

United States
Department of
Agriculture

Forest Service

Winema
National
Forest

Forest Management
September 2001



WINEMA NATIONAL FOREST

Monitoring & Evaluation Report

Fiscal Years 1999 and 2000



360 degree matched panoramic photographs displaying the situation before (August 17, 2000, top) and after (July 6, 2001, bottom) vegetation treatment at the Antelope Pilot Project Unit 4, Plot 2. Note the additional sky visible in the “after” photo. One purpose of this project was to reduce the fire hazard to a level that would allow managed fire to be safely reintroduced into the timber stand.

KEY FINDINGS

Ecosystem Restoration. Over the last few years, the Klamath Basin has been the focus of extraordinary ecosystem restoration efforts in agricultural lands, wetlands, forested uplands, and riparian systems. The endangered species, water quality, and water quantity problems, with their associated agricultural, tribal, and social and economic impacts in this basin has demanded Congressional attention and attracted millions of dollars for study and active restoration. The Winema National Forest has been and is now cooperating and partnering with the Klamath Tribes, Bureau of Reclamation, Bureau of Land Management, Oregon Department of Environmental Quality, Oregon Department of Forestry, Environmental Protection Agency, the US Fish and Wildlife Service, Klamath County, Oregon Department of Agriculture, Natural Resources Conservation Service, local communities, and local watershed councils to restore habitats and improve water quality and quantity throughout the basin. Data collection, large scale wetland restoration, riparian habitat enhancement, and the addressing of point and non-point source pollution problems are progressing full speed in and around the Winema National Forest.

The Forest's efforts to improve ecosystem conditions have expanded well beyond the scope envisioned in the Forest Plan. For example, the Plan included an estimate of ten acres per year of watershed improvement. In the nine years where figures are available, that average has been nearly 140 acres per year. The level of restoration activities is further revealed in the categories of habitat improvement, range improvements, and fuels reduction. In addition to the outputs associated with these categories, and listed on the following page, there are other activities that were not discussed in the Forest Monitoring Plan. In the last five years, we have restored or enhanced an average of more than four miles a year of fish bearing streams. In 2000, 85 acres of fish bearing lakes were restored or enhanced. The Forest has also been removing roads from our transportation system and returning those lands to productive forests. In 1999, 16.6 miles of road were decommissioned and in 2000, 19.1 miles were decommissioned. Over the last five years, we have decommissioned an average of 43 miles of road each year. We have also replaced road culverts, improved road crossings at meadows, constructed permeable road fills to allow water passage and placed gravel on roads to reduce erosion.

The Forest is working with the Hatfield Upper Klamath Basin Working Group as that group moves into a planning process that will lead to the development of a restoration plan for the Upper Klamath Basin. It is not yet known how, or if, that process will lead to projects on National Forest lands. The Winema National Forest has been a leader in this basin in water quality data collection. In light of high costs and limited budgets, the Forest has had to defer detailed analysis of some of this data. Our findings do affirm State findings of high water temperatures in some streams during low flow periods which led the State to label some streams as "water quality limited." Best Management Practices are being identified and carried into project development. Efforts are under way to better document whether the best management practices are being properly applied on the ground and having the desired effects.

Employee Involvement. The Winema's employees have chaired and served on TMDL (total maximum daily load) committees for water quality limited rivers and lakes. Their leadership and expertise has been provided on multi-thousand acre wetland restoration projects in the basin and they have worked closely with local watershed councils. The Winema National Forest has been an active participant in the Hatfield Upper Klamath Basin Working Group, responsible for many of the significant and effective restoration efforts to date. In addition Forest employees provide direct technical assistance to Community Action Teams in Chemult, Chiloquin, Rocky Point, Sprague River, Bonanza, Midland and Bly.

Implementation of Standards and Guidelines continues to be a focus of Forest monitoring. During 1999 and 2000, the Forest Management Team and resource specialists examined several areas of the Forest to see whether projects were being implemented in accordance with Forest Plan standards and guidelines. With very few and minor exceptions, appropriate standards and guidelines are being implemented. Additional effort is focussing on whether implementation is having the anticipated effects. As fire is reintroduced into the ecosystem, concerns about its effective application have risen. Monitoring prescribed burning following timber harvest in three units of the Dorf Timber Sale revealed that fuel loading was reduced as planned, 80% of all snags and large dead/down woody material were retained, 90% of the remaining trees were retained and ladder fuels were effectively reduced. It is quite expensive to manage fire to achieve these desirable outcomes because it involves the hand work of putting small fire lines around snags and down woody material as well as carefully igniting the fuels to mimic a natural, low-intensity fire.

Threatened, endangered and sensitive species are doing well where there is sufficient information to make an informed judgement. Recovery of the bald eagle population has been successful. Research indicates that productivity of eagles in the Klamath Basin is the highest in the state and recovery population goals have been exceeded. Thirty-four active eagle nests were found in 2000. Spotted owl populations are at the anticipated levels in Late Successional Reserves on the Klamath Ranger District with stable population levels of about 95 to 100 birds. Late Successional Reserves on the Chemult and Chiloquin Districts contain inadequate or marginal owl habitat and are not expected to provide for continued spotted owl populations. Lynx hair capture surveys and camera surveys failed to find lynx on the Forest. Camera surveys did not find wolverine. In general, sensitive plants have not been monitored for a long enough period to establish trends. A number of forest activities in the ongoing and planning stages were analyzed for effects to Lost River and shortnosed suckers. Activities are being designed for some level of improvement (upward trend) in habitat condition for listed suckers (e.g. reduced sediment yield, improved water quality or discharges). Biological assessments on on-going activities and recovery projects are being implemented for bull trout.

ACCOMPLISHMENT OF OUTPUTS AND SERVICES

Monitoring Item	Plan	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	% Completed
Allowable Sale Quantity MMCF/Year	19.4	15.8	2.0	21.5	2.0	6.2	8.4	4.9	0.5	6.8	2.9	37%
Timber Sale Program Quantity MMCF/Year	34.7	23.7	8.8	31.8	2.9	6.7	13.1	6.9	2.2	7.9	3.2	31%
MMBF/Year	166.8	119.2	49.0	158.6	16.3	33.5	68.0	35.3	11.1	41.0	16.5	33%
Dead Lodgepole Sold MMCF/Year	11.5	6.1	6.3	9.9	0.9	2.4	5.4	1.9	1.4	0.5	0.7	31%
MMBF/Year	40.2	30.8	36.5	48.7	4.2	12.6	27.1	9.9	7.5	2.6	3.4	46%
Ponderosa Pine Sold MMCF/Year	8.8	6.0	1.5	18.1	0.9	2.3	4.9	1.2	0.4	1.0	0.0	41%
MMBF/Year	53.9	30.2	7.7	91.3	4.4	11.6	26.6	5.7	2.0	5.1	0.2	34%
Silvicultural Treatments (Ac/Year)												
Commercial Thins	2,700	2,300	0	200	549	2,688	3,337	5,012	119	5,738	3,022	85%
Overstory Removal	1,600	900	200	200	162	0	0	0	0	0	0	9%
Regeneration Harvest	500	200	100	0	1,285	1,054	3,530	0	0	0	0	123%
Selection Harvest	8,400	7,400	800	2,500	619	2,851	5,576	228	862	1,708	2,162	29%
Salvage Cut - Lodgepole	13,700	6,700	6,300	100	0	975	8,290	2,209	1,672	518	305	20%
Reforestation (Acres/Year)	6,400	7,833	6,590	9,204	10,137	8,951	5,821	4,408	3,626	1,883	1,795	94%
Timber Stand Improve (Acres/Year)	14,400	6,660	7,265	8,644	8,181	6,032	8,930	2,704	3,734	2,713	2,533	40%
Fuel Treatment	27,600	30,961	23,286	14,236	25,469	9,497	10,233	10,833	6,865	7,779	9,742	54%
Road Construct/Reconstr (Miles/Year)												
Forest Road Program	22	2.0	2.3	2.0	2.7	6.7	0.4	2.2	9.4	11.9	13.2	24%
Timber Purchaser Roads	31	27.6	0.0	0.0	0.0	0.0	2.8	6.4	0	4.4	0	13%
Total Road System (Miles)	5,517	6,200	6,200	6,208	6,208	6,208	6,208	6,298	6,136	6,118	6,099	110%
Road Access Mgmt (Miles)												
Open For Use	-	4,932	5,030	5,106	4,938	4,938	4,938	5,028	4,866	4,848	4,829	Not Projected
Closed to Use	-	1,268	1,170	1,102	1,270	1,270	1,270	1,270	1,270	1,270	1,270	Not Projected
Road Access Type (Miles)												
Passenger Car	510	490	490	483	483	483	483	483	483	482	482	95%
High Clearance Vehicle	2,120	2,376	2,376	2,361	2,360	2,360	2,360	2,425	2,379	2,379	2,379	112%
Intermittent Access	2,887	3,345	3,345	3,365	3,365	3,365	3,365	3,390	3,274	3,257	3,238	112%
Developed Rec Construct (PAOT)	695	90	140	80	0	0	0	0	0	0	0	45%
Trail Constrc/Reconst (Mi)	124	1.0	15.0	4.1	7.5	0.1	49.5	0	0.25	1.0	0.1	63%
Permitted Livestock (AUM)	13,000	13,000	13,000	14,418	10,102	6,090	5,361	7,000	7,780	11,232	10,750	76%
Range Improvements												
Structures	-	11	5	6	0	10	8	3	2	0	0	No value established in the Forest Plan
Acres	-	2	13	10	0	0	0	0	0	0	0	
Habitat Improvement												
T&E Species												No value established in the Forest Plan
Structures	-	0	45	0	0	25	2	3	3	0	0	
Acres	-	115	130	25	299	172	175	43	60	75	971	
Other Species												No value established in the Forest Plan
Structures	-	2,834	516	255	549	1,533	1,020	1,233	1,041	501	0	
Acres	-	320	2,618	979	2,624	3,379	3,870	653	278	1004	1,673	
Watershed Improvements												
Structures	-	NA	NA	NA	2	13	0	9	0	0	0	No set value 1235%
Acres	10	72	9	NA	107	292	290	32	180	153	100	

The Forest's **timber program** includes vegetation management projects designed to restore sustainable forest conditions and watershed health in landscapes where risk of catastrophic fire or insect loss is high. These projects combine both non-commercial and commercial means. Some of them use timber sales and provide commercial products which will help sustain local communities economically, though this is not their primary purpose. These projects are designed to sustain old growth conditions; protect spotted owl habitat connectivity between Late Successional Reserves and Crater Lake National Park; rehabilitate meadows, hardwoods, and riparian habitats; reduce the risks of fire, tussock moth, budworm, and root rots; and allow the reintroduction of fire's function in the system. These projects also include road closures, obliteration, and relocation. After ten years, less than 40% of planned timber harvest has occurred. Several factors caused this. They include continuing appeals and litigation over virtually every timber management project that is proposed. The Eastside Screen amendments (Forest Plan Amendments 7 and 8) limited the types of trees that can be harvested, but did not adjust the allowable sale quantity for the Forest accordingly. The low levels of timber harvest continue to have adverse effects upon mule deer habitats that are losing the critical forage component. This situation continues to depress economic activity in the area and compounds problems with other floundering sectors. The Winema National Forest is scheduled to begin development of a Forest Plan revision in 2006. The revision process will re-address the relationships between timber management, wildlife habitat, and socio-economics, as recommended over the last several years by the Forest's interdisciplinary team.

Wildlife populations are being affected by habitat changes. As noted above, the lack of timber harvest activity, or fire, blow-down or other natural disturbances is allowing cover to continue to increase thus continuing the reduction in forage for mule deer and possibly adversely affecting mule deer populations. The limited amount of direct habitat improvements that have been funded have had a marginal affect, if any, on deer populations. Elk populations, on the other hand, require different types of habitat and continue to grow with sufficient forage in wet meadows and on private agricultural lands. With shifts from younger to older forest habitats and less edge condition, wildlife species are beginning to shift to those favored by the new habitat conditions.

Forest health concerns have shifted from lodgepole pine beetle problems on the north end of the Forest, which has been well controlled, to mortality on the south end of the Forest. The western pine beetle together with mountain pine beetle caused mortality in large ponderosa pine trees used by Bald Eagles for nesting and roosting near Upper Klamath Lake. Tree mortality due to fir engraver beetle was high, but has declined on South Chiloquin and on Klamath District. Stress on fir trees was compounded by the drought of prior years. Ground examinations indicate that some areas had the white fir nearly eliminated from the stand. While mortality has declined with wetter weather, the dead vegetation remains. The implications for fire hazard and wildlife habitat are considerable. Timber management activities are now being developed to address these issues.

Outputs of goods and services shows, numerically, what the Forest has produced in comparison to what was planned. The table on page 3 reveals that the Forest has produced well below planned levels in all categories that involve ground disturbing work, except reforestation and watershed improvements. This highlights the major emphasis on ecosystem restoration. The timber related outputs are low for the reasons discussed above. The recreation related outputs are generally low due to insufficient funding to do the planned work. Permitted livestock use is low due to low demand from potential permittees.

From the **social and economic** aspect, Forest Service activities have been well below planned levels, thus the associated activity in the local economy has been much less than originally anticipated. This translates to a unemployment rate still well above the national and state averages and payments to the county that have created significant difficulties in budgeting for roads and schools. The "Secure Rural Schools and Community self-Determination Act of 2000" has now eliminated the linkage between National Forest receipts and payments to the states. Thus, National Forest activities no longer directly affect county budgets. In future years the payments will be used, in part, for ecosystem restoration activities which should provide increased economic activity. Sectors of the economy other than those directly affected by Forest Service programs have displayed mixed performance. The Winema National Forest has facilitated the development of strong cooperative efforts among Federal, state and local governments and private sector organizations (both non-profit and for-profit) to . A key component of this is the technical assistance provided to Community Action Teams across Klamath County. The aim has been to build basic infrastructure, enhance the area's attractiveness and directly recruit new business. Efforts are generally focusing on tourism, new forest products (e.g. juniper), agriculture, light industrial and telecommunications oriented businesses.

For more information about forest monitoring see: www.fs.fed.us/r6/winema/management/monitoring.shtml

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