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**SUBCOMMITTEE ON FORESTS AND FOREST HEALTH**

**"RESTORING FORESTS AFTER CATASTROPHIC EVENTS"**

**JULY 15, 2004**

Thank you for the opportunity to participate in today's hearing on "Restoring Forests after Catastrophic Events." Although rangelands comprise much of the land administered by the Bureau of Land Management (BLM), we also manage substantial forest resources on the public lands. The BLM manages 55 million acres of forests and woodlands, 2.35 million of which are O&C lands in western Oregon. The O&C lands are managed primarily for timber production under the Revested Oregon and California Railroad and Reconveyed Coos Bay Wagon Road Grant Lands Act of 1937.

Over the years, some of these forests have suffered catastrophic events, usually fire, occasionally blowdown, often exacerbated by outbreaks of disease or insect infestation. In the aftermath of such events, our first priority is public health and safety. Our goal as land managers is to take the steps needed to stabilize and restore the resource. Those steps need to reflect the desired condition of the resource, as well as the science about ecosystem restoration. Our experience with post-fire resource rehabilitation indicates that in some cases an ecosystem that has experienced a catastrophic event will readily meet a desired condition of the resource when restoration actions are undertaken soon after the event. Conversely, delays in implementing treatments after a catastrophic event--whether due to litigation, weather, or other factors—may jeopardize successful restoration of the forest resource to its intended state.

Based on our experience with forest rehabilitation after several major wildfires, and drawing upon the best available science, the BLM has developed a multi-step approach to restoring the forest resource after a catastrophic event.

Immediately after a fire or catastrophic event, the BLM's focus is two-fold: 1) to stabilize the soil, re-seed the area, and prevent non-native and noxious plants from becoming established; and 2) to address short-term impacts to local communities, such as threats to public health and safety from fire-damaged hillsides and watersheds. Next, the BLM examines whether longer-term management interventions may be necessary to restore the forest and other resources (wildlife, for example). In some areas where severe burns have occurred, and on some lands that have burned with moderate severity repeatedly, natural processes may satisfy land management objectives without additional agency action. In other areas, we know that without management intervention, forests may not return for many decades. Indeed, some of these forests may remain as brush fields, and in some areas soils can be severely degraded.

When deciding which management interventions to consider, the BLM looks at several factors: the Resource Management Plan (RMP) objectives; the scope, intensity and severity of the event; the possibility of further on-site or off-site damage; the potential economic value of the resource; the timeframe desired to meet resource objectives; and the possibility of success and the cost of failure.

Restoration and potential treatments are considered on a site-specific basis. BLM considers several types of treatments, including: seedings to reduce erosion; reforestation to hasten forest establishment; timber salvage to reduce future fuel loads, recover the economic value of the resource, provide for the safety of forest workers, and prepare the site for future resource conditions to meet RMP objectives; stream enhancements to repair damaged streambanks; and erosion and runoff control structures. The tool or tools that are selected must be tailored to the site and to the intended objectives.

The removal of dead and dying trees, sometimes referred to as salvage, is among the various management tools the BLM may consider in restoring the forest resource after a catastrophic event. Salvage is the process of preparing and offering a timber sale contract to remove dead or dying trees before the economic value is lost, optimally within the first year after a fire. The Federal share of receipts from timber sold under this authority is paid into a permanent operating fund to be utilized for further restoration work. Since FY 2000, over $21 million in receipts from salvage timber sales and other forest health treatments have been deposited into this fund and used for additional restoration work and for the planning and preparation of additional salvage sales.

If salvage is an option, the agency must consider how much timber to remove and how much to leave for wildlife habitat, nutrient cycling, and other ecological functions. Again, this is a site-specific determination. If too much material is removed, site productivity can be affected. If too much material is left, there is a risk of insect and disease attack as well as potentially heavy fuel loading that may drive future wildfires.

Depending on the size of the fire and the complexity of issues involved, the BLM may prepare an environmental assessment (EA) or an environmental impact statement (EIS) to consider alternative ways to address the restoration of a forest. This process also gives the agency and the public a chance to evaluate the possibility for economic recovery of the trees killed in a fire or other catastrophic event.

Beyond the immediate stabilization of a fire area, the BLM is required to follow all environmental laws when preparing restoration projects, including the National Environmental Policy Act (NEPA), and the Endangered Species Act (ESA). In the past, BLM relied on documentation included as part of our land use planning process to cover the majority of our restoration actions, and we were able to include these documents by reference with an EA. In such cases we were able to implement restoration within a few months after an event.

More recently, however, on the advice of agency counsel and in light of certain trends in court decisions, we are preparing EISs before implementing those restoration actions that may have significant environmental effects, which can take considerable time to prepare. Significant delays before undertaking restoration actions can substantially reduce the success of restoration, increase costs considerably, and reduce recoverable economic value by as much as 40 percent in larger trees to 100 percent in smaller diameter trees. Excessive delays can prevent us from taking any action at all.

The following are two examples of forest restoration actions following catastrophic events: the Oxbow fire (1966) and the Bland fire (1987).

Oxbow Fire: The Oxbow Fire began on August 20, 1966, and burned approximately 42,274 acres, including 24,359 acres managed by the BLM, 17,601 acres owned by the International Paper Company, and 915 acres of other private land.

Within a short time after the fire, salvage of all merchantable timber began to protect against insect and reburn possibilities. Salvage logging in the Coos Bay, Roseburg, and Eugene BLM Districts resulted in 82 timber sales contracts, representing 510 million board feet, purchased by 20 separate timber companies.

In the 40 years since the Oxbow fire, the vegetation pattern of the area has changed considerably. The current vegetation pattern reflects years of forest management treatments following the Oxbow Fire. At present the stands in the Oxbow Fire are healthy and robust. Most of the stands are classified as Pole-young: that is, pole--5 to 11 inches in diameter at breast height, and young--11 to 21 inches in diameter at breast height.

Within the stands, competition-related mortality (suppression) is occurring, creating small diameter snag and down-woody (suitable for nesting) material. Most of the stands are ready for commercial thinning, or will be ready for commercial thinning within the next ten years. These stands currently provide both ecosystem values and future timber production value. Estimated commercial volumes will be 1.5 billion

board feet in thinning and regeneration harvest over a ten year period. Without years of forest management treatments these stand would be decades behind their present condition.

Bland Mountain Fire: Near Canyonville in southwest Oregon, the Bland Mountain Fire began on July 15, 1987. Approximately 10,000 acres burned, including 4,000 acres of BLM-administered land and 6,000 acres on private lands. Tragically, two individuals lost their lives in this fire. Property destruction included eleven residences, 18 vehicles, twenty outbuildings, the loss of two log yarders, one log loader, and one dozer.

Restoration activities on the BLM-managed lands included: tree planting on all burned BLM acreage; grass seeding on 790 acres of stream side areas; creation of 140 waterbars; creation of one 8,000 cubic yard capacity sediment pond; seeding and mulching of 27.3 miles of roads and fire trails; creation of 320 temporary sediment catch basins and check dams; and 55 million board feet of timber salvage.

Reforestation has been successful overall on both BLM and private lands. Trees planted post-fire are currently between 15 to 30 feet tall. Stands reforested after the fire are currently being thinned for future timber management opportunities and wildlife habitat development.

In contrast to areas with active restoration management, small areas which were not restored are in distinctly different condition. These are dominated by low shrubs, rather than trees. These small areas are actively being restored. However, the delay in active restoration has resulted in a delay of future timber harvest opportunities of approximately 20 years.

While fire is the most common cause of damage to forests on lands managed by the BLM, wind and water may also cause catastrophic damage requiring restoration measures. In the winter of 1995-1996, for example, a series of storms—heavy snows, followed by rain-on-snow events and high winds—occurred in the BLM's South River Resource Area in southwestern Oregon. Most of the trees on 500 acres of BLM-managed forests (at elevations of between 3,500 to 4,000 feet above sea level) were blown down or broken off at 10 to 50 feet above the ground. Unlike in a fire, no emergency stabilization measures were needed. In the spring of 1996, the BLM initiated an EA on management actions to salvage the broken and blown down trees, and undertook various restoration actions. Under the Standards and Guidelines of the Northwest Forest Plan, nearly 8 million board feet of timber were salvaged. On some sites, the BLM burned the remaining slash [debris] and planted new trees. At other locations, the BLM removed relatively few trees—similar to a thinning—and allowed the area to reforest itself.

The Healthy Forests Restoration Act (HFRA) [P.L. 108-148], signed into law on December 3, 2003, gives Federal agencies additional tools to reduce the risk of severe wildland fire and to restore forest and rangeland health. HFRA recognizes that delays in critical fuels treatment and forest and rangeland restoration projects place rural communities, as well as ecological values, at risk of damage or destruction by wildfire. The new law authorizes federal agencies to use expedited administrative processes on hazardous fuels reduction projects. We thank the Congress for passing this important legislation.

The BLM believes that all restoration tools, including salvage logging, should be available for use by our resource managers. To be successful, restoration tools must be employed to meet land and resource management objectives in a timely, cost-effective, and efficient manner. The BLM has been challenged over the past several years to find an approach to rapidly address restoration issues without being held up in lengthy litigation.

Thank you again for the opportunity to testify. I would be glad to answer any questions.