

Forest

Management

Plans

Appear

Ready for

Rule-Making

The Board of Forestry (BOF) Sept. 6 is expected to act on the proposed forests management plans (FMPs) for state forest lands in northwest and southwest Oregon.

The BOF meeting will be held at the Oregon Department of Forestry (ODF) offices in Salem, 2600 State Street. The meeting runs from 8 a.m. to 5 p.m., with action on the forests plan scheduled for about 8:45 a.m.

The long-awaited *Northwest Oregon State FMP* has been six years in the making. Incorporating new laws, new information and ongoing public input has elongated the development process, resulting in multiple revisions of the plan.

Long-term Direction for 615,000 acres

But the plan, which provides long-term management direction for 615,000 acres of state forestland in 12 northwest Oregon counties, is now completed and ready for consideration by the BOF.

The Southwest Oregon State FMP follows the same format of the northwest plan. The FMPs for the two areas, however, Board of Forestry Meets in Salem Sept. 6 to Act on Plan

Continued on page 2

Plans Go Before Board for Action

Continued from page 1

differ in specifics because the 18,000acre southwest forest is on scattered land and has significantly different forest types. The land is in Jackson, Josephine, Douglas and Curry counties.

If the BOF approves the FMPs for rule-making (required because the plans would become administrative rule), public hearings would need to be scheduled. A standard timeline allowing for public notice — would likely have the hearings occurring in late October.

Communities in close proximity to the state forests would be included as hearings sites. Tentatively identified sites: Grants Pass, Salem, Tillamook, Astoria and Portland.

After Hearings, Plans Come Back to BOF

Following the public hearings, department staff will consider the input received and the recommendations of the hearings officer, and make any necessary changes to the two plans. At its Jan. 3 meeting, the BOF could take final action on the plans. The FMPs, if approved, would become effective at that time.

A habitat conservation plan (HCP) for western Oregon — expected to be completed sometime after the first of the year, pending approval of the FMPs — will provide direction to both the northwest and southwest forests. The Western Oregon State Forest HCP Oregon will spell out strategies to protect existing key habitat areas or sites considered critical to the short-term survival of threatened and endangered species, as well as other wildlife and fish of concern.

The FMPs set resource management goals and strategies to achieve the "greatest permanent value" for the forest land. Greatest permanent value (GPV) means providing healthy, productive and sustainable forest ecosystems that over time and across the landscape provide a full range of social, economic and environmental benefits.

Actively Manage for Greatest Permanent Value

To achieve GPV under the proposed plan, ODF will actively manage the forest lands in a sound environmental manner to provide sustainable timber harvest and timber revenues to the state, counties and local taxing districts. The GPV management focus will be pursued within a broader management framework that:

- Maintains and restores aquatic habitats for salmonids, and other native fish and aquatic life.
- Protects, maintains and enhances native wildlife habitats.
- Protects soil, air and water.
- Provides outdoor recreation opportunities.

The overall integrated management approach used in the plans is called Structure Based Management (SBM). Under this approach, the forest lands are managed to create stand conditions that emulate those that occurred naturally, with older and younger stands of trees intermixed.

Structure Based Management Emulates Nature

While SBM seeks to emulate nature, it does so in far fewer years through active management practices. By anticipating future patterns of forest development, foresters can develop appropriate silvicultural prescriptions



OSU Analysis Shows SBM Creates Older Forests and Good Harvests

Using structure-based management (SBM) with a habitat conservation plan achieves complex forest stands faster than nature left alone, and it produces greater timber harvests over the long haul than more aggressive early cutting.

These findings are part of a recent study commissioned by the Department of Forestry to analyze

Board Action on Plans

Continued from page 2

and influence the types and rates of stand development.

A central guiding principle of the FMPs recognizes that ecosystem restoration and watershed health are among the key goals. The plans will emphasize a continuing commitment to restoration activities, especially as they relate to declining salmon populations. These forests are seen as making a vital contribution to the success of large-scale regional efforts such as the Oregon Plan for Salmon and Healthy Watersheds.

Adaptive Management: Monitor and Improve

The implementation of the plans HORIZONS FALL 2000 various approaches to managing the northwest Oregon state forest lands. The study is based on an analytical model developed by Professor John Sessions at Oregon State University.

Structure Based Management Outpaces Other Models

Not only did it find that SBM achieves complex stand structures

Continued on page 4

involves adaptive resource management. This approach tests and monitors management plan assumptions and actions, and then uses the resulting information to improve management plans or practices. Public involvement is included to identify and incorporate concerns and values into the process.

As the plan is implemented and monitored — with ongoing input from scientists and the public, thoughtful forest management will result. It will ensure predictable timber and revenue for schools and local economies, diverse habitats for wildlife and fish, and recreational opportunities for the public.



Structure Based Management Model

Continued from page 3

quicker than reserve-based approaches, it also outpaced all other approaches as well. (It should be noted that the model was used to create comparisons of alternatives and not to reflect actual management outcomes.)

The desired future amount of complex stand structure used in the study for the SBM alternative called for 20-30 percent layered structure and 20-30 percent older forest structure. Layered structure is defined as having large woody debris and layered canopy, while older forest structure includes those layered characteristics plus at least eight 32inch or larger trees per acre.

Getting to older forest structure is expected to take 50 to 80 years, depending on existing stand conditions and site productivity. Specified amounts of the other types of stands — understory, closed single canopy and regeneration — were not modeled in this study because planners were most concerned about creating habitat for species dependent on older forest conditions.At the other end of the spectrum — in terms of timber

harvest on a volume-per-acre basis, SBM does not quite measure up to the alternative that emphasizes net present value (NPV). An emphasis on NPV results in a more aggressive initial harvesting schedule and shorter rotation lengths.

Larger Land Base Retained for Active Management

SBM combined with a habitat conservation plan (HCP) does, however, retain a larger land base for active management than the NPV alternative. And over the long term, SBM results in timber volume potential similar to or higher than NPV alternatives.

SBM, accompanied by a HCP, is the management approach recommended by the Department of Forestry (ODF) to the Board of Forestry in the Northwest Oregon State Forests Management Plan. The Board Sept. 6 is expected to act on a

Continued on page 6

NW Forest Plan Changes to Reflect Watershed Health as a Key Goal

The Northwest Oregon State Forests Management Plan has undergone several changes in recent months to increase the focus on watershed health as a key goal of the plan.

This has occurred in response to comments from the Independent Multidisciplinary Science Team (IMST), and from testimony to the Board of Forestry (BOF) by Governor John Kitzhaber on April 20. In his testimony, the Governor called for more emphasis on watershed health in the proposed plan.

The Governor recommended protecting and restoring watershed



health as the overall policy objective for the plan. He termed this approach a "common denominator" to act as a guidepost to shape other active management efforts.

ODF Plan Based on Greatest Permanent Value

The Oregon Department of Forestry's (ODF) proposed plan is based on the "greatest permanent value" (GPV) administrative rule, adopted by the BOF in 1998. It balances environmental, economic and social considerations to benefit the people of Oregon in the long term.

> In the proposed plan for these state forests, an integrated management approach called structurebased management describes a strategy for a desired future condition. In the long term, an array of stand types would be created over time to make up the landscape.

Stand types would change from what currently exists to the following: regeneration (from 8 percent to 5-15 percent); closed canopy (69 percent to 10-20 percent); understory (17 percent to 15-35 percent); layered from 5 percent to 20-30 percent); and older forest structure (1 percent to 20-30 percent).

The Governor cited political tension among

Governor Kitzhaber Tours Tillamook State Forest

Implementation Plans Spell Out How FMP Applies to Each Forest

After the "big picture" — the overall forest management plan (FMP) — is set, it needs to be applied to each individual piece of forest land.

That's where the 10-year district implementation plans come into play. These plans describe the management approaches and activities each district intends to pursue in order to carry out the FMP for Board of Forestry Lands and Common School Lands.

Overview of Expected Outputs and Achievements

Each plan provides an overview of the district, describes current and proposed management activities, views factors affecting landscape design, maps the desired future landscape, and summarizes expected outputs and achievements for harvesting and other management activities.

The plans are for the six districts covered by northwest FMP and the one district covered by the southwest FMP.

Current draft implementation plans, revised three times since they were first drafted in 1997, are expected to undergo a final revision following adoption of the FMP. A public comment period on the final implementation plan drafts and the Land Management Classification System is expected to occur at the same time.

Detailed for Specific Land

And the plans are detailed. This is the point in the planning process where specific parcels of land and general time frames are identified for applying various resource management strategies in the FMP. As these planning decisions are made, an appropriate land management classification is assigned to each parcel of land. The three broad land classifica-tions (called stewardship classes) are general stewardship, focused stewardship and special stewardship

Two of these broad stewardship classes — focused stewardship and special stewardship — are further refined by designating the specific resource (or resources) requiring additional planning or protection as a part of resource management.

Land Classification Assigned

Assigning the appropriate land classification is a fairly involved process that takes into account the following:

- Policy requirements in the Greatest Permanent Value rule
- Legal or contractual requirements
- Quantity and quality of the forest resources present
- Goals of the FMP
- Strategies and prescriptions in the FMP
- Strategies and prescriptions in the Habitat Conservation Plan
- Criteria in the Land Management Classification System Other documents, such as recreation or cultural management plans or specific habitat plans Implementation plans and land management classification are closely linked. The two planning processes are coordinated to ensure consistency between resource planning, management, and protection.

Swiss Needle Cast, Other Disturbances Addressed in District Plans

While the proposed forest management plan (FMP) for the Oregon state northwest forest lands describes strategies for enhancing and maintaining forest health, strategies designed to address specific forest health problems — such as Swiss needle cast — will be described in district implementation plans.

And that's all part of the plan.

Plans Vary Among Districts

The FMP — by design — provides overall guidance and direction. Implementation plans at the district level get into the specifics, which often vary from one district to another.

In the case of Swiss needle cast, only the state forest lands in close proximity to the coast are affected, and other those districts need to develop specific strategies on how to deal with the disease.

Swiss needle Cast Stunts Growth

Swiss needle cast is a disease that stunts the growth of Douglas-fir. It causes the needles of the trees to turn yellow and fall off — well before those of healthy trees. The trees then slip into a slow — or no-growth cycle.

This affects wood

production and thus the time required to achieve the desired future condition of larger more complex forest structures — as described in the FMP. If the growth of significant stands of Douglas-fir, the most dominant tree in the Northwest forest, slows down or stops, then creating older forest structure becomes a very long-term process, unless other tree species are present.



Yellow-colored Swiss needle cast found in 75 percent of northwest state forests.

SBM Rotates Complex Stand Structures Across

Continued from page 4

Stand Type 1: Regeneration Occupied primarily by tree seedlings or saplings, and herbs and shrubs. Trees can be conifers or hardwoods. Widespread (covering up to 80%) and vigorous herb, shrub and/or grasses. Also snags, residual trees and down wood. Begins when disturbance — timber harvest, fire or wind has killed or removed most or all larger trees.



for each alternative) and management goals to provide decadal information on harvest levels, revenue and vegetation conditions for a planning horizon of 200 years. All alternatives were run with a constraint of an

recommendation to send the plan through final rulemaking.

For the model, seven alternatives were constructed to compare different management approaches (listed in accompanying story). Additional optional runs were made to demonstrate the effect of certain constraints or strategies, such as using a higher guiding discount rate, removing even flow of volume constraints, taking away operability reductions, and implementing an aggressive Swiss needle cast strategy.

Model Projects 200 Years into Future

The model uses spatially oriented (how forest stand relate to neighboring stands) inventory data, tree growth and yield projections, management strategies (appropriate even flow of timber over time. Several alternatives also had options that did not require even flow.

Goals for the Harvest Scheduling Model include:

• Provide a sustainable supply of timber

Stand Type 2: Closed Single Canopy Trees fully occupy site and form single, main canopy layer. Little or no understory vegetation. Later, as less competitive trees die, snags and down wood appear.



- Reach and maintain a specified percentage of mature forest structure
- Reach and maintain a spatial distribution of forest structures (patches) across the landscape
- Provide a reasonable present net value

Using even an even flow constraint in the model restricts achieving maximum NPV because it minimizes the effect of the discount rate. Under non-declining even flow with a minimum final harvest



Stand Type 3: Understory

shrubs and herbs.

Gaps in tree canopy and stem

exclusion provide adequate light to reach ground to allow shade-

tolerant diversified understory of

s Landscape

age between 45 and 50, there was no significant difference in the NPV between a guiding discount rate of 4.5 and 7 percent.

Mature Forests Sought for 40-60% of Landscape

The recommended SBM approach creates complex stand structures (mature forests) on 40-60 percent of the landscape. Once achieved, these older trees would be harvested at a rate that maintains the 40-60 percent level. This

is accomplished by rotating the designation of complex stand structures across the landscape over time as the forests mature.



Maintaining the 40-60 percent level of complex stand structure would provide adequate habitat areas for all native species, including threatened and endangered species in the northwest forests, without requiring set asides of nonmanaged reserves for that specific

purpose. In the planned shifting "mosaic," under the accompanying habitat conservation plan (HCP), additional suitable habitat on the landscape would take the place of existing sites, which would become available for active management in the long term.

Swiss Needle Cast Included in Model Runs

Another factor the model takes into consideration is Swiss needle cast (SNC), a disease affecting the growth rate of Douglas-fir. Within the northwest state forests, there are areas where the disease is causing severe damage and other areas where it is present and causing some damage.

Under options in several of the alternatives, the severely affected areas with stands at least 30 years old would be clearcut and regenerated in the first decade. Similarly affected stands 20 to 30 years old would be clearcut and regenerated in the second decade.

Other factors affecting the alternatives being run through the model involved prescriptions for riparian buffers, adjacent clearcut limitations,

Stand Type 4: Layered Tree canopy of two or more layers, with extensive layering of diverse shrub and herbs in understory. Trees of 18 inches diameter and 100 feet tall, with younger cohort trees at least 30 feet tall.



minimum harvest age (usually 50 years), strategies for northern spotted owl and marbled murrelet habitat with and without an HCP, creation of mature forest "patches," and maintaining older forest structure (must remain for 20 years before harvesting).

Stand Type 5: Older Forest Structure Trees with desirable wildlife characteristics. A minimum of eight trees per acre with at least 32-inch diameters. Two or more canopy layers, with shade-tolerant species. At least six snags per acres. Substantial down wood at various stages of decay. Diverse understory.



Continued on page 10

Seven Management Alternatives Listed

Continued from page 9

The seven alternatives used in the analysis model follow:

Alternative 1: Structure-based Management (SBM) with Habitat Conservation Plan HCP

- SBM (target in older forest structure and layered of 20-30 percent each)
- Proposed northern spotted owl (NSO) and marbled murrelet (MM) strategies
- Proposed aquatic and riparian strategies
- 4.5 percent discount rate

Objectives: Achieve stand structure targets as soon as possible; secondarily emphasize net present value (NPV).

Alternative 2: SBM with no HCP

- SBM (same stand targets as Alternative 1)
- Take avoidance strategies for NSO and MM
- Proposed aquatic and riparian strategies
- 4.5 percent discount rate

Objectives: Achieve stand structures as soon as possible; secondarily emphasize NPV.

Alternative 3: Emphasize Net Present Value (NPV)

- No targets for stand structure types
- Take avoidance strategies for NSO and MM
- Proposed aquatic and riparian strategies
- Options with 4.5 and 7 percent discount rates

Objective: Emphasize NPV

Alternative 4: SBM with Reduce Complex Stand Structure Targets

- SBM with reduce complex structure targets (5 percent layered; 5 percent older forest structure, and another option with 30 percent total layered and older forest structure)
- Take avoidance strategies for NSO and MM
- Proposed aquatic and riparian strategies
- 4.5 percent discount rate

Objectives: Achieve stand structures as soon as possible; secondarily emphasize NPV.

Alternative 5: Balance Mean Annual Increment and NPV

• This alternative was not modeled.

Alternative 6: 50 Percent Reserves

- 50 percent reserved management basins with limited thinnings allowed in first few decades only
- Remaining 50 percent managed as in Alternative 1
- Assumes HCP based on reserve areas. All NSO and MM habitat is located within 50 percent reserve areas; no proposed NSO or MM strategies or take avoidance in managed 50 percent
- All riparian buffer zones are "no harvest"

Objectives: Achieve stand structure targets as soon as possible; secondarily emphasize NPV

Alternative 7: Exclusive Reserve Approach

• 100 percent reserves Objective: Grow existing stands.

State Fair Forestry Display Traces Tillamook State Forest History

The Oregon Department of Forestry display at the State Fair this

year from Aug. 24 to Sept. 4 will feature pictures and audio stories tracing the history of the Tillamook State Forest from presettlement to present

A photo collage with information also will show visitors the opportunities for recreation, education and interpretation available today in

the Tillamook forest. Impromptu, hands-on educational activities for children will be conducted throughout the fair.

Smokey Bear Appearances

Smokey Bear will make daily appearances. A new photo backdrop will be available for kids to have their picture taken with Smokey. A mannequin dressed and equipped as a wildland firefighter also will be on display.

A scale model of the planned Tillamook Forest Interpretive Center will be displayed in the booth. Planned for opening in 2004, the



Temporary tattoos available at ODF State Fair Display.

center will be a place of public experience, dialogue and learning about forests — specifically the Tillamook Forest. It will focus on sustainable management of forests and a wide variety of topics encompassing natural and cultural history.

Interpretive Center to Inspire Visitors

The center also will serve as a source of community identity and as a venue for community life. Visitors touring the facility will gain a deeper knowledge about how our lives are connected with forests. They may even be inspired to further exploration and understanding.

For more information on the center, contact the Tillamook Forest Heritage Trust at 503-359-7474 or visit the Trust's website: www.tillamookforest.org.



Artist's rendition of Tillamook Forest Interpretive Center, slated for 2004 opening.

HORIZONS FALL 2000

Forest Trust Land Advisory Committee County Group Seeks to Enhance Ongoing Communications with BOF

The Forest Trust Land Advisory Committee (FTLAC) is revising its charter to help enhance regular communications with the Board of Forestry (BOF).

Representing counties that have deeded their lands to the state, the statutorily mandated FTLAC advises the BOF on matters in which counties may have a responsibility related to forest land. Counties depend on revenue generated from management activities on these state forest lands managed by the Oregon Department of Forestry (ODF).

\$30 Million Earmarked for 15 Counties

About \$30 million in annual revenue — earmarked for 15 counties comes from timber sales on county forest trust lands. The revenue is used primarily for local schools, but also helps fund county government and local taxing districts. Counties with forest trust lands include Benton, Clackamas, Clatsop, Columbia, Coos, Douglas, Josephine, Klamath, Lane, Lincoln, Linn, Marion, Polk, Tillamook and Washington. The most recent FTLAC meeting Aug. 18 was held at the ODF' offices in Salem. It focused on revising the group's charter. FTLAC meetings are open to the public.

Planning and policy decisions made by the BOF and ODF can affect the revenue levels received by the counties with forest trust lands managed by ODF. The FTLAC has met infrequently over the years, relying instead on county representation on various ad hoc and standing committees to provide input to ODF.

Eight-member Committee

Members of the current FTLAC seek a more regular meeting schedule so they can provide more ongoing input to the BOF. FTLAC is made up of eight members that represent the 15 counties that have state forest land.

Current members are Mike Propes, chair, Polk County; Tim Josi, co-vice chair, Tillamook County; Dave Schmidt, co-vice chair, Linn County; Sue Cameron, Tillamook County; George Kiepke, Clatsop County; John Lindsey, Linn County; Jack Peterson, Columbia County; Mike Winters, Douglas County.

Implementation Plan

Continued from page 6

FMP Unfolded on Ground over Next Decade

These district implementation plans are a key document that describes how the strategies of the forest management plan will actually unfold on the ground in the coming decade. They will provide greater detail on the forest management that local constituents can expect to see on state forest lands in their area.

The Oregon Department of Forestry encourages interested parties to review and comment on the final drafts of these plans, following adoption of the FMP.

OREGON DEPARTMENT OF FORESTRY

Roy Woo Takes Deputy Slot; Bordelon Moves to NW Area

Two Oregon Department of Forestry (ODF) officials, instrumental in the development of the Northwest Oregon State Forests Management Plan, have accepted new positions — and they will still be involved in the plan's implementation.



Roy Woo



Mike Bordelon

Roy Woo, former director of ODF's Northwest Oregon Area, has been appointed deputy state forester, effective June 1, and Mike Bordelon, former State Forests program director, has moved into Woo's former position as director of the Northwest Oregon Area, effective Aug. 1.

ODF is currently seeking to fill the State Forests program director position. In the interim, Dan Christensen, district forester from Clackamas/Marion District, is the acting program director.

Woo Brings 28 years to Deputy Post

Woo brings 28 years of experience with the department to his new post at the headquarters office in Salem. He succeeds Mike Beyerle in Forestry's No. 2 slot.

As deputy to State Forester James E. Brown, Woo will oversee ODF field operations and field staff. The department provides fire protection for 16 million acres of private and public forest land and administers the Oregon Forest Practices Act on non-federal forestlands. In addition, five state forests totaling 800,000 acres are managed by ODF.

Since April 1998, Woo has played a key role in planning the future manage-

ment of the 600,000 acres of state forest land in northwestern Oregon.

"As the State Forests Program has developed the draft *Northwest Oregon State Forests Management Plan*," he said, "I've worked to ensure that our foresters in the districts understand how to implement the plan properly on the ground."

Bordelon to Guide NW Plan's Implementation

Bordelon takes over as Northwest Area director in Forest Grove after three years as State Forests director. He played a leading role in developing the *Northwest Oregon State Forests Management Plan.* He helped complete the "purpose of the lands rule," an administrative rule that calls for Board of Forestry-owned lands to be managed for an array of social, economic and environmental values.

In moving from a headquarters policy position to a field operations job, Bordelon will be able to carry through the next phase of the forest planning process.

"I'm excited at the opportunity to guide the implementation of our innovative forest management plan," he said.

Swiss Needle Cast

Continued from page 9

Research-based Decisions

Depending on the amount of forest land impacted by the disease and its severity, each district will develop a plan to deal with Swiss needle cast. Professional foresters at the district level will use the latest research and make decisions best suited for stands within their regions.

It is estimated that 75 percent of the state forest lands in northwest Oregon are affected by Swiss needle cast to some degree. As much as 75,000 acres, mostly within 20 miles of the coastline, have severe damage (two years or less of foliage retention).

All affected districts are planning an aggressive effort to combat the disease. In cases where the stands are older than about 25 years, the remedy may involve using clearcuts or selective partial cuts to remove the growth-stunted trees and replacing them with species such as hemlock, Sitka spruce, western red cedar and red alder, all immune to the disease.

In younger stands less than 10 years old, however, foresters will most likely leave the diseased Douglas-fir and simply shift the stand composition by planting non-Douglas-fir species seedlings.

The stands older than 10 years and younger than 25 years are the "tough calls" for the foresters because it's costly to remove the mainly nonmerchantable trees. In these stands, thinning to favor species other than Douglas-fir may be appropriate, if these species are present. Otherwise, foresters may wait until the Douglasfir stands are merchantable, then harvest them and replant with other species.

Foresters Afforded Flexibility to Use Judgment

The FMP gives foresters the flexibility to make those judgment calls, and to use adaptive management to fine-tune their decisions, as more information becomes available. This occurs through the district implementation plans, which will be periodically reviewed and updated to assure that state-of-the-art management practices are being applied to address problems like Swiss needle cast.

NW Forest Plan Changes

Continued from page 5

environmentalists, timber interests and counties over the use of structurebased management with its proposed stand targets as his reason for recommending a watershed-based approach.

Watershed Health Emphasis Acknowledged

The ODF agreed with the Governor that watershed and ecosystem health is an important component of the overall forest environment. This component is interwoven throughout the proposed strategies of the plan. The most recent draft of the plan reflects this increased focus through the addition of the following elements:

- A guiding principle acknowledging watershed and ecosystem health as a key goal of the plan.
- A strategy for watershed assessment and analysis tied directly to adaptive management.

Plan Continues Focus on Integrated Management

The proposed plan continues to rely on integrated management — at both the landscape level, through structure-based management, and with additional site-specific strategies for aquatic and riparian resources — to achieve the goals of watershed and ecosystem health.

This direction is consistent with the administrative rule for achieving "greatest permanent value" on these forest lands for Oregonians.

In his testimony, Governor Kitzhaber commended the BOF and ODF on their thoughtful and comprehensive effort in developing the plan. He singled out the meaningful public involvement and the fact that the plan is based on good interdisciplinary science.



OREGON DEPARTMENT OF FORESTRY

PUBLIC AFFAIRS OFFICE

2600 STATE STREET

SALEM, OR 97310

