



United States
Department of
Agriculture

Forest
Service

Southwestern
Region



Environmental Assessment

Wildland Fire Use Amendment to the Coronado National Forest Land and Resource Management Plan



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Summary

The Coronado National Forest (CNF) Land and Resource Management Plan (LRMP), approved in 1986 and amended over time, reflects the agency fire management policy of the time, that is, suppression of all fires. Since the LRMP was approved, the fire management policy of the Department of Agriculture has evolved. In August 2000, the Departments of Agriculture and the Interior agreed upon a National Fire Plan (NFP) to govern interagency fire management. One component of the NFP is the 2001 Federal Wildland Fire Management Policy, which presents the option for agency managers to use wildland fire to achieve natural resource benefits in locations other than wilderness, wilderness study areas, and research study areas.

To update the LRMP to reflect the 2001 Policy, the Forest Service, Coronado National Forest, proposes to amend it to provide agency managers the option of wildland fire use in addition to suppression. The proposed amendment would replace, delete, and/or revise the language of Chapters 4 and 5 of the LRMP. One alternative to the proposed action was considered: no action.

This EA presents the results of an analysis of the direct, indirect, and cumulative environmental consequences of the proposed action and no action. Updating the CNF LRMP with an amendment is an administrative and programmatic action that, itself, has no direct effects on the environment. Implementation of this amendment—that is, the management of specific wildland fires for resource benefits—would likely affect the environment, however, the degree of site-specific effects cannot be meaningfully predicted and/or evaluated in this EA, because the location, acreage, and intensity of future wildland fires is unknown. Therefore, the discussion of impacts for each resource area is generic in nature.

In the short term, the use of wildland fire may result in temporary impacts to all resources, and no action would often result in less impacts to all natural resources than managed fire, because the geographic area affected and the duration of certain fires may be less than that of a fire that is allowed to burn for resource benefits.

In the long term, however, the policy of suppression would continue to support and may even exacerbate the present trend in fire-adapted ecosystems toward higher fuel loadings, high-intensity, catastrophic fires, and progression away from the natural historic fire regime. While efforts to return the forest to a natural fire regime would continue if no action is taken, managers would have one less tool to aid in accomplishing this goal, and the risk of catastrophic fire would continue to increase.

Chapter 1 – Introduction

In May 2005, the Coronado National Forest (CNF) completed a National Environmental Policy Act (NEPA) review of a proposed amendment to the CNF Land and Resource Management Plan (LRMP) (1986, as amended) and an environmental assessment (EA) that publicly discloses the results of this review. The proposed action that is the subject of the EA is an amendment to the LRMP that would allow wildland fire use¹ for resource benefits on a Forest-wide basis.

The EA was prepared in accordance with the President’s Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508), and the environmental policy and procedures established in Forest Service Manual (FSM) 1950 and Forest Service Handbook (FSH) 1909.15. Data, information, and documents supporting the analyses presented in the EA may be reviewed at the Coronado National Forest, Supervisor’s Office, 300 West Congress Street, Tucson, Arizona.

Document Organization

This EA is organized as follows:

- **Introduction:** The section includes information on the history of the amendment proposal, the purpose of and need for the amendment, and the agency’s proposal for achieving that purpose and need. This section also details how the Forest Service informed the public of the proposal and how the public responded.
- **Alternatives:** This section provides describes the agency’s proposed action and one alternative, no action. Finally, this section provides a summary table comparing the environmental consequences of each alternative.
- **Environmental Consequences:** This section describes the environmental effects of implementing both the proposed action and no action. The analysis is organized by resource area. Within each section, the direct, indirect, and cumulative effects of both alternatives are described.
- **Consultation and Coordination:** This section provides a list of agencies and persons consulted as this EA was prepared.
- **References:** This section identifies references for information presented in the EA.
- **List of Preparers:** This section acknowledges the contributions and credentials of those who prepared the impacts analysis and EA.

Background

Overview of Present CNF Fire Policy

The CNF LRMP was approved in 1986 and amended over time, and its goals, standards and guidelines reflect agency fire management policy in place at that time. Its fire management direction to Forest Service managers is to “develop the most cost efficient operations for fire management activities depending on the resources, property, and lives to be protected” (p. 45).

¹ Wildland fire use is the application of the appropriate management response to naturally-ignited wildland fires to accomplish specific resource management objectives.

The objective expressed in the LRMP is to suppress wildland fires at a minimum cost, consistent with land and resource management objectives and fire management direction. This is not consistent with the 2001 Federal Wildland Fire Management Policy, which allows the use of wildland fire to achieve natural resource benefits in the ecosystem. The LRMP fire management policy permits the Forest Service to use wildland fire in wilderness, wilderness study areas, and research natural areas only, but beyond these specially designated areas, suppression is the sole response allowed for wildland fire.

CNF Fire Management Zones

The LRMP identifies two Fire Management Zones on the CNF, which were established based on resource management objectives, with consideration given to the value of property and resources to be protected. The appropriate response in Fire Management Zone 1 is predicated upon preventing fires from reaching or damaging high value resources and improvements. In Fire Management Zone 2, the appropriate response is predicated upon responses that will suppress wildfires at the least cost with acceptable damage to improvements, and maintenance of sufficient forage to sustain livestock grazing operations and ground cover to keep watersheds in satisfactory condition” (p. 87).

Federal Wildland Fire Management Policy

During the mid-1990s, issues of forest health, environmental concerns, public and firefighter safety, and wildland/urban interface precipitated a major change in the Forest Service’s fire policy. On December 18, 1995, the Secretaries of the Departments of Agriculture and the Interior adopted the *Federal Wildland Fire Management Policy and Program Review*. This Federal Fire Policy recognized the importance of the safety of firefighters and the public, the essential role of fire in maintaining natural systems, the importance of increased interagency cooperation, and the need to allow managers a broader range of options when responding to wildland fires.

In 2000, the Secretaries of Agriculture and the Interior requested a comprehensive review of the 1995 Federal Fire Policy. A working group found that the 1995 policy was generally sound and provided a solid foundation for wildland fire management. However, the group recommended changes and additions that clarified the purpose and intent of the policy and addressed issues not fully covered in 1995. These recommendations were documented in a report entitled *Review and Update of the 1995 Federal Wildland Fire Management Policy*, hereafter referred to as the 2001 Federal Fire Policy (www.nifc.gov/fire_policy/index.htm).

The 2001 Federal Fire Policy has become one of many policies and guidelines for interagency fire management activities conducted by the Departments of Agriculture and the Interior under the National Fire Plan (NFP) (see <http://www.fireplan.gov/overview/whatis.html>). It is comprised of various documents, including, but not limited to, (1) *Managing the Impact of Wildfires on Communities and the Environment*, September 8, 2000, from the Secretaries of Agriculture and the Interior to the President of the United States in response to the wildland fires of 2000; (2) congressional direction accompanying substantial new appropriations for wildland fire management for fiscal year 2001; (3) *Protecting People and Sustaining Resources in Fire-Adapted Ecosystems: A Cohesive Strategy*, released by the Forest Service in 1999 in response to the U.S. General Accounting Office (GAO) Report, *Western National Forests: A Cohesive*

Strategy is Needed to Address Catastrophic Wildfire Threats (GAO/RCED-99-65); and (4) several draft and approved strategies to implement all or parts of the Plan².

The guiding principles in the 2001 Federal Fire Policy are:

- Firefighter and public safety is the first priority in every fire management activity.
- The role of wildland fire as an essential ecological process and natural change agent will be incorporated into the planning process.
- Fire Management Plans, programs, and activities support land and resource management plans and their implementation.
- Sound risk management is a foundation for all fire management activities.
- Fire management programs and activities are economically viable, based upon values to be protected, costs, and land and resource management objectives.
- Fire Management Plans and activities are based upon the best available science.
- Fire Management Plans and activities incorporate public health and environmental quality considerations.
- Federal, State, tribal, local, interagency, and international coordination and cooperation are essential.

Standardization of policies and procedures among Federal agencies is an ongoing objective.

Purpose and Need

The purpose of the proposed action is to amend the CNF LRMP, and it is needed to update CNF fire policy to conform to the 2001 Federal Fire Policy and to Forest Service Manual direction.

The proposed amendment would allow fire managers the Forest-wide discretionary use of a full spectrum of fire response and management options. These options would include aggressive suppression actions as well as management of natural ignitions to achieve resource benefits. Wildland fire use for resource benefits on a landscape scale is needed to reduce fuel loading and to sustain wildland ecosystems into the future.

Decision Framework

As the Responsible Official for implementation of the proposed action, the CNF Forest Supervisor reviewed the alternatives and environmental consequences reported in this EA prior to rendering her decision.

Public Involvement

On January 26, 2004, a legal notice was published in the *Arizona Daily Star*, Tucson, Arizona, announcing a Notice of Intent to conduct a NEPA review of the proposed amendment to the LRMP. Other legal notices with the same content were published during the week of January 25, 2004 in *The Daily Dispatch*, Douglas, Cochise County, Arizona; the *Nogales International*,

² http://www.fireplan.gov/resources/annual_report.html;
http://www.fireplan.gov/resources/reference_library.html

Nogales, Santa Cruz County, Arizona; the *Sierra Vista Herald*, Sierra Vista, Cochise County, Arizona; and the *Eastern Arizona Courier*, Safford, Graham County, Arizona. The date of publication of the NOI initiated a 30-day public scoping period during which comments were solicited on the proposed action.

In addition, the CNF established an Internet site (www.fs.fed.us/r3/coronado/forest/projects/fire_mgt/wfa) to provide the public with information related to the proposed amendment, including the LRMP and the 2001 Federal Fire Policy.

Four comment letters were received during the scoping period. Each provided a comment related to advocacy of the proposed amendment, and none offered comment on the scope of the EA, alternatives, or issues.

Chapter 2 - Alternatives

This chapter describes the proposed action and the sole reasonably foreseeable alternative to the proposed action: no action. It concludes with a tabular comparison of the relative environmental consequences of the alternatives.

Proposed Action

Revision of LRMP Text

Text Revision - Chapter 4, Management Direction

The proposed action would be accomplished by the Forest Supervisor's approval of changes to the goals, standards and guidelines expressed in the LRMP as applicable to wildland fire suppression and wildland fire use. The present text in the LRMP would become obsolete and would be superseded by the establishment of new fire management goals, standards and guidelines applicable Forest-wide on the CNF.

In Table 1, the LRMP language that would be superseded is reported in the left column, with corresponding LRMP page numbers provided for reference. The content of the new fire management goals, standards, and guidelines, as expressed in the proposed LRMP amendment is provided in the right column.

Table 1. Proposed changes to the Coronado National Forest Land and Resource Management Plan.

| <p>1986 Land and Resource Management Plan</p> | <p>New Text---Wildland Fire Amendment to LRMP</p> |
|--|--|
| <p>Management Direction – Goals</p> <p>Protect life, property and resources from wildland fire while using prescribed fire as a tool to meet management objectives (p. 11).</p> | <p>Management Direction – Goals</p> <p>Reduce the costs, resource damage, and threats to public and firefighter safety from future wildland fires.</p> <p>Manage naturally occurring fires to restore and sustain ecological processes in fire-dependent ecosystems.</p> <p>Create and maintain fuel conditions for low risk of extreme fire behavior and high-intensity wildland fires.</p> |
| <p>Management Areas and Prescriptions – Forest-wide Standards and Guidelines</p> <p>Develop the most cost efficient operations for fire management activities depending on the resources, property, and lives to be protected.</p> <p>Keep the level of prevention and pre-suppression activities commensurate with the increasing risks and hazards.</p> <p>Conduct fire suppression activities in a way to protect watershed and visual resource values.</p> <p>Appropriate fire suppression responses will protect life and property (p. 45)</p> | <p>Management Areas and Prescriptions – Forest-wide Standards and Guidelines</p> <p>Firefighter and public safety shall be the first priority in all fire management activities.</p> <p>All human-caused fires shall be suppressed using appropriate suppression response strategies.</p> <p>Wildland fire suppression responses shall minimize costs of suppression, resource impacts, and risks to life and property.</p> <p>The appropriate management response for each natural ignition will vary across the Forest but will include the full spectrum of options, from aggressive initial attack to management to achieve resource objectives.</p> <p>For all management areas, management of lightning-caused fires should be considered to restore fire’s natural role in maintaining a healthy, diverse, and resilient ecosystem resistant to natural disturbances.</p> <p>Wildland fire use shall follow direction specific to the Forest’s Fire Management Plan. Use the established protocols identified in the Fire Management Plan for minimizing resource impacts.</p> |

Chapter 4 of the LRMP also presents fuels management direction for each Management Area of the CNF. (See the LRMP for Management Area definitions.) Under the proposed action, the following Management Area-specific direction for fire management would be deleted. The Forest-wide standards and guidelines for fire management, as shown in the right column of Table 1, would apply to all Management Areas.

LRMP direction for specific Management Areas that would become obsolete follows. All other language in Chapter 4 of the LRMP would remain unchanged.

Management Area 1: The management area is divided into fire suppression zones 1 and 2 based on resource protection and cost objectives. See Chapter 5 and map for definition and location of zones. [p. 49]

Management Area 2: The management area is in fire suppression zone 1 based on resource objectives. See Section 5 for definition of zones. [p. 53]

Management Area 2A: Allow fire to assume its natural role in wilderness areas. [pp. 54-5]. The management area is within fire suppression zone 1. (See Glossary “Fire Zone 1”) [pp. 54-5].

Management Area 2B: Wet Canyon is within fire suppression zone 1 (i.e., immediate suppression action to protect high value resources). [p. 54-7]

Management Area 3: The management area is divided into fire suppression zones 1 and 2 based on resource protection and cost objectives. See Section 5 for definition of zones. [p. 58]

Management Areas 3A and 3B: The management area is in fire suppression zone one based on objectives for resource protection. See Section 5 for a definition of zones. [p. 61]

Management Area 4: The management area is divided into fire suppression zones 1 and 2 based on resource protection and cost objectives. See Section 5 for definition of zones. [p. 65]

Management Area 7, Prescription A: The management area is divided into fire suppression zones 1 and 2 based on resource protection and cost objectives. See Section 5 for definition of zones. [p. 70]

Management Area 7, Prescription B: The management area is divided into fire suppression zones 1 and 2 based on resource protection and cost objectives. See Section 5 for definition of zones. [p. 74]

Reduce slash from fuelwood harvest and right-of-way clearing to a level that is compatible with Forest Service ability to protect the remaining resources and still provide needed wildlife habitat. [p. 74]

Management Area 8: The management area is divided into fire suppression zones 1 and 2 based on objectives for resource protection and cost of suppression. See Section 5 for definition of zones. [p. 76]

Management Area 8A: The management area is in fire suppression zones 1 and 2 based on objectives for resource protection. See Section 5 for definition of zones. [p. 78]

Management Area 9: Fire management emphasis will be to permit lightning caused fires to play, as nearly as possible, their natural ecological role within wilderness. [p. 79]

Due to external constraints, fire management options to have lightning fires play a natural role in wilderness resource management may be accomplished by both natural and management ignitions. [p. 82]

The management area is divided into fire suppression zones 1 and 2 based on objectives for resource protection and cost of suppression. See Section 5 for definitions of zones. [p. 82]

Conduct suppression in a manner compatible with overall wilderness management objectives. Preference will be given to the method that will cause the least:

- a. Alteration of wilderness landscape.
- b. Disturbance of the land surface.
- c. Disturbance to visitor solitude.
- d. Reduction of visibility during periods of visitor use.
- e. Adverse effect on other air quality-related values. [p. 82]

Management Area 14: The South Fork Area is within fire suppression zone 1 and the Guadalupe Canyon Area is within fire suppression zone 2. See Section 5 for definition of zones. [p. 85]

Management Area 15: The Rock Corral Watershed is in Fire Suppression Zone 2. [p. 86-1]

Text Revision - Chapter 5, Summary of Fire Management Activities

As part of the proposed amendment, all of Chapter 5 of the LRMP (pp. 87-88) would be deleted. The content of Chapter 5 follows; there would be no replacement text.

Chapter 5

The Forest has been divided into two fire suppression zones. These zones are based on resource management objectives with consideration of property and resource values to be protected. The following fire suppression zones are shown on the Fire Management Map.

Once the final alternative is selected and the final plan is implemented, any fire suppression zone boundaries not coinciding with management area boundaries will be used to further subdivide the management areas as necessary to clearly incorporate the zones into management areas.

Each wildfire ignition requires an appropriate suppression response. This response will be one that most efficiently meets fire management direction under current and expected burning conditions. The response may range from a strategy of prompt control to one of containment or confinement. Life and property will be protected in all suppression responses.

Fire Management Zone 1:

The appropriate suppression response in this zone will be predicated upon preventing fires from reaching or damaging high value resources and improvements. Containment and control will be used to accomplish this objective during very high and extreme fire danger.

| Fire Danger Class | Appropriate Response |
|--------------------------|-------------------------------------|
| (1) Low | Confinement, Containment or Control |
| (2) Medium | Confinement, Containment or Control |
| (3) High | Confinement, Containment or Control |
| (4) Very High | Containment, Control |
| (5) Extreme | Containment, Control |

Control for Danger Classes Very High and Extreme will be accomplished through maximum use of people and equipment needed to control and suppress any wildfire within as short a time as possible, by the most direct method possible.

Fire Management Zone 2:

The appropriate suppression response in this zone will be predicated upon responses that will suppress wildfires at the least cost with acceptable damage to improvements, and maintenance of sufficient forage to sustain livestock grazing operations and ground cover to keep watersheds in satisfactory condition. Confinement, containment, and control will be used to meet these objectives.

| Fire Danger Class | Appropriate Response |
|--------------------------|-----------------------------|
| (1) Low | Confine |
| (2) Medium | Confine |
| (3) High | Confine |
| (4) Very High | Confine, Contain, Control |
| (5) Extreme | Confine, Contain, Control |

The appropriate response will be accomplished through minimum use of people and equipment.

For each fire, the responsible line officer shall evaluate and document the suppression response prior to each subsequent burning period. If the response is no longer consistent with fire management direction, or is anticipated to become inappropriate, the fire shall be considered an “escaped fire.”

Definitions:

Confine: To limit fire spread within a predetermined area principally by use of natural or pre-constructed barriers or environmental conditions. Suppression actions may be minimal and limited to surveillance under appropriate conditions.

Contain: To surround a fire, and any spot fires therefrom, with control line as needed, which can reasonably be expected to check the fire’s spread under prevailing and predicted conditions.

Control: To complete the control line around a fire, any spot fires therefrom, and any interior islands to be saved, burn out any unburned area adjacent to the fire side of the control line and cool down all hot spots that are immediate threats to the control line, until the line can reasonably be expected to hold under foreseeable conditions.

Escaped Fire: A fire which has exceeded, or is anticipated to exceed, pre-planned initial action capabilities or the fire management direction.

No Action Alternative

If no action is taken, the LRMP, as written, would continue to guide management of wildland fire suppression and wildland fire use on the CNF. No wildland fire use would be permissible beyond designated wilderness, wilderness study areas, and research natural areas. Management suppression response would be limited to the obsolete confine, contain, and control response.

With no action, the proposed amendment to the LRMP would not be approved, and the LRMP would continue to be inconsistent with the 2001 Federal Fire Policy and Forest Service Manual direction. None of the potential impacts reported in Chapter 3 for the proposed action would occur if no action is taken.

Comparison of the Impacts of Alternatives

Table 2 provides a comparison of the environmental consequences that would result from application of the proposed amendment to CNF fire management actions (i.e., the proposed action) and from no action. Further information on the nature of impacts is available in specialist reports contained in the project Administrative Record on file at the CNF Supervisor's Office.

Table 2. Comparison of the consequences of implementing the proposed action and of taking no action.

| Resource | No Action | Proposed Action |
|---|---|--|
| Air Quality | <p>No difference from the proposed action because the laws are clear and must be met for all fires</p> <p>Large, severe wildfires would most likely produce the most air pollution as smoke over time, as there is little or no control over what is emitted or the rate at which emissions occur</p> | <p>Impacts to air quality would not increase beyond what is currently allowed under law and would be consistent with the LRMP</p> <p>Wildland fire as a source of smoke emissions is unavoidable, of relatively short duration and temporarily impacts affected areas</p> |
| Watershed and Soils | <p>Increased potential for adverse impacts to soils and watersheds from erosion and runoff resulting from large, severe fires</p> | <p>Increased fire on the landscape at different severity and sizes would eventually decrease potential fire severity and associated adverse watershed impacts</p> |
| Vegetation | <p>Continued suppression of all fires encourages unnatural fuel conditions and loading leading to higher than natural burn intensity; this prevents ecosystems from returning to their natural, fire-adapted state</p> | <p>Provides an opportunity for natural fire to burn in fire-adapted ecosystems, resulting in the return of the natural fire cycle and a more sustainable forest</p> |
| Wildlife, including Special Status Species | <p>Large and high intensity fire and catastrophic events would be expected to lead to loss of habitat and could have serious adverse effects for all managed species</p> | <p>Long-term effects of the amendment are expected to be beneficial to all managed species</p> <p>The return to a more historical, natural fire regime will allow the CNF to receive the periodic, low-intensity fire disturbance needed to keep accumulated floor and ladder fuels in check, thus minimizing the occurrences of high intensity, potentially catastrophic events, which could have serious adverse effects on wildlife and habitat</p> |
| Visual | <p>Continuation of a suppression-only strategy outside of wilderness causes continued buildup of fuels, decline</p> | <p>When conditions and locations are appropriate, fire may be managed to improve resource conditions, which would likely result in more</p> |

Table 2. Comparison of the consequences of implementing the proposed action and of taking no action.

| Resource | No Action | Proposed Action |
|--------------------------------------|--|---|
| Quality | <p>in forest health, and increasing risk of catastrophic fires</p> <p>Without fire, scenery could appear to the untrained eye to be in good condition, changing very slowly throughout time until an unnaturally large or destructive fire occurs</p> | <p>acres of low-intensity burned areas in the long term than the current suppression-only response</p> <p>Indirect effects may be both negative (such as blackened landscapes) and positive (healthier forests, increased diversity of vegetation, and lower risk of more damaging fires)</p> <p>With regular fire, portions of scenic resources would be affected for a period of time, but long-term conditions would be more stable</p> |
| Heritage Resources | <p>Increased long-term adverse effects because 1) surface sites may sustain more damage and disturbance from fire-suppression activities, particularly the construction of fire lines by hand or machinery, and 2) the longer areas go without low- or moderate-intensity fires, the greater the likelihood of destructive high-intensity catastrophic fires</p> | <p>Would allow more low- and moderate- intensity wildland fires to burn, resulting in minimal adverse effect on prehistoric properties</p> <p>Some heritage sites might be exposed to fire sooner than they would be if suppression continued to be the only fire management option</p> <p>Such sites would be subject to increasingly greater risks of fire damage as fuels continue to accumulate</p> <p>With a commitment to involving heritage-resource specialists in fire-management decisions, potential adverse effects of wildland fire use on heritage resources would be minimal</p> |
| Social and Economic Resources | <p>As communities develop and grow in areas that are adjacent to fire-prone lands in the <i>wildland-urban interface</i>, catastrophic wildland fires, which have been encouraged by fire suppression, would pose increasing threats to people and their property</p> | <p>Wildland fire use to achieve ecosystem benefits would reduce the potential for uncontrolled, catastrophic wildland fires in the long-term; this, in turn, would reduce economic impacts from property and other losses in the long-term for all citizens, including minority and low-income populations</p> <p>On a societal level, the managed use of wildland could exacerbate anxiety in and criticism by the public for not suppressing all fires</p> |

Table 2. Comparison of the consequences of implementing the proposed action and of taking no action.

| Resource | No Action | Proposed Action |
|------------------------------|---|--|
| Wildland Fire Use | Gradual increase in the number of acres of wildland fire managed in wilderness, wilderness study areas, and research natural areas as managers become more comfortable using this strategy | Wildland fire use in areas other than wilderness, wilderness study areas, and research natural areas, resulting in more acres managed under this strategy Trend toward an increase in fire disturbances of varying sizes and a more heterogeneous landscape |
| Wildfire (all causes) | Outside of wilderness during low to average fire years, most fires are suppressed at small acreage During high fire-activity years and under drought conditions, more fires escape initial attack and become catastrophic fires Overall, gradual increase in wildfire acres, with a trend toward larger and more severe fires | In the short-term, there will be a continued gradual increase in acres of managed wildfire Long-term gradual decrease in wildfire acres, and the size and intensity of these acres |

Chapter 3 - Environmental Consequences

Updating the CNF LRMP with any amendment is an administrative and programmatic action that, itself, has no direct effects on the environment. Implementation of this amendment—that is, the management of specific wildland fires for resource benefits—would likely directly, indirectly, and cumulatively affect the environment, however, the degree of site-specific effects cannot be meaningfully predicted and/or evaluated in this EA, because the location, acreage, and intensity of future wildland fires is unknown. Therefore, the following discussion of impacts for each resource area is generic in nature.

Each decision on whether or not to manage a specific wildland fire for resource benefit would be based on a rapid but detailed evaluation of resource-specific criteria and documented by an interdisciplinary (ID) team of Forest resource specialists in a wildland fire implementation plan (WFIP). Resource-specific criteria developed as part of the amendment process have been documented in the *Coronado National Forest Fire Management Plan* (FMP), which is updated annually and available on the Coronado website (<http://www.fs.fed.us/r3/coronado>). These criteria shall be an essential part of the ID team's decision-making process. In addition, direct consultation with each CNF manager responsible for the specific resource of concern would be incorporated into decision-making on wildland fire use.

Impacts of the Proposed Action: Wildland Fire Amendment to the LRMP

Air Quality, Watershed and Soils, and Vegetation

The proposed amendment would not change LRMP standards and guidelines that relate to air quality, watershed, soils and vegetation management on the CNF; therefore, implementation of the amendment (i.e., wildland fire use) would not be expected to result in impacts to these resources. The proposed action would encourage land managers to use naturally occurring fire to meet the LRMP standards and guidelines and would result in the opportunity for some fires to burn in fire-adapted ecosystems.

Air Quality. A managed wildfire would temporarily degrade local air quality in the short-term, but would improve it in the long-term. The copious amount of smoke that is generated from the combustion of organic material, i.e., burning grasses and trees, can degrade ambient air quality over a given impact area. Particulates and gases contained in smoke may adversely affect respiratory function in humans and wildlife in the fire zone and downwind depending, in part, on the intensity of the burn, the distance over which the smoke is dispersed, and the relative sensitivity of the affected organism.

Potential effects of smoke on residents and special status species would be factored into each decision on whether or not to allow wildland fire use in a specific location. Each decision to burn or suppress would be based on resource-specific criteria. With regard to air quality, maintenance of national ambient air quality standards, which were established by the Clean Air Act to protect human health, would be one of the primary criteria used. The LRMP provides that all management practices will be planned so that air quality will meet local, State, and Federal standards.

Wildland fires likely to be managed for resource benefits would often be low-intensity fires that tend to produce less smoke than those of higher intensity. However, smoke from a managed

wildland fire may in some cases be greater in duration in the short-term than a fire that is suppressed, because the fire may be allowed to burn longer for resource benefits. However, in the long-term, smoke effects of fires managed under the amendment would decrease and air quality would improve as vegetation in the ecosystem and natural fire cycle return to typical historic conditions. Implementation of the proposed action would return much of the landscape to historical fire-return intervals and would thus decrease the potential for catastrophic wildland fires and the massive amount of smoke that accompanies them.

Watershed and Soils. Managed wildland fire would contribute to short-term increases in soil erosion and runoff containing ash and organic debris. These materials would temporarily degrade water quality in the streams within the watershed of the fire-affected areas by increasing suspended solids and turbidity, however, violations of water quality standards applicable to these water resources would not be expected. In the long-term, soil stability and watershed conditions would benefit from implementation of the amendment, due to the decline in woody vegetation and the return of native grasses and forbs resulting from restoration of the natural fire cycle.

Vegetation. The net effect of amendment implementation on vegetation in the CNF would be positive. Implementation would not convert communities of vegetation to other types of communities on a large-scale. Instead, small-scale, localized conversions of vegetation would restore grasses and forbs to their historic ratio with woody vegetation in the ecosystem.

Decisions about management of wildland fire in riparian areas would be made to ensure that fuel loading is maintained at low levels so that low-intensity ground fires would predominate and the viability of older trees in the community would be protected.

The Fire Effects Information Systems web site at <http://www.fs.fed.us/database/feis/index.html> provides detailed information about fire effects on plants and wildlife

Wildlife, including Special Status Species

The proposed action would not have a direct effect on the wildlife. There may be some short-term indirect effects on many CNF wildlife species as a result of the potential changes on the ground implemented from the occasional use of wildland fire instead of suppression. But, the long-term effects of the amendment are expected to be beneficial to all species. The return to a more historical, natural fire regime would be expected to allow the CNF to receive the periodic, low-intensity fire disturbance needed to keep accumulated floor and ladder fuels in check. This would be expected to minimize the occurrences of high-intensity, potentially catastrophic events that could have serious adverse effects on most species and their habitats. In fact, the return to a more historic, natural fire regime may even restore habitat for species that have been extirpated from the CNF.

In general, agency projects that might affect species listed as endangered or threatened under the Endangered Species Act are subject to consultation with the U.S. Fish and Wildlife Service (USFWS) (FSM 2671.45). However, no consultation with the USFWS is possible when natural processes, such as lightning-caused fires, occur. Consultation may or may not be required at the time wildland fire use decisions are made, depending on the location, time of year, presence or absence of threatened and endangered species, and if management actions would be undertaken that may affect threatened and endangered species. Similar to suppression actions on wildland fire, emergency consultation will take place when site specificity is established and it is

determined management actions would have a reasonably foreseeable effect on Federally listed species. In many instances, there would be no need for consultation because there would be no substantial suppression actions or extensive human presence on the ground.

The Fire Effects Information Systems web site at <http://www.fs.fed.us/database/feis/index.html> provides detailed information about fire effects on plants and wildlife

Visual Quality

The amendment itself would have no direct effect on scenic resources. The proposed action would likely result in more acres of low-intensity burned areas in the long term than the current suppression-only response. Therefore, indirect effects caused by the implementation of the new policy would be both negative (such as blackened landscapes) and positive (healthier forests, increased diversity of vegetation, and lower risk of more damaging fires). Although fires managed for ecosystem benefits still result in blackened landscapes, the impacts are far less devastating than the types of catastrophic fire events that have played out across the West in recent years (see CNF FMP). Effects to viewsheds are more quickly recovered. The occurrence of severe burns that leave the land looking more like a “moonscape” are less likely to occur once fire has been returned to a more natural cycle and role in the ecosystem.

Recreation

The proposed amendment does not change LRMP direction for the management of recreation, and therefore would have no direct effects. However, there would be many possible indirect effects caused by the implementation of the wildland fire use strategy, both negative (such as changes to recreation settings and public access restrictions) and positive (such as healthier forests and lower risk of more damaging fires). Areas favored by recreational users would be impacted for the short-term, but are more likely to return to a condition acceptable to users within a few years. The CNF FMP contains information on many recreation-related issues including public safety, protection of facilities, scenic quality, and heritage resources. Criteria in the FMP would be used during implementation of the amendment.

Heritage Resources

Articulation of the fire-management policy change in an amendment to the LRMP is not considered an undertaking as defined in the National Historic Preservation Act. Accordingly, there would be no direct effects to heritage resources.

Indirect effects of approval of the amendment may include the increased exposure of heritage sites to wildland fire, because a percentage of fires would not be quickly suppressed. However, such sites are more likely to be protected during a low- or moderate-intensity fire managed for resource benefit, if fire managers are aware of heritage resource concerns, than during a catastrophic wildland fire.

Suppression activities often involve ground-disturbing actions, particularly construction of control lines by hand or heavy equipment. Given the emergency nature of the situation, line construction often is done quickly, without the input of heritage resource specialists. As a consequence, sites are at as much or greater risk of damage from suppression activities than they

are from exposure to fire (this is particularly so with sites having only non-fire sensitive components).

If low- and moderate- intensity wildland fires are allowed to burn more often than in the past, there would be minimal adverse effects on prehistoric properties. Some heritage sites might be exposed to fire sooner than they would have been if suppression continued to be the only fire management option. But, in the long term, such sites would be subject to increasingly greater risks of catastrophic fire damage as fuels continue to accumulate. Including the input of heritage-resource specialists in making fire-management decisions could largely mitigate the potential adverse effects of wildland fire use.

Social and Economic Resources

The proposed action is to amend language in the CNF LRMP, rather than to apply a site-specific action, therefore, there would be no direct effects to the social and economic environment.

According to the *National Fire Plan* (<http://www.fireplan.gov/overview/whatis.html>), “Though wildland fires play an integral role in many forest and rangeland ecosystems, decades of efforts directed at extinguishing every fire that burned on public lands have disrupted the natural fire regimes that once existed. Moreover, as more and more communities develop and grow in areas that are adjacent to fire-prone lands in what is known as the *wildland-urban interface*, wildland fires pose increasing threats to people and their property.”

Managed use of wildland fire would assist in reducing unnaturally high fuel loads that contribute to catastrophic wildland fires. This would contribute to the return of fire to a more natural role in the ecosystem. The option to use wildland fire to achieve ecosystem benefits, such as fuels management under the proposed action, would reduce the potential for uncontrolled, catastrophic wildland fires in the long-term, which in turn would reduce economic impacts in the long-term.

On a societal level, the managed use of wildland fire under the proposed action could exacerbate anxiety in and criticism by some members of the public when they learn that wildland fires are not going to be immediately suppressed. Recent fire activity in the Southwest, such as the 2003 Aspen Fire on the CNF, has resulted in public sensitivity to the potential losses and impacts resulting from uncontrolled fires. Public scrutiny will be intense. Public education efforts would help to increase the level of understanding of the need to utilize all tools available to treat accumulations of fuel in our national forests. However, public concern about the risks of loss or damage to such values as forest resources, private assets, public health, and the economy would translate into little tolerance for the escape of a managed wildland fire. In the event of such an escape, the CNF can expect increased public and private resistance to future management efforts.

Environmental Justice

The proposed action would reduce the occurrence of uncontrolled, catastrophic wildland fire in the long-term, which would result in a net positive economic impact on minority and low-income persons in fire-affected areas.

Impacts of No Action

If no action is taken, all wildland fires on the CNF outside of specially designated areas would continue to be suppressed, according to the LRMP direction. In the short term, no action would often result in less impacts to all natural resources than managed fire, because the geographic area affected and the duration of certain fires may be less than that of a fire that is allowed to burn for resource benefits.

In the long term, however, the policy of suppression would continue to support and may even exacerbate the present trend in fire-adapted ecosystems toward higher fuel loadings, high-intensity, catastrophic fires, and progression away from the natural historic fire regime. While efforts to return the forest to a natural fire regime would continue if no action is taken, managers would have one less tool to aid in accomplishing this goal, and the risk of catastrophic fire would continue to increase.

Cumulative Effects

Cumulative effects result from the incremental effects of proposed actions, when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative effects can result from individually minor, but collectively significant, actions taking place over time.

Cumulative effects of implementation of the proposed amendment would be limited to the period in which it is in effect, because the CNF LRMP is scheduled to be revised during the next three to five years, and future fire policy will be governed by the revised LRMP. In the interim, during each ID team review of a wildland fire occurrence, the potential for cumulative effects would be factored into each decision to authorize wildland fire use.

In such cases, the decision maker would consider the cumulative effects of allowing wildland fire use within a site-specific maximum management area (MMA) and the fire's potential effects on current or proposed projects. For example, if a wildland fire occurs adjacent to a proposed trail construction project, then the potential impacts of fire use on the project would be considered during development of the MMA.

Air Quality, Watershed and Soils, and Vegetation

With implementation of the proposed action, soil, water, and air effects from fires might occur across the CNF in the short-term, however, these effects would usually be temporary and would not contribute to cumulative adverse impacts. In the long-term, restoration of the natural fire cycle on National Forest System lands would result in a decreased risk of catastrophic fires.

Without implementation of the proposed action and the potential for wildland fire use within specific guidelines, the probability of major catastrophic fires occurring across the CNF would continue to increase. In the short- and long-term, the incremental effects of catastrophic fires, when combined with other past, present, and future actions that affect soil, water, and air quality, could result in adverse impacts. Therefore, the potential cumulative effects of no action would exceed those associated with implementation of the proposed action.

Wildlife, including Special Status Species

Because future wildland fire use actions cannot be predicted, cumulative effects on wildlife populations and habitat cannot be estimated on a site-specific basis. Nevertheless, wildland fire use for ecological restoration would be expected to have a mix of negative short-term and positive long-term effects, which would vary in space and time. In addition, these effects would be influenced by other Federal and non-Federal actions, as well as natural events.

While short-term effects may be adverse, they would most often be temporary in nature. For example, breeding of certain threatened, endangered, or sensitive species in a given location may be compromised by wildland fire use in the short-term. However, in most cases, the long-term effects of restoration of a fire-adapted ecosystem and natural fire regime would be positive for the species.

Wildland fire use would not be implemented or reviewed in isolation, as other actions and natural events would also be considered when making a decision approving wildland fire use and subsequently delineating MMAs. The objective of such decisions would be *not to exceed short-term effects thresholds, while enhancing and maintaining long-term benefits*.

Visual Resources

Without the wildland fire use amendment and the potential for wildland fire use within specific guidelines, the probability of major catastrophic fires occurring across the CNF would continue to increase. Additional fires near past (especially recent) fires would have a cumulative effect on visual resources. In the short- and long-term, the incremental effects of catastrophic fires, when combined with other past, present, and future actions that affect visual quality, could result in substantial negative changes in the overall visual quality of the CNF. With implementation of the wildland fire use amendment, effects from fires might be visible across Coronado landscapes in the short term; however, these effects would usually be temporary. In the long-term, the restoration of the natural fire cycle on National Forest System lands would result in a decreased risk of catastrophic fires. Therefore, the potential cumulative effects of no action would exceed those associated with implementation of the WFA.

Recreation

With implementation of the wildland fire use amendment, effects from fires might be visible across Coronado landscapes in the short term; however, these effects would usually be temporary. In the long-term, the restoration of the natural fire cycle on National Forest System lands would result in a decreased risk of catastrophic fires.

Without the wildland fire use amendment and the potential for wildland fire use within specific guidelines, the probability of major catastrophic fires occurring across the CNF would continue to increase. Additional fires near past (especially recent) fires would have a cumulative effect on recreational use. In the short- and long-term, the incremental effects of catastrophic fires, when combined with other past, present, and future actions that affect aesthetic and recreational values, could result in substantial negative changes in the overall availability and quality of recreational sites and facilities on the CNF. Therefore, the potential cumulative effects of no action would exceed those associated with implementation of the WFA.

Heritage Resources

No action over time would cumulatively have one notable adverse effect: the longer that fire-adapted areas go without exposure to wildland fire, the higher the probability of occurrence of catastrophic fire, and the greater the risk of damage to heritage resources. Experience in recent years has shown that it is much more difficult, if not impossible, to protect heritage or other resources during a catastrophic uncontrolled fire event. The ability to protect heritage sites is much greater with low- or moderate-intensity fires, which would result with the return of the ecosystem to a natural fire regime.

Social and Economic Resources

Under both alternatives, the occurrence of fires on other land ownerships concurrently with the application of wildland fire use operations may result in cumulative smoke levels and subsequent public health impacts that reach unacceptable levels. Such an occurrence may be more likely under the proposed action due to the expanded opportunities to use wildland fire for management objectives. Such impacts would be monitored on a daily basis. Should conditions exceed standards, suppression actions would be initiated.

Under both alternatives, other management actions to treat ecological conditions leading to catastrophic wildland fire would be implemented. Such activities would include mechanical treatment of fuels and prescribed fire and would be implemented using the most cost effective methods available and feasible. Impacts to the human environment such as smoke would be managed to meet the requirements of Federal, State, and local standards.

Economic impacts may extend beyond the counties directly impacted by wildland fire. The communities in adjacent counties may experience increases in economic activity as a result of forest users being displaced to other locations or activities. Tourism may be affected. Visitation may increase or decrease based on the location of wildland fire activities and related publicity. Some visitors may come to adjoining counties in lieu of those impacted by fire. By the same token, visitation could decrease due to fire activity in the area. Such impacts may be less likely in the long run under the proposed action.

Chapter 4 - Consultation and Coordination

The Forest Service consulted the following individuals, Federal, state and local agencies, tribes and non-Forest Service persons during the preparation of this EA:

Federal and State Officials and Agencies

Arizona State Parks
Arizona State Land Department
Arizona Game & Fish Department
Arizona State Historic Preservation Officer
Bureau of Land Management
Bureau of Indian Affairs
Congressman Rick Renzi
Congressman Raul Grijalva
Congressman Jim Kolbe
National Park Service
New Mexico Department of Game & Fish
Senator John McCain
Senator Jon Kyl
U.S. Department of the Army
U.S. Fish and Wildlife Service

Native Americans

Ak-Chin Indian Community
Ft. McDowell Mojave-Apache Indian Community
Ft. Sill Apache Tribe
Gila River Indian Community
Hopi Tribe
Mescalero Apache Tribe
Pascua Yaqui Tribe
Pueblo of Zuni
Salt River Pima-Maricopa Indian Community
San Carlos Apache Tribe
Tohono O'odham Nation
White Mountain Apache Tribe
Yavapai-Apache Nation

Others

Audubon Society
Forest Guardians
Center for Biological Diversity
National Wild Turkey Federation
Sierra Club
Sky Island Alliance
Southwest Forest Alliance
The Nature Conservancy

Chapter 5 - References

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