



Active Management to Achieve and Maintain Healthy Forests

A Position of the Oregon Society of American Foresters

The Oregon Society of American Foresters supports active forest management prescribed by professional foresters to achieve and maintain healthy public and private forests, consistent with land management objectives. To accomplish this, a wide range of proven forest management strategies and tools must be available to forestry professionals. These include carefully planned uses of forest thinning (sometimes removing trees over a wide range of sizes and ages), approved chemicals (e.g., fertilizers and pesticides), prescribed burning, sanitation and salvage of designated dead and dying trees, regeneration harvesting (e.g., clearcutting, shelterwood, selection) and mixed-species planting as appropriate. Many federal forests in Oregon now have an especially acute and long-term need for active management that will require diverse strategies and tools, including road access and administrative flexibility to effectively expand and maintain such management. Broad benefits, from wildlife to recreation to forest products, can be achieved and sustained through active management on public and private forestlands.

Issue

Active forest management is the tending of trees to affect their growth, density, health, harvest, regeneration, and access for a variety of objectives. Professional foresters and resource specialists develop plans or “prescriptions” that describe in detail the activities that occur over the life of a stand of trees or forest. An important and ongoing challenge for forestry professionals is achieving and maintaining healthy forests given recent widespread insect and disease infestations, wildfire and changing climate. This challenge includes debate about the definition of forest health, which is often based on personal or group values and management objectives. Among professional foresters, one widely accepted definition of “good” forest health is that it is a condition where biotic and abiotic influences on the forest (e.g., pests, weather, silvicultural treatments, road access, and harvesting practices) do not threaten current or future resource-management objectives or options. Natural events like wildfires, wind, diseases, and insects are important factors in forest ecosystems. The original native forests in Oregon were shaped significantly by these events.

A century of fire exclusion and more recent reductions in active management, especially on federal lands, however, have resulted in large areas of forests with overstocked stands and unnatural species mixtures near or beyond the extreme range of natural conditions. The consequences of these changes have been increased pest infestations and large wildfires that are far more severe and damaging than what were common historically. The economic and environmental impacts and the human health and safety risks from these extreme disturbances are significant. The increasing diversity of forest uses and rising forest and property values make such impacts and risks widely unacceptable. Increased temperatures along with high tree densities have led to tree stress and mortality across large landscapes as well as putting these forests more at risk to large uncharacteristic wildfire (Megafires). Active forest management can reduce greenhouse gas emissions and provide effective substitutes for fossil fuels and building materials that have higher energy requirements (SAF 2014).

Many tools can help professional foresters achieve and maintain healthy forests, but use of these tools

may be significantly restricted by current or proposed resource policies because of inaccurate perceptions and concerns of interested groups. These tools include well-proven and scientifically based practices such as the use of prescribed fire, pesticides, thinning, sanitation and salvage harvesting, regeneration harvesting, and access roads (Oregon SAF 2018). Even with improved policies and implementation, the wide success of newer management programs to improve forest health will not be evident for many years, as both the problems and solutions can be decades in the making. A healthy forest is a resilient forest, and carefully planned active management can enhance forest ecosystem resilience.

Background

Years of disease, insect infestations, and development of overcrowded conditions have resulted in large areas of forests that are at high risk from severe wildfires and further insect and disease epidemics. These problems are especially severe on federal lands in central, eastern and southern Oregon, where many forests are overly dense resulting in millions of acres of forest under stress and at high risk of catastrophic fires. In much of Oregon, overstocking has resulted in significant mortality by bark beetles. Douglas-fir forests near the Oregon Coast have experienced an unprecedented outbreak of Swiss needle cast, resulting in growth losses of up to 50% and sudden oak death disease is expanding rapidly in coastal southern Oregon. With large increases in national and global travel and trade that provide efficient pest vectors, invasive and exotic pest species are adding substantially to forest-health hazards and problems.

Recent wildfires in the West have been unusually intense and damaging to important resource values including wildlife and fish, some of which are listed as threatened or endangered species. Fires have also severely affected public health. In 2017 and 2018, Oregon experienced some of its worst fire years on record with large fires in eastern, southern and western Oregon. Heavy smoke inundated the region for weeks, particularly the Umpqua, Rogue and Willamette Valleys and the Portland Metropolitan area. In 2017, most of Oregon experienced hazardous levels of smoke, including 160 days that were considered unhealthy for healthy and at-risk people. This condition repeated itself in 2018 in the Rogue Valley causing health, economic and social disruption. Fuel loads have increased and are expected to grow further, greatly increasing the risk of catastrophic wildfire. Concerns are raised further by potential effects of climate change that are exacerbating problems.

In the past, foresters often prescribed thinning, clearcutting, or salvage of unhealthy or dead trees to control the spread of pests, reduce wildfire risk, harvest wood, and regenerate new forests. More recently, conflicting policies and controversies over management tools, road construction, commercial harvesting, and cutting of larger trees on public lands have greatly restricted the ability of agencies to manage unhealthy forests. In addition to increasing the risk of further damage to affected forests, such restrictions have increased the risk of catastrophic losses in adjacent healthy forests, both public and private. Altered funding formulas and reduced budgets and professional staffing also have limited the ability of federal agencies to plan and implement thinning and other treatments, despite the growing need for such work to address forest-health concerns. Newer policies and funding limitations have created additional barriers to active management by reducing access through road closures or inflexible blanket restrictions.

Oregon's forests are dynamic and ever-changing, and disturbances play an important role in maintaining their health and unique attributes. However, passive management that relies primarily on natural disturbance in areas that today differ greatly from the original forests formed by historic natural events poses serious risks to the wide range of benefits expected by Oregonians, from wildlife to forest products. These benefits can be best achieved and sustained through active management including areas at risk due to unnatural or extreme conditions. Both active and passive management can have some short-term adverse impacts and cannot eliminate all forest health or wildfire hazards. A substantial and growing body of research and professional experience, however, shows that active management can produce much more reliable and positive results than a passive-management approach.

Professional foresters, in collaboration with other natural resource specialists, need the flexibility to

prescribe and use a broad range of proven, science-based methods for preventing and treating forest-health problems. When tailored to each unique, local situation, such flexibility allows highly effective, economical and environmentally sound practices to be implemented. Active management can help ensure that Oregon's healthy forests will be maintained and those that are currently unhealthy will be substantially improved.

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