Society of American Foresters
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Clearcutting

A Position of the Society of American Foresters

Originally adopted by the SAF Council on December 7, 1997 and revised and renewed on September 23, 2002. This position will expire on September 23, 2007, unless, after subsequent review, the SAF Council decides otherwise.

Position

The clearcutting method of forest stand regeneration plays an important role in sustainable forest management and can be used effectively to produce desired forest conditions. It can be the best silvicultural method for regenerating shade-intolerant tree species, controlling forest insects and pathogens, and achieving other management objectives. As with any land management practice, it can have undesirable effects if it is improperly implemented or applied in the wrong location. Clearcutting is not appropriate in situations where, because of overriding resource sensitivities (.e.g, visual sensitivity or landslide hazard), it is likely to result in significant adverse impacts. Except for such situations, however, clearcutting should be among the silvicultural methods considered for forest regeneration. It should only be applied by professional foresters or other qualified forest practitioners. The Society of American Foresters supports the continued development of forest practice standards to ensure the proper use of clearcutting.

Issue

Clearcutting has come under close scrutiny by policymakers and the public because of perceptions that it causes undesirable environmental damage. Many people mistakenly associate clearcutting with tree clearing leading to conversion of forests to urban or agricultural uses. Clearcutting, especially when it involves relatively large areas within a watershed or landscape, has been associated with visual resource impairment, habitat degradation, landslides, accelerated surface erosion, and flooding. For this and other reasons, clearcutting has been progressively restricted on federal forests, and several state governments have similarly restricted the practice on state and private timberlands. Prohibitions on clearcutting are advocated by some interest groups and have been legislatively proposed recently in states such as California (in 2000), Oregon (1998), and in Maine (1996). Prohibitions on clearcutting could lead to declining abundance of shade-intolerant tree species (e.g., several pines, birches, aspens, ashes, and poplars) and the habitats they support (Nyland 1996).

Background

Clearcutting, along with the shelterwood and seed tree methods, is a forest regeneration method used to produce even-aged stands. It consists of the cutting of essentially all trees, producing a fully exposed microclimate for the development of a new age class (Helms 1998). The method was introduced in Germany in the 1700s where overuse of single-tree cutting that retained trees of low value had resulted in poor forest quality. Its

primary objectives are to produce forest products and create the conditions needed to re-establish even-aged stands of relatively shade-intolerant species.

The applicability of clearcutting often varies depending upon (1) the type of ownership, i.e., public, tribal, industrial, or nonindustrial; (2) landowner objectives, e.g., wood production, wildlife habitat, recreation, etc.; (3) shade tolerance of the desired tree species; and (4) site-specific conditions such as visual sensitivity, slope operability and stability, and the presence or absence of sensitive wildlife species.

Several forest management and regulatory agencies and industry associations have sought to retain the use of clearcutting while minimizing its adverse impacts by imposing regulations or promoting standards for acceptable use. Examples include restricting the size of individual clearcuts, restricting the cumulative extent of clearcutting within watersheds, postponing harvest of adjacent stands until regenerated stands reach a minimum age or height, retaining selected trees or patches of trees, conforming harvest units with natural landscape features, and avoiding clearcutting in sensitive areas. Nonetheless, many environmentalists remain critical of clearcutting and advocate its abolition.

Situations where clearcutting is likely to be an appropriate regeneration method include:

- forest stands consisting primarily of suppressed or deformed trees of low value or desirability;
- stands that are suffering damage due to insects, disease, windstorms, or fire, (Tainter et al. 1996);
- areas where regenerating shade-intolerant tree species is an important management objective (Hicks 1998, Alexander 1986, Benzie 1977);
- areas where a management objective is to increase the abundance of ecotones (i.e., edge habitat) or early successional habitat to support such species as bobwhite, woodcock, songbirds, ruffed grouse, and deer; (Bolen et al. 1995); and
- areas where large-scale natural disturbances such as hurricanes, wildfires, or insect and disease outbreaks resulting in forest patches of at least several acres are the predominant processes of natural regeneration (Schmidt et al. 1984).

Situations where clearcutting tends to be inappropriate include:

- visually sensitive areas such as forests adjacent to population centers, wilderness areas, or heavily traveled highways;
- areas that support sensitive wildlife species dependent on large contiguous units of forest habitat (i.e., forest interior-dependent species such as martens or fishers) (Hargis et al. 1999, Krohn et al. 1995);
- areas where watershed function has been impaired by the cumulative effects of disturbances; and
- landslide- or erosion-prone areas.

Failure to use clearcutting can have long-term implications detrimental to achieving desired forest conditions and land management objectives. For example, in the absence of natural fire regimes, shade-intolerant species are likely to decline substantially in ecosystems unless regenerated by clearcutting (Nyland 1996, Burns and Honkala 1990). Clearcutting plays an important role in creating and maintaining biological and structural diversity in landscapes where it is applied.

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ABOUT THE SOCIETY

The Society of American Foresters, with about 17,000 members, is the national organization that represents all segments of the forestry profession in the United States. It includes public and private practitioners, researchers,

administrators, educators, and forestry students. The Society was established in 1900 by Gifford Pinchot and six other pioneer foresters.

The mission of the Society of American Foresters is to advance the science, education, technology, and practice of forestry; to enhance the competency of its members; to establish professional excellence; and to use the knowledge, skills, and conservation ethic of the profession to ensure the continued health and use of forest ecosystems and the present and future availability of forest resources to benefit society.

The Society is the accreditation authority for professional forestry education in the United States. The Society publishes the *Journal of Forestry*; the quarterlies, *Forest Science*, *Southern Journal of Applied Forestry*, *Northern Journal of Applied Forestry*, and *Western Journal of Applied Forestry*; *The Forestry Source*, and the annual *Proceedings* of the Society of American Foresters national convention.