United States Department of Agriculture

Forest Service

Monitoring and Evaluation Report

Willamette National Forest

Fiscal Year 2003

Pacific Northwest Region

Detroit Lake, Willamette National Forest

MONITORING AND EVALUATION REPORT

This report focuses on the monitoring and evaluation process described in Chapter V of the Forest Plan. Though not all the questions posed in Chapter V of the Forest Plan is evident in this document, each question is addressed over the course of the year.

If you have not received a copy of the 2002 Annual Report and would like a copy, please contact Patti Rodgers (541-225-6305) or write: Willamette National Forest; PO Box 10607; Eugene, OR 97440.

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Forest Supervisor's Letter

I am pleased to present the Willamette National Forest's 13th Annual Monitoring and Evaluation Report for your review.

The climate in which we began implementing the Forest Land and Resource Management Plan in 1991 has changed considerably. The largest change occurred in 1994 when the Northwest Forest Plan amended our Forest Plan by establishing new land allocations.

We have since experienced a great deal of change due to continuing reductions in the Forest's operating budget.

Despite these changes, the Forest Plan is a dynamic document,

designed to adapt to changing circumstances. I am proud to say that the Forest has kept it promise to change as the world changes to keep our plan fresh and responsive.

More information is available by contacting the Forest or by visiting our website at www.fs.fed.us/r6/willamette.

Your continued interest in the Forest Plan is just one way for you to stay current with activities on your public lands.

Sincerely,

DALLAS J. EMCH
Forest Supervisor
Willamette National Forest

Introduction and Background

The Land and Resource Management Plan (Forest Plan) for the Willamette National Forest was approved by the Regional Forester in July 1990. We began implementing the Forest Plan in September, 1990.

The Forest Plan designates areas for resource management emphasis based on the capabilities of these areas to provide differing levels of goods and services. The Plan also established Standards and Guidelines (S&Gs) that direct the management of these areas.

In April 1994 the Forest Plan was amended by what is referred to as the Northwest Forest Plan (NWFP). The amendment established additional management areas and S&Gs.

The Forest Plan also specifies monitoring and evaluation requirements to provide information necessary to determine whether promises are being kept, and to assure assumptions made during the Forest Plan analysis are still valid. Monitoring coupled with evaluation provides a control system over management activities on the Forest.

Our monitoring is accomplished with three categories of monitoring:

Implementation Monitoring is used to determine "Did we do what we said we were going to do?"

Effectiveness Monitoring is used to determine "Are the management practices producing the desired results?"

Validation Monitoring is used to determine "Are the planning assumptions valid, or are there better ways to meet Forest Plan goals and objectives?"

Evaluation is the analysis and interpretation of the information. Evaluation provides a feedback mechanism identifying whether there is a need to change how the Forest Plan is being implemented.

The Monitoring Questions addressed throughout the year can be found at www.fs.fed.us/r6/willamette/manage/fpmr/2002/mon_questions.pdf

Physical Resources

Water quality

The Willamette National Forest conducted water quality monitoring at 130 stations during 2003.

Forest watershed personnel closely follow the Oregon Department of Environmental Quality (ORDEQ) protocols and, because of this, we can be more confident than ever that the data we have is of the highest quality, is accurate and is credible.

The Middle Fork RD monitored a total of 67 sites this year primarily for water temperature which was 14 more sites than 2002. Ten of those stations either had equipment fail or were vandalized. The maximum of the 7-day moving average for water temperature varied from site to site, some sites recording a reduction in the value and others an increase from the previous year. The maximum increase recorded was 2.56°F on Winberry Creek @MP 1.8. The maximum value occurred on July 27. The maximum decrease recorded 2.83°F on Gold Creek at the mouth. Of the 57 stations monitored, 32 recorded increases in the Moving Max 7-day average that were less than 1.0°C, and 10 recorded decreases from 2002. Other stations were new so that comparisons could not be made or the data was not comprehensive enough to make a solid comparison.

The McKenzie River RD monitored a total of 36 sites this year primarily for water temperature. This is a similar number of sites monitored in the past. Of the 36 stations monitored in 2003, 15 stations had Max 7-day average readings in excess of established water quality standards for the stream in question. In some cases the standard is 10.0°C for Bull Trout waters. The station recording the highest 7-day maximum value was the Lower Mill station on Mill creek with a reading of 21.7°C on August 1. The McKenzie River just above Trailbridge Reservoir had a maximum 7-day average value of 7.1°C.

The Sweet Home RD deployed 6 water temperature measuring devices in Quartzville Creek, a 303(d) listed stream. All of the instruments failed to record any temperatures. No other water quality data was collected on this District. The District has contracted with Oregon State University to analyze turbidity and flow data on the Moose Creek watershed that was collected from the mid-1980's to the present time. An interpretive report is expected in the last quarter of 2004.

The Detroit RD monitored a total of 21 sites, 7 sites less than in 2001. Seven of the sites were monitored in conjunction with the City of Salem and the U.S. Geological Survey. Multiple parameters are collected at the Cooperative sites. The other sites are primarily monitored for water temperature. Of the 21 sites, only Blowout Creek, at the Road 10 Bridge, had a 7-day moving average above the Oregon State Water temperature quality standard of 64F.

Turbidity Monitoring was done in cooperation with the USGS. One significant event was measured in the North Santiam River on October 21, 2003 when Milk Creek, a tributary, was loaded with glacial silt. No increased turbidity was detected below the dams at the Niagara gauging station on the North Santiam River.

No additional streams were listed on the Detroit R.D. nor Sweet Home R.D. in the Oregon DEQ 303(d) list of Water Quality Impaired Waterbodies from the 1998 to 2002 list.

Additional Monitoring Activities: In 2003 two sampling locations in Waldo Lake were monitored under contract with Cascade Research Group. Both sites were monitored 4 times using strict sampling protocols. Chemical analysis was conducted by the Cooperative Chemical Analytical Lab in association with Oregon State University. Information and data can be found at the following web site:
http://www.cascaderesearch.com

In conjunction with the above sampling the Center for Lakes and Reservoirs at Portland State University began extensive implementation of a Science Plan for Waldo Lake which includes both the physical, chemical and biological aspects of the watershed and will ultimately allow management decisions to be based on the best science available for the lake. In addition, a bulk precipitation collection station was established and snow pits dug and samples analyzed at two locations

in the Waldo Lake watershed. This work was done in cooperation with the US Geological Survey Western Snow survey group from Denver, CO.

Blue-green algae blooms continue on the reservoirs and lakes on the Forest and Forest Service and US Corps of Engineer personnel in conjunction with Oregon Department of Health Services personnel monitor the extent and potentially toxic nature of these blooms. The following web site link will lead to information posted by OR Dept. of Health Services.

Air quality

The Willamette National Forest has been part of a multi-Forest, coordinated program to monitor air quality with lichens. From 1994-1997 lichen survey and tissue analysis data were collected on nearly all of the 3.4 mile CVS plots. In 1998 and from 1999-2000, lichen tissue data were collected every two months in the vicinity of the NADP station on the H.J. Andrews Experimental Forest. In 2002 no new data was collected. All resources were focused on analysis of the data collected from 1994-2000. Nearly all Willamette NF air scores fell within the two best air quality categories. Only 10 of the 235 plots, or <5% of plots, had air scores in the fair range. Fair is a borderline air quality score in which sensitive lichens may still be present but often are not. In contrast, about 14% of the total land area of western Oregon and Washington was rated fair and 24% was given a worse pollution rating.

A more in-depth discussion on 2003 Air Quality Monitoring can be found on the Willamette web site at: http://www.fs.fed.us/r6/aq.

Smoke related monitoring:
In FY2003 there were no deviations from the Oregon State Smoke Management daily forecast nor did intrusions occur in designated or smoke-sensitive areas in 2003. The Forest also monitors Class I Wilderness air quality impairments. There were no reported or measured impairments of visibility standards in Class I areas on the Willamette National Forest in fiscal year 2003. Measurements were based on visibility monitoring by fixed detection sites on the Forest. Impairments, due to wildland fires burning in and around the Class I areas, did occur during the summer restriction period.

Fire & Fuels

The Forest met or exceeded the harvest related fuel treatment levels predicted in the Forest Plan for 2003. Numbers, however, continue to show a downward trend in acres of fuel treatment. The downward trend is primarily due to changes in harvest types needing fuel treatment and the decrease in the harvest level, all reducing the amount of fuel treatment needed.

A total of 25,008 acres burned as a result of wildfires in 2003 . More than 18,000 burned in Wilderness marking a very active fire season. Acres burned exceeds what was expected in the Forest Plan predictions.

Soils and Mass Movement

A positive trend continues in minimizing and controlling mass movement. Of the 17 sites monitored in 2003, only 7 were moving, the others were stable. Of those moving, only "Boundary" on road 1133 at milepost 14 was not attaining success towards desired conditions.

- Current management practices using the Standards and Guidelines for Water Quality have been as follows:
- Current practices for road location, design and construction are effective.
- Current practices for road reconstruction are effective in eliminating, reducing or mitigating existing mass movements.
- Current practices for site-specific slope stabilization and post-stabilization mitigation have been effective.
- Maintenance practices have been effective where applied. However, there is still a concern over the lack of funding to perform this work to the extent needed.

Decomissioning projects have been effective.

The large earthflows that were monitored in 2003 continued to move, but at a decreased level compared to the previous year.

Biological Resources

Fish

Forest fish monitoring has focused on the Oregon chub (an endangered species) and bull trout (a sensitive species_ habitat and populations. The Forest is also concerned about the proportion of winter steelhead and Chinook smolt numbers as a result of land management activities.

Chub habitat areas on the forest are being monitored with surveys and population estimates. Of the 6 ponds monitored, four show decreasing trends, especially Oakridge Slough. Concerns about the recent decline in the Oakridge Slough population has led to a plan of habitat restoration. In order to strategically plan for future restoration, a study of the Oakridge Slough and several other ponds with stable populations is being planned to determine the limiting factor. The study is expected to begin in summer 2005.

According to surveys conducted by ODFW, habitat work by the Forest in Roaring River and the South Fork McKenzie above Homestead Campground has increased adult bull trout populations. Adult mortality has also decreased through fishing regulation changes. Wood placement to create quiet water habitats will continue to bolster bull trout populations. Based on what has been learned by the work in Roaring River and the South Fork above Homestead, bull trout habitat improvement projects are planned in the mainstem McKenzie River.

Bull trout habitat improvement projects were completed in the Middle Fork Willamette River watershed upstream of Hills Creek Reservoir in 2003 to improve bull trout and salmon spawning habitat. In addition, the district has identified roads to be closed and culverts to be replaced. Some of these road closures will benefit bull trout by reducing fine sediments and restoring hydrologic connectivity.

The primary method used to monitor bull trout populations is redd surveys. Based on redd survey results, it appears that bull trout populations in Anderson Creek and Roaring River are somewhat reduced. Srveys of Olallie Creek, South Fork McKenzie and Trail Bridge population show stable or increasing populations.

Biological Diversity

Among last year's special habitat monitoring topics were oak/pine habitat restoration and revisiting previous special habitat monitoring sites to assess non-native invasive impacts.

Oak/Pine habitats:
Dr. Bart Johnson (University of Oregon) has installed several transects in the 683 acre Jim's Creek area to study succession from oak savannah with scattered large ponderosa pine and Douglas fir to a forest complex dominated by young dense Douglas fir. Initial results suggest:

- the distribution of Oregon white oak and ponderosa pine on the site has changed.
- Oak and pine appear originally to have been widely distributed across the study site.
- Oak and pine attained their largest sizes on more mesic sites (moister, cooler, deeper soils).
- Oaks are now becoming more restricted to the harshest, driest sites with shallow soils and/or rock outcrops such as forest/meadow edges, in-filled meadows, and open meadows.

The location, density, and size of oaks have shifted over the last 150 years. The largest ponderosa pines are also in decline.

More field data on the site will be collected next summer, and a final report will be available.

Special Habitat Monitoring sites:
A small wetland was monitored in 1999 after a green tree retention buffer was designed to protect the special habitat from an adjacent clearcut. The wetland appeared to be unchanged; no blowdown was detected. Only one exotic weed was found. Heavy elk use was very evident. Increased light on the site appears to have stimulated growth in vine maple and red alder. Young western hemlock along the margins of the wetland are significantly taller than in 1999, and may be more of a protective screen than before. The adjacent clear cut had several exotics, including Canada thistle, bull thistle, and Himalayan blackberry. The buffer appeared to have been successful in preventing alteration of the composition of the wetland and change in hydrology.

Landscape monitoring of special habitats require an adequate inventory of these sites. As a result the Forestwide GIS layer for special habitats is being upgraded, with more sites to be included. The new GIS layer includes point data, polygons from the Forest vegetation mapping, lakes and other water bodies, and glaciers. The Forest special habitat classification and mapping has been used as a model by the NW Oregon Ecology group, in initiating an integrated special habitats map and database for the

Willamette, Siuslaw, and Mt. Hood NFs, and Eugene and Salem BLMs.

Wildlife

The Forest provides diverse habitat supporting over 260 wildlife species. A select number of species, requiring a diverse degree of habitat needs, were chosen to be managed for their required habitat which in turn assured other species' needs are met. These selected species were termed Management Indicator Species (MIS).

Two of the species are the Bald Eagle and Peregrine falcon. Habitat occupied and potential for the Bald Eagle is adequate. Site specific problems still exist on sites at Middle Fork RD, specifically habitat disturbance issues. Monitoring indicates, habitat conditions for peregrine falcon are adequate. All known sites are being monitored which meets and exceeds the national delisting requirements.

Pileated Woodpecker,
Dryocopus pileatus

Primary cavity excavators (PCEs), which rely on dead and decaying trees and another MIS species, have been the subject of a long-term study to understand if the snags being provided persist on the landscape as planned and if those snags are used and contribute to a viable population. Habitat for PCEs appears to be adequate to meet forest level objectives. However, recent regional modeling efforts indicate historic snag and down wood levels much higher than forest level objectives for most time periods. Through a multi-year monitoring project for created snags the following was found:

- Of 1200 snags, 82% were used by woodpeckers for foraging
- Woodpeckers preferred dead created snags over living created snags for foraging
- Woodpeckers preferred dead created snags equal to natural snags for nesting
- Mortality rate for created snags was lower than predicted

With respect to deer and elk populations, we are likely below management emphasis level goals in all high and moderate level areas due to high road densities and decreasing forage. We may be meeting goals in some low emphasis level areas, but no data is conclusive on this assessment. Based on hunter statistics and annual census counts by ODFW, population trends of both deer and elk are down forest-wide, especially deer. Elk populations may be holding steady in some basins. Causes for the decline in big game populations is likely due to a combination of factors. Lack of adequate forage primarily and adequate security cover (open road densities are still too high) is a concern on the forest. In addition, at lower elevations, deer hair loss disease has caused a decline in local populations.

Plants

Botanists completed surveys on 3777 acres for sensitive and survey and manage plant species this spring and summer. Major finds included *Corydalis aqua-gelidae* on McQuade Creek. a totally new sensitive species for the Forest, *Lycopodium complanatum*, from Sweet Home, and a confirmation of *Carex livida* (formerly only suspected on the Willamette) in the Three Sister's Wilderness. Also of note were the addition of two sites for *Bridgeoporus nobilissimus* in Wildcat and Three Creeks RNA. Two populations of *Castilleja rupicola* were also confirmed on the Middle Fork (located by Native Plant Society members) adding a second new sensitive species to our list this year.

A total of 20 botanical days were dedicated to monitoring 7 sensitive plant species: *Cimicifuga elat*a (6), *Ophioglossum pusill*um (2), *Botrychium minganense* (2), *Botrychium montanum* (2), *Corydalis aqua-gelidae* (4), *Arabis hastatula* (2) and *Aster gormanii* (2). This monitoring is directed by Conservation Strategies to ensure selected population's health and vigor remain stable. This monitoring is focused on species that have Conservation Strategies to ensure selected population's health and vigor remain stable. The *Botrychium montanum* at Sweet Home, which has been visited yearly since 1991, exhibited very poor recruitment this year so will be a focus for next year. On Detroit a population of *Aster gormani*i was burned by a prescribed fire, so the

effect of fire on this species will be documented in future visits.

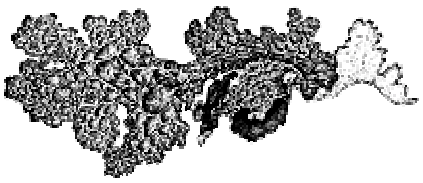
The Botany program initiated several cooperative agreements including:
Our first cooperative project, with the University of Oregon Department of Landscape Architecture, is to evaluate oak-pine distribution and conditions in relation to site physiography and vegetation in the Jim's Creek drainage on the Middle Fork Ranger District.

Our second challenge cost share was with Carex Working Group (CWG), who rewrote our Forest sedge key for use in identifying, sedge species, resulting in many new species being added to our Regional Forester's Sensitive Plant list.

An ongoing Cooperative Cost Share (CCS) project with Cascade Mycological Society was completed this year. In this project, 600 acres were surveyed for *Bridgeoporus nobilissimus* on the Sweet Home and Detroit RD's over the course of 3 years. They succeeded in finding one specimen near Gordon Lakes on the Sweet Home RD. This site is interesting because it is the only conk on the district to be found on a live noble fir, rather than stumps and snags.

A total of 526 acres of noxious weeds were treated in 2003. The overwhelming majority, 454 acres, were treated manually. An additional 30 acres were chemically controlled. Forty acres were mechanically treated with mowing, 1 acre of each treatment- black plastic and competitive planting.

This year is the first year of a systematic effort to prevent weed spread during timber sale and road construction activities. Weed prescriptions by the district botanists inform the contracting officer representatives of noxious weed locations, and where and when off road equipment needs to be washed before moving to another watershed.



Lobaria hallii

Resources and Services to People

Timber

The volume of timber products from the Forest is measured by including green timber sales, salvage sales, and miscellaneous convertible products such as firewood and Christmas trees. In addition, the Willamette is responsible for providing Alternative Volume in response to Public Law 104-19, Section 2001 (k)(3) commonly known as the Rescission Act. In Fiscal Year 2003 the Forest offered 55.3 MMBF in green, and salvage products. The Forest also offered 5.7 MMBF in Alternative Volume sales. The low accomplishment, relative to the Forest Plan's Probable Sale Quantity, was due to offering less volume in green and salvage sales based on the allocated budget.

Silvicultural Practices

Growth responses from timber stand improvements (TSI) are consistent with expectations in the Forest Plan. Genetically improved stock is being used as planned and will maintain or exceed the growth of natural seedlings.

Of the 1,161 acres of regeneration harvest in FY98, 1,096 acres (94%) were certified stocked by FY03. The reasons for the remaining 65 acres (6%) not achieving 5-year regeneration are: 16 acres were on a harsh site that burned by wildfire. The site was replanted several times to meet minimum stocking requirements; 14 acres was replanted needs 1-2 more years to ensure minimum stocking is well-established; 35 acres did not meet the certification within 5-years due to delays in planting and certification surveys.

TSI accomplishments of thinning, release, and fertilization totaled 8,513 acres. Accomplishments are well below predicted plan. A significant backlog of plantations in need of thinning is building on the Forest.

Insect & Disease: Monitoring of insect and disease activity on the Forest is completed each year. No significant or increasing insect and disease activity was noted. There was however, an increase in black bear damage, which continues to be a primary agent of tree mortality totaling approximately 15,607 acres.

Cultural Resources

The Forest cultural resource inventory reflects a resource base of over 2,200 recorded historic properties. During FY2003, the Heritage staff reported monitoring visits to 110 sites with several sites receiving multiple visits do to their vulnerability. New impacts were noted at 7 of the sites monitored, though only 4 were considered significant. Significant effects include vandalism reported at two historic sites and continuing impacts noted in at least 2 recreation sites which overlay archaeological sites. Additional looting was discovered at one site where Law Enforcement has taken immediate and continuing action including site surveillance.

Several sites exhibit cumulative impacts of on-going adverse conditions. These include, recreation use, illegal artifact collection, ORV use, reservoir inundation and or water erosion. Lack of adequate maintenance and weathering continue to cause damage to many historic structures.

Of greatest concern is the damage reported under violations of the Archaeological Resource Protection Act (ARPA) where Law Enforcement investigations are underway . This consists of criminal activity directly focused on site destruction and artifact theft. These damages can be quite extensive and nearly impossible to mitigate against. Additionally, vandalism at historic buildings continues to be a problem. Aside from the ARPA case, for the most part, it appears that site-specific impacts were relatively minor. Field archaeologists reported that previous mitigation prescriptions had been successful at several sites visited, while most sites had no prior mitigation requirements. Additional protection or some form of new mitigation, including more monitoring, was recommended for other sites. A programmatic approach for protecting sites from various recreation activities is still needed.

Monitoring was reported for 20 historic structures and several historic structures were repaired in FY 2003; Some are being prepared for the Recreation Rental program. Several important historic structures were protected during the large fires in the late summer of 2003, including Santiam Lodge and Independence Prairie. On going studies are assessing the effect of the wildfire on other archaeological sites.

Specially Designated Areas

"Specially designated areas" is a broad term that includes Wild&Scenic Rivers (W&SR), Research Natural Areas (RNAs), Old Growth Groves (OGGs),

Special Interest Areas (SIAs), and Roadless Areas.

RNAs: Three RNAs (Wildcat, Three Creeks, and Middle Santiam) were visited in 2003. No management related-disturbances were observed nor expected to be present in 2003. Invasive species continue to persist in the Middle Santiam but seem to be confined to the gravel bars in the river.

Wild & Scenic Rivers: Wild & Scenic Rivers (W&SR) are being protected in accordance with the Wild & Scenic River Act, though there are isolated cases of increased loss of riparian vegetation. Some sites may need to be closed to allow for revegetation. Several boat launches on the Mckenzie River will be reconstructed to accommodate current user demand.

The Forest's newest W&SR, Elkhorn, will have a management plan as funding becomes available.

Roadless Areas: Both numbers and acres of unroaded areas and inventoried roadless areas are within the Forest Plan predictions.

Wilderness Areas: Review of Wilderness permits for the Mount Washington, Three Sisters, and Mt. Jefferson Wilderness areas indicate a steady increase in overall use. Use numbers for the Obsidian Limited Entry Permit system in the Three Sisters remain stable with some seasonal fluctuations due to field conditions.

Detroit District continues to monitor use within the Pamelia Limited Use Area (Mt. Jefferson Wilderness) where there had been concerns about the use exceeding limits established for the assigned class setting.

The Marion Lake area, the Jefferson Park area, and the Eight Lakes Basin/Duffy Lake area areas where the Forest continues to be concerned about levels of use and consistency with W&RS class settings. The District continues to monitor resource effects in these areas and continues public education and information efforts in preparation for the implementation of additional control measures proposed by the Jefferson Wilderness Focus Group several years ago. Among the additional control measures, during FY03, the first year's implementation of the Marion Lake campfire ban already produced noticeable positive effects on user behaviors within the concentrated use areas adjacent to Marion Lake and Lake Ann. Additional Limited Entry Areas (LEAs) may be necessary.

In Diamond Peak, Waldo Lake and the southern portion of the Three Sisters Wildernesses, use limits are within the limits established for the management plans for each WRS class. Campsites were constructed outside the designated sites, and some of the rehab sites were damaged because of over camping in the areas. The percentage of users not using designated sites increased at least 7%. There was a 2% decrease in dogs being brought into the wilderness areas

Recreation

The Santiam Pass Dispersed Summer Recreation Planning Project has been started to provide an appropriate level of recreation opportunities and positive recreation experience for visitors in an area where unmanaged dispersed day and overnight uses continue to increase each summer season.

The Cougar Recreation Area continues to require a great deal of federal protection officers and law enforcement presence to monitor user behavior and site degradation during the summer months. In the winter, more vandalism and garbage occur due to the lack of Forest Service presence. A new recreation fee designed for Cougar will allow for increased presence.

The Elk Lake area occasionally exhibits use levels and party sizes or user activities that are inconsistent with the designated ROS setting. Since FY01, increased Forest Service presence has been used in the Elk Lake area to reduce or limit these inconsistencies. Use that is inconsistent with the ROS setting for Elk Lake still occurs occasionally despite the increased presence. Barrier posts have been installed and have generally proven to be effective to keep four-wheel drive vehicles on main access roads at Elk Lake and meet Standards and Guidelines for this management area.

There have been encroachments by snowmobiles in the Semi-Primitive, Non-motorized area off the Waldo road. Illegal bike use in wilderness areas continues to occur, but is noticeably reduced from recent years observations.

Fall Creek Corridor Special Interest Area has been a popular place for hiking and camping (both developed and dispersed) for a number of years. Use of this area has been increasing for some time. Recent observations and consideration of the experiences we are providing have resulted in the

realization that the use of this area is not entirely consistent with the Forest Plan standards which are to provide a physical setting that meets or exceeds the Roaded Natural ROS class in Special Use areas. During high use periods, generally summer weekends, visitors to the Fall Creek area experience numbers of social encounters inconsistent with an ROS of Roaded Natural. An environmental analysis currently underway will address this issue.

Other Unique Areas

The forest monitors for adverse affects from human use or management activities to any special area on the Forest. In FY02 forest personnel visited 11 special areas. Some observation include:

Fall Creek Special Interest Area- Continue to find less trash, fewer homeless camps and improved vegetation regeneration. A considerable number of potentially hazardous trees exist in portions of this area as the result of the 2003 Clark fire. An analysis has begun to determine how we should respond to the effects of this fire.

Hardesty Mtn-.Trails in the area received more use during wet weather, widening them around wet areas. Mountain bike use on wet soils created troughs on switchbacks and along the fall line.

OCRA- Visited, no new effects noted. We have been receiving a few complaints regarding ATV use in the OCRA. As far as we have seen, ATV use remains restricted to the trail system, but other users are not accepting of this legal use.

Constitution Grove - The site was monitored. Because of easy access from Forest Road 19, litter is generally found at the site. The overstory mortality that has been ongoing for several years appears to have abated.

Rigdon Ranch Special Interest Area - Heritage sites were monitored and found no change in status.

Deadhorse Rock Shelter Special Interest Area - Heritage sites were monitored and found no change in status.

Eagle Creek Special Interest Area general condition was monitored; this area receives virtually no use, likely due to lack of access.

Horsepasture Cave Heritage sites were monitored and no changes were found.

Gold Lake Old-Growth Grove Site was monitored and no change in status was noted.

Johnny Creek Old-Growth Grove This area burned by the Clark Fire and no longer qualifies as old-growth. The associated nature trail and parking area, which is wheelchair accessible, remain relatively unaffected but all signing was destroyed and several bridges slightly damaged.

Trails

Trails and trail corridors are being maintained and managed for a variety of uses and experiences consistent with public demands on the Forest. Some mountain bikers use infrequently traveled trails in the Waldo area as single track race course training, which is not consistent with other user expectations or with current ROS settings. In winter we continue to receive complaints from snowmobilers of rutted snow covered roads caused by large 4x4 vehicle early in the winter months. In the summer some people complain about motors on Waldo Lake. Others complain about mountain bikes on the Waldo Lake trail.

No new trails have been constructed and new construction is on hold indefinitely until funding is available.

Developed Recreation

Larger campgrounds operated by concessionaires are being managed and maintained to standards higher than would be possible if operated by the Forest.

Bedrock campground and nearby trails along Fall Creek were closed and seriously damaged during the 2003 Clark Fire. Rehabilitation work is proceeding as funding allows.

Vandalism is a growing problem in developed sites causing the Forest to divert limited dollars to repair or replace facilities. Developed sites are being used as designed, however there are growing conflicts between day users and overnight campers near Detroit Lake campground near the boat ramp areas. There is demand for more sno-play areas. Plans are underway for more areas but funding is an issue. Increased use of dispersed areas will necessitate some action to prevent increased resource degradation.

Off Road Vehicle Use: In general ORV use is occurring in areas designated for such use. A new strategy is being developed and will provide new guidance to the Forest in 2004. ORV use both in summer and winter are showing signs of increased use. Huckleberry Flats Motorcycle Trail System is being considered for OHV users. Traditional parking areas during weekends and holidays are at capacity resulting in visitors parking on vegetated areas.

The area north of Camp 6 continues to be used by ORV's motorcycles, and pickups. They drive on road cut banks and through timber, destroying vegetation. No direct wildlife harassment has been noted. The use of ORV's on the mud flats on the upper end of Hills Creek Reservoir has the potential to disturb bald eagle on adjacent Forest System Lands. It may also disturbed buffleheads, which are prey for the eagles. Blockage of access roads to the mud flats has eliminated ORV use of that area but has moved the problem upland with the potential for disturbance of the turtle basking and nesting activities in the reservoir.

Recreation Use

Anecdotal evidence strongly suggests that recreation use is increasing, particularly in dispersed areas. In response to the need for accurate recreation use data, the National Visitor Use Monitoring project was developed at the National level and is being implemented by all National Forests. This process provides a consistent methodology for scientifically credible, repeatable, reliable, and defensible set of recreation use data. The Forest will be resurveyed every five years. The Willamette National Forest participated in this project in FY 2002.

Recreation use on the forest for fiscal year 2002 at the 80 percent confidence level was 1.5 million national forest visits +/- 12.9 percent. There were 2.1 million site visits, an average of 1.3 site visits per national forest visit. Included in the site visit estimate are 45,256 Wilderness visits.

Until the resurvey is done, a large-scale trend cannot be quantitatively determined.

Scenic Resources

The effects of individual land alterations --within areas defined in the Forest Plan as having high scenic quality--are monitored through project design and implementation to insure that they are consistent in design and implementation with scenic quality standards set by the Forest Plan.

Large scale scenic quality monitoring including monitoring of the cumulative effects of projects and management, within different landscapes and landscape views, was not done in 2003. " No cumulative effects from management activities have resulted.

Transportation

Policy changes in the last several years have had a profound effect on how roads will be managed in the future. In the past the primary purpose for road construction on the Willamette was to enable timber harvest. Most of these roads exist in areas where timber harvest is no longer an objective. The forest now receives approximately one-third of the funding necessary to maintain the current road system. This has resulted in a backlog of unfunded road maintenance. The situation is duplicated across the Nation prompting the Forest Service to initiate the new Roads Management Policy that shifts our focus away from developing new roads to managing the existing road system.

The forest is prioritizing maintenance on arterial routes and other key forest roads.

STATUS OF THE FOREST'S TRANSPORTATION SYSTEM

Road Construction and Reconstruction

Miles of road constructed	2.9
Miles of road reconstructed	87.2

Road Suitability

Roads Suitable for Passenger Cars	1,562
Roads Suitable for High Clearance Vehicles	4,228
Closed Roads	762
Total Miles	6,563

Miles of road removed

Miles of road decommissioned	0.0
Miles of temporary road closed	No longer reported

Traffic volumes

It generally appears that traffic volumes are increasing over time on the Forest's arterial routes. Traffic generated by recreation use, which has increased 10 fold since 1950, is the likely cause for the upward trend making these routes a high priority for annual maintenance and repair.

The values of many of the Forest's outputs are determined by trends in public preferences, changes in timber availability, and understanding the community the Forest influences. By monitoring these parameters we can begin to answer the larger question "How are social and economic conditions changing over time and what are the consequences of that change? How are these changes distributed?".

Social

Oregon's employment trends were weak in 2003. All-industry employment fell in the first half of the year, and then began to rise in August. This resulted in a net loss of about 6,100 jobs in the state during the first 11 months of the year. The loss was substantially milder than the severe downturn of 2001, but worse than in 2002 and weaker than national and regional employment trends.

County	Population 16 yrs and over	% in Labor Force	Females 16 yrs and over	% in Labor Force
Lane	258,327	64.3	132,623	58.3
Linn	79,582	63.0	40,723	54.8
Marion	215,834	63.7	108,049	57.6

Table 41.1 Employment Status in 2000 (source: USBC, 2000)

Accompanying the job loss was Oregon's very high unemployment rate. The state started 2003 with an unemployment rate estimated at 7.6 percent. By June, the rate had risen to 8.5 percent, but then dropped to 7.3 percent by November. Oregon's rate was as much as 2.1 percentage points above the nations during 2003. It was the highest state rate in the nation each month from January to September of 2003, and tied with Michigan's rate for highest in October.

Job loss was caused partly by ripple effects of more than two years of steep declines in the manufacturing sector and additional job losses in some other export-related sectors. However, there is some basis for hope that the cause of the ripple effects may be abating. Manufacturing lost only about 200 jobs in the first 11 months of 2003, while non-manufacturing lost an additional 5,900. Job gains between August and November, along with improving national economic indicators and job trends, provide some hope for broader job recovery over the coming year or two.

Even with job recovery, Oregon's unemployment rate is likely to remain well above the nations for at least a year or two. Factors likely to keep it high include the prospect of slow adjustment and recovery in the state's export-related industries, the likelihood of a delay between job gains in export-related industries and the ripple effects in other industries, the presence of many people within Oregon who are likely to return to the labor market when job growth resumes, and the prospect of continued net in-migration of people, at least some of whom are job-seekers.

With respect to changes in our population, the Forest is expanding monitoring in this area by looking in more detail at the demographics of the area. Questions examined include: How is age distribution changing, gender and race? Details on the baseline were collected from the 2000 Census and are available on the Forest.

Based on 2002 population counts for incorporated cities in Oregon, upland communities continue to lose population while urban and lowland rural communities near I-5 corridor continue to gain.

The following items represent the most significant changes in direction and policy for 2003.

The Healthy Forests Initiative (HFI): The President introduced the Healthy Forests Initiative in August 2002, aimed at accomplishing high priority thinning and restoration projects.

Healthy Forests Restoration Act of 2003 (HFRA): On November 21, 2003, Congress passed HR 1904, the Healthy Forests Restoration Act of 2003. The legislation provides new tools and additional authorities to restore more acres more quickly.
For more information on the Healthy Forests Restoration Act of 2003 and the Healthy Forests Initiative, visit http://www.fs.fed.us/projects/hfi/ or http://www.doi.gov/hfi/newhfi/

While the timber industry expects this direction to increase the flow of timber from national forests, much media attention has focused on environmentalist's assertions that HFI/HFRA will result in an accelerated liquidation of old-growth and further degradation of natural resources. The degree of intensity of this issue is assessed as very high.

Budget

Fiscal Year 2003 final expenditures displays:

Funds appropriated by Congress for the management of National Forest lands, and
Permanent and Trust Fund monies.

Funds appropriated by Congress are for specified purposes such as wildlife management, timber, or general administration. The Forest does not have the authority to spend money appropriated for one type of activity on some different activity. As a result, even if there is a surplus in one type of fund, that surplus cannot be used to make up a shortfall in another type of fund.

Permanent and trust funds are fees collected for specified forest projects such as timber sales, salvage sales, and road use. The funds are used for activities associated with these projects such as slash disposal, preparation and administration of salvage sales, reforestation, and road maintenance.

The budget presented includes $16,680,486 of non-reocurring expenditures for wildfire suppression.

FISCAL YEAR 2003FINAL EXPENDITURES

Description	FY03
Facilities Capital Improvs & Mtce	5,091,799
Forest Products	4,625,350
Grazing Management	1,616
Inventory and Monitoring Activities	668,147
Knutson/Vandenburg Funds[1]	3,062,782[1]
Land Management Planning Activities	86,163
Land Ownership Management	510,982
Law Enforcement	10,000
Minerals and Geology Mgt	175,411
Payment to Counties	3,169,542
Recreation/Heritage/Wilderness Activities	1,429,540
Roads Capital Improvs & Mtce Activities	889,947
Senior Program	104,754
State and Private Forestry	219,566
Trails Capital Improvs & Mtce	478,868
Vegetation and Watershed Mgt	815,414
Wildland Fire Management / Fuels Treatment	19,969,833
Wildlife and Fisheries Habitat Mgt	1,073,609
Working Capital Fund	2,234,732
TOTAL	**44,618,055**

[1] Knutson/Vandenburg Funds are funds used for post harvesting improvement activities. Primary beneficiaries of these funds are Reforestation, Recreation, Watershed , Wildlife, and Fisheries Management

Forest Receipts

Fiscal Year 2003Receipts….$4,236,673

Forest Plan estimated receipts are no longer calculated. It is quite clear the Forest's receipts are only a fraction of the Forest Plan estimate.

Payments to States

Fiscal Year 2003 $38,748,006

Forest Plan Est. Payments $42,632,374

County Breakdown

Clackamas	$11,525
Douglas	$1,201,217
Jefferson	$3,085
Lane	$23,935,609
Linn	$10,884,972
Marion	$2,711,598

Implementation Monitoring

The Forest completes Implementation Monitoring at two scales. Each asks the same basic question. "Is the Forest implementing the Forest's standards and guidelines (S&Gs) as stated in the Forest Plan and in the Northwest Forest Plan?" Forest Plan implementation monitoring is conducted by the Forest Supervisor whereas the Regional Ecosystem Office (REO) conducts the Northwest Forest Plan monitoring trips. Each trip consists of a review the environmental documents and then a review of the project on-the-ground.

Forest Plan Implementation Monitoring

In the course of conducting Forest Plan monitoring the forest reviewed three projects,
Power Line Vegetation Management and Site Clean Up at Detroit RD,
Carmen Air Quality Site Project at McKenzie River RD, and finally
Prairie ATV Timber Sale on Sweet Home RD.

Power Line Vegetation Management This project entailed in part mechanical brush crushing and chopping, seeding and fertilizing and planning. All required surveys were completed prior to the line officer's decision, only native seed mixes were used, and the Decision Memo and all supporting documents were adequate. Last date of owl surveys noted in the wildlife report was not consistent with protocol to determine non nesting. Recommendations were made to solve this problem in the future.

A field review of the project showed no excessive soil impacts, all mechanical treatments were limited to flat areas or gentle slopes. Riparian or wet areas were protected. Also observed were several areas that had been fertilized and seeded following the brush crushing/mulching. Western red cedar plugs and willow/cottonwood cuttings had been planted.

This project exhibited good collaboration among people from other agencies. All S&Gs were met.

Carmen Air Quality Site: The purpose of this projects was to clearcut trees for the function of an air quality monitoring station. This project began by requiring a land allocation changed. This area was original located in a scenic area and was corrected to be a part of a special use area. All the documentation for that change was present.

The district collaborated closely with EWEB. Coordination with DEQ and EPA was facilitated by the RO which caused some confusion for the District. The district was assured by the RO that we were meeting standards.

Wildlife trees designated for fish habitat exceeded standards. The timber was scheduled in stages to protect the trees designated for fish habitat. Necessary precautions such as pressure washing ground-disturbing equipment were implemented to prevent the spread of noxious weeds.

Prairie ATV Timber Sale: It was noted during review of the documents that the projected monitoring plan, timber sale contract and map, and the KV section were very well done. Small items documenting changes during implementation in other areas were missing and will be added.

There were five units that were monitored in the field. Standards for wildlife prescriptions were met and more often exceeded in all the units. All remaining S&Gs were met except in one area that will be corrected. A couple of units were larger than the original layout. This was a case of there being fewer riparian areas than anticipated. This will need better documentation in the project file.

NWFP Monitoring

No new roads were built and no roads were decommissioned in key watersheds in 2003.

In Fiscal year 2003 two timber sales and one watershed analysis were monitored for meeting the standards set forth in the Northwest Forest Plan. The three projects monitored were Mule Thin, Heart Sale, and Salmon Creek Watershed Analysis all on the Middle Fork RD

Salmon Creek Watershed Analysis written in 1996 met all the requirements established to that date. No negative issues were raised; however, non-native species present included noxious weeds, brook trout, barred owl, etc. which out-compete native species. This presence of non-native species in the Salmon Creek LSR, is neither beneficial nor neutral to the creation or maintenance of late successional habitat.

The Heart Timber Sale met all the requirements set for with the exception of two areas where standards were not met: the stand was not cut as heavily as prescribed in the EA nor as described in a REO exception letter.

The Mule Thinning Sale project met all its standards but not without much discussion. Overall the group agreed this project met all the standards. Dissenting opinions stated sediment delivery to streams was not minimized, because some of the native surface roads were left open for two or more winters with no stabilization, and therefore, did not meet the Aquatic Conservation Strategy objectives.
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ROAD SYSTEM CHANGES WITHIN KEY WATERSHEDS SINCE 1995

Key Watershed	Miles of road built	Miles of road decommissioned	Current net change
Little North Santiam	0.00	0.30	-0.30
Upper North Santiam	0.41	4.80	-4.39
Upper McKenzie	1.12	11.21	-10.09
South Fork McKenzie	0.00	20.22	-20.22
NF MF Willamette	1.70	12.00	-10.30
Horse Creek	0.00	0.00	0.00
"Chub" Watersheds	0.00	0.00	0.00

Accomplishments

The following table compares the actual accomplishment of selected Forest Plan objectives during the fiscal year 2003 (FY03), October 2000 through September 2003) with the predictions in the Forest Plan (Chapter IV, pages IV-10 to IV-12). Also shown are the cumulative outputs and accomplishments since the Plan was implemented. The cumulative results are expressed as average annual. This provides the closest comparison to the Forest Plan averages, which are based on a 10-year planning period.

Outputs may vary annually for many reasons including year-to-year scheduling decisions, market conditions, budget appropriations, and even weather conditions. Thus, comparison of a single year may not provide enough information for an adequate evaluation.

The Northwest Forest Plan was the basis for significant modifications to land allocations and to Standards and Guidelines. With these changes coupled with declining budgets, notable differences between Forest Plan projections and subsequent accomplishments are evident. The following table (Summary of Program Accomplishments) reflects adjustments to the Forest Plan projections for timber related activities; however, no other projections were altered.

SUMMARY OF PROGRAM ACCOMPLISHMENTS

Output or Activity	Units	Projected Forest Plan Level	FY 2003 Accomplishment		Cumulative Avg. Accomplishment	
		Units	Units	%	Units	%
RECREATION AND WILDERNESS						
Developed Recreation Use	Visits	2,056.0	2,142.0	104%	1,741.5	85%
Nonwilderness Dispersed Recreation	MRVDs	1,770.0	--	--	--	--
Wilderness Recreation Use	Visits	342.0	42.0	12%	183.8	54%
Trail Construction/Reconstruction	Miles	78.0	4.0	5%	26.5	34%
Developed Recreation Construction	PAOT	327.0	--	--	69.7	--
Developed Recreation Reconstruction	PAOT	844.0	--	--	332.7	--
TIMBER MANAGEMENT						
Timber Sale Program	MMBF	136.0	61.0	45%	71.3	52%
Timber Harvest Treatments						
Regeneration Harvest	Acres	3,144.0	82.0	18%	875.3	28%
Commercial Thins	Acres	2,808.0	418.0	15%	1,473.5	52%
Other	Acres	---	58.0			
Timber Stand Improvement	Acres	18,100.0	8,513.0	47%	11,395.6	63%
Reforestation	Acres	3,144.0	1,096.0	35%	2,967.9	94%
Fuel (Slash) Treatment	Acres	3,144.0	552.0	18%	1,841.9	59%
ROAD MANAGEMENT						
Road Construction	Miles	40.0	2.9	7%	3.8	9%
Road Reconstruction	Miles	174.0	87.2	50%	110.0	63%
Roads Closed	Miles	890.0	751.0	84%	723.9	81%
Roads Suitable for Passenger Car	Miles	1,580.0	1,562.0	99%	1,745.2	110%
Roads Suitable for High Clearance Vehicles	Miles	4,530.0	4,250.0	94%	4,525.4	100%
FISH / WATER / WILDLIFE / LIVESTOCK						
Watershed Improvement	Acres	533.0	31.0	6%	228.5	43%
Anadromous Fish Habitat Improvements	Miles	6.0	8.0	133%	9.2	--
Resident Fish Habitat Improvements	Miles	5.8	1.0	17%	3.9	68%
Wildlife Habitat Improvements	Structures	451.0	433.0	96%	432.4	96%
Livestock Grazing (AUMs)	AUMs	200.0	0	0%	70	35%

Follow up on Recommended Actions

In the previous year Monitoring and Evaluation Report, the following actions were recommended based on Forest Plan monitoring results and below is our response to the recommendations..

Fish Populations

Monitoring of fish populations on the Forest, specifically the Oregon Chub and bull trout, has documented decrease populations. With no known limiting factor, the recent decline in the Oakridge Slough population of Oregon Chub has raised concern. The Forest recommends a study to isolate the limiting factor for this population.

The bull trout populations specifically in Anderson Creek have also raised concern. The Forest recommends close monitoring of this population to determine if this is only a fluctuation or the beginning of a downward trend.

For the Oakridge chub population, a project to raise the open water level and maintain inundation of aquatic vegetation longer into the 2004 summer season will be implemented in 2004 to increase reproductive success and adult survival. The limiting factor for this population is currently unknown. In order to plan for future restoration, a study of the Oakridge Slough and several other ponds where the Oregon Chub are doing well is being planned. This study is expected to begin in 2005.

The reduction in Anderson Creek redd numbers was monitored closely in 2003 and will continue into 2004. More monitoring will be necessary to determine if this was an isolated fluctuation or the beginning of a trend.

Weed Treatment

The 1999 Environmental Assessment for Integrated Weed Management states the Forest will evaluate a full range of treatments and use herbicide treatments as a last resort when no other means of control are available and it is economically viable to do so. The Forest recommends an evaluation on our success in preventing or controlling invasive species under this plan.

Preliminary data suggests 15% of the populations have been eradicated and we will be conducting further analysis in chemical control effectiveness over the next year.

Monitoring Plan Review

The Forest Plan has been updated since implementation in 1990. With the adoption of the Northwest Forest Plan and other significant changes the Forest recommends an evaluation of monitoring questions to look for opportunities to improve the overall Monitoring Plan while still maintaining the objectives inherent in the Monitoring Plan

The Forest conducted an analysis looking at the applicability and importance each monitoring question fulfills and how well the question is and can be addressed. Improvements have been proposed to questions pertaining to cultural resources, plants, social, and economic questions. The next step is an amendment to incorporate these improvements into the Forest Plan Monitoring Report.

Recreation

In FY01 the Waldo Lake Basin Plan was rescinded. This has been a long standing and well documented area with ROS activities inconsistent with its intended use. The Forest recommends an effort to establish a new plan for Waldo Lake.

There is a Waldo Lake proposal to rework the earlier plan. Issues to be addressed include dispersed uses of the lakeside zone, outfitter uses of the basin, and the motorized boat use of the lake.

The forest increased its recreation monitoring by surveying recreation use across the Forest and will continue every 5 years. The Forest recommends an evaluation of the data to determine the consistency of the new data with land allocations and ROS settings established in the Forest Plan.

The Forest participated in surveying recreational use in FY2002. Though data is now available, funding for a separate study looking at the compatibility of these numbers to forest plan land allocation is not available.

Evaluation and Recommended Actions

This section of the monitoring report was traditionally reserved for Recommended Action items. Recommended Actions items are developed as a result of our monitoring efforts over the year. This section proved to be invaluable source for progress during the first several years of plan implementation. Recommended Action items resulted in the correction, where needed, of estimates in the Forest Plan, changes to management practices as needed to comply with the Forest Plan, needed clarifications to the Forest Plan, and many other adjustments needed such as various Forest Plan amendments.

The Forest has been implementing the Forest Plan since 1990. The Forest personnel routinely follow all standards and guidelines (S&Gs). In review of this Monitoring Report we did not note areas that needed attention that could be accomplished with a Recommended Action item. This is not to say improvements to the Forest Plan are no longer needed. Many changes are needed, but primarily due to the Plan's age, this would result in recommendations that cannot be completed within a year or two (the expected timeline for results from Recommended Action items).

The Forest IDT agreed that a better use of limited resources is to focus on Forest Plan revision scheduled to begin in FY2008.

Items that will be our focused will include:

- Develop a scientifically credible process to determine a Natural Range of Variation by plant association.
- Review all resource databases developed for flora, fauna, tessestrial ecosystems, vegetation, field sampled plots, forest infrastructure, and recreation information.
- Conduct a retrospective evaluation of all past Monitoring Reports to identify trends developed in resource areas that will need attention in the Forest Plan revision. Past reports will also highlight issues best addressed with a holistic view of long-range forestwide plan

The Forest will continue to monitor and look for areas that can be improved without the need for a Plan revision.

Forest Plan amendments

Your Forest Plan is a dynamic document that can be amended in response to:

Errors and/or discrepancies found during implementation.
New information.
Changes in physical conditions.
New laws, regulations, or policy that affect National Forest management.

We frequently learn about the need for amendments through monitoring.

Since first published in the summer of 1990, there have been 43 nonsignificant amendments to the Willamette National Forest Plan. In addition, during 1994 the Northwest Forest Plan was completed and amended all Forest Plans in the range of the Northern Spotted Owl including this Forest. Because all Forest Plans were amended at the Regional level, the amendment did not receive a number.

The following summarizes the amendments to the Forest Plan:

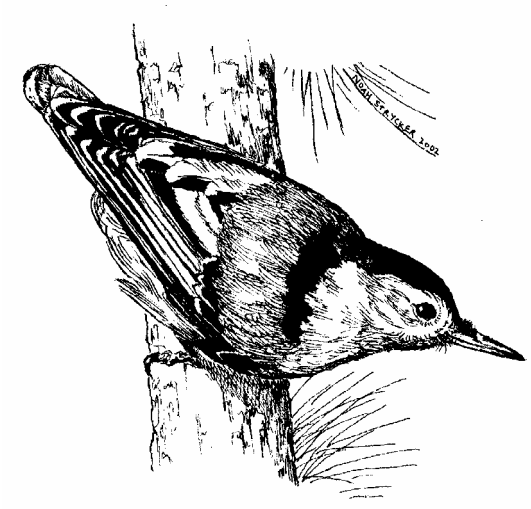
Amendment	Implementation Date	Type of Change
1	10/30/1990	Vacates Regional Guide for spotted owls.
2	12/10/1990	Allows snowmobile use in certain parts of Santiam Pass area.
3	08/05/1991	Corrects errors and omissions in Forest Plan (errata).
4	08/05/1991	Requires roadside brush management methods be consistent with scenic resource needs and allows machine mowing.
5	08/05/1991	Corrects mapping error in boundary of Diamond Peak Wilderness.
6	08/05/1991	Changes and clarifies direction about retention of downed wood to better meet functional and operational objectives.
7	03/22/1992	Established Management Plan for the McKenzie Wild and Scenic River;
8	03/22/1992	Establishes Management Plan for the North Fork of the Middle Fork of the Willamette River Wild and Scenic River.
9	02/20/1992	Changes official Forest Plan Map from manually drafted management areas to a digital version on Forest's Geographic Information System.
10	03/14/1992	Changes about 67 acres in Spring Butte area (Rigdon) from General Forest (MA-14a) to Special Habitat Area (MA-9d).
11	03/14/1992	Changes about 65 acres in Beaver Marsh area (Rigdon) from Special Interest Area (MA-5a) to Special Habitat Area (MA-9d).
12	04/04/1992	Adds Habitat Conservation Areas (HCAs) for northern spotted owl and adopts the standards and guidelines recommended by the interagency Scientific Committee.
13	07/29/1992	Makes initial allocation of about 640 acres of land acquired by land exchange not far from the South Pyramid area on the Sweet Home Ranger District to General Forest (MA-14a).
14	07/29/1992	Changes about 51 acres in the Long Ranch area, Sweet Home Ranger District, from Dispersed Recreation - lakeside Setting (MA-10f) to Special Habitat Area (MA-9d).
15	07/06/1992	Adds standard and guideline MA-1-20a to clarify that the visual quality objective for wilderness is Preservation, and deletes FW-059.
16	07/29/1992	Establishes new Management Area, Integrated Research Site (MA-3b) to support research on long-term site productivity and moves a pileated woodpecker site within the area. Also, relabels the H.J. Andrews Experimental Forest as MA-3a.

Forest Plan amendments

Amendment	Implementation Date	Type of Change
17	02/17/1993	Extends deferment of timber harvest and road construction in the Opal Creek area for up to an additional two years.
18	02/17/1993	Clarifies direction in Forest-wide standard and guideline FW-018 to provide more site-specific and objectives.
19	06/02/1993	Relocates about 1,100 feet of Bornite Brook and 900 feet of Vanishing Creek, and by so doing interchanges the actual location of affected lands between MA-14a and MA-15. Upon reclamation of the bornite project's tailings impoundment, creates about 5 acres of wetlands converting that acreage from MA-14a to MA-15.
20	05/17/1993	Adds S&G to require an integrated management approach for weed management for the most effective control methods, based on site-specific conditions.
21	06/23/1993	Makes initial allocation of 123 acres acquired through land exchange on the Blue River RD, 59 acres allocated to MA-5A (Gold Hill SIA); 64 acres allocated to MA-11d near Blue River Reservoir.
22	11/24/1993	Allows temporary reduction in availability of elk cover in Mill Creek and Anderson Creek High Emphasis areas (McKenzie RD) to allow stand management practices which will accelerate the development of high quality cover.
23	01/05/1994	Establishes the Forest's Special Forest Products Management Plan, including implementing direction through several new Forest-wide S&Gs.
	05/20/1994	Establishes land allocations and S&Gs as described in the Record of Decision for Amendments to the Forest Service and Bureau of Land Management management plans.
24	09/29/1994	Changes 1/2-acre in the Westfir area from Scenic-Partial Retention (MA-11c) to Special Use-Permits (MA-13a).
25	05/26/1995	Modifies the S&Gs for riparian reserves, wildlife tree provisions, and fueling loadings in MA-3b and AMA Long-Term Ecosystem Productivity project. This was a nonsignificant amendment to the Forest Plan.
26	05/17/1995	Modifies the S&Gs for visual objectives, big-game management, and the retention of large woody material. This was a nonsignificant amendment to the Forest Plan.
27	06/22/1995	Designates approximately 110 acres as MA-9d, Special Wildlife Habitat, in the Heart Planning Area on the Oakridge RD.
28	11/29/1995	Designates the electronic site as a Special-Use-Permits area (MA-13a). Prior to this decision the site was located within Scenic-Modification Middleground (MA-11a). For specifics see Santiam Cellular Environmental Assessment and Decision Notice.
29	01/12/1996	Expand the current Special-Use-Permit area (MA-12b) from 732 acres to 802 acres. Master Plan provides for improvements to the alpine ski facility, as well as adding other year-round recreational opportunities. For specifics see the Hoodoo Master Plan FSEIS and ROD.
30	04/17/1996	Within the Browder Cat timber sale boundary, decreases riparian reserve widths to 50 feet for both sides on four intermittent streams within and adjacent to harvest units and establishes riparian reserves of 175 feet for both sides on two perennial non-fish bearing streams adjacent to a proposed unit.
31	05/15/1996	Established the Rigdon Point RNA.
32	09/04/1996	Decreases the interim Riparian Reserve widths 21 acres for Class IV streams and 5 acres for Class III within the Augusta Timber Sale Planning area located in South Fork McKenzie Tier 1 Key Watershed.

Forest Plan amendments

Amendment	Implementation Date	Type of Change
33	01/23/1997	Assigns a management area to recently acquired land in the following way: 13 acres to McKenzie River Wild and Scenic River corridor (MA 6d), 11 acres to Scenic Partial Retention/ Middleground (MA 11c) and .25 acres to Special Interest Area (MA 5a).
34	01/23/1998	Changes approximately 1,900 acres of land from Scenic Modification/Middleground (MA 11a) to General Forest (MA 14a) and removes 275 acres of inventoried roadless area on the Middle Fork Ranger District.
35	5/17/1997	Temporarily reduced winter range cover for elk in a high elk emphasis area below the 0.5 Habitat Effectiveness rating required by S&G FW-149 in the Robinson-Scott project area.
36	07/08/1997	Establishes new S&Gs for four sensitive plant species; Gorman's aster, *Aster gormanii;* Common adders tongue, *Ophioglossum pusillum;* selected populations of tall bugbane, *Cimicifuga elata;* and selected populations of Umpqua swertia, *Fraseran umpquaensis.*
37	05/19/1997	Assigns initial allocations for about 2,180 acres of acquired lands located on Detroit and Sweet Home Ranger Districts.
38	01/21/1998	Changes management emphasis to provide for a proposed action to build a replica fire lookout station museum on the Lowell Ranger District.
39	06/01/1998	Establishes two new communication sites on the Sweet Home Ranger District. The development involves less than 1/4 acre.
40	07/13/1998	Establishes the 2,877 acre Torrey-Charlton Research Natural Area (RNA). The RNA spans over both the Willamette and Deschutes National Forests.
41	08/24/1998	Establishes two new communication sites on the Detroit Ranger District. The development involves less than 1/4 acre.
42	08/30/1999	Allows the Forest to continue a program of noxious weed treatment based on the type of infection.
43	02/15/2000	Changes, in Christy Basin, approximately 1,060 acres of MA 14a (General Forest) to MA 9b (Pileated Woodpecker habitat). Also a slight modification of MA 10e (Dispersed recreation) with no net change in acreage.
44	12/21/2001	Established the Waldo Lake Management Plan which addressed management issues in and around the lake. ***This decision has since been rescinded.***



WHITE BREASTED NUTHATCH, *Sitta carolinensis*

Forest Plan updates

Forest Plan Amendments (discussed above) change decisions made by the Forest Plan, consequently, they also require environmental analysis under the National Environmental Policy Act (NEPA). From time to time other changes to the Forest Plan are needed which are not intended to affect earlier decisions or Plan objectives. Examples of such changes include corrections; clarification of intent; changes to monitoring questions; and refinements of management area boundaries to match management direction with site-specific resource characteristics at the margin. We call these types of changes "Updates." Since they do not change any Plan decision, they do not require NEPA analysis.

There have been ten updates to the Forest Plan:

Update	Implementation Date	Type of Change
1	07/06/1993	Makes two minor management area boundary adjustments on the Oakridge Ranger District (RD).
2	10/18/1993	Clarifies the Forest-wide S&Gs for prescribed fire in nonwilderness.
3	10/18/1993	Updates and reprints the Forest's Monitoring Tables from Chapter V of the Forest Plan. Eliminates duplication, improves clarity, and refines data, and analysis requirements to better address monitoring concerns.
4	10/17/1994	Special Forest Products (SFP) Table IV-32a shows a type of collection allowed by a management area. To clarify that the exclusion of commercial SFP collection applies only to the large, mapped Late-Successional Reserves (LSR) and not to all of the owl activity centers that are now 100-acres LSRs.
5	12/15/1995	Clarifies the role of natural fires in Wilderness. Insures direction for prescribed natural fire is consistent with Wilderness policy through adjustments to the Forest Management Goals, Desired Future Condition, Forest-wide S&Gs, Management Area prescriptions, and Monitoring Questions.
6	01/23/1997	Updates the Forest Plan Map of Record with changes to Swift Creek (MA 10f); corrections to 100 acre Late Successional Reserves (MA 16b), an AMA designation correction (MA 11f to MA 17), and a Hoodoo Master Plan boundary correction (MA 12b).
7	08/31/1998	Updates the Forest Plan Map of Record with refinements to the LSR222 boundary, establishment of MA 13B for the Middle Fork Ranger Station, the incorporation of Pileated Woodpecker and Marten areas, changes to 7 owl cores on the McKenzie RD and one on the Lowell Ranger District, the location of the already established Huckleberry Lookout (MA 13b) onto the Map of Record, the assignment of management allocations to newly acquired private land, refinements to the boundary of the McKenzie work center.
8	04/03/2000	Updates the Forest Plan Map of Record with RNA boundary refinements, the creation of Ma 1 for Opal Creek Wilderness and MA 2C for Opal Creek Scenic Area; an update that finalizes the boundary of the North Fork of the Middle Fork Wild and Scenic River, small refinements of the Forestwide wilderness boundaries, an LMP layer adjustment to reflect private land changes, adjustments to the boundary of Hills Creek LSR to allow scenic enhancement activities, and the creation of a MA 6b for the Elkhorn Wild and Scenic River.

Forest Plan updates

Update	Implementation Date	Type of Change
9	04/09/2001	Documents the change of Inventoried Roadless Area maps from paper copies to an electronic Geographic Information system layer in the Forest Planning records.
10	10/17/2002	Updates the Forest Plan Map of Record with a Guistina Land Exchange of 173 acres for 237 acres; correct Shadow Bay campground from 12a to a 12b; vertical integration of administrative boundaries; update with the Finberry Timber Sale, correct the Three Creek RNA boundary; change land allocation from 11c to 13a at Carmen Air Quality Monitoring Site; reflect the Drury Land Purchase of approximately 28 acres; add names of special features into the layer, change an allocation from 14a to 12a on Timber Butte Lookout; and finally add the boundaries of the seed orchards.

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