



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 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. 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 forest trees, including steps planned by professional foresters and resource specialists to affect their growth, density, health, harvest, regeneration, and access. An important, ongoing challenge for forestry professionals is to achieve and maintain healthy forests. 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. With the uncertainties of climate change, potential disturbance patterns may be accentuated and more complex, leading to additional tree stress across large landscapes. Active forest management can reduce greenhouse gas emissions and provide effective substitutes for fossil fuels and building materials that have higher energy requirements (SAF 2008).

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 2008). 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, thereby achieving and maintaining good forest health.

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, prompting the defoliation of many Douglas-fir, spruce, and true fir by pests such as the western spruce budworm and Douglas-fir tussock moth. Although defoliation alone may not kill trees, these and other subsequent pests (e.g., fir engravers, Douglas-fir bark beetles) have put millions of acres of forest under stress and at high risk of catastrophic fires. In much of Oregon, overstocking also 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%. 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. In the last decade, the nation experienced three of the worst fire seasons on record including the largest fire in Oregon since the Civil War, the Biscuit Fire. With the persistence of very limited active forest management in many areas, fuel loads have increased and are expected to grow further, greatly increasing the risk of catastrophic wildfire. Concerns are raised further by uncertainties about the potential effects of climate change that may exacerbate 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 resilient and dynamic, 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.

Selected References

- Edmonds, R.L., J.K. Agee and R.I. Gara. 2000. Forest health and protection. First Edition, McGraw-Hill Co., San Francisco, CA. 630p.
- Fitzgerald, S.A. (ed.) 2002. Fire in Oregon's forests: risks, effects, and treatment options. Oregon Forest Resources Institute, Portland, OR. 164p.
- Nelson, A. and others, contributors. 2007. Forest health highlights in Oregon - 2006. R6-NR-FID-TP-02-2007. Oregon Dept. Forestry and USDA Forest Service PNW Region. 16p. Available at: <http://www.fs.fed.us/r6/nr/fid/health/2006highlights-or.pdf>
- Oester, P.T., S.A. Fitzgerald, W.H. Emmingham, A. Campbell III, and G.M. Filip. 1992. Forest health in eastern Oregon. EC 1413. Oregon State Univ. Extension Service, Corvallis. 6p. Available at: <http://extension.oregonstate.edu/catalog/pdf/ec/ec1413.pdf>
- Oregon SAF. 2008. Position statements. Oregon Society of American Foresters. Available at: <http://www.forestry.org/or/position/>
- SAF. 1997. Forest health and productivity: A perspective of the forestry profession. Society of American Foresters. Bethesda, MD. Summary available at: www.safnet.org/policyandpress/foresthealth.cfm
- SAF. 2008. Forest management solutions for mitigating climate change in the United States. J. of For. 106(3):115-171.
- Shaw, D. 2007. Sudden oak death. EC 1607. Oregon State Univ. Extension Service, Corvallis. 2p. Available at: <http://extension.oregonstate.edu/catalog/pdf/ec/ec1607-e.pdf>
- Shaw, D. 2008. Swiss needle cast of Douglas-fir in Oregon. EC 1615. Oregon State Univ. Extension Service, Corvallis. 4p. Available at: <http://extension.oregonstate.edu/catalog/pdf/ec/ec1615-e.pdf>

This position statement was adopted by the OSAF Executive Committee on October 17, 2008. The statement will expire on October 17, 2013 unless after thorough review it is renewed by the Committee.