

**Ochoco National Forest  
Land and Resource Management Plan  
Monitoring Findings  
2007**

This is a summary of the Ochoco National Forest AND Crooked River National Grassland Land and Resource Management Plan (LRMP or Forest Plan) monitoring effort and reflects implementation of management activities for the past eighteen years.

**Ecosystem Restoration:** Increasingly over the past decade, the Deschutes and John Day River Basins have been the focus of ecosystem restoration efforts in agricultural lands, wetlands, forested uplands, and riparian systems. Water quality and quantity problems, and their associated agricultural, tribal, and social and economic impacts, are leading the need for study and active restoration. The Ochoco National Forest is cooperating and partnering with other federal, state and local agencies, including local communities and local watershed councils, to restore habitats and improve water quality and quantity throughout the Deschutes and John Day River Basins.

The Forest's efforts to improve ecosystem conditions have expanded well beyond the scope envisioned in the Forest Plan. The level of restoration activities is 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 Resource Outputs and Activity Summaries Tables, there are other activities that were not discussed in the Forest Monitoring Plan. For instance, the Forest has been removing roads from our transportation system and returning those lands to productive forests. The Forest currently decommissions over twice as many roads per year than the Forest Plan estimated. We have also replaced road culverts that were causing water or fish related problems at nearly double of that we did just ten years ago. In addition, the Forest Plan estimated that there would be over 800 miles of roads suitable for passenger vehicles, but there are only about 230 miles today, mainly because these roads were never constructed in the first place.

The Ochoco National Forest has been a leader in these basins 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 have 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.

**Watershed Analysis:** Information and recommendations from watershed analyses have been instrumental in identifying project areas and supporting project development decisions, and have been the foundation of many of the restorative activities the Forest has undertaken since 1994. Many of the activities described in the discussion above have been derived from and guided by watershed analysis information. Thus, the watershed analysis program has been a cornerstone of the Forest's approach to restoration. As noted below, watershed analyses throughout the Forest consistently identify road treatments and terrestrial habitat development as key aspects of

restoration. This has been a prime factor behind the focus on road decommissioning and stabilization, as well as a key input into the development of thinning programs to promote development of late-and old structural features.

Since 1994, the Ochoco National Forest has developed or participated in development of watershed analyses using the procedures prescribed in the Ecosystem Analysis at the Watershed Scale; Federal Guide for Watershed Analysis. Over three quarters of the Forest's land base is now covered by a completed watershed analysis. The analysis process itself is issue driven, and is an information gathering and stage-setting process rather than a decision making process. The procedure is scientifically based, and is designed to characterize the human, aquatic, riparian, and terrestrial features, conditions, processes and interactions within a watershed. The watershed analysis provides the condition assessment and logic tracking needed to develop sound management strategies for restoration and/or maintenance of desired watershed characteristics.

Even though individual watersheds have unique and widely varying characteristics and conditions, watershed analysis issues, analysis findings, and watershed restoration recommendations are quite similar across most watersheds. These can be summarized as follows:

Issues are primarily focused on risks to aquatic resources, terrestrial habitat conditions, and wildlife.

Analysis findings indicate roads are a primary risk to aquatic resources in most watersheds.

Watershed restoration opportunities primarily involve road treatments, terrestrial habitat development (thinning to promote development of desired structures), natural fuels reduction, and stream channel improvements.

**Heritage:** Despite the reduction in funding for the heritage program the Forest and Grassland exemplify the creative ways to protect and enhance heritage resources. The Forest and Grassland continued in their 11 year old partnership with the Archaeological Society of Central Oregon to monitor and steward historic and prehistoric heritage resources. The Forest and Grassland continue to work closely with staff and tribal elders from the Confederated Tribes of the Warm Springs Reservation to preserve and protect areas of traditional use and archaeological sites. In addition, the Forest partners with the Crook County Historical Society, Jefferson County Historical Society, and local community partners to enhance and educate the public about area history. The Forest also offers a heritage tourism opportunity with the public through the rental of the Cold Springs Cabin for another season in FY 2007, which continues to be one of the most sought after cabin rentals in the region with a near 90% occupation rate, despite a 50% increase in the fee. Public benefits include access to an historic cabin on public land and learning to appreciate early architecture in an area rich in recreation opportunities.

**Outputs of Goods and Services:** From a social and economic aspect, Forest Service activities, mainly timber harvesting, have been well below planned levels, thus the associated outputs (jobs, income, and "payments to counties") in the local economy have been much less than originally anticipated. Although there is not a one-to-one relationship between Forest outputs and local

social and economic conditions, these lower than anticipated outputs have contributed to the fact that Crook County's unemployment rate is well above the national and state averages; also, revenues from "payment to the counties" have been at a fraction of what they were a decade ago, creating 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 counties" and has result in a high-level, stable source of revenues for schools and roads. Thus, National Forest activities no longer directly affect county budgets. Also, some of these payments (Title II funds) are used for ecosystem restoration activities on both Forest Service and private lands and will provide increased economic activity within the local communities. Sectors of the economy other than those directly affected by Forest Service programs have displayed mixed performance. The local community's response has been to aim their efforts on building basic infrastructure, enhancing the area's attractiveness, especially the downtown "core" business area; and directly recruiting new business. Efforts are generally focusing on secondary forest products, new forest products (e.g. juniper), agriculture, tourism, and light industrial and telecommunications oriented businesses.

**Timber Program:** The timber program includes vegetation management projects designed to restore 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 techniques. Some of these use timber sales and provide commercial products that help support local communities, though generally this is not their primary purpose. These projects are designed to sustain late and old forest conditions; 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 ecosystem. Other projects include road closures, obliteration, and relocation. After eighteen years of Forest Plan implementation, less than 25% of planned timber harvest has occurred. Several factors have caused this. They include continuing appeals and litigation over virtually every timber management project that is proposed. The Eastside Screen amendments limited the types and size of trees that can be harvested. But most importantly, there is the recognition that the Forest Plans Allowable Sale Quantity is not sustainable in light of new science regarding healthy, resilient ecosystems. The Ochoco National Forest is scheduled to begin development of a Forest Plan revision in 2011. The revision process will re-address the relationships between timber management, wildlife habitat, and socio-economics, among other things.

**Threatened, Endangered and Sensitive Species:** Bald eagles were removed from listing under the Threatened and Endangered Species act on June 28, 2007 because of population recovery. Nesting and over-wintering numbers of bald eagles have been increasing on the Ochoco National Forest. Lynx hair capture surveys and camera surveys for multiple years have shown a healthy population of large carnivores on the Forest, but failed to detect lynx on the Forest. Camera surveys for wolverine had much the same results, but we did not find wolverine. A draft revision of the Regional Forester's sensitive species list was circulated for comment in 2007 with a proposed final issuance set for January 2008. This list will increase the number of species to pay particular attention to on the Forest; most increases will be for mollusks, insects and plants. In general, sensitive plants have not been monitored for a long enough period to establish trends. Activities are being designed for improvement in habitat condition for listed fish species (e.g.

reduced sediment yield, improved water quality or discharges). Biological Assessments on new and on-going activities and proposed projects are being done for bull trout and steelhead trout.

**Wildlife Populations** may be being affected by habitat changes. The lack of timber harvest activity, fire, or other natural disturbance, is allowing habitats to continue to change. With shifts from younger forests to older, more dense forest habitats, plus the shift in tree species mix, wildlife species using the Forest are beginning to change composition to those favored by the new habitat conditions. The Forest continues to expand opportunities to partner with various conservation organizations and individuals to improve wildlife habitats in the face of declining budgets. In 2005, the Forest completed the first agreement in the nation that implements Stewardship authorities. This agreement was made with the National Wild Turkey Federation to improve two aspen stands declining in vigor on the Paulina Ranger District. The Forest also entered into its first agreement to implement Stewardship authorities with Rocky Mountain Elk Foundation in 2007 in the Maury Mountains.

**Forest Health:** The western pine beetle, along with the mountain pine beetle, has caused increasing mortality in large ponderosa pine trees. Douglas-fir and white fir top-kill and mortality due to spruce budworm was moderate to high in the mid-90's, but has declined in recent years. Root and stem decays are increasing as the proportion of host species trees, true firs and Douglas-fir in particular, increase. Dwarf Mistletoes are also increasing due to higher stand densities, more multi-layered stands, and our inability to treat large overstory infected trees. The implications for fire hazard and wildlife habitat are considerable. Timber management activities have been developed and implemented to address these issues and will continue to do so. At times, other resource objectives, and laws, regulations, policies, and Forest Plan direction, prevent aggressive forest health management activities.

**Soil Conditions:** As part of implementing soil disturbing activities, soil monitoring activities are being conducted to determine the extent of soil displacement and compaction. Use of heavy equipment for timber harvesting is done in a variety of ways, such as over frozen ground, to reduce and minimize impacts to soils. Where soil conditions have been impacted beyond the 20% threshold, soil restoration activities are conducted to reduce compaction.

**Hazardous Fuels Treatment:** In line with the National Fire Plan, the Ochoco NF has been actively managing fuel loadings across the forest to reduce ladder fuels, shrub components and ground fuels to lessen the severity of fires. These types of treatments have been focused in the urban interface to reduce the potential for loss of private property and life. In line with the National Fire Plan, we have expanded treatment in overly dense forest vegetation through a variety of treatments, to reduce the level of fire risk and to maintain acceptable levels of fuel loadings. See the Fuel Treatment category to see the number of acres treated in both activity fuels (those fuels that result from timber sale activities) and natural fuels.

Local observation and recent research (Omi, 2002) increasingly demonstrate that fuel treatments moderate extreme fire behavior within treated areas, at least in short fire return interval ecosystems. Fuel treatments may also offer options, on a landscape basis, which can facilitate fire suppression by providing safe access routes for firefighters and potential engagement points for burn out operations.

Additionally, in wildlands managed to include natural process, fuel treatments may help restore fire to its historic regime, either by restoring fuel profiles that support safe management ignitions or by affording a protection area to values at risk, such as in wildland-urban interface areas.

Fuel treatments will continue to be applied based on site-specific analysis using methods suited to the conditions on the landscape, and where it helps to meet resource objectives. Monitoring will continue to be done to refine and adapt methods and objectives.

**Recreation Use:** The Forest Service implemented a protocol for completing Visitor Use Monitoring in 2000. The Ochoco National Forest was one of the Forests that participated in the new survey protocol. This national survey protocol is designed to sample visitor use and satisfaction on a statistically sound survey methodology once every five years. Initially the Ochoco National Forest was scheduled for the second round of surveys to be completed during fiscal year 2005, however, at that time the schedule was adjusted to coincide with the schedule for the adjacent Deschutes National Forest to provide a broader analysis that included both national Forests within Central Oregon.