

## NATURAL PROCESSES ISSUE

### Problem

Natural processes, especially fire, have been and continue to be disrupted in the forests of Oregon. Through logging, roadbuilding and fire suppression, we have created unnaturally dense plantations, remove large old structure (dead and live) and decreased landscape resiliency. The scientific community is telling policy makers and the public that many of these forests are now overly-dense, experiencing extensive forest health problems, and in danger of losing key ecological components to either wildfire or lack of successional processes.

### Problem Description

Natural processes on Oregon's federal forests have been modified by a number of factors. For example, fire suppression and silvicultural practices on some federal forestlands have modified fire regimes and behavior producing changes in vegetative conditions (including increased species composition, stand density, and a limited large tree component). High tree mortality and fuels build-ups have altered how wildfire, insects, disease and invasive species interact with forests, ultimately modifying forest resiliency. Without an increase in active management these conditions may result in impacts to wildlife habitat, water quality, private timber investments, structures in the wildland-urban interface, and public impacts from smoke<sup>1</sup>.

While the specific interactions of fire and forest composition across Oregon are complex and not without scientific debate, about 20 million acres of forestland in Oregon, have fire regimes ranging from high-frequency, low-intensity to moderate frequency, mixed-intensity. Some scientific research suggests that many of these lands are outside their historic range of variability in terms of stand density and fuel loads and are at risk of losing key ecosystem components to uncharacteristically severe wildfire or uncharacteristic vegetation succession. Some forest stands which historically had 50 to 100 trees per acre now have as many as 500 or 1000 trees per acre. Fire suppression has allowed fire sensitive species such as Douglas, grand, and white fir to increase changing the species composition in ponderosa pine forests. Similarly, high elevation stands composed of whitebark pine are being replaced by subalpine fir and spruce due to fire exclusion.

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<sup>1</sup> “Active management” means the application of practices through planning and design, over time and across the landscape, to achieve site-specific forest resource goals. Active management uses an integrated, science-based approach that promotes the compatibility of most forest uses and resources over time and across the landscape. “Active management” should not be equated with “intensive timber management.” Instead, it refers to taking proactive steps to achieve whatever management objectives have been established for a forest site. [Based on the *Forestry Program for Oregon* and OAR 629-035-000 (1).]

In addition, these overly-dense forest stands are more susceptible to damage from insects. Crowded trees lack the water and vigor to fend off insects like bark beetles. During drought conditions in the late 1990's and from 2002 through 2005, insect activity was at epidemic levels in eastern Oregon. Aerial detection surveys show an almost eight-fold epidemic increase in tree death in the area along the eastern slopes of the Cascade Mountains during 2004.

During epidemics, widespread tree mortality further alters the composition of forest ecosystem. In some dry Ponderosa pine forests, beetles have depleted the pine components of these stands. In addition, insect activity has left a legacy of dead trees, which increases fire danger in the short-term. Hundreds of thousands of acres of forestland in Oregon have experience tree mortality and the vast majority of this mortality has occurred on federal lands.

These changes to forest structure and composition affect wildlife species composition and distribution which in turn can alter prey resources, altering hiding and thermal cover and impede movement. The *Oregon Conservation Strategy* identifies altered fire regimes as one of the six key statewide issues that present the greatest threats to fish and wildlife populations and their habitat. Altered fire regimes are of particular concern in the Ponderosa Pine Woodlands, Oak Woodlands, and Late Successional Mixed Conifer Strategy Habitats and for several strategy species including: flammulated owl, great grey owl, northern goshawks, olive-sided flycatcher, pileated woodpecker, Lewis' woodpecker, white-headed woodpecker, Northern spotted owl, and Gentner's fritillaria.

When fires ignite in these overly dense stands, they are much more likely to develop into uncharacteristic stand-replacing crown fires. Historically, fires in these stands maintained healthy forests by thinning the forest from below and removing fuels that accumulated on the forest floor. The current forest conditions constitute an extremely large problem that continues to get worse with time. There are various estimates of how many acres of public fire-prone forest lands in Oregon's need treatment with thinning and/or fire management. The estimates are based on fire regime condition class, and coarse scale analysis that needs to be fine tuned, however one estimate suggests that over 13 million acres of public land need treatment<sup>2</sup>.

### Context/Analysis/Impact

There are a number of interacting barriers to increasing forest management treatments to address this issue. The three principal issues are lack of trust; the complexity, costs and time required to plan forest treatments, and lack of sufficient funding.

1. Disagreements over the management of our public forest lands have brought with them legal battles over the past three decades that have **eroded trust**. Trust is the

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<sup>2</sup> Second growth forests characterized by high severity forests infrequent (200+ years) stand replacing fires on public lands also benefit from thinning to restore structure and composition.

essential element in any effort to restore resilience to our federal forests and woodlands.

2. **Annual funding cycles** and the influence of **shifting political perspectives** on forest management make it challenging to address long-term management challenges.
3. The National Environmental Policy Act (NEPA) is an essential part of involving the public in a working democracy. Nonetheless, there is a perception that the **complexity, costs and time required to comply with the NEPA** is making forward progress on forest health treatments cost prohibitive. Thinning proposals in old-growth, a late successional reserves, roadless areas, and in ecologically sensitive areas are especially controversial.

While existing planning rules provide management flexibility, for a variety of reasons, it is difficult for federal agencies to advance landscape level restoration projects. To meet their action goals, federal agencies have to consider what is doable in addition to considering what is most important. As a result, they often propose relatively small and narrowly-focused management proposals. Ecosystems and the species they support on the other hand interact in complex ways, and often at relatively large scales on the landscape. Smaller scale, narrowly focused management actions may not adequately address watershed scale ecosystem issues and over time are also likely to be more costly and less effective.

4. **Lack of sufficient funding** for forest restoration or treatment is the next major barrier. The 2007 fuels treatment budget for Region 6 was approximately \$17.5 million; when applied to the more than 20 million acres in Oregon alone in need of treatment, the budget falls well short of meeting the needs of the entire region. Inadequate funding for treatments and the growing number of people living within 30 miles of federal forest land affects what and how treatments are proposed. We need to either restructure where money is currently spent in the agencies, increase agency budgets, or find outside sources of funding and make sure the timber industry has sufficient incentives to invest in new equipment.

### Policy Recommendations

Despite these problems, there is growing consensus among many stakeholders that our fire prone forests need active management to restore stand structure and composition and improve resilience to natural disturbance and climate change. There now appears to be an opportunity to discuss legislation that would exchange old-growth and roadless area protection for expedited forest management planning processes that would increase timber supply certainty and volume. The ideal solution would balance increased protections for old growth stands and trees with efficient planning and management flexibility to address the diversity of conditions in our forests, the effects of climate change, and an improving knowledge base.

The Federal Forestland Advisory Committee draft goals highlight the following roles for federal forest lands providing predictable, sustainable supply of the full suite of goods and services, contributing to the creation of stable jobs and economic well-being for local communities, and protection and restoration of ecosystems. One of the pressing problems identified by the committee is the alteration of natural processes in our native forests. To address this problem and contribute to achieving the overarching goals set by the committee legislation should be designed to focus management practices over the next 20 – 30 years on:

#### I. Protecting and Promoting Old-Growth Forests

- Prohibit any new cutting of old trees.
- Target all timber management on restoration of late-successional and old-growth characteristics at the tree level and the landscape level
- Designate uninventoried roadless as Roadless
- Eliminate post-fire or insect (salvage) logging or limit to areas previously designated for thinning

#### II. Streamlining Forest Management Processes

- Develop and implement a comprehensive forest restoration and fuels management strategy with the goal of identifying and prioritizing treatment opportunities across the landscape and across ownership boundaries.
- Develop a programmatic EIS to cover fuels treatments in dry forest types statewide. Clearly define and differentiate analysis that will be done at the statewide level and project level
- Promote larger scale restoration projects .
- Use collaboration to rebuild trust
- Develop appropriate disciplines on administrative appeals

#### III. Prioritizing Federal Forest Management

- Increase agency budgets to plan and implement large scale forest restoration
- Increase tax incentives for investment in equipment to cut, haul and mill small diameter wood.
- Investigate carbon sequestration and other ecosystem service funding to support restoration and protection efforts.