Salvage Harvesting on Public Forestlands in Oregon

A position of the Oregon Society of American Foresters

The Oregon Society of American Foresters supports the well planned, timely, and careful use of salvage harvesting on public forest lands after uncontrollable events have killed or damaged large numbers of trees. Salvage harvesting can mitigate economic losses due to the event, recover useful wood products, reduce fire and safety hazards, create the desired environmental conditions for successful reforestation, and finance other site restoration activities consistent with goals for our public lands. Application of current research and well-proven scientific principles by professional foresters and other resource experts can ensure that economically viable salvage harvesting will be conducted with proper consideration of environmental and social concerns.

Issue

Salvage harvesting can be controversial, particularly when proposed on public lands. Salvage can be seen as a way to use resources that would soon be lost by decay and to generate economic benefits in impacted communities. Another view is that salvage harvest further harms the environment and/or that commercial harvest on public lands should be highly restricted or eliminated. The discussion has extended to the scientific community, and the news media have given some attention to these debates and related research studies. Contrasting views about salvage have led to major disagreements over such harvesting on public lands, including legal actions either to prevent or to expedite its use. Actions that delay salvage harvesting are an important issue because damaged trees quickly deteriorate and lose value, which can limit project viability and harvest system options as potential timber revenues decline. Those who oppose salvage thus have an incentive for promoting delays, regardless of the merits of their arguments and related legal decisions. The impact of such delays can extend beyond timber values to include fuels treatments, insect and disease control, reforestation, and other activities that are often planned in conjunction with salvage operations.

Background

Salvage harvesting removes timber from an area that has been altered by an uncontrollable event, such as a wildfire, windstorm or insect outbreak that results in large amounts of dead and damaged trees. Salvage harvesting is a reactive treatment with the principal purpose of recovering economic value of the trees that have been damaged. Roadside salvage also is vital for both the safety and access of those who live, work or recreate on forest lands. In addition, timely salvage is a key tool for limiting the spread of insect infestations and for reducing hazardous fuel accumulations. The timeliness of salvage harvesting is imperative because dead and damaged trees can decay quickly and lose substantial economic value, and the control of forest pests, wildfire and safety hazards can be much more effective.
Since the late 1980’s, major wildfires, insect infestation and other forest health problems in the West generated numerous salvage harvesting plans on federal lands, many of which were appealed by interest groups opposed to the practice. Some people believe that human intervention following wildfires should be a low priority and that “natural” recovery of the forest is most appropriate. Although often presented in the language of science, this is largely a philosophical argument that discounts economic and social concerns.

Forestry professionals generally support active management in appropriate areas after wildfire, drought and insect caused mortality, and other major disturbances, a view that is consistent with a survey of Oregonians. In addition to the vital role that economic and social benefits can play in community and resource sustainability, salvage can be planned to favor timely development of desirable forest conditions through careful use of research findings as well as local experience. Unsalvaged stands with massive tree mortality that creates much downed wood can have more intense surface fires if these stands reburn in the short to intermediate term after the original burn (Stephens et al 2018). Where fallen snags are concentrated, subsequent fires are more likely to kill all surrounding vegetation including trees regenerated after the earlier catastrophic event (PSW Research Station, Research Topics, undated). These areas can burn hotter and longer, leading to greater soil damage (Cowan et al. 2016, Monsanto and Agee 2008) and potential for increased erosion and debris flows with accompanying negative effects on water quality and fish (Helvey et al. 1976, Helvey 1980). Unsalvaged stands can also be hazardous to humans. Forest workers and users are at risk when dead trees decay and fall across trails, roads and recreation areas. When subsequent wildfires do occur, standing snags put wildland firefighters at risk, potentially requiring indirect attack while slowing initial attack as firefighters identify safe locations for fire suppression actions.

Salvage harvesting triggers legal requirements for reforestation, whereas forest restoration following wildfires or other catastrophic events typically is not required by law if no harvest occurs. Forest managers have observed that in many forest types, untreated areas are initially converting to shrubs, grasses and other aggressive competing vegetation, resulting in a greatly reduced chance of adequate reforestation for many decades. Although some emergency public funds may be available to mitigate some of the adverse impacts of catastrophic events, the income, labor and equipment associated with salvage harvesting can help support restoration practices. Examples include erosion control, invasive weed control, and active reforestation. This is particularly important on federal lands where a portion of receipts from harvesting is dedicated to forest restoration.

Research on salvage harvesting and related topics has expanded and forestry professionals can integrate these findings with their practical experience to develop plans that effectively address environmental, economic, and social concerns, including the impacts of not salvaging. Such plans typically include some sensitive locations, such as unstable slopes and riparian areas, where little or no salvage is prescribed. Importantly, knowledge about the ecological functions of dead or damaged trees has grown to the extent that salvage prescriptions on public lands now typically integrate newer guidelines for retaining some trees and down wood for habitat and other values.

Although the random nature of catastrophic events precludes the preparation of detailed, site specific plans beforehand, the value of preparing preliminary salvage plans should be recognized and integrated with routine forest planning activities. Finally, an efficient public
review and appeal process allows both adequate opportunities for constructive public input as well as timely implementation of approved plans.

**Selected References**


PSW Research Station, Research Topics. Undated. Harvesting fire-killed trees Available at: [https://www.fs.fed.us/psw/topics/fire_science/ecosystems/harvest.shtml](https://www.fs.fed.us/psw/topics/fire_science/ecosystems/harvest.shtml)

*This position statement was adopted by the OSAF Executive Committee on April 20, 2018. The statement will expire April 20, 2023 unless after thorough review it is renewed by the Committee.*