Clearcutting

A Position of the Oregon Society of American Foresters

The Oregon Society of American Foresters supports the careful use of clearcutting as a tool for meeting diverse management objectives, including desired conditions for the regeneration and health of important forest types. Many of the forests seen today in western Oregon were established after clearcutting, which demonstrates its effectiveness in regenerating native species such as Douglas-fir. Current laws include many measures that regulate the use of clearcutting on Oregon's private and public lands. Professional foresters and other specialists draw from a strong foundation of science and experience to further ensure that clearcutting is applied with prudent consideration of environmental, economic, and social concerns.

Issue

Clearcut areas can be relatively unattractive for several years after harvest, which contributes to perceptions that the practice may be harmful to the environment. Groups and individuals that invariably oppose clearcutting add to these negative perceptions through repetitive public criticism, graphic images and sweeping generalizations about its impacts. Such criticism often misuses the term to describe undesirable logging or permanent forest clearing and also overlooks newer research and monitoring on the effects of current practices. Less well known is the fact that forestry professionals carefully define and prescribe clearcutting as a tool for effectively harvesting and regenerating forest species with a "shade-intolerant" (i.e., sun-loving) ecology, while also following laws and using management techniques that have proven effective in limiting environmental impacts.

Background

Even in the days of Lewis and Clark, the Pacific Northwest was a mosaic of forest conditions that ranged from forest openings, young forests with many uniform trees, to older forests with large trees and more diverse composition and structure. These native forests were established after major natural disturbances, including wildfire, pest outbreaks, and wind and ice storms. Periodic disturbances cleared large and smaller areas of tree and other cover, altered disease and insect populations, and exposed mineral soil seedbeds. Such disturbances remain a key part of the ecology of many native species such as Douglas-fir, aspen, larch, alder, and several pines. Seedlings of these shade-intolerant species grow poorly under a closed forest canopy and thus these forests will not regenerate well until larger openings provide full sunlight for the seedlings to thrive.

Today, the needs and values of both rural and urban communities do not allow us to rely on natural disturbances to regenerate forests, especially the large wildfires that can greatly threaten people, property and natural resources such as water supplies and habitat for important species. Instead, foresters carefully prescribe harvest and regeneration methods, including clearcuts of varying size and shape, to mimic natural disturbances while also protecting key resources with buffer areas and by leaving some green or dead trees for "structural diversity" within clearcuts. Depending on management objectives, habitat needs and other conditions, foresters may plan for trees to be retained within clearcuts individually or in small or large clumps. Logging operators typically follow detailed directives to effectively implement management prescriptions.

As defined by the forestry profession, clearcutting involves the harvest of nearly all standing trees within a specific area for the purpose of regenerating a new forest (Dictionary of Forestry 1998, Society of American Foresters, Bethesda, MD). Although differences exist between a clearcut and a naturally disturbed area, many of Oregon's current second-growth forests clearly reflect the role and success of clearcutting in regenerating native, sun-loving tree species. If harvest methods other than clearcutting are

used persistently in such forests, the species and structure of these forests may differ from natural stands and have some unusual or undesirable results.

Research by forest scientists has shown that, in large landscapes, a variable, moving pattern of younger to older forests perpetuated by clearcutting provides dynamic and diverse habitats that contribute to plant and animal biodiversity. Conversely, in some areas, a lack of disturbance – through either clearcutting or natural events – appears to have negatively affected some desirable plants and animals. Forest openings and younger stages of forest development have some important roles and niches in the ecology of many of our native flora and fauna.

Forestry is an objectives-driven profession, and prescriptions for clearcutting can be designed by foresters to accomplish a variety of resource management objectives. Because forest products markets are now highly competitive and global in scope, clearcutting is attractive as often the most effective and economical method to harvest and regenerate many native tree species. Related activities that promote reforestation success, such as prescribed burning and tree planting, also are efficiently applied in clearcut areas. Similarly, the control of insect, disease, and wildfire hazards can be easier and more effective when clearcutting is an available management tool.

A clearcut area is a temporary condition because Oregon's Forest Practice Rules require prompt reforestation after harvest, i.e., a young, "free-to-grow" forest must be established within 6 years. High rule compliance and wide use of improved seedlings and methods promote a reforestation success rate that generally exceeds 95% on private land. State and federal laws and other policies also limit clearcut size and require stream buffers, wildlife trees and woody debris to be left within clearcuts to protect habitat and site productivity. In addition, legal and social concerns have led to greater attention to locating and designing clearcuts to reduce visual impacts. In recent years, clearcutting has constituted about 25% of the acres annually harvested on all ownerships in Oregon, the rest being selectively cut or thinned.

In summary, clearcutting is not appropriate for all situations or forest types in Oregon, but where suitable and applied carefully by skilled forestry professionals, it is a well-proven harvest and regeneration method. Careful planning and implementation of harvest and reforestation prescriptions, in compliance with state and federal regulations, are keys to avoiding negative impacts of clearcutting while realizing its benefits. Oregon's professional foresters and forest operators have the knowledge and experience to understand the benefits and risks of clearcutting. Working with other resource professionals, foresters can provide essential guidance for its proper application in meeting landowner objectives and broad public goals.

Selected References

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This position statement was adopted by the OSAF Executive Committee on July 23, 2013. The statement will expire on July 23, 2018 unless after thorough review it is renewed by the Committee.