annually. Plans assumed a threefold increase in clearcut harvest beginning about 2010, when large acreages reached 80 years old. The district generally maintained this 120 acres/year clearcut harvest level until 1990. In that year the department implemented a northern spotted owl policy that postponed any clearcut harvest within 1½ miles of owl activity centers. The policy also restricted partial cutting within 1½ miles. From 1990 through 1995, Western Lane auctioned a total of only 94 acres of clearcut harvest and 89 acres of partial cutting.

In December 1994 the Department of Forestry modified its policy, allowing harvest in accordance with the 1990 U.S. Fish and Wildlife Service's *Procedures Leading to Endangered Species Act Compliance for the Northern Spotted Owl* (USFWS 1990). Western Lane then initiated a timber sale program based largely on second growth thinnings.

In 1995 the district auctioned one 208-acre partial cut, and in the 1996 through 2000 period averaged 482 acres per year of partial cutting and 28 acres of clearcut.

Roads

The district's primary road network is an established system that has been in place for decades. It provides access for forest management activities, fire suppression, and public travel.

In general, the district road network can be divided into the following categories and subcategories:

Open Road — This category includes any road open for travel with a motorized vehicle with at least four wheels. It includes permanent roads and also temporary roads that are currently in use or will be used in the near future. These roads are usually available for use

at any time of the year. Use may be continuous or intermittent. Roads in this category require active maintenance and have a full maintenance obligation under the Oregon Forest Practices Act.

Restricted Access Road — This group includes two sub-categories of roads closed to vehicle use and requiring maintenance under the Oregon Forest Practices Act.

- Closed road — There is restricted access to the road for part or all of the year. This may be as simple as placing a sign or other marker at the start of the road, as might be the case in a cooperative travel management area for wildlife protection. Or, it might involve placing a semi-permanent barricade at the start of the road. This barricade can be a gate, large boulders, stumps and logs, or a trench. This strategy does not significantly alter the nature of the road, and the obligation to maintain the road remains. Road maintenance needs and sediment loads are reduced due to the elimination of traffic-related wear.
- Partially Vacated road — Partial vacation involves barricading the road and installing minor drainage structures, which might include the construction of water bars or rolling dips. This strategy is best suited for roads that will be needed again after long periods (perhaps as much as 15 to 20 years) of inactivity. Ridge-top roads or other roads where drainage and sediment issues are negligible are good candidates. The nature of the road may be altered somewhat through the addition of waterbars and other drainage structures, but the obligation to maintain the road remains. Sediment loads are reduced due to the elimination of traffic-related wear, and road maintenance needs are greatly reduced.

Retired Road — This group includes two sub-categories of roads not available for vehicle use and not requiring maintenance under the Oregon Forest Practices Act.

- Fully Vacated road — Full vacation involves removing all stream crossing structures, installing maintenance-free drainage (outsloping, water bars, rolling dips, etc.), pulling back any sidecast material, seeding grass on disturbed soil, and barricading the road. The road is effectively “put to bed.” All access is prevented, and there is no maintenance obligation. Cross-drain culverts may be left in place but will not be considered as a functional drainage feature.
- Abandoned road — These roads are no longer used or maintained but have not been formally vacated to today’s Forest Practices standards. These roads are generally unavailable for use due to encroaching vegetation or road failures that prevent passage of vehicles.

The last two categories are referred to as “Managed Access” categories. The roads in these categories are predominantly short spur roads and some collector spur roads. These roads are closed to reduce or minimize vandalism, dumping, operational conflicts, wildlife harassment (cooperative travel management areas), road wear, and water quality impacts. All Managed Access roads are open to public non-motorized travel (hiking, biking, horse riding) with the exception of areas in active operations.

The Open and Restricted Access Roads have been classified into three separate road use standards as defined in the *Forest Roads Manual*, pgs 3-6,7 (ODF, July 2000). These standards provide guidance on how roads are constructed, improved, and maintained, and are defined below:

Low Use Standard — These are individual short spur roads designed primarily for pickups and log trucks. Low use roads generally provide access to a single harvest unit. Their use is short term and may be temporary.

Medium Use Standard — These are longer spur roads designed primarily for pickups and log trucks. Medium use roads may provide access to several harvest units. Their use is more permanent.

High Use Standard — These are longer roads designed for all types of traffic, including large equipment. High use roads are generally permanent and provide access to large areas. They are referred to as mainline roads.

Table 7-4. District Road Network, by Road Type

Road Use Standards	Miles
Low Use	25
Medium Use	33
High Use	0
Total Miles	58

Information about the current condition of roads was gathered during 1999 and 2000 on all the open roads controlled by the Department of Forestry. The information has been used to identify areas of concern, prioritize repair activity, and plan road management activities.

Over 60 percent of the road miles are located on ridge tops. Approximately 30 percent are midslope roads, and the remaining roads are located in valleys.

Approximately 86 percent of the road miles are surfaced with rock, with the majority of the surfacing being old rock. Dirt roads comprise 14 percent of the miles of open roads.

There are only two culverts which pose an obstacle to fish passage on roads controlled by the department. Both are on old, overgrown, impassible roads. One is on a tiny tributary of Wolf Creek. This culvert will be replaced with the 2003 sale, Sturtevant Thin. The other is a 72 inch culvert on the upper reaches of Cattle Creek. Engineering plans have been made to remove this culvert, and we have applied to the Siuslaw Watershed Council for funding assistance.

More specifics about planned road activities can be found under “Proposed Management Activities” later in this document.

Recreation

Recreation on state forest lands includes occasional hunting, minor amounts of chanterelle mushroom picking, and some backroad driving. State land is not adjacent to fishable streams and has no scenic vistas or hiking trails. We do not anticipate that recreational use of state land will increase to any appreciable extent.

Scenic

State land in the district has very limited scenic value. The western part of the district is bisected by Highways 36 and 126, which are designated as scenic highways. A few hundred acres of state land are visible from the highways. State land is not visible from urban areas and does not provide any important scenic vistas.

Forest Stand Structure Types — Current Condition

The current stand condition is displayed in the graphs on the next page, and in the second map in the **Map Section**. Figure 1 on the next page shows the current stand structure, acreage, and percentage, using the structure-based management definitions for structure types. The stand structure abbreviations are given below.

In order to determine the current condition of the stand structure array on the district, the OSCUR stand inventory was screened, and results were verified with aerial photos and field work. The OSCUR inventory was developed in the late 1970s and early 1980s, primarily to track the growth and yield of forest stand types for timber production. Therefore, it is possible to make errors on forest stand types using OSCUR, due to the incomplete stand structure information (e.g., there is no information on understory species composition, nonmerchantable tree species, layering, etc.).

In order to correct any errors, all silvicultural prescriptions will be based on actual field reconnaissance during pre-operational analysis and planning, rather than on these initial OSCUR screens. A new Stand Level Inventory is under development and will include additional information on noncommercial forest resources. This new information should assist foresters to more accurately assess forest stand structure. The current OSCUR inventory does include some information related to stand structure, including tree species composition, stand age, stand density, and stand management history. These parameters were used in the current condition analysis.

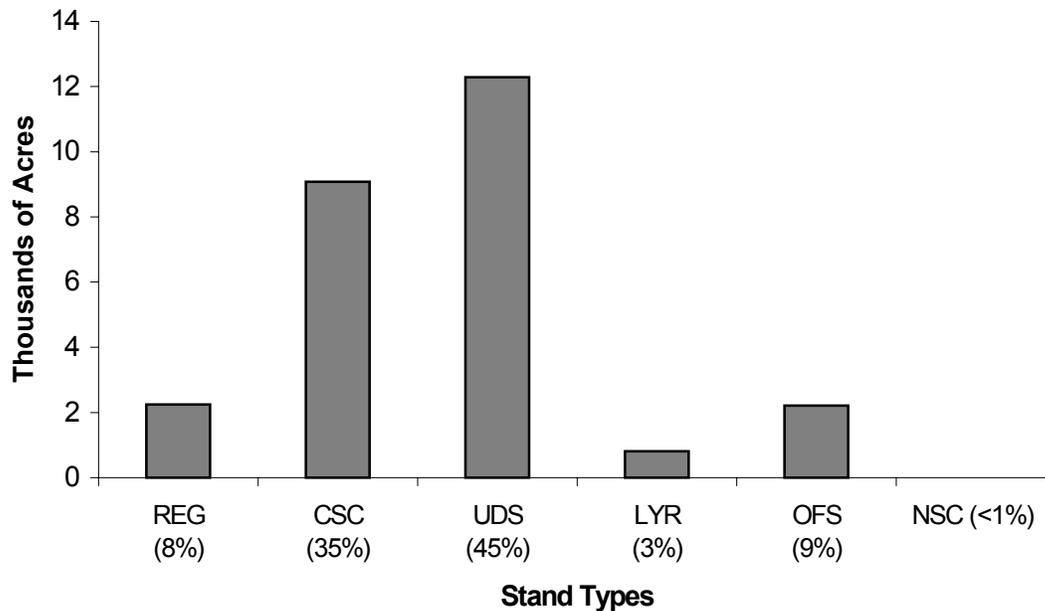
Figure 2 shows the current age distribution of the forest, regardless of structure, by acreage and percentage.

Abbreviations for Forest Stand Types

REG	Regeneration
CSC	Closed single canopy
UDS	Understory

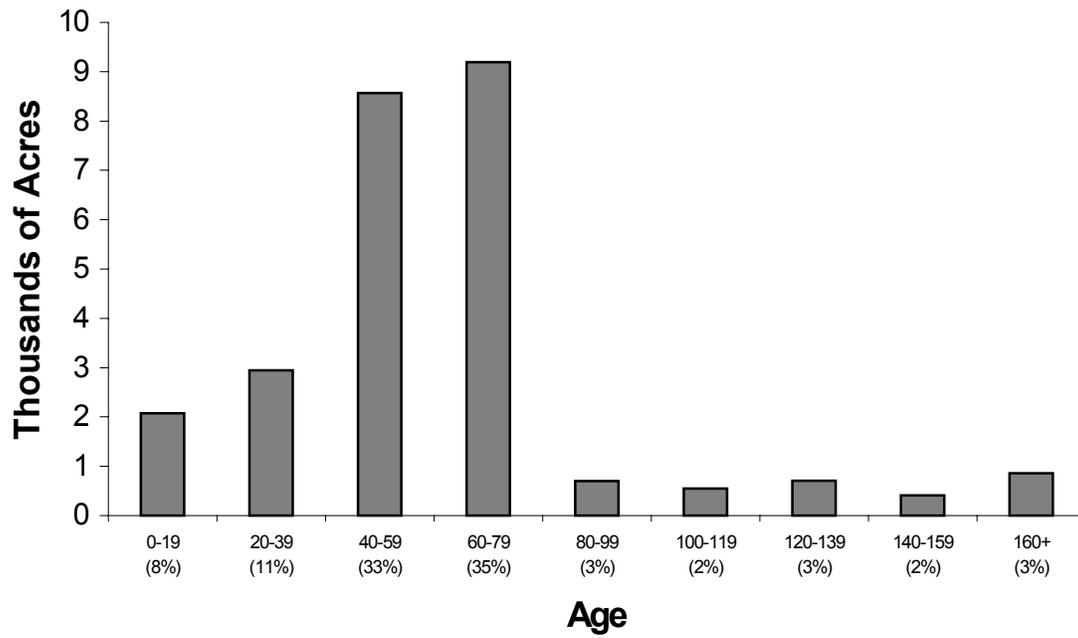
LYR Layered
 OFS Older forest structure
 NSC Non-silviculturally capable
 GEN General forest

Figure 1. Western Lane District Forest Structure 2001



District analysis identified 9 percent of the forest as Older Forest Structure, even though only 5 percent is listed in our inventories as over 126 years old. The reason for this is that some stands predominately 60 to 75 years old contain a residual overstory of trees more than 200 years old, numerous large snags, and much large down wood.

Figure 2. Western Lane District Forest Age Classes 2001



Management Activities

Current Condition Analysis

To arrive at the acreages given for the various stand structure types in this plan, the district classified the various stands into types during field visits, and examined the GIS (Geographic Information System) data for tree density, age, and species. Unvisited stands were assigned the same structure as the visited stands with matching GIS data. The GIS data is from old inventories that were designed to show age, species, diameter, and trees per acre. However, since this inventory was not designed to differentiate between structure classes, the mapped structure classes are only approximate. Understory, snags, and down wood were not sampled. These maps will be updated as new inventories are completed and as management activities are proposed.

Stand Structure Interaction

The Current Condition Analysis and the Landscape Design sections of this Implementation Plan describe the amount of each of the identified forest stand types. As described in the forest management plan, the stand types represent only five points along a continuum of forest development. Five “stand” types were developed as a means to plan for and assess the development of the forest toward a range of “forest” types over time. Because the five types are only points along a continuum they do not express five specific habitat types nor are they perceived as discrete habitats by wildlife species. This is discussed in detail in Appendix C of the forest management plan.

As you think about the current condition and desired future condition descriptions as they relate to wildlife habitat keep in mind the following concepts and refer to Appendix C in the forest management plan for more detail.

In an attempt to describe how wildlife may view the forest, they seem to “see” three fundamental patch types. The table below compares these three patch types to the five stand types described in the forest management plan.

Comparison between Landscape Patch Types and Stand Types

Landscape Patch	Stand Type
Young forest	Regeneration through closed single canopy sapling stands
Pole-sized forest	Closed single canopy pole-sized through layered stands
Mature forests	Closed single canopy, understory, layered, and older forest structure stands (trees larger than pole-sized)

Thus, as you examine the current and desired future conditions described by the stand types, it is important to think about combinations and aggregations of different stand types that function together to provide the benefits for each of the three broad patch types that wildlife use.

For example when thinking about the amount of mature forest habitat that will be provided by the anticipated future array of layered and older forest structure stands – also consider the role of understory and closed single canopy stands. The desired future condition was developed to provide a blueprint of a desirable array for the development of the percentage of layered and older forest structure stand types in the future if natural disturbances allow and management assumptions come to fruition. As described in the table, these stand types will be complemented by adjacent understory and large diameter closed single canopy stands to provide habitat patches that represent mature forests to wildlife species. The result being significantly more acres of mature forest habitat available for wildlife than any single stand type represents.

The entire array of all stand types has not been depicted because it is virtually impossible to predict how each stand on the landscape will develop over the next several decades. By focusing on generally, where we anticipate the development of layered and older forest structure stands, it provides the local manager with the blueprint for the management prescriptions necessary to move the landscape in the desired direction. Future adjustments will undoubtedly have to be made as natural disturbances, insects and disease, or other factors result in some stands not developing in accordance with management plans.

Hardwoods

Hardwoods, primarily alder and bigleaf maple, are found throughout the District – sometimes in fairly pure stands and sometimes mixed with conifer. It is usual for conifer stands to have a scattered bigleaf maple understory the same age as the conifer overstory.

Only about 5% of the district is in stands classified as hardwood (hardwoods comprising over 70% of the tree canopy), and much of that is in riparian areas. Most streambank areas are primarily hardwood, and hardwood stands are found in areas where mineral soil has been exposed by old tractor logging, old downhill yarding, or old slope failures. Most commonly, these hardwood stands are classed as CSC structure due to the lack of diversity in understory brush. Often the brush is nearly pure salmonberry or nearly pure swordfern.

However, our 1980's inventory shows that nearly half the district forest contains more than 20 hardwood trees per acre. So, hardwoods are a major component of Western Lane District forests. Our management activities will ensure that hardwoods remain a major component in the forest.

Regeneration (REG)

REG structure comprises 8 percent of the district. This structure consists of even-aged stands of conifer or hardwood 20 years old or younger.

Closed Single Canopy (CSC)

CSC structure covers 35 percent of the district. In this stand type, trees fully occupy the site and form a single canopy layer. The two main types of CSC stands in the district are: (1) 20- to 40-year-old Douglas-fir plantations that are too dense to allow much brush growth, or (2) hardwood or conifer stands with low brush species diversity. CSC is also found in hemlock stands since hemlock grows dense enough to keep most sunlight from the forest floor. (The district has very few hemlock stands.) Some dense, naturally regenerated Douglas-fir stands 35 to 60 years old were also classed as CSC because they have very little brush. These stands are often on dry, south slopes.

Distinguishing between CSC and UDS is very subjective. Since almost all our natural stands have considerable brush, the difference between CSC and UDS in Lane County generally is whether the stands have just a few species of brush or several species (CSC has a few and UDS has several). Since the inventory data is outdated and did not collect understory data, the current CSC vs. UDS classifications are rather unreliable.

Understory (UDS)

UDS stand structure covers 45 percent of the district. Naturally regenerated conifer stands 50 to 100 years old are typically UDS. These stands commonly have a dense brush layer of salal, vine maple, huckleberry, and sword fern. Salmonberry, evergreen huckleberry, ocean spray, rhododendron, hazel, and poison oak may also be present. Unless they were partial cut at one time, these stands in Western Lane usually contain little conifer understory, and most do not seem to be developing into a more complex structure.

Because of the hardwood component in our stands, many mature UDS acres are “borderline” LYR. These stands are even-aged Douglas-fir with a scattered understory of bigleaf maple and very tall vine maple. The hardwoods are the same age as the conifer overstory and are a result of stump sprouting after stand replacement fires or clearcut logging. As the conifer grows and the forest floor becomes more shaded - and as the lower portions of the conifer tree crowns die - these stands may slowly lose those LYR characteristics which they now have.

Disturbances from harvesting or windstorms can help maintain, or enhance, those LYR traits that already exist in these UDS stands. But because of the lack of a younger cohort of shade tolerant conifer in the understory, many of these UDS “borderline” LYR stands may never develop classic LYR structure without artificially introducing shade tolerant conifer followed later by another harvest entry. The district has natural stands of Douglas-fir over 100 years old which have no conifer layering and no possibility of developing it within the foreseeable future. We assume that this will be the natural fate of most of our UDS Douglas-fir stands, except in wetter areas such as north slopes and higher elevations. Most Douglas-fir stands eventually naturally develop layering of shade tolerant conifer, but this may take a couple of centuries.

Layered (LYR)

State forest land in this district has very few stands with classic LYR structure where the understory layer is composed of shade tolerant conifer species under a conifer overstory. Less than three percent is currently classified as LYR; our goal is 20 percent. If CSC and UDS stands are left unmanaged, windstorms and rots may eventually create openings that may allow LYR structure to naturally develop in some areas, particularly on wetter sites with some existing shade tolerant conifer in the understory. However, as discussed above, we doubt that this natural transition from CSC or UDS to a conifer understory LYR will be very common in most of our landscape except over a very long time span.

Older Forest Structure (OFS)

Approximately 9 percent of the state forest land in Lane County is OFS. Of this, 425 acres (1.6% of the district forest) is forest over 200 years old. The remainder of OFS is younger forest with an overstory of older trees that survived the fires. All the OFS is in scattered patches west of Walton. However, it is often adjacent to federal forests with the same structure.

Management Activities in Each Stand Type

The following section discusses the purpose and rationale for conducting silvicultural activities in each of the stand structure types.

Regeneration Stands

All current and future clearcut harvests are designed to leave live green trees, snags, and down wood. These structural components in the young plantations will make future REG function differently than past REG.

Reforestation

Mixed species stands are important for diversity, and at least two conifer species will be planted in each unit. In addition, since scattered conifer is left during harvest whenever available, it is anticipated that natural seeding will contribute substantially to reforestation. Site preparation by spraying herbicide may occasionally be necessary to control competing brush, but it will not be a standard practice.

It is often necessary to reduce the amounts of competing vine maple and excessive alder and bigleaf maple about 5 years after plantation establishment. Alder and bigleaf maple are considered excessive on standard upland units if they threaten to dominate more than 15 percent of the site outside riparian areas. Hand slashing is the first preference for alder control, but maple requires herbicide. Most maple units can be successfully treated with ground herbicide, but there will be instances where aerial spraying will be necessary.

Precommercial Thinning

Later in the regeneration stage, the trees begin to compete with each other. Depending on stand density, some units may need thinning in the sapling stage (12 to 18 years). But if units were planted at a 12-foot spacing or wider and natural seeding was sparse, the district

may opt not to precommercial thin. The District does not plan to do much precommercial thinning.

Pruning

The district has no plans to prune young forest stands.

Closed Single Canopy Stands

Partial Cut Harvest in Plantations

Older plantations are about the only Douglas-fir stands in the district that are clearly CSC. The first partial cut harvest in plantations will be at age 30 to 40. Partial cutting will open the stands so that brush species are temporarily reintroduced, producing an understory stand type that will survive several decades before the canopy closes in and the structure begins to revert to CSC. During the next 10 years, 200 to 300 acres of plantation will be partial cut.

If these plantations are in areas which are to be developed into LYR structure, partial cutting will leave wide spaced or patchy trees, and underplanting may be used to introduce shade tolerant conifer into the stand. Underplanting may be more successful in producing LYR structure in these stands than in older, UDS stands. The lower crown heights of overstory trees in these young forests and the lack of competing understory vegetation both should contribute to underplanting success.

Harvest in Naturally Regenerated CSC Conifer

Naturally regenerated CSC conifer may be partial cut or clearcut, depending on:

- Density and crown-to-bole ratio of the trees (potential for blowdown after partial cut),
- Desired future structure in that area, and
- Suitability of the terrain.

For example, stands on isolated parcels with UDS as the most complex structure desired are obvious clearcut candidates. .

Naturally regenerated CSC conifer stands in areas to be developed into LYR structure are usually clearcut candidates only if density or terrain precludes partial cutting. Establishment of a shade tolerant conifer understory is fairly easy if there is no understory brush competition.

Some very brushy stands are classed as CSC because of lack of diversity in brush species. Underplanting these stands which have a very heavy salal, evergreen huckleberry, salmonberry, vine maple, or rhododendron understory is a complete waste of time. If LYR is the ultimate goal, these stands must be clearcut and shade tolerant conifer heavily used in the species mix during reforestation.

Hardwood Clearcuts

Several hundred acres of mixed hardwood/conifer generally classified as CSC will be clearcut and converted to stands with a higher percentage of conifer. Alder is a short-lived species, making a high proportion of conifer desirable in any area where LYR or OFS structure is the desired future condition.

In those areas where GEN is the long-range goal, alder should be harvested before it begins to lose value from age-induced rots.

Understory Stands

Partial Cut Harvest

The majority of partial cutting will be in naturally regenerated, 50 to 80 year-old Douglas-fir stands with an understory structure. If general forest (GEN) is the structure goal, stands usually will be cut to a relative density of 30 to 35 percent. If LYR or OFS is the goal, a relative density of 20 to 26 percent may be used, or a variable density harvest with thinned areas and small clearcuts from one to a few acres in size. Removing hardwood patches during the thinning operation is one way to produce small clearcuts.

Planting Partial Cuts

Partial cuts where general forest is the structure goal will not be planted, although natural seeding of some sort may occur.

If LYR is the future goal, conifer will be encouraged in the layering structure in addition to the common bigleaf maple. Most areas targeted for future LYR structure have at least some hemlock and cedar in both the overstory and understory. Heavy partial cutting will release understory conifer and additional hemlock will naturally seed in.

In future LYR where there is little hemlock/cedar understory or seed source, the district may underplant those species to add additional understory conifer to the future stand. However, natural seeding or planting in mature stands probably will not produce significant layering without a very long wait and another harvest entry to allow more light. In many cases ODF's new style of clearcutting with green tree retention and no slash burning to protect existing saplings may result in classic LYR structure more surely, and faster, than partial cutting in these type of stands.

Conifer Clearcuts

During the next 10 years, 500 to 800 acres of conifer UDS stands will be clearcut. This amounts to less than 7 percent of the current UDS acres. These clearcuts will be in areas where future goals do not call for complex stand structure, are on terrain not suitable for partial cutting, or are in stands which we determine can not be grown to LYR in a reasonable time period by partial cutting because of lack of an existing conifer understory or severe brush competition..

Layered Stands

Partial Cuts

In classic LYR structure stands (with a conifer understory) which are over 20 acres, only partial cuts are planned. This will be the case regardless of the current desired future condition structure targets. These harvests will be heavy partial cuts and patch cuts designed to release the developing conifer understory and improve future LYR conditions. Increased sunlight from partial cutting encourages the development of various brush and

tree species in the understory. The more sunlight that reaches the forest floor, the more vigorous, and usually, the more varied, the understory.

Clearcuts

Stands that may be classed as LYR because of a hardwood layering component, and which have little conifer layering, may be clearcut candidates. (Currently these stands are classed as UDS). Without an existing shade tolerant conifer understory, partial cutting is not likely to produce significant conifer layering in the future. Underplanting trials to present suggest that even partial overstory shade markedly reduces vigor, allowing vegetative and animal competition to severely affect survival and growth of planted seedlings. These underplanting trials will be closely followed the next ten years.

Stands selected for clearcut harvest will be planted with a mixture of conifer - plus natural hardwoods will be a desired component in the new stands. In areas where LYR is the desired future condition, reforestation and young stand management will be specifically tailored to produce LYR structure. The combination of reserve overstory and scattered saplings, widely spaced planted and naturally regenerated shade tolerant conifer, and reserve and naturally regenerated hardwood has a high probability of producing good quality, classic LYR structure within 60 years or less.

Older Forest Structure

Only partial cuts which will enhance current structure are planned in older forest structure during the first 10-year period. However, should a stand-replacing event such as fire or windstorm take place, the district would salvage some of the trees, retaining sufficient snags, down wood, and green trees to meet the requirements for older forest structure.

Proposed Management Activities

The management activities summarized below describe what will be accomplished in fiscal years 2002 through 2011. Harvest level calculations are based upon current conditions and policies. Should an HCP be approved in the future, harvest levels will be recalculated.

Silvicultural Operations

Table 7-5. Planned Silvicultural Activities

Silvicultural Activity	Annual Objective Acres / Year
Conifer Partial Cut Harvest ¹	0-500
Clearcut Harvest ²	0-280
Rehabilitation	0
Reforestation	
Initial Planting	0-350
Underplanting	0-150
Precommercial Thinning	0-300
Fertilization ³	0-2000
Pruning	N/A

1. 253 ac/yr average.
2. 136 ac/yr average.
3. If the District decides to fertilize, all the fertilization for the decade may be done in one year.

Currently, 35 percent of stands are in the closed single canopy stand structure. Both partial cutting and clearcutting will be necessary to begin moving the forest structure toward the desired future condition. Harvesting restrictions due to threatened and endangered species will have an effect on achieving these goals, but the magnitude of this effect is unknown.

Partial Cutting

Partial Cut Priority 1 — The immediate priority will be to encourage development of more complex structure in naturally regenerated 40- to 90-year-old UDS and CSC stands through partial cutting. Occasionally, this may also involve underplanting shade-tolerant conifers. Since understory trees need to be at least 30 feet tall to qualify stands as layered, bigleaf maple or understory shade-tolerant conifers must already exist in the stands to ensure layered structure within 20 years. Underplanted conifer, or conifer that seeds in after partial cutting, probably would take more than 30 years to produce a LYR structure.

In areas where LYR or OFS is the structure goal, partial cuts will widely space the leave trees or create gaps in the stands. In areas where General Forest is the goal, thinnings will be more traditional and leave the stands fairly dense.

Partial Cut Priority 2 — The second harvest priority will be in 35 to 45 year old plantations that have reached a closed canopy condition and are in danger of developing poor height to diameter ratios. Partial cutting will stabilize these stands so they will have a greater potential to develop into LYR or OFS. In areas planned for LYR or OFS structure, partial cuts will leave stands more open than in areas planned only for GEN. Both priority 1 and 2 partial cut harvests will leave dead snags; old, large logs; and newer blowdown, plus tops and defective pieces of the harvested trees. In addition, old growth residual trees will be left in the partial cut areas. Following a partial cut harvest, it is not uncommon for residual trees to blow down in the stands. When scattered throughout the stand, these individual trees will not be salvaged unless surveys show the stand contains more down wood than required under down wood targets.

The district will artificially create some new snags in partial cuts during the 10-year planning period. In addition, trees used for intermediate yarding supports will become snags. Other snags will be naturally created when tops blow out of some of the leave trees and when trees die from disease or insects.

Clearcut Harvest

During the next few years, the district intends to begin clearcutting in mixed hardwood/conifer stands in Township 17 South, Ranges 8 West and 9 West. These clearcuts will leave old growth trees (including bigleaf maple over 30 inches in diameter at breast height); scattered mature and understory conifer; dead snags and large defective trees that are not safety hazards; old, large logs; newer blowdown; plus tops and defective pieces of the harvested trees. Conifer trees will be topped if insufficient snags per acre remain after harvest, and trees may be felled and left to meet down wood requirements.

On the north side of Tilden Ridge, where LYR structure is our year 2100 goal, alder and maple are now the dominant species over much of the area. These current stands may not develop into LYR structure for perhaps centuries. The district intends to cut the hardwoods (except large bigleaf maple), leaving as much of the scattered understory hemlock and cedar as possible, and leaving all trees over 200 years old that are not in roads, landings, or yarding corridors. After harvest we will plant hemlock and cedar, and treat hardwood and brush competition. The combination of planted conifer, naturally seeded conifer, released understory conifer, and remnant larger trees, plus naturally regenerated hardwoods, should create a good LYR structure by the year 2100. Thinning may be desirable 30 to 40 years after clearcut to improve LYR success. However, much of the terrain is broken and poorly suited for thinning operations.

Throughout the district there will be clearcuts in 50 to 120 year-old conifer where terrain precludes conventional thinning, parcels are small and isolated, or where there are access problems. Clearcuts will also be used to add diversity in large areas of contiguous second growth conifer.

Roads

Table 7-6. Road Activities for the Western Lane District from Fiscal Year 2002 through Fiscal Year 2011, by Road Classification and Miles

	Low Use	Medium Use	High Use
Current Miles of Road	25 miles	33 miles	0 miles
New Road Construction	15 – 25 miles	5 – 12 miles	0 miles
Road Improvement	2 – 8 miles	8 – 10 miles	0 miles
Road Closure and Vacation	2 - 4 miles	0 – 2 miles	0 miles
Estimate Miles of Road in 2011	38 – 46 miles	38 – 43 miles	0 miles

Planning

The *Forest Roads Manual 2000*, beginning on pg 2-1, discusses planning. Level I planning is broad, long range planning such as the *Northwest Oregon State Forests Management Plan*. Level II is mid level, moderate range planning such as this 10 year plan. Level III is short term planning for sales scheduled over the next couple of years.

The district has prepared GIS-based plans for road construction/reconstruction activities for the next decade. These plans are in a constant state of flux and change frequently as new information becomes available – and as rules, regulations, and policies change.

Classes of Activity

The desired future condition of the road system is one that provides for the transportation needs of the district without significantly impacting water quality, garbage and vandalism, or fire start danger. Road activity that will occur during the planning period is classified into four distinctive types of work:

Construction and Reconstruction — The building of new roads or reconstruction of old, overgrown roads which have been abandoned for decades.

Improvement — Improving the quality of an existing, driveable road. This may include widening, pulling back old sidecast, adding turn-outs, removing roadside brush, improving the drainage system to reduce sedimentation, or adding clean surface rock.

Maintenance — The ongoing work necessary to keep a road at its desired standard and to prevent any damage to the road or the surrounding environment.

Access Management — The work necessary to move a road from “open road” status to one of the “managed access” categories. This work may involve any activity from simply barricading the road to fully vacating the road.

Construction

Most main roads in the district have already been constructed. In general, these roads are controlled and maintained by federal agencies. However, nearly all sales require constructing spurs up to a mile and a half long from these main roads. In the next few years the district will construct 7 or 8 miles of low-use and medium-use roads for every 1,000 acres harvested. The roads will generally be ridge top roads that allow uphill cable yarding. Spurs less than ¼ mile long most often will be unsurfaced, and waterbarred and blocked after summer use. Surfaced roads usually will be kept open for department management after harvest.

Currently nearly 40 percent of department-controlled roads are gated. Most of the gates are on other ownerships prior to entering state forest land. Additional gates will be installed in future years by the Department of Forestry and other landowners to minimize erosion from backroad driver winter use, to reduce wildlife disturbance, and to discourage garbage and vandalism.

Major Reconstruction Projects

About 20 miles of old, impassible roads will be reconstructed during the 10 year planning period. In the Tilden Ridge area, 4 major road projects totaling about 10 miles will be needed in the next 10 to 15 years. All require reconstruction of old, abandoned 1940s/1950s roads that are covered with dense, 8-foot-tall salmonberry, and with alder in some places.

The first road project is the old Beech Creek Road that runs about 5 miles midslope on the south side of Tilden Ridge on very steep terrain. The creek crossings have washed out, but the major portion of the road appears stable. Some widening and some sidecast pullback will be required. This road will be rocked as part of the reconstruction.

The second road project begins on the top of Tilden Ridge in Section 24, Township 17 South, Range 9 West. It runs about 1.5 miles across very steep ground on the north slope of the ridge. It appears that in November 1996 two major slides down the creeks through Sections 23 and 14 of the township may have been triggered by sidecast failure from this road. Reconstruction will require some sidecast pullback with particular attention paid to draw crossings. Not all of this road may be suitable for reconstruction.

The third road project begins on the top of Tilden Ridge in Section 20, Township 17 South, Range 8 West and runs 2.4 miles northerly through Sections 20 and 16. The lower 1.4 miles will be reconstructed during the next 10 years. Most of this road is ridge top, but in some areas it sidehills on moderately steep slopes. Sidecast pullback probably will not be required.

The fourth road reconstruction project begins in Section 19, Township 17 South, Range 8 West and runs westerly, then northerly, for a total length of 1.1 miles, all in Section 19. Most of the road is sidehill on very steep slopes. Some sidecast pullback will be required.

Typical Construction Practices

Typical low-use roads will be on or near ridge tops. For summer haul, the design will be 14- to 16-foot-wide outsloped dirt roads with steep cutbanks (ratio ½:1) to reduce disturbance. On sideslopes over 50 percent, full bench construction will be used and the excavated material endhauled to stable locations. Prior to fall rains (about September 30), roads will be waterbarred and blocked. Purchasers may be given the option of rocking to extend the hauling season. If rocked, appropriate drainage structures must be installed to minimize impacts to water quality.

Medium-use roads will usually be designed for true winter haul. Design will depend on the proximity of water and on road grades. Roads generally will be ditched, culvert cross-drains installed every 40 feet in elevation change, and 8 to 10 inches of crushed rock applied. Roads with grades of 10 percent or less and not near watercourses may be outsloped instead of ditched.

The district will not be constructing any high-use roads.

On all roads, disturbed soil within 100 feet of creek crossings will be grass-seeded in the fall following construction. Dirt roads will be waterbarred after use and blocked if not protected from public use by gates.

Improvement

About 10 miles of existing driveable roads will be improved in this ten-year period. The largest projects are the Tilden Ridge Road (south of Deadwood) and the Greenleaf Road (west of Triangle Lake).

Maintenance

Timber sale purchasers will be required by contract to maintain ODF-controlled roads providing access to sales. ODF will maintain other roads with district personnel or private contractors. Key elements of road maintenance include:

Road inspection – Road inspection frequency will depend upon the potential for problems on that road segment. The forest road inventory will be updated as needed and include information on road improvements or changes to the road system. Inventory information will be used to identify and prioritize road maintenance needs and road improvement opportunities. The forest road inventory identifies roads of concern in order to prioritize repair. Major elements of the inventory include stream crossing structures, potential slope failures, and road surface drainage problems.

Storm patrols – Roads – particularly new construction – will be monitored during and after significant storms to catch problems that may be developing.

Vegetation control – The district will aggressively attack noxious weeds such as scotch broom and gorse that often spread along road systems. Other vegetation that may be safety concerns or which may threaten to impede drainage will be controlled.

Drainage maintenance – The most common problem on forest roads is deterioration of drainage. Maintaining ditches, ditchouts, and crossdrain culverts – and maintaining road surface drainage – are standard maintenance practices.

Access Management

No major projects to vacate or abandon existing roads are planned in this decade. However, many short dirt spurs constructed during this period will be closed after hauling is completed.

In addition, gates may be installed on both existing roads and new construction. Gates will be closed if vandalism or garbage dumping, or road damage from public use, begins occurring. Gates may also be closed during high fire danger or upon request from the Oregon Department of Fish and Wildlife to reduce unlawful hunting. The District estimates that, at the end of this decade, over half the ODF controlled roads will be gated.

Slope Stability and Debris Flows

About half of the forest is on slopes over 65%. This number is somewhat misleading since much of the land designated as current or future OFS is on steep slopes. We do not intend to operate on most of the current or future OFS during the next ten years.

Debris flows will occur in both harvest units and unharvested areas during the planning period if major storms occur as they did in 1996. The *Northwest Oregon State Forests Plan*, page J-10, describes the leave tree requirements along small perennial and seasonal streams on steep ground. The purpose of the leave tree requirements is not a futile attempt to stabilize the streambanks, but instead recognizes the downstream benefits of large woody debris when the stream channels eventually do fail. In addition to riparian leave trees, the district will concentrate upland leave trees in stream headwall areas whenever feasible.

Slope stability is of particular concern in road location, construction, and maintenance. Whenever there are downslope water courses that could be threatened by sidecast failures, waste from excavation will be endhauled to a stable location. All proposed waste areas and all proposed construction through headwall areas will be inspected by the Southern Area geotechnical specialist prior to finalizing plans.

Road maintenance will concentrate on ensuring that proper drainage is maintained to disperse runoff and not allow it to saturate fill slopes or unstable hillsides, to keep water in the same drainage in which it originated, and to keep draw crossing culverts functional.

Recreation

Recreation has an economic value to the local community and the region. However, State forest lands in Lane County are scattered and have few characteristics that attract recreational use. Although game animals are scarce, there is some hunting, and most years chanterelle mushrooms are available in the fall. State lands contain few fishable streams, has no lakes, and has no scenic vistas. No recreation development is anticipated because of the lack of suitable sites.

Cultural Resources

- Cultural resource inventories will be developed and completed within the ten-year implementation planning period and incorporated into GIS.

- Inventoried cultural resource sites will be evaluated to determine the appropriate protection class (Class I, II, or III).
- Potential operation areas will be checked against the cultural resource site inventory for the district to see if any sites are in or adjacent to the operation area.
- Sites that are within or adjacent to a proposed operation that has the potential to impact the site, and which have not been assessed for class designation, will be evaluated to determine the appropriate cultural resource class.
- Class I sites will be protected according to the legal standards in the applicable laws.
- Protection of Class II or III sites will be based on field inspection of the site and consultation with the appropriate Department of Forestry or other specialist.

Aquatic Resources: Stream Enhancement Projects

The district has cooperated the last few years with the Oregon Department of Fish and Wildlife (ODFW) on two stream enhancement projects involving salmon streams (Nelson and Chickahominy creeks). We anticipate working with ODFW and/or watershed councils during the implementation plan period to identify and improve habitat within ODF managed land.

Energy and Mineral Resources

Currently no rock sources suitable for crushing have been identified; nor have any oil or natural gas reserves been located.

Lands and Access

The district will carry out the following activities.

- Continue to pursue land exchange opportunities that are consistent with current Board of Forestry policy to achieve greatest permanent value. Land exchanges are appropriate to consolidate state forest lands, and to acquire lands chiefly valuable for the production of forest crops, watershed protection and development, erosion control, grazing, recreation, or forest administrative purposes.
- Maintain an updated land exchange plan.
- Follow current Board of Forestry policies for land acquisitions and exchanges. Land acquisition and exchange policies are currently undergoing administrative rule development (Draft OAR Chapter 629, Division 033) and are expected to be completed in the year 2002.
- Update/complete a land exchange and acquisition plan.
- Develop an inventory of needed land survey work.
- Develop a land survey plan for the district to accomplish the work identified in the inventory within a specified timeline.
- Maintain a map-based inventory of needed land survey and road access.

Scenic Resources

The resource analysis section of each annual operations plan will include an evaluation of the potential visual impacts and a description of the landscape and/or stand-level prescriptions that will be applied.

Plants

The district will protect plant species in accordance with state and federal Endangered Species Acts. In addition to Endangered and Threatened plants, the district will also make provisions for candidate and special plants. The District Plant List (Table X-X) includes endangered, threatened, candidate, and special concern plants that are, or have the potential to be found, on the district. This list is an expanded version of the list found in the *Northwest Oregon State Forests Management Plan*.

This will be accomplished by the following:

- During the planning of forest operations, the district will determine whether the proposed operation areas contain a plant on the District Plant List. This determination will be made by reviewing the Oregon Natural Heritage Program database for rare plant locations. In addition, the district will use its local knowledge on rare plant locations and habitat requirements.
- When the district has determined that a plant from its list may occur within an operation area, it will consult with the Oregon Department of Agriculture (ODA) to determine the appropriate level of protection. If ODA deems a field survey is necessary due to the presence of listed plants and/or habitats, the survey results will be submitted to ODA. Survey methods and survey results will comply with OAR 603-73-090 5(C).
- The district will contribute all information about rare plant locations to ONHP so that the database is kept updated.
- In addition, the district will contribute to statewide efforts to reduce the quantity and range of invasive, non-native plant species. The district's main activity will be the roadside spraying program that includes scotch broom, non-native blackberry, and thistle as target species.

Table 7-7. Western Lane District Endangered, Threatened or Candidate Plant Species

Genus	Species	Subspecies	Common name ¹	Status	Record exists ²	Potential to be present
Threatened and Endangered Plants						
<i>Aster</i>	<i>vialis</i>		Wayside aster	ST		✓
<i>Castilleja</i>	<i>levisecta</i>		Golden Indian-paintbrush	SE, FT		✓
<i>Erigeron</i>	<i>decumbens</i>		Willamette daisy	SE, FE	✓	
<i>Lomatium</i>	<i>bradshawii</i>		Bradshaw's lomatium	SE, FE		✓
<i>Lupinus</i>	<i>sulphureus</i>	<i>kincaidii</i>	Kincaids lupine	ST, FT		✓
Candidate Plants						
<i>Cimicifuga</i>	<i>elata</i>		Tall bugbane	SC	✓	
<i>Montia</i>	<i>howellii</i>		Howell's montia	SC		✓

¹Plant names in bold are on the NW FMP list of plants.

²Plants have been observed on or in close proximity to state forestlands.

Status:

SE – State Endangered

ST – State Threatened

SC – State Candidate

FE – Federal Endangered

FT – Federal Threatened

Special Forest Products

The District does not sell minor forest products (salal, ferns, mushrooms, moss, boughs, etc) because of scattered ownership and the low value of the product.

Landscape Design Overview

Management Basins

About 90 percent of the district's state forest land is in the Siuslaw River drainage. The remaining forest is very scattered (no piece over 640 acres), with streams flowing into various tributaries of the Willamette River. For planning purposes we considered all of the district as one management basin.

Desired Future Stand Structure

Table 6 shows the current and desired future stand structure percentages on the district. Currently, 80 percent of the state forest land in Lane County is now in an understory or closed single canopy condition. The classic type of closed canopy with no understory is quite rare in the district. Instead, most stands are very brushy and could be classed as either CSC or UDS, depending on the brush species mixture.

Table 7-8. Anticipated Stand Structure Development by 2011

	REG	CSC ²	UDS ³	LYR ⁴	OFS
2001 Condition	8	35	45	3	9
After Implementation Plan Period ¹	6	35	47	3	9
Desired Future Condition	10	20	30	20	20

1. These are estimates that may differ from the actual conditions significantly.
2. After partial cutting CSC stands, it takes about 5 –to 7 years for an understory to develop.
3. After partial cutting and/or underplanting, it may take 20 to 30 years for layering to develop.
4. The time it takes to develop LYR stands into OFS is highly variable and depends on many factors, including (but not limited to): snag and down wood recruitment; development of trees greater than 32 inches in diameter.
5. The district believes the desired conditions probably will be reached before 2100.

In the short term (10 years), structure will change very little – and there will not be a great deal of change in twenty years. Harvest levels calculated for this implementation plan will impact only 15% of the land base per decade through clearcutting and partial cutting combined. This harvest level does not have the potential to change forest structure percentages very dramatically.

Because the District has done very little clearcutting the past ten years, more plantations will be growing out of REGEN structure the next ten years than will be replaced by clearcutting. REGEN will be only 6% in 2010. In twenty years it should reach the 10% target.

During this planning period, plantations growing from REGEN to CSC will be offset somewhat by partial cutting, which will move some stands from CSC to UDS. But most of the partial cutting will be in current UDS, not CSC, and will merely maintain the UDS condition. Some current UDS should become more complex over the next 10 years as

recent and upcoming heavy partial cuts mature. However, we do not anticipate that either LYR or OFS percentages will change this decade.

Assigning Forest Structure Pathways

The following criteria were used to select areas on the landscape most suitable for ultimately developing each structure type:

- Presence, or suspected presence, of threatened, endangered, or sensitive species.
- Predicted potential of successful natural regeneration of hemlock and western redcedar under partial cut conifer stands.
- Predicted potential of successful hemlock and western redcedar regeneration (natural and planted) in clearcuts.
- Operational feasibility of partial cut harvesting.

These structure emphasis areas have been mapped, and all management activities will be aimed toward developing the assigned structures. In addition, opportunities may become available to establish patches of LYR or OFS within landscapes being managed primarily for less complex structures.

Threatened, Endangered, or Sensitive Species

As of 2001, 1,261 acres have been identified as occupied marbled murrelet habitat and buffers, and 809 acres have been designated as northern spotted owl core areas. These areas are all planned for eventual layered or older forest structure.

Predicted Potential of Hemlock/Redcedar Natural Regeneration under Partial Cuts

The district placed LYR structure in those areas most likely to naturally develop hemlock/cedar understory after partial cutting. The LYR structure areas are generally concentrated on north slopes or higher elevations in the western portion of the district.

The understory of LYR structure can be hardwoods. In this district, bigleaf maple is by far the most common tall-growing, shade-tolerant hardwood species present. Bigleaf maple is common in most of the district and will contribute towards LYR structure. However, understory conifer is preferred because of its perennial foliage.

Hemlock and cedar seed sources are scarce on steep south and west slopes in the western part of the district, and decrease on all slopes as one travels east towards the Willamette Valley. Hemlock/cedar natural regeneration cannot be assured on steep south slopes or on any slopes in Ranges 5 and 6 West, due to limited seed sources and summer drought.

Predicted Potential of Successful Hemlock and Cedar Regeneration (Natural and Planted) in Clearcuts

LJR structure was also placed in areas most likely to be successfully regenerated to hemlock/cedar after clearcutting. LJR was generally not placed in areas where hemlock/cedar regeneration was considered difficult.

On most north slopes in Ranges 7 West and farther west, and on wet areas throughout the district, we will plant predominately shade-tolerant conifer after clearcutting. Although we will probably not plant much Douglas-fir, considerable natural Douglas-fir regeneration will occur and add to the species diversity.

The district intends to mix cedar with Douglas-fir in our planting on south slopes and drought-prone areas, but it is unlikely that conifer other than Douglas-fir will be a very significant portion of the new stands. These south slopes and all slopes in Ranges 5 and 6 West are planned for General Forest structure because the district feels species diversity will be limited, restricting the ability of the stands to develop LJR characteristics.

Operational Feasibility of Partial Cut Harvesting

Some areas currently in CSC or UDS structure are not good candidates for partial cutting because of rugged, broken terrain or restricted access. In such areas, very long cable reaches, downhill cable yarding, or excessive sidehill yarding cause unacceptable damage to the residual trees and understory when partial cutting. Since these stands cannot be intensively managed to develop into LJR, the ultimate structure goal will be GEN.

Areas currently considered completely inaccessible for any cable logging may eventually develop naturally into OFS structure.

Expected Outputs and Habitat Achievements

Partial cutting will be the primary silvicultural stand management activity to advance stands toward the next level of structural complexity. Complex structure will not be achieved immediately following a partial cut. Historical evidence suggests that in stands over 55 years old, partial cutting, possibly underplanting, and 20 to 30 years of growth are often required for LJR structure to be achieved. Approximately 85 percent of the yearly partial cut harvest acreage will be in stands greater than 55 years old. The other 15 percent of the partial cut harvest acreage will be in younger stands.

Partial cutting in 30- to 40-year-old stands can create LJR structure more quickly than in older stands. The crowns of the overstory leave trees will be closer to the ground, and partial cutting will add sunlight that will keep the crowns alive. Shade-tolerant understory trees can close the gap between the ground and the bottom of the overstory crowns faster than in older timber where the bottom of the live crown may be over 80 feet from the ground.

After they reach LYR condition, some stands may continue to be managed to hasten the development of OFS characteristics (larger diameter trees, higher snag densities, and greater down wood levels, etc.).

The harvest levels proposed in this implementation plan will contribute toward the desired future structure targets as outlined in Table 8. The greatest risk for missing these structure targets in Lane County may be harvesting and road building restrictions required for short-term protection of threatened and endangered species.

Timber Outputs

The expected average annual timber outputs for fiscal years 2002 through 2011 are listed in the following table. Volumes for these estimates are based on historical averages for these types of harvest within the district. (MBF = thousand board feet; MMBF = million board feet.)

Table 7-9. Annual Partial Cut and Clearcut Harvest Objectives, by Volume and Acres, for FY 2002 through 2011

Partial Cut ¹		Clearcut ²		Total
Acres	MBF/Acre	Acres	MBF/Acre	MMBF
0-500	12	0 – 280	30	4– 8

1. The average annual partial cut harvest is 253 acres. Partial cut harvests are used to move stands to more complex stand structures or to maintain current complex structures.
2. The average annual clearcut harvest is 136 acres. The combined partial cut plus clearcut harvest will affect only 15% of the land base in this 10 year period.

Habitat Achievements

Sales prepared for FY 2002 to FY 2011 will result in the habitat achievements shown in the table below. Numbers given for down wood and wildlife trees are minimums. The large amounts of existing down wood and the scattered blowdown that almost always follow partial cutting may result in considerable down wood volume. However, at this time there is no minimum down wood requirements for partial cuts. In some areas, numerous old snags will remain after harvest, in addition to new snags created under contract.

Structure development acres are partial cuts designed to put stands on a managed pathway towards future UDS, LYR, or OFS, or designed to maintain an existing complex structure.

Table 7-10. Estimated Annual Habitat Achievements for Partial Cuts and Clearcuts for Fiscal Years 2002 to 2011

Harvest Type	Structure Development (acres)	Snag Retention ¹ (snags)	Down Wood Recruitment ² (thousand cubic)	Green Tree Retention ³ (trees)
--------------	----------------------------------	--	--	--

		feet)		
Clearcut		0 – 600	0 – 200	0 – 3000
Partial Cut	0 – 500	0 - 300	0 – 100	Not Applicable

1. Snag retention levels – younger partial cuts may not include snag creation; older partial cuts may have a target of 0 to 1 snags per acre, and clearcuts 2 snags per acre.
2. Down wood recruitment levels – average of 200 cubic feet per acre in partial cuts, and average of 750 cubic feet per acre in clearcuts.

Table 7-11. Summary of Current and Planned Timber Sales as of January 31, 2003

Harvest Type	Number of Sales	Acres	Road Construction	Road Improvement
Partial cut	8	1316	6.5 miles	15.5 miles
Clearcut	4	259	4.0 miles	2.3 miles

Sales on which logging has not been completed, plus FY 2003 and FY 2004 Annual Operations Plans sales which have not yet been auctioned.

Appendix A

Determining Levels of Harvest and Other Silvicultural Activities for Northwest State Forests

This document shows the results and outlines the steps and processes used to arrive at the activity levels in the *Western Lane District Implementation Plan*. Levels for harvest and other silvicultural activities were determined utilizing the Department of Forestry's *Implementation Plans 2001: Determining Levels of Harvest and Other Silvicultural Activities for Northwest State Forests and Procedure for Review and Refinement of the Draft IP Harvest Calculations* (ODF, 2001).

Harvest level calculations are based upon current conditions and policies. Should an HCP be approved in the future, harvest levels will be recalculated.

Results

Table A-1 summarizes the estimated annual objectives for harvests and other silvicultural treatments for the 10-year period from fiscal year 2002 through fiscal year 2011.

Table A-1. Annual Objectives/Estimates

Silvicultural Activity	Annual Objective Acres / Year
Conifer Partial Cut Harvest ¹	0-500
Clearcut Harvest ²	0-280
Rehabilitation	0
Reforestation	
Initial Planting	0-350
Underplanting	0-150
Precommercial Thinning	0-300
Fertilization ³	0-2,000
Pruning	N/A

1. 253 ac/yr average.

2. 136 ac/yr average.

3. If the District decides to fertilize, all the fertilization for the decade may be done in one year.

Step 1. Allocate the district acreage into categories.

In Step 1, the acreage in Special Stewardship and inner zone Riparian Management Areas (RMAs), inaccessible terrain, or non-silvicultural suitability, was subtracted from the total district acreage to determine the acreage of stands capable of supporting a commercial

operation. The acreage of stands capable of supporting a commercial operation was then divided into conifer and hardwood stands based on the species composition of the stands.

Table A-2 summarizes the amount of district acreage in these categories. The narrative below documents the applied methodology to determine acreages listed in the substeps of Step 1.

Table A-2. Determination of Stands Capable of Supporting a Commercial Operation

Category	Acres
Total District Acres	26,002
Roads and Streams ¹	2,160
Non-Commercial ²	2,317
Commercial Conifer	19,467
Commercial Hardwoods	0

1. **Roads and Streams** – Acres in roads were determined by multiplying the total road length of all roads on the district (796 miles) by the average acres/mile for road right-of-ways (3.597 acres/mile). Acres in streams represent special stewardship stream buffers and were calculated from GIS.
2. **Non-Commercial Opportunities** – Acreage that would not support a commercial operation in the foreseeable future due to non-silviculturally capable designation, special stewardship other than aquatic-riparian (i.e., northern spotted owl clusters, northern spotted owl core areas outside of clusters, and marbled murrelet management areas), very low site or bad terrain, or because the site is grass, brush, or a noncommercial hardwood vegetation type. Severe needle cast-infected non-merchantable Douglas fir stands are included in this category.

Step 1.1 — In this step the road acreage subtracted from the district gross acreage was determined by multiplying the linear feet of existing road by the average road width (30 feet), and dividing by the square footage in one acre (43,560 square feet).

Second, the Special Stewardship Riparian Management Area (RMA) acreage was determined by applying 100-foot Special Stewardship RMA buffer widths to both sides of Type F and large and medium Type N streams, and 25-foot buffer widths for small perennial Type Ns. No allowance was made for seasonal Type Ns. Stream typing assumed that streams that drain less than 25 acres are seasonal.

Step 1.2 — Subtract the acreage in lands classed as Special Stewardship outside of RMAs. Special Stewardship in Western Lane is primarily marbled murrelet management areas and spotted owl core areas.

Table A-3. District Acres in Special Stewardship Classifications

Stewardship Subclass	Special Stewardship (acres)
Aquatic and Riparian Habitat	1,889
Operationally Limited	159
Transmission	53
Visual	164
Wildlife Habitat	2,397

Overlapping land management classifications occur where two or more classifications occur on the same parcel of land. Where overlaps occur, the resource requiring the highest level of protection will determine the management approach. Also note that overlapping classifications cause the double counting of acres. These acres include about 700 acres not silviculturally suitable for growing timber.

Step 1.3 — Subtract the acreage of lands not suitable for economical commercial operations during the next 30 years. These acres include about 2,300 acres outside Special Stewardship areas on land not accessible for tractor or cable logging. These 2,300 acres are in parcels to which roads cannot be built to allow cable yarding.

Steps 1.4 and 1.5 — In these steps, the acreage of stands capable of supporting a commercial operation and not in Special Stewardship Areas was classified into conifer and hardwood stands, based on the species composition of the stands. Hardwood stands are defined as those stands that are at least 70 percent hardwood by basal area.

Step 2. Determine annual conifer harvest objectives.

Conifer Partial Cutting Objective

The calculation of the conifer partial cutting objective is summarized in Table A-4 on the next page. The rationale for these estimates is described after the table.

Table A-4. Summary of Availability, Operability, and Logistical Reduction Factors in Acres and Percent (%).

Harvest Objective	Gross Annual Objectives	Availability Reduction	Operability Reduction	Logistical Reduction	Net Annual Objectives
Conifer Clearcut	341	171 (50%)	34 (10%)	0	136
Hardwood Clearcut	0	0	0	0	0
Conifer Partial Cutting	506	202 (40%)	51 (10%)	0	253
Hardwood Partial Cutting	0	0	0	0	0

Partial Cut Available Acres — Acres were determined by estimating the percent of commercially available conifer outside Special Stewardship Areas that is topographically suitable for thinning. Areas with very long cable reaches, downhill cable yarding, and excessive sidehill yarding were excluded because of unacceptable damage to the residual trees and understory.

Stands more than 50 percent hardwood were also excluded. The short-lived alder cannot be held for the long rotations typical of other partial cut areas. Thinning the hardwood along with the conifer, to produce complex stands that will be maintained for decades, is probably not a reasonable approach. The district put these mixed conifer/hardwood stands in the clearcutting pool.

Finally, isolated parcels 80 acres or less in size (11 parcels with a total of 650 acres) were subtracted.

Partial Cut Interval — The re-entry rate for partial cut stands will range from 15 to 35 years, depending on how heavily the stands are cut and the stand age (older trees grow slower than young trees). We used 25 years as the average for our calculations.

Partial Cut Gross Acres/Year — This is the partial cut acres divided by the partial cut interval (25).

Partial Cut Reductions — See Step 4 below for the explanation of these reductions.

Partial Cut Net Acres/Year — This number is the result of subtracting the Partial Cut Reductions from the Partial Cut Gross Acres/Year.

Partial Cut Range — The Partial Cut Range is the probable range of partial cut acreage offered for sale annually.

Conifer and Mixed Conifer/Hardwood Clearcut Harvest Objective

Calculation of the conifer/mixed species clearcut objective is summarized in Table A-5 on the next page, followed by the rationale for these estimates.

Clearcut Available Acres — Acres were determined by subtracting the partial cut available acres from the acreage of conifer and mixed species stands capable of supporting a commercial operation.

Clearcut Planning Period — A 20-year clearcut planning period was used. Clearcut harvest at this rate will result in meeting our goal of 10 percent of our forest in REG after 20 years, and maintaining that percentage indefinitely.

Clearcut Gross Acres/Year — This is the Clearcut Available Acres divided by the Clearcut Planning Period.

Clearcut Reductions — See Step 4 below.

Clearcut Net Acres/Year — This is the Clearcut Gross Acres/Year minus the Clearcut Reductions.

Clearcut Range — Since the district has a very small harvest, some years will have a large clearcut harvest, other years little or none. Clearcuts probably will not exceed 280 acres in any one year.

Step 3. Determine annual hardwood harvest objectives.

Hardwood Partial Cutting and Clearcutting — The hardwood stands in Western Lane are alder/bigleaf maple mixes with a scattering of conifer. Our inventory lists only 1,200 acres that meet the definition. Since much of this acreage is classed as riparian Special Stewardship, we do not have a separate hardwood harvest objective.

Step 4. Adjust harvest objectives for logistical, operability, and availability factors.

Step 4 documents the reductions made to the annual harvest opportunities to account for potential temporal operability, availability, and logistical factors based on local management experience. These reductions are summarized in Table A-7 on the next page, and the rationale can be found after the table.

The gross partial cut and clearcut acres per year estimated in Step 2 represent annual harvest opportunities. These annual harvest opportunities were reduced due to potential temporal operability, availability, and logistical factors to determine the annual net clearcut and partial cut harvest objectives used in Step 2, shown in Tables A-5 and A-6.

Operability — We estimate that at least 10 percent of the commercially available acreage for both partial cutting and clearcutting cannot be conventionally yarded because of terrain breaks and inaccessible ownership boundaries against federal Late Successional Reserves.

Availability — Partial cuts were reduced 40 percent for northern spotted owl restrictions and clearcuts were reduced 50 percent. Currently over 80 percent of the state forest land in the district is within 1.5 miles of a spotted owl activity center. These centers sometimes move or disappear, while other activity centers are sometimes established. It is impossible to make a very accurate guess about the effect these circles will have on the management of state forests. We know the effect is substantial, and that areas with mixed hardwood/conifer stands planned for clearcutting (Tilden Ridge) are most affected.

Logistical — Logistical reductions include those limitations due to the operational holding capacity of the district or due to budgets, workload, or social considerations. The operational holding capacity refers to the number of management activities or operations that can reasonably coexist due to limitations imposed by roads systems or conflicts with other resource management goals. The district was unable to estimate what effects these potential restraints will have and made no harvest reductions.

Step 5. Estimate the annual rehabilitation acreage.

Rehabilitation is the conversion of land with noncommercial species to commercial species. The district is not aware of any land in this condition. Our land is stocked with either commercial conifer or commercial hardwood (alder and/or bigleaf maple).

Step 6. Estimate the annual reforestation acreage.

Initial planting — All clearcuts and patch cuts will be planted using at least 25 percent cedar and/or hemlock and the remainder Douglas-fir. We expect some seeding from adjacent conifer and hardwood, plus hardwood stump sprouting, to supplement stocking. Total anticipated initial planting for the next decade is 1,300 acres.

Underplanting — Underplanting after partial cutting is desirable in certain situations to ensure the development of a second canopy of shade-tolerant trees that are typically found in older forest stands. In parts of the forest where little seed source exists for shade-tolerant conifers, it will be necessary to introduce those species into the understory through underplanting to develop more complex forest stand structures. However, most of the areas planned for eventual LYR and OFS structure already have shade-tolerant species in the stands. The district does not expect to underplant more than 600 acres of the 2,420 acres partial cut the next decade.

Step 7. Determine the annual PCT estimate.

In very dense stands, precommercial thinning (PCT) increases the value of the stand biologically, silviculturally, and economically more than the costs to perform the operation. Biologically, PCT is sometimes used to maintain vigorously growing stands and high levels of forage for big game animals. Silviculturally, PCT in dense stands has the additional benefit of providing for the selection of residual trees by size and species, thereby producing a healthy and diverse stand. PCT can be cost-effective by maintaining a rapid growth rate at both the stand and individual tree level.

The district expects to do some PCT, but the amount is unknown at this time. Not more than 1,000 acres will be PCT'ed the next ten years. Stands to be considered are regeneration units that resulted from clearcutting 1985 to 1994.

Step 8. Determine the annual fertilization and pruning estimates.

Fertilization Estimate

At this time, the economics of fertilizing stands that will be held for long rotations is not clear. The district does not know how many acres, if any, will be fertilized the next ten

years. Some parcels planned for clearcutting may be fertilized, and some medium density thinnings may be fertilized after harvest. A total of 2,000 acres of fertilization over the next 10 years may be a reasonable estimate. It may all be done in one year to minimize per acre costs.

Pruning Estimate

The economics of pruning is disputed. At this time the district has no plans to prune.

Step 9. Adjust estimates for logistical, operability, and availability factors.

The other annual silvicultural activity opportunities did not need to be further reduced for logistical, operational, or availability factors. These reductions were included either in the initial harvest reductions or in the annual estimates for each silvicultural opportunity.

Appendix B

References

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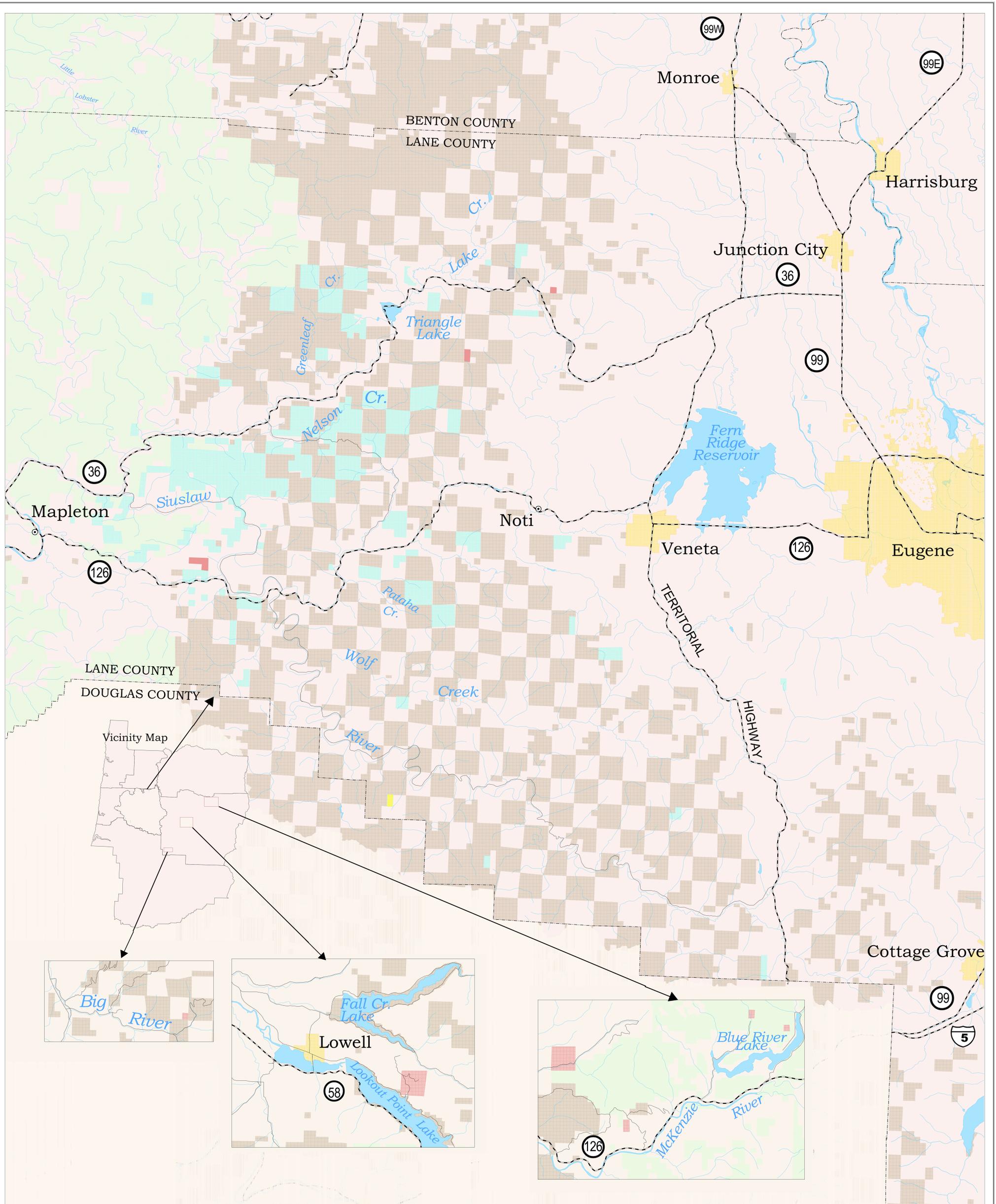
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Map Section

1. **Western Lane District Overview**
2. **Western Lane District: Current Condition Stand Structure**
3. **Western Lane District: Desired Future Condition Stand Structure**



Identification and mapping of specific classifications are based on the strategies and standards in the approved Northwest Forest Management Plan (January, 2001) and selected strategies from the draft Western Oregon State Forest Habitat Conservation Plan.

Boundary lines on this map are approximate. Exact locations of boundary lines will be determined on the site and will depend on the upon conditions that exist on the site.

The identification and mapping of the aquatic sub-classes shown here were based on the best available information of stream types, including map-based estimates for some streams.

This information will be updated over time with information from site-specific assessments or inspections.

- State Board of Forestry Lands
- Common School Lands
- United States Forest Service Lands
- Bureau of Land Management Lands
- Cities

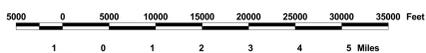
Western Lane District

Oregon Department of Forestry

Ownership

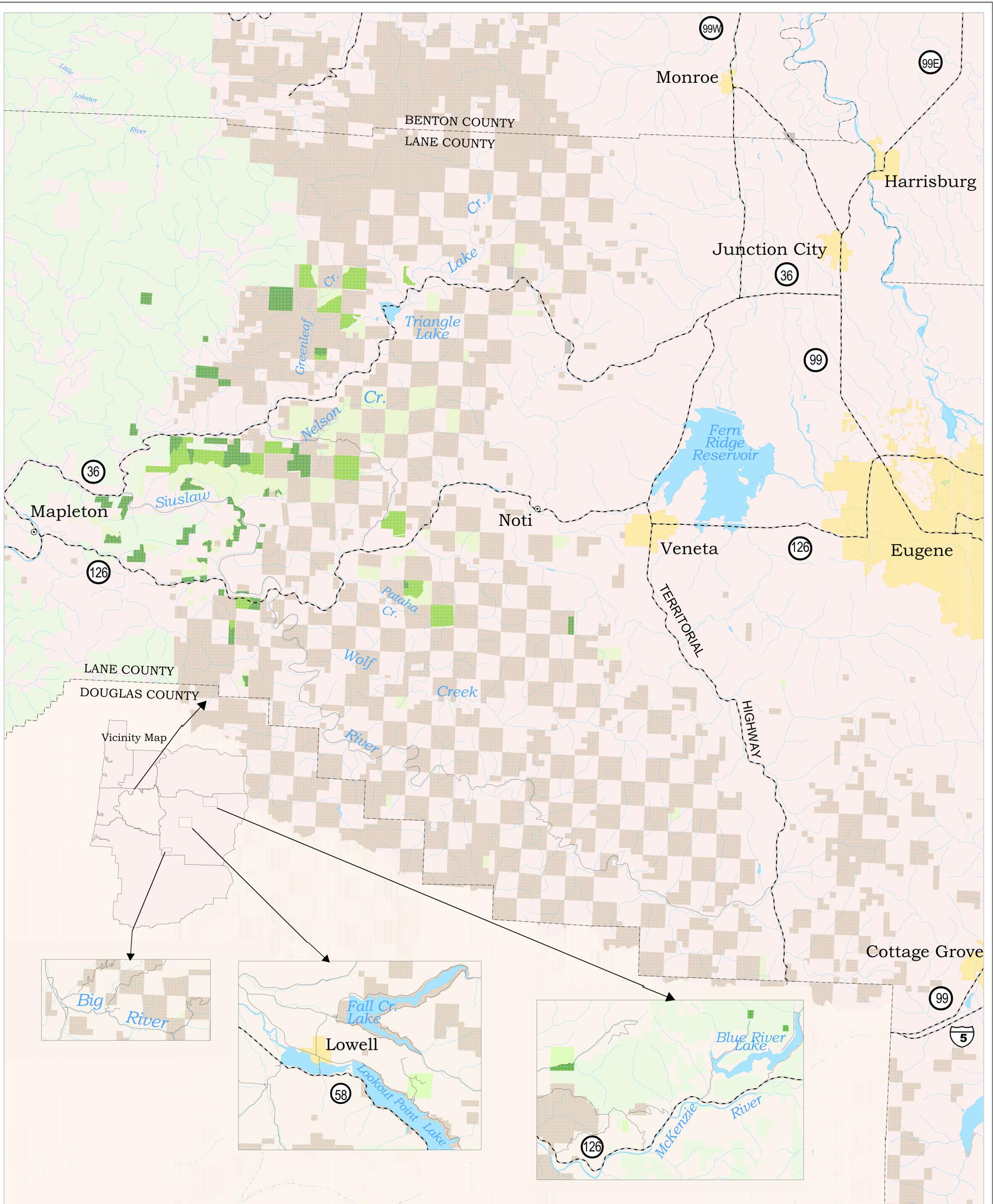


FEBRUARY 2003



- Surfaced Existing Road
- Highway





Western Lane District

Oregon Department of Forestry
Desired Future Condition Stand Structure

The desired future condition is based on the landscape design strategies in the approved Northwest Forest Management Plan (January, 2001). The specific strategies and factors used to develop the landscape design and desired future condition are described in the district implementation plan.

Boundary lines on this map are approximate. Exact locations of boundary lines will be determined on the site and will depend on the upon conditions that exist on the site.

This information will be updated over time with information from site-specific assessments or inspections.

Oregon Department of Forestry

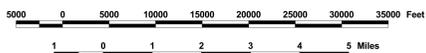
- United States Forest Service Lands
- Bureau of Land Management Lands
- Cities
- Surfaced Existing Road
- Highway

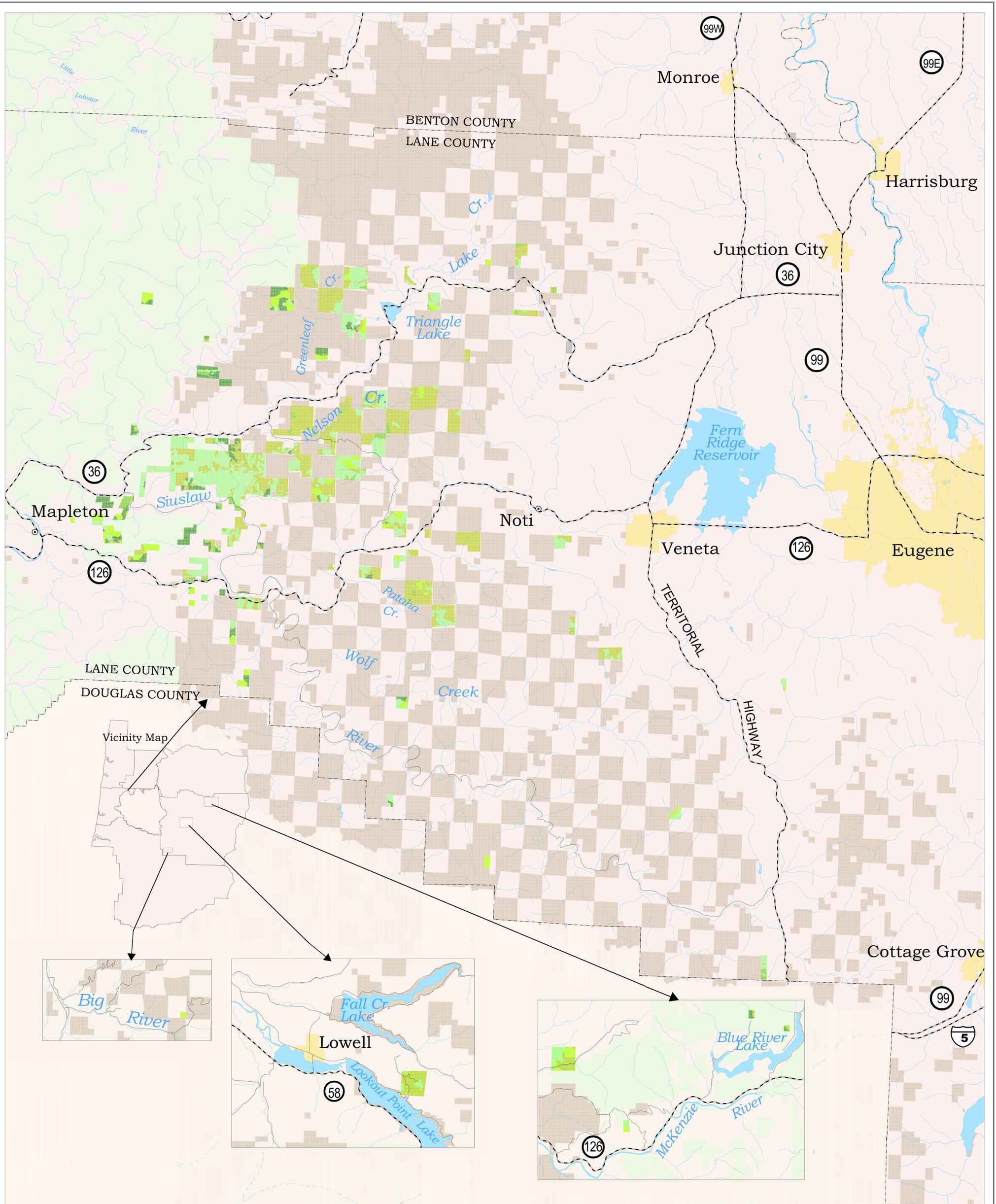
Desired Future Condition

- Non Silviculturally Capable
- Other Structures
- Layered
- Older Forest Structure



FEBRUARY 2003





Identification specific stand structures is based on the strategies and standards in the approved Northwest Forest Management Plan (January, 2001). Methods used to identify the stand structures are described in the district implementation plan.

Boundary lines on this map are approximate. Exact locations of boundary lines will be determined on the site and will depend on the upon conditions that exist on the site.

This information will be updated over time with information from site-specific assessments or inspections.

Oregon Department of Forestry

- United States Forest Service Lands
- Bureau of Land Management Lands
- Cities
- Surfaced Existing Road
- Highway

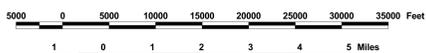
Western Lane District

Oregon Department of Forestry

Current Condition Stand Structure



FEBRUARY 2003



Current Condition

- Non Silviculturally Capable
- Regeneration
- Closed Single Canopy
- Understory
- Layered
- Older Forest Structure





State Forests General File 3-1-2-200

SUBJECT: Extending State Forests Implementation Plans for West Oregon, North Cascades, Western Lane, and Southwest Oregon districts.

TO: Nancy Hirsch, State Forests Division Chief

FROM: Doug Decker, State Forester 

DATE: February 15, 2011

The Board of Forestry adopted the Northwest and Southwest Oregon State Forests Management Plans (FMPs) in January 2001. Acting State Forester Roy Woo approved implementation plans for the seven districts on March 6, 2003. These original IPs were intended to describe activities, projects, and efforts for the ten year period from July 1, 2001 through June 30, 2011.

The Board of Forestry adopted a revised Northwest and Southwest State Forests Management Plan in April 2010. Implementation plan revisions are underway in Forest Grove and Astoria districts, with reviews and approval expected by June 30, 2011. Work to support the implementation plan revisions for Tillamook¹, West Oregon, North Cascades, Western Lane, and Southwest Oregon districts has begun. The work underway includes harvest modeling and potential Species of Concern (SOC) strategy development. The revisions, reviews, and approval for these plans is expected sometime in FY 12.

Implementation plans for West Oregon, North Cascades, Western Lane, and Southwest Oregon districts approved in 2003, including all minor modifications previously approved by the District Forester, will remain in effect until revisions to the plans are completed and approved by the State Forester.

Cc:

Mike Cafferata, Deputy Chief, State Forests Division
Mike Bordelon, Northwest Oregon Area Director
Dave Lorenz, Acting Southern Oregon Area Director, District Forester Western Lane District
Mike Totey, District Forester, West Oregon District
Steve Wilson, Acting District Forester, North Cascades District
Dan Thorpe, District Forester, Southwest Oregon District
Rob Nall, Operations Coordinator, State Forests
Rosemary Mannix, Resource Specialist Unit Manager

¹ Tillamook district revised its IP in 2009 to accommodate a 40% landscape design and that plan is valid through 2019 – though the Tillamook plan will also be revised in FY11 /12 to accommodate FMP changes in April 2010.

Memorandum

To: Mike Cafferata, State Forest Division Deputy Chief
Dan Shults, SOA Area Director
Marvin Brown, State Forester
Nancy Hirsch, State Forest Division Chief
Rob Nall, State Forest Division Operations Coordinator

From: Dave Lorenz, Western Lane District Forester

CC: Ole Buch, State Forests Unit Manager

Date: 6/11/2010

Re: Minor Modification to the Western Lane District Implementation Plan

The Western Lane District Implementation Plan under the *Northwest Oregon State Forests Management Plan* was approved in March 2003. The approved plan provides for minor modifications as approved by the District Forester. Minor modifications are any modifications to the approved document that do not meet the definition of major modifications included in the approved IP document. (Major modifications are those revisions that result in major changes to the Forest Land Management Classifications as defined in OAR 629-053-0060; or those that result in changes to the annual harvest level ranges of more than 25% based on combined acreage of regeneration and partial cuts harvests.)

The following minor modifications to the Western Lane District Implementation Plan are related to the Western Lane District FY10 annual operations plan:

Change DFC complex to DFC general

- Change 90 acres from desired future condition layered structure to general. These acres are located within the Gall timber sale.

The reasons for these changes are twofold. First, approximately 839 acres of Common School Land (CSL) within the Western Lane District were sold between Fall '09 and Spring '10. This land sale created a net increase in the percent of DFC complex structure across the district (i.e. from ~ 42.3% to 43.0%). Making the above changes will re-align the district percent complex structure closer to the original target (i.e. ~42.6%). Second, based on field reconnaissance the stands were determined to be better suited to a desired future condition other than what was previously mapped.

Table 1 -- DFC Totals Prior to Minor Modification and CSL Parcel Sale

DFC	Acres*	%
Complex	11,009	42.3%
General	14,954	57.5%
Non-Forest	40	0.2%
Total	26,003	

* - All acres are based on GIS measurements

Table 2-- DFC Totals After Minor Modification and CSL Parcel Sale

DFC	Acres*	%
Complex	10,719	42.6%
General	14,405	57.2%
Non-Forest	40	0.2%
Total	25,164	

* - All acres are based on GIS measurements

Approved:



Dave Lorenz, District Forester

6/14/2010

Date

Memorandum

To: Mike Cafferata, State Forest Division Deputy Chief
Dave Lorenz, SOA Area Director
Doug Decker, State Forester
Mike Bordelon, State Forest Division Chief
Rob Nall, State Forest Division Operations Coordinator

From: Grant 'Link' Smith, Western Lane District Forester

CC: Ole Buch, State Forests Unit Manager

Date: 2/7/2012

Re: Minor Modification to the Western Lane District Implementation Plan

The Western Lane District Implementation Plan under the *Northwest Oregon State Forests Management Plan* was approved in March 2003. The approved plan provides for minor modifications as approved by the District Forester. Minor modifications are any modifications to the approved document that do not meet the definition of major modifications included in the approved IP document. (Major modifications are those revisions that result in major changes to the Forest Land Management Classifications as defined in OAR 629-053-0060; or those that result in changes to the annual harvest level ranges of more than 25% based on combined acreage of regeneration and partial cuts harvests.)

The following minor modifications to the Western Lane District Implementation Plan are related to the Western Lane District FY13 annual operations plan:

Change DFC complex to DFC general

- Change 92 acres from desired future condition complex to general. These acres are located in the Aha Pataha timber sale.

Change DFC general to DFC complex

- Change 92 acres from desired future condition general to complex. These acres are located in the Bulmer Ck, San Antone Ck East, and San Antone Ck West marbled murrelet management areas (MMMA).

The reasons for these changes are twofold: First, there are currently 92 acres in three Marbled Murrelet Management Areas (MMMA) that are classified as a DFC general. The stands within these MMMA's are either currently in a complex condition or they will be managed towards a complex condition. Therefore, assigning a DFC of complex to these stands is logical and is in alignment with the *Northwest Oregon State Forests Management Plan*. In order to maintain the current percent of DFC complex 92 acres of land currently classified as DFC complex will be changed to DFC general. These 92 acres are located within the Aha Pataha timber sale. Second, based on field reconnaissance the stands were determined to be better suited to a desired future condition other than what was previously mapped.

These changes to the DFC landscape design will result in no net increase or decrease in desired future condition general or complex.

Table 1 -- DFC Totals <u>Prior</u> to Minor Modification		
DFC	Acres*	%
Complex	10,719	42.6%
General	14,405	57.2%
Non-Forest	40	0.2%
Total	25,164	

* - All acres are based on GIS measurements

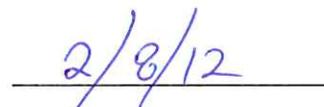
Table 2-- DFC Totals <u>After</u> Minor Modification		
DFC	Acres*	%
Complex	10,719	42.6%
General	14,405	57.2%
Non-Forest	40	0.2%
Total	25,164	

* - All acres are based on GIS measurements

Approved:



Grant 'Link' Smith, District Forester



Date



Oregon

John A. Kitzhaber, MD, Governor

Department of Forestry

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FAX 503-945-7212
www.oregon.gov/ODF



"STEWARDSHIP IN FORESTRY"

To: Liz Dent, State Forest Division Chief
From: Doug Decker, State Forester
Date: June 25, 2014

Subject: Implementation of the Revised Forest Land Management Classification Rule on State Forests

This memo addresses approval of the implementation of the revised Forest Land Management Classification System (FLMCS) rule, including the new High Value Conservation Areas and Special Use classifications, on State Forest lands managed by the following districts: Astoria, Coos, Forest Grove, North Cascade, Southwest Oregon, Tillamook, West Oregon, and Western Lane.

On June 5, 2013, the Oregon Board of Forestry adopted a revision to the FLMCS rule (OAR 629-035-0055) that added the classifications of High Value Conservation Area and Special Use while removing the Special Stewardship Classification. The purpose of this rule revision was to increase the visibility of the important conservation strategies that were already occurring on State Forests.

It was clear that implementation of this rule revision would result in a major change to the FLMCS maps/data and would be required to be available for public comment for 30-days (OAR 629-035-0060). Upon approval of the rule revision, the districts were directed to begin the task of updating the FLMCS data with the goal of having draft maps available for a public comment process that would occur concurrently with the normal 45-day public comment period for the Annual Operations Plans.

The public comment period occurred between March 17 and May 2, 2014 and included three open houses that focused on the implementation of the revised FLMCS rules, especially the location and purpose of High Value Conservation Areas. The open house were held early in the public comment period at the Forest Grove, Astoria, and Tillamook district offices. In response to the public comment period, the Division received:

- Eight letters/emails
- Approximately 1,700 form letter type emails
- Fifteen comments generated through an on-line survey

Almost all of the comments were generally supportive of the implementation of the FLMCS. Many of the comments included a request that the Department improve the durability of the High Value Conservation Areas; this issue is currently being addressed through the Alternative Forest Management Plan Project.

Several individuals indicated that old growth should be classified as High Value Conservation Areas. After reviewing the management strategies for old growth in the Northwest Oregon, Southwest Oregon, and Elliott State Forest Management Plans, I have found that old growth stands (as defined in those plans) qualifies for classification as High Value Conservation Areas under the Unique, Threatened, or Endangered Plants subclass. I have directed the districts to include existing old growth stands as High Value Conservation Areas in their final FLMCS designations.

After reviewing the draft FLMC maps/data, the public input, the recommendations from the District Foresters and Area Directors, and consistent with OAR 629-035-0060 (2), I am approving the revised FLMCS for Astoria, Coos, Forest Grove, North Cascade, Southwest Oregon, Tillamook, West Oregon, and Western Lane Districts.



Doug Decker
State Forester

6.25.14

Date

Appendix A

Changes to Forest Land Management Classification

The Forest Land Management Classification (FLMC) is a method of describing the management emphasis of parcels of state forest land. The management emphasis identifies the extent to which a parcel of land can be managed for a variety of forest resources. It also identifies when a particular forest resource may need a more focused approach in its management, or possibly an exclusive priority in its management.

The framework of the FLMC places all state forest land within one of four land management classifications. The classifications are: 1 - General Stewardship, 2 – Focused Stewardship, 3 – Special Stewardship, and 4 – High Value Conservation Area. Subclasses are assigned for the specific forest resources that require a Focused Stewardship, Special Use, or High Value Conservation Area Classification.

This Appendix is an update to the Western Lane District FLMC. The updates meet the definition of a major modification. A major modification is defined as one that cumulatively exceeds 500 acres within one year. Major modifications require a 30 day public comment period which will be held in conjunction with the District’s 2015 AOP comment period. At the close of the public comment period, the Department will consider the public comments and make final decisions on the proposed changes. The District Forester will forward the draft final changes along with any public comments to the Southern Oregon Area Director and the State Forester for review and final approval.

The Western Lane District FLMC has not been updated since the original approval date of March 2003. Since that time, the Board of Forestry approved changes to the FLMC Administrative Rule that renamed the Special Stewardship classification to Special Use Area as well as added a new classification called High Value Conservation Area. This FLMC update incorporates these new classifications and provides updated acres for each classification and subclass listed in the tables below.

Tables 2 and 3, originating in the District Implementation Plan have been updated to reflect these changes.

Table 2. Western Lane District Acres, by Stewardship Class and Fund*

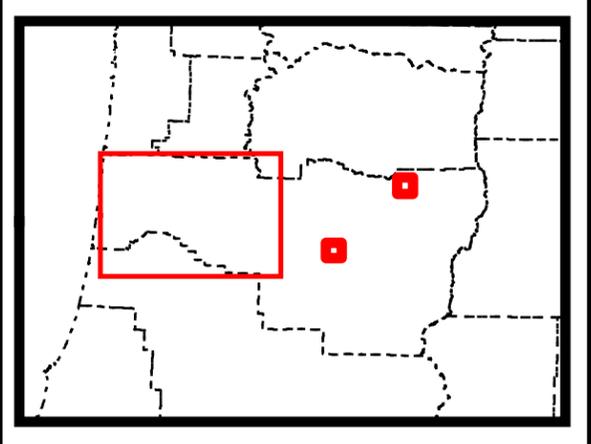
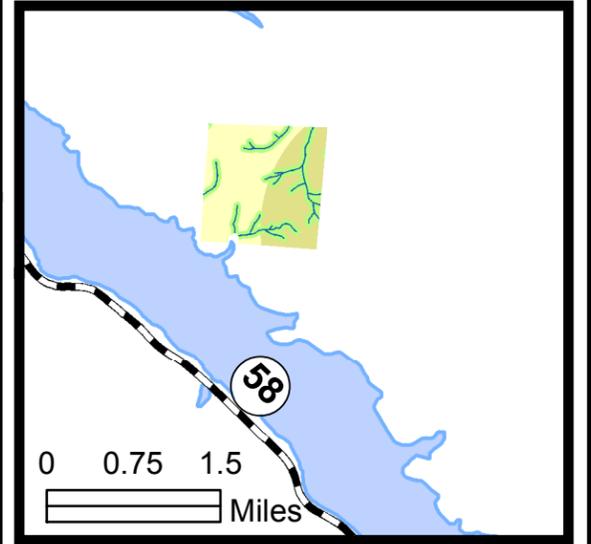
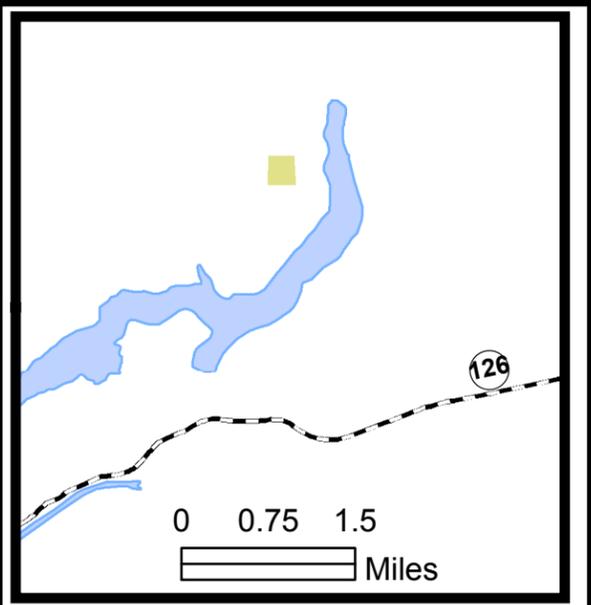
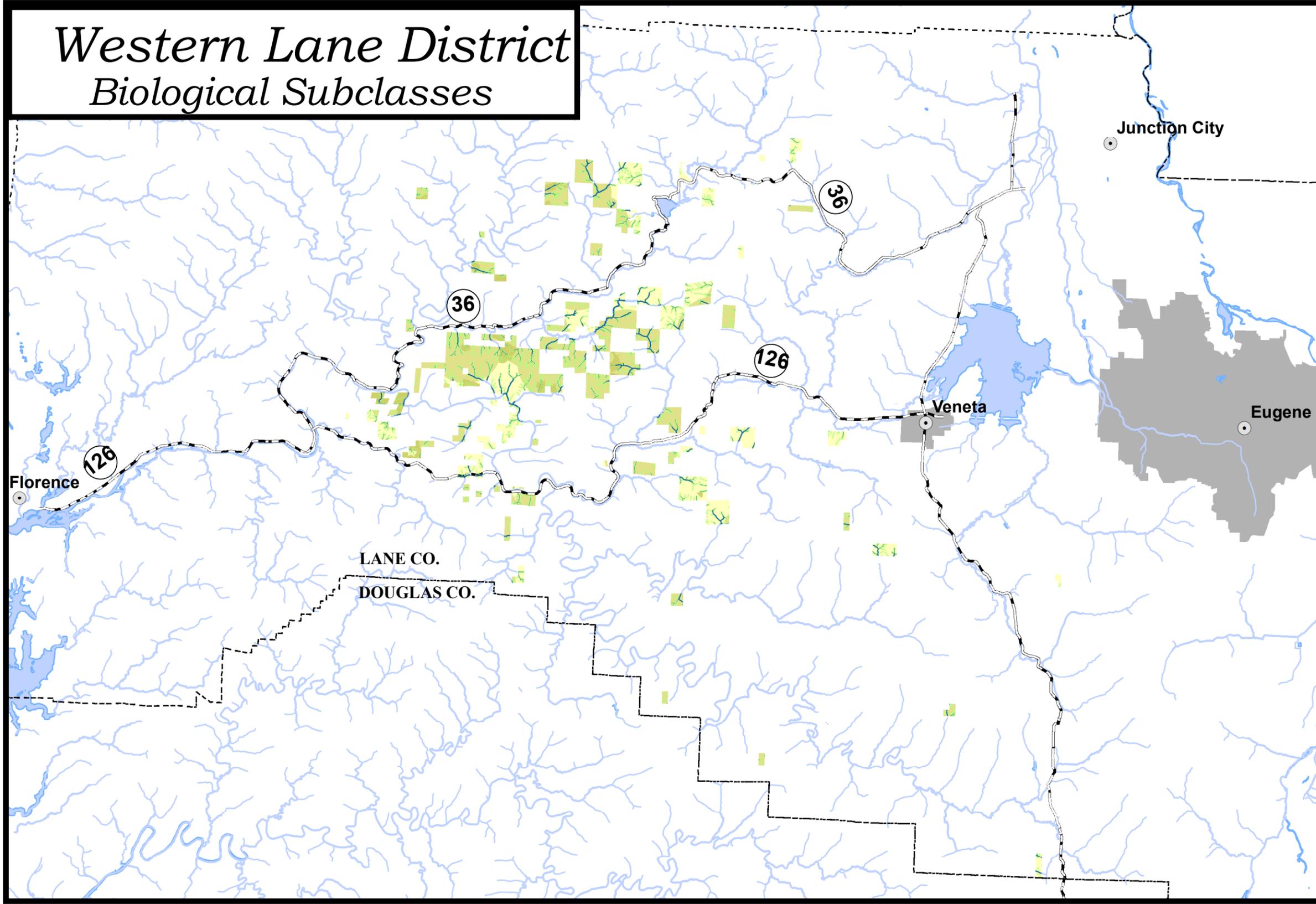
Classification	BOF	CSL	Total Acres
Focused Stewardship	19740	483	20223
Special Use	398	3	401
High Value Conservation Area	3081	31	3112
General Stewardship	7549	526	8075

Table 3. Forest Land Management Classifications for
Western Lane District – Focused and Special Subclasses (Acres)

	Focused Stewardship	Special Use	High Value Conservation Area
Administrative Sites	0	4	0
Agriculture, Grazing	0	0	0
Aquatic & Riparian	4961	0	1318
Cultural Resource	0	0	0
Domestic Water Use	4	0	0
Energy & Minerals	2	0	0
Operationally Limited	0	305	0
Plants	0	0	0
Recreation	0	0	0
Research/Monitoring	10	0	0
Transmission	0	54	0
Visual	108	39	0
Wildlife Habitat	15140	0	1794

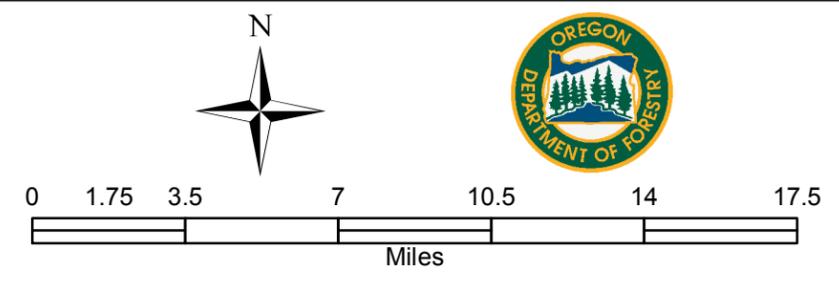
*Acres in Table 2 and Table 3 include overlapping classifications.

Western Lane District Biological Subclasses



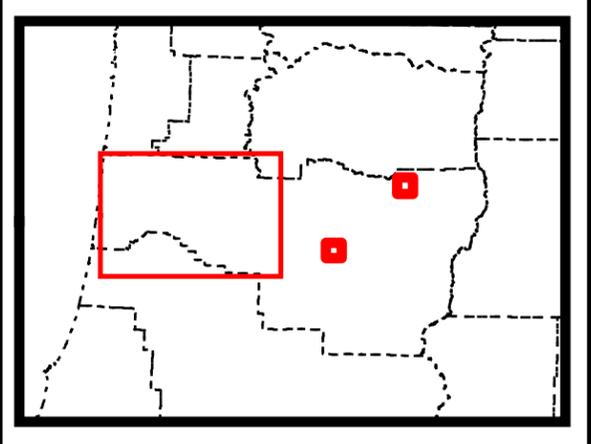
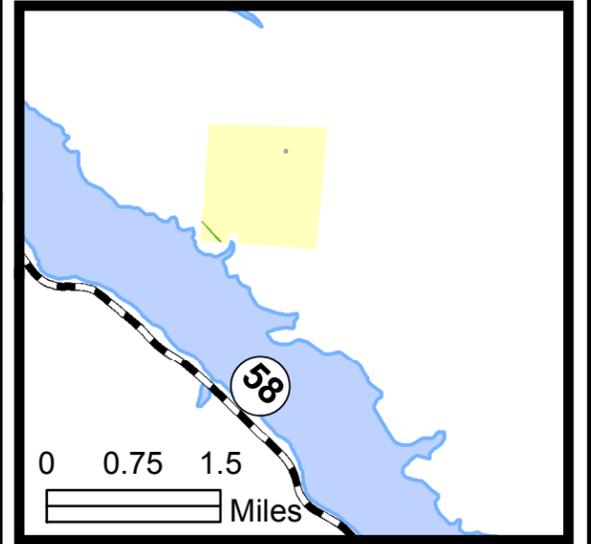
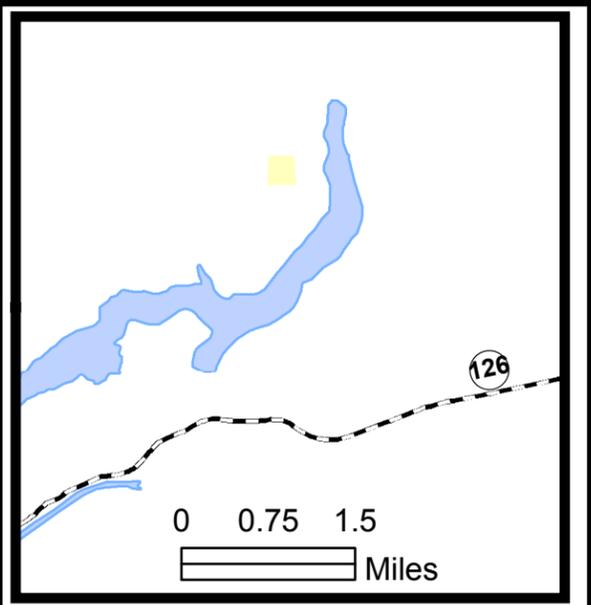
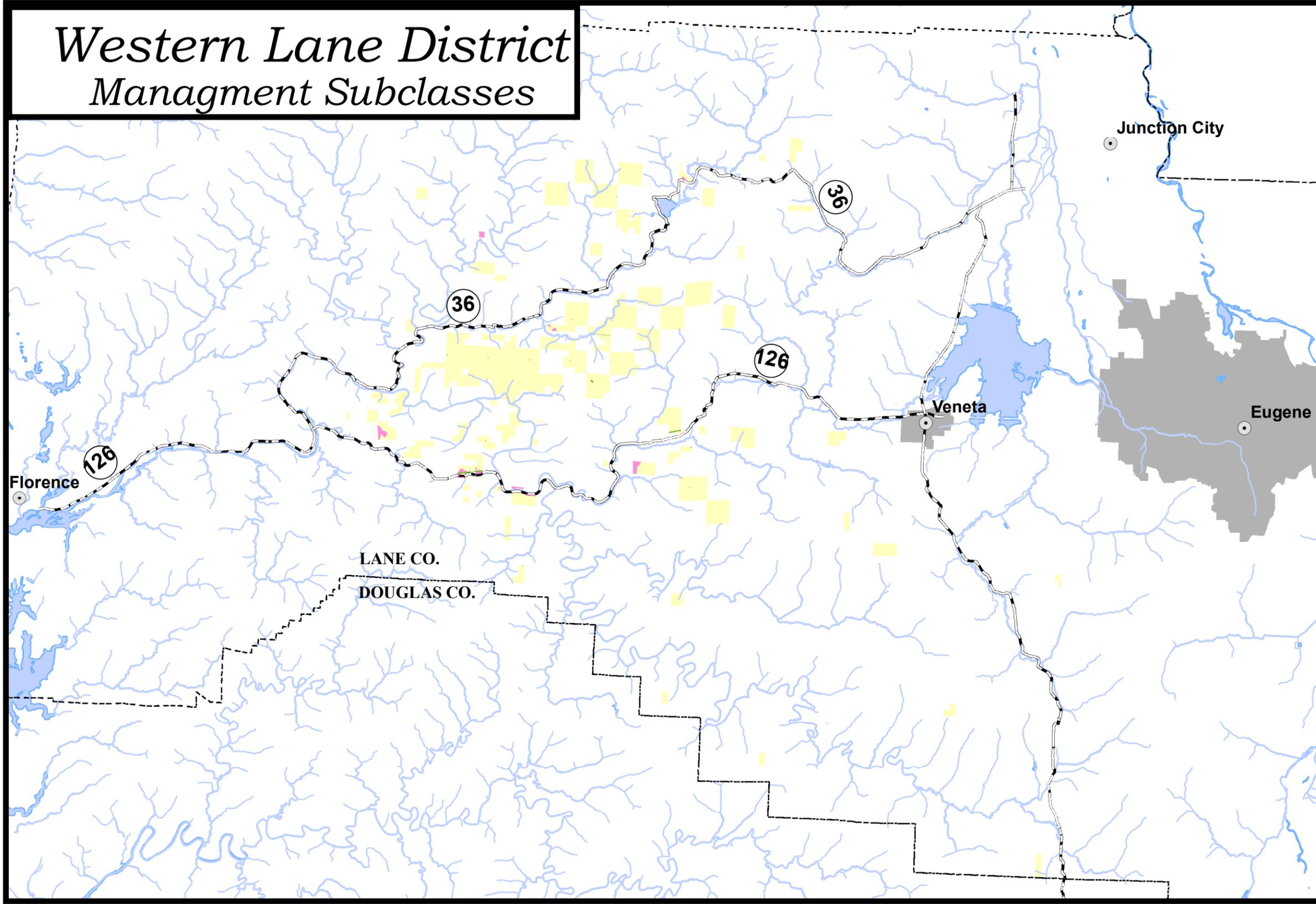
- | | | |
|------------------------------|--|------------------------------|
| Focused SUBCLAS | High Value Conservation Areas SUBCLAS | Focused SUBCLAS |
| Plants | Aquatic and Riparian Habitat | Plants |
| Aquatic and Riparian Habitat | Wildlife Habitat | Aquatic and Riparian Habitat |
| | | Wildlife Habitat |

- | | | |
|-------|-----------------|-----------------------|
| Towns | Roads | Managed Lands by Type |
| | Streams, Large | |
| | Streams, Medium | |



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Western Lane District Management Subclasses

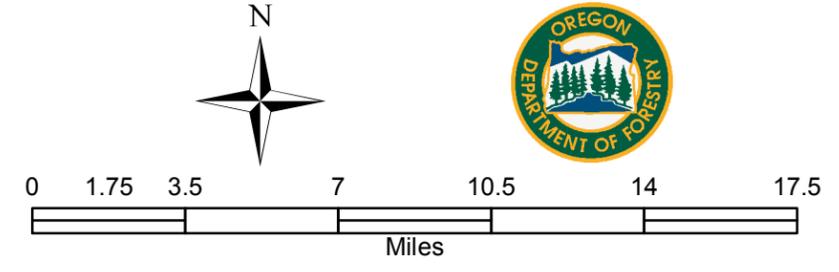


- Special Use SUBCLAS**
- Administrative Sites
 - Easements
 - Research/Monitoring
 - Transmission
 - Operationally Limited

- Focused SUBCLAS**
- Easements
 - Research/Monitoring
 - Transmission

- Towns
- Roads
- Streams, Large
- Streams, Medium

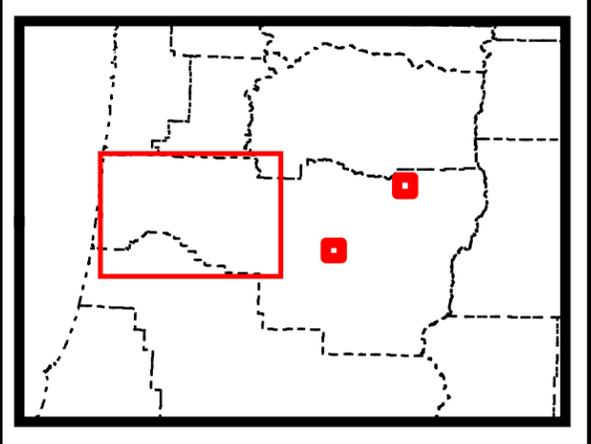
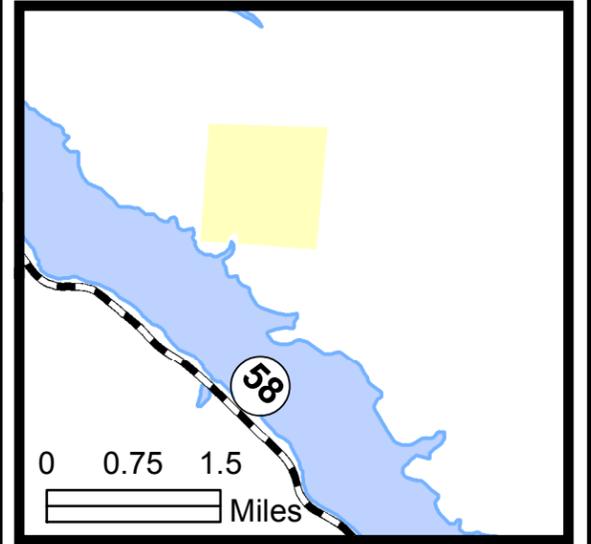
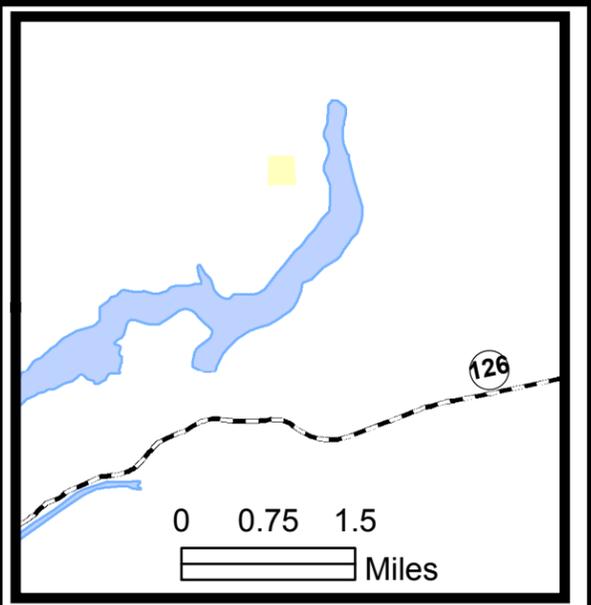
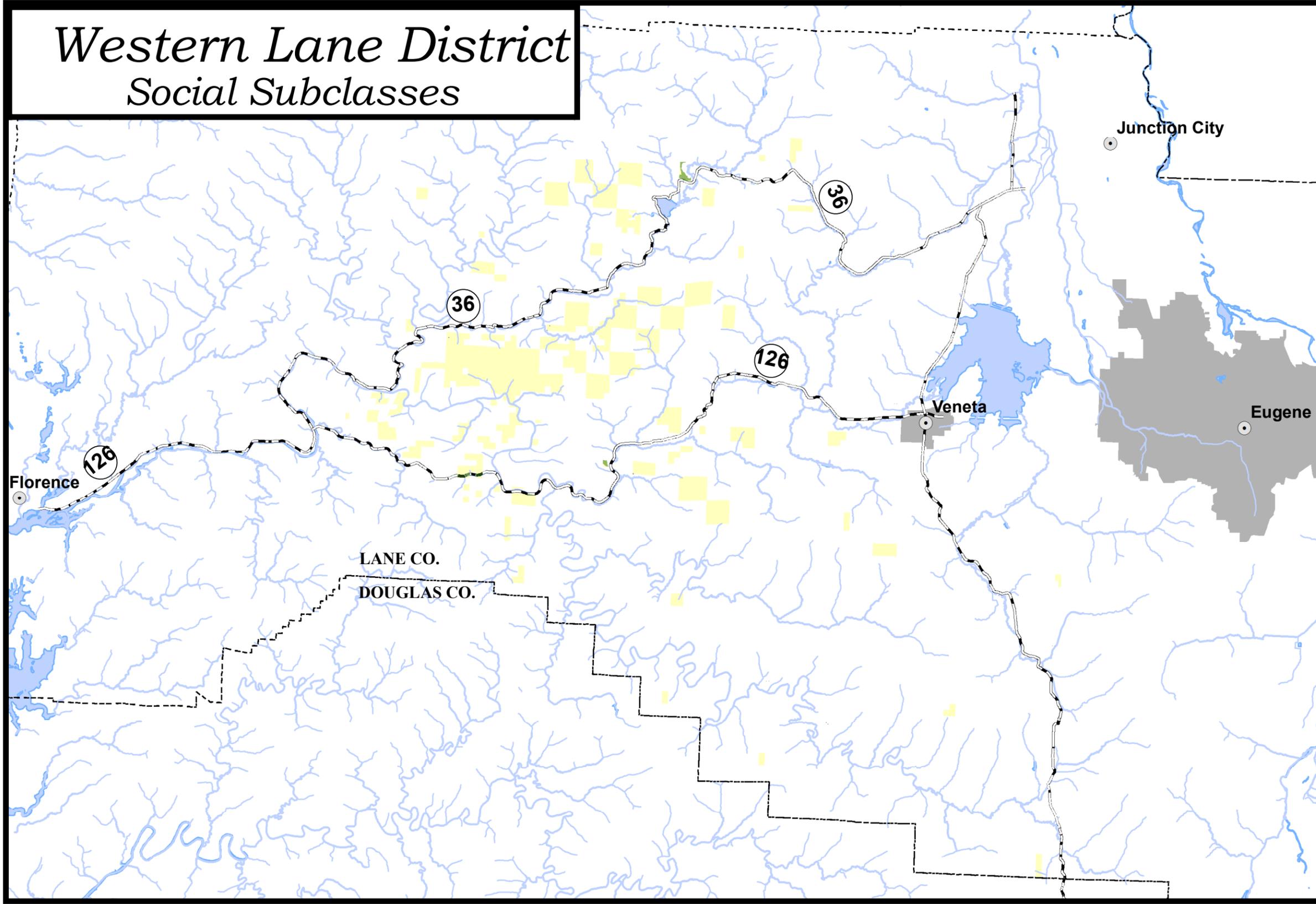
- Managed Lands by Type



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Western Lane District Social Subclasses



Special Use SUBCLAS	Focused SUBCLAS	Towns	Roads	Managed Lands by Type
Recreation	Cultural Resources	Towns	Roads	Managed Lands by Type
Visual	Domestic Water Use		Streams, Large	
	Visual		Streams, Medium	
	Recreation			

N

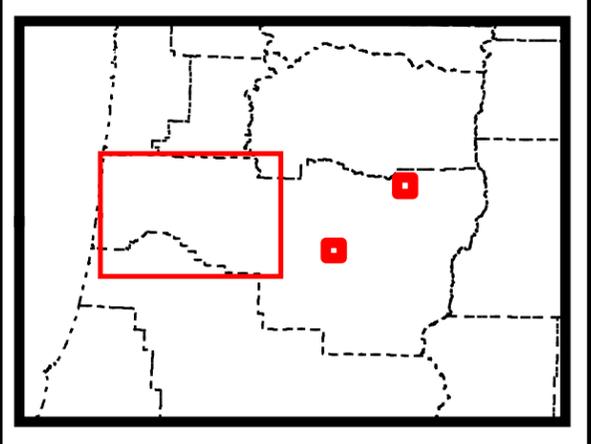
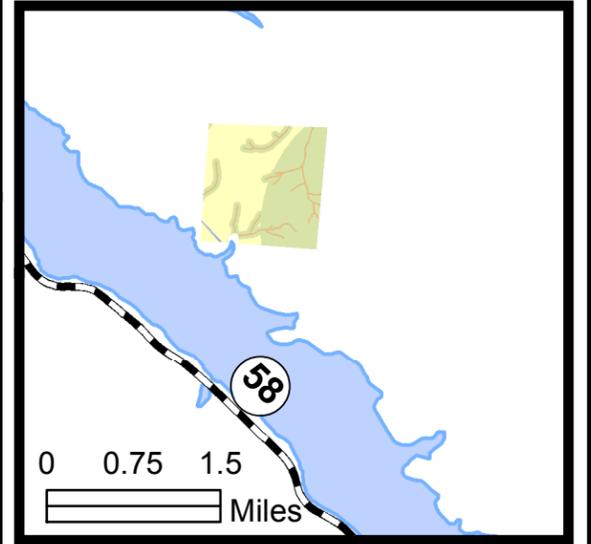
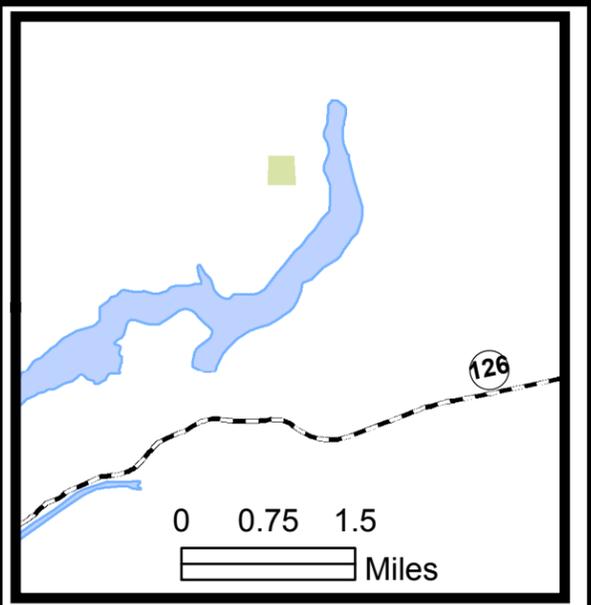
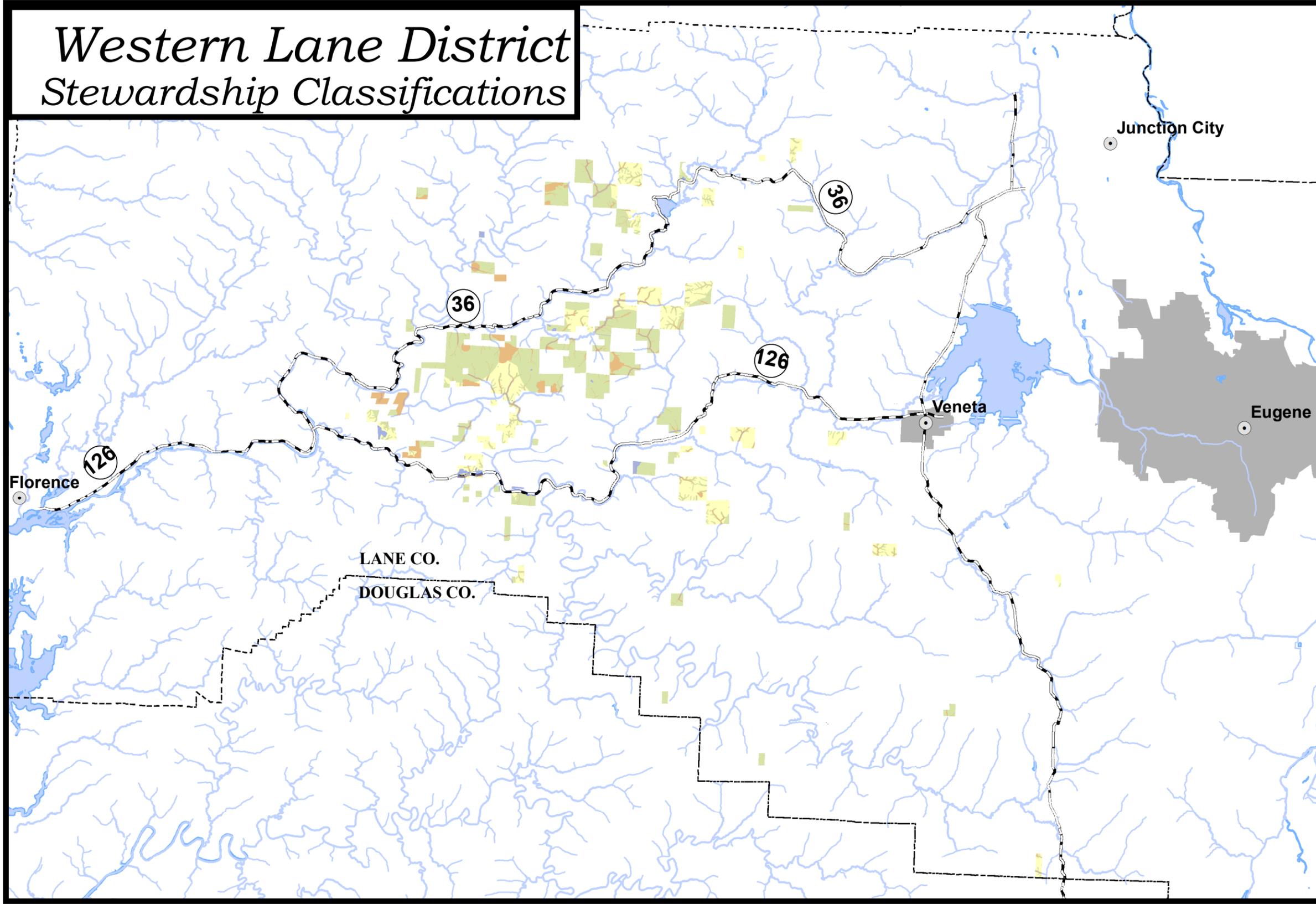
0 1.75 3.5 7 10.5 14 17.5 Miles



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Western Lane District Stewardship Classifications



Stewardship Classifications

STEWARDSHP

- High Value Conservation Area
- Special Use
- Focused
- Other

Towns

- Towns

Roads

- Roads
- Streams, Large
- Streams, Medium

Managed Lands by Type

- Managed Lands by Type

N

0 1.75 3.5 7 10.5 14 17.5

Miles

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