

Bandelier N.M.

FINAL DRAFT

WILDLAND FIRE MANAGEMENT PLAN

BANDELIER NATIONAL MONUMENT

NEW MEXICO

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Ecologist

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II. Goal and Management Objectives

This Fire Management Plan prescribes actions necessary to implement Servicewide fire management policies (NPS-18 1990) and to achieve park resource management objectives. The park's primary resource management goal is:

. . . to preserve, protect, and manage the park's cultural and natural resources within naturally functioning ecosystems, consistent with cultural resource preservation (NPS 1995)

Bandelier National Monument's fire management objectives support this goal, and they are: (1) to allow prescribed natural fires to function in fire-dependent ecosystems; (2) to use fire to meet management objectives; (3) to protect life, property, and park resources from the effects of unwanted fire; and (4) to prevent adverse impacts from fire suppression.

The following fire management strategies should maximize opportunities to achieve these four objectives.

Objective 1: Allow prescribed natural fires to function in fire-dependent ecosystems:

- Permit prescribed natural (lightning-caused) fires in areas where fire dependency has been scientifically proven and the fuel load and vegetative composition are within the range of natural variability
- Permit prescribed natural fires within constraints of policy (NPS-18) and the Environmental Assessment, Fire Management Plan

Objective 2: Use prescribed fire to meet management objectives:

- Create and/or maintain defensible prescribed natural fire boundaries
- Where applicable, restore fuel loads and plant community structure and composition to ranges of natural variability comparable to pre-Anglo settlement using a predetermined regimen of management-ignited prescribed fires
- Minimize the occurrence of unnaturally intense fires through reduction of hazard fuels by management-ignited prescribed fires
- Avoid prescribed fires which would reduce air quality in densely populated areas for extended periods (beyond two weeks)
- Train park staff and cooperators to conduct safe, objective-oriented prescribed fires consistent with NPS-18 requirements

- Provide opportunities for public understanding of fire ecology principles, smoke management, and prescribed fire program objectives
- Monitor and evaluate the effectiveness of the prescribed fire management program

Objective 3: Protect life, property, and park resources from the effects of unwanted fire:

- Conduct all fire management activities commensurate with applicable laws, policies, and regulations.
- Suppress all unwanted fires (declared wildfires) in the park and in the interagency mutual aid zone
- Cooperate extensively with adjacent land management owners through Memoranda of Understanding to facilitate safe and prompt suppression of wildfires
- Suppress all wildfires with minimum cost, environmental and cultural resource impacts
- Use prescribed fire and/or mechanically treat the park's developed zones to simulate the effects of lightning-caused fires and to reduce the threat of unwanted fire
- Prevent unplanned human-caused ignitions through a cooperative fire prevention program
- Provide for the safety of park visitors, neighbors, and employees during all phases of wildland fire management operations
- Provide opportunities for public understanding of the wildland urban intermix problem

Objective 4: Prevent adverse impacts from fire suppression:

- Use minimum impact fire suppression techniques and rehabilitate disturbed areas to protect natural, cultural, wilderness, and scenic resources from adverse impacts attributable to fire suppression activities
- Suppress unwanted fires commensurate with values at risk
- Ensure that a resource advisor is present on all major suppression actions
- Engender understanding among firefighters about the impacts of fire suppression on sensitive park resources
- Avoid the use of non-native seed to rehabilitate sites disturbed by wildfires or their suppression

Fire research and monitoring

Fire is an integral process which has shaped the structure and function of most Bandelier ecosystems (Allen 1989). To properly manage fire at Bandelier requires improved scientific understanding of the interactions between the process of fire and other ecosystem components, especially vegetation. This scientific information can be developed through both research and monitoring activities.

Past fire-related research at Bandelier has focused largely upon the effects of the 1977 La Mesa Fire (cf. Foxx 1984) and upon determining prehistoric patterns of fire occurrence (Caprio *et al* 1989)--ongoing research activities are largely following up or elaborating on this work. A second La Mesa Fire Symposium (March, 1994) presented the results of this followup research. The 1996 Dome fire will also add to the growing body of fire effects information.

Proper resource management requires monitoring the effects of management activities to feedback information to allow "adaptive" management. Fire effects monitoring was begun in 1992 to provide this type of feedback. The monitoring protocols outlined in the NPS Fire Monitoring Handbook will be utilized.

Beginning in 1997, the monument will be the base for four positions of a seven-position "New Mexico and West Texas [Fire Effects] Monitoring Group". The other three are based at Carlsbad Caverns NP. This Group will serve NPS units with planning and/or operational assistance according to the status of individual fire management programs. Interpark agreements will be prepared for these services.

XI. Public and employee safety

Public and employee safety at Bandelier is a primary management concern. The topographic relief, limited surface water, limited access routes, proximity to the Los Alamos National Laboratory technical areas, and confined developed areas combine to create hazardous situations under extreme fire behavior.

The highest risk area is the headquarters/visitor center/housing complex in Frijoles Canyon. The one entrance road for entry and exit present potential visibility problems from smoke; and hazards associated with evacuation of large numbers of vehicles. Entrapment is possible, especially between headquarters/visitor center parking and the camera overlook. Vehicles could possibly be cutoff or exposed to heat while trying to escape the canyon. Early evacuation of the public, employees