

Nonburning Alternatives to Prescribed Fire on Wildlands in the Western United States

Prepared for:

The Fire Emissions Joint Forum of the
Western Regional Air Partnership



Prepared by:



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Summary

Past practices of wildland fire suppression in the western United States have resulted in the overaccumulation of timber and undergrowth in forest, rangeland, and wildland-urban interface habitats. This overaccumulation of biomass has caused a degradation of wildlife habitat, forest health, and biodiversity; has reduced water quality and quantity; has led to spiraling costs of fire suppression and elevated risks to both public and firefighters; and has increased the occurrence of catastrophic wildfires, as well as the levels of emissions they produce. For several decades, prescribed burning has been the preferred method for addressing fuel management, possibly due, in part, to social and political resistance to nonburning treatment methods; however, it also results in some adverse impacts. Specifically, in the context of this document, prescribed fire produces emissions that contribute to air quality problems in the western United States.

In 1991, the U.S. Environmental Protection Agency (EPA) created the Grand Canyon Visibility Transport Commission (GCVTC) to advise EPA on strategies for protecting visual air quality at national parks and wilderness areas on the Colorado Plateau. The GCVTC conducted an extensive review of information relating to the problem, collaborating with governmental, business, tribal, and environmental interests and, in June 1996, issued its final report to the EPA. The report made more than 70 recommendations for improving visibility in 16 national parks and wilderness areas on the Colorado Plateau; some of these recommendations addressed prescribed fire, and emphasized greater focus on use of nonburning alternatives.

Subsequently, the Western Regional Air Partnership (WRAP), a voluntary organization of western states, tribes, and federal agencies, was formed to carry forward GCVTC's recommendations. The WRAP's purpose is to build on the work of the GCVTC in developing and planning air quality programs that can contribute to improving visibility throughout the West. The WRAP is administered by the Western Governor's Association and the National Tribal Environmental Council. Participating states are Alaska, Arizona, California, Colorado, Idaho, Montana, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming. Participating tribal nations include Pueblo of Acoma, Campo Band of Kumeyaay Indians, Cortina Indian Rancheria, Hopi Tribe, Hualapai Nation of the Grand Canyon, Nez Perce Tribe, Northern Cheyenne Tribe, Confederated Tribes of Salish and Kootenai, Pueblo of San Felipe, Shoshone-Bannock Tribes of Fort Hall, and Native Village of Shungnak. Representatives of other tribes participate on WRAP forums and committees. Participating federal agencies are the Department of the Interior, the Department of Agriculture (USDA), and the EPA.

The WRAP is composed of a planning group, a technical group, and several forums tasked with the development of technical and policy options for specific areas of interest. The Fire Emissions Joint Forum (FEJF) is responsible for making recommendations on strategies and methods to manage emissions from prescribed fire. Among the tasks with which FEJF was charged was investigating the use of nonburning alternatives to prescribed fire on wildlands.

The use of alternatives to prescribed burning, when and where such alternatives are feasible, is expected to result in fewer emissions than burning. However, practices vary widely from state to state, as well as from stand to stand; obstacles are numerous; and there is limited awareness of viable alternatives to burning. Accordingly, FEJF retained Jones & Stokes to conduct a series of interviews with landowners, land managers, and stakeholder group members to examine the use of nonburning alternatives on wildlands. Information developed during the course of the interviews was used to:

- identify nonburning alternatives,
- establish criteria for the use of nonburning alternatives,
- identify barriers to the use of nonburning alternatives,
- investigate approaches to overcome these barriers,
- examine current accountability mechanisms, and
- develop recommendations to promote the use of nonburning alternatives.

This document represents the compilation of the work done during the course of the interviews and other data collection. The objectives of this document are:

1. to provide landowners and land managers with a reference document that describes alternatives to prescribed burning;
2. to provide decision makers with the tools necessary to develop cogent nonburning strategies for vegetation and fuel management; and
3. to assist air quality regulators, environmental organizations, and the general public in understanding the environmental, economic, and practical considerations of nonburning alternatives.