United States Department of Agriculture

Forest Service

Southwestern Region





Environmental Assessment

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



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TABLE OF CONTENTS

CHAPTER 1 – INTRODUCTION	1
CHAPTER 2 - ALTERNATIVES	9
CHAPTER 3 - ENVIRONMENTAL CONSEQUENCES	16
CHAPTER 4 - CONSULTATION AND COORDINATION	25
CHAPTER 5 - REFERENCES	26
CHAPTER 6 – LIST OF PREPARERS	257
Appendices	

Appendix 1 – Proposed Forest Plan Amendment

Replacement Pages

Forest Plan Appendix L: Wildland Fire Use map, fire regimes, and decision criteria

Chapter 1 – Introduction

The United States Department of Agriculture (USDA), Forest Service (USFS) proposes to amend the Prescott National Forest Land and Resource Management Plan (Forest Plan) to meet current Federal wildland fire management policy, direction, and terminology. The Prescott National Forest (PNF) is located in central Arizona in Yavapai County (see **Figure 1**). The Forest Supervisor has determined that this amendment will be a non-significant amendment (PR # 4 & 60) pursuant to the National Forest Management Act (NFMA, 16 United States Code (USC) 1604(f)(4) and 36 Code of Federal Regulations (CFR) 219.14(d)(2)). This environmental assessment (EA) documents the results of a study of the potential environmental impacts resulting from this Proposed Action and the No Action Alternative.

This EA was prepared in compliance with the National Environmental Policy Act (NEPA); the Council on Environmental Quality (CEQ) Regulations (40 CFR 1500 through 1508) for implementing NEPA; USDA's NEPA Policies and Procedures (7 CFR Part 1b); Forest Service Manual (FSM) 1950; and FSH 1909.15.

Data, information, and documents supporting the analyses presented in the EA are contained in the project record (PR) and may be reviewed at the Prescott National Forest Office, 344 South Cortez Street, Prescott, Arizona.

Document Organization

This EA is organized as follows:

- **Introduction**: This 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 describes the agency's proposed action and one alternative, the no action alternative. 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 taking 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.
- **Appendices:** The Appendix includes the actual proposed pages for the proposed Forest Plan amendment, including both replacement pages and additional Forest Plan Appendix material.

Background

ecosystem." (p14).

History of the Proposed Amendment

The amendment to the Forest Plan for direction related to wildland fire use was originally part of a larger Natural Resources Amendment proposed in 1993. In August of 2001, the scope of that amendment was refined to only include fire use, fuel wood management, and forest plan monitoring. In March of 2005, the scope of the amendment was further refined to address only wildland fire use. This EA addresses amendment of the PNF Forest Plan for wildland fire use only.

Overview of Present PNF Fire Policy

The Forest Plan (PR#1) was approved in 1986 and amended over time. Goals, standards and guidelines in the Forest Plan reflect agency fire management policy in 1986. The current fire management goal is to "provide for fire management support services necessary to sustain resource yields while protecting improvements and investments, and providing for public safety. In as much as possible, return fire to its natural role in the

The objective expressed in the Forest Plan is to suppress wildland fires at a minimum cost, consistent with land and resource management objectives and fire management direction. The current Forest Plan fire management direction allows wildland fire use (formerly called prescribed natural fire) in wilderness only. Beyond these specially designated areas, suppression is the sole response allowed for wildland fire. Today, these standards and guidelines are outdated and limit the ability of the USFS to effectively use wildland fire to restore fire-adapted ecosystems, manage hazardous fuel loads, restore and maintain historic vegetation communities and structures, and improve wildlife habitats. Fire terminology has also changed from that used in the Forest Plan (see adjacent text box).

As a result of fire suppression and restrictions on the use of wildland fire use, vegetation communities on the PNF and throughout the southwest have continued to shift further and further away from pre-European settlement conditions. Historically, low-intensity wildland fires occurred frequently, maintaining a low tree density and open forest structure with abundant grasses, forbs, and low shrubs. These open, 'park-like' forests had a relatively low occurrence of high-intensity, stand replacement wildland fires due to their low biomass, open canopy, and low ladder fuel accumulation. Today, following nearly a century of fire suppression policies

Current Fire Terminology

Fire Management Activities: Include fire planning, fire management strategies, tactics, and alternatives; prevention; preparedness, education, and addresses the role of mitigation, post-fire rehabilitation, fuels reduction, and restoration activities in fire management.

Fuels Management: The practice of planning and executing treatment or control of any vegetative material, which adversely affects meeting fire management direction based upon resource management goals and objectives.

Prescribed Fire: (formerly called "management ignited prescribed fire.") Any fire ignited by management actions to meet specific objectives. Prescribed fires are conducted in accordance with prescribed fire plans.

Wildland Fire: (formerly called "wildfire" or "prescribed natural fire" or "prescribed fire with unplanned ignition."). Any non-structural fire that occurs on wildland.

Wildland Fire Use: The management of naturally ignited wildland fires to accomplish specific pre-stated resource management objectives in pre-defined geographic area outlined in Fire Management Plans.

and an unnatural fire regime that largely excluded low- to moderate-severity fires, higher stand densities and an accumulation of ladder fuels have increased the potential for high-intensity stand replacement crown fires, while understory grass, forb, and low shrub abundance has decreased.

PNF Management Area Direction - Protection

The Forest Plan identifies seven Management Areas which were established based on resource management objectives and consideration of the value of property and resources to be protected. The management direction for fire protection varies among the Management Areas relative to the various resources within the area and their value and susceptibility to impacts from wildfires. Management Area 6 which includes the wilderness areas currently permits prescribed natural fires (note: the current plan permits prescribed natural fires in all of the wilderness areas except Sycamore Canyon; this amendment will not be applied to Sycamore Canyon, which is administered by the Coconino National Forest) (PR#1, page 69). However, as stated above, the current fire management direction for all Management Areas outside of wilderness emphasizes suppression (PR#1, pp 53 – 72-1).

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 Interior adopted the *Federal Wildland Fire Management Policy and Program Review* (USDA/USDI 1995). 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 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) (USDA/USDI 2001) (PR #2).

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 Interior under the National Fire Plan (USDA/USDI 2000) (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 Plan¹.

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 and need of this proposal is to update direction on wildland fire use and management within the Forest Plan to be consistent with several national interagency efforts, including the 2001 Federal Wildland Fire Management Policy, Wildland and Prescribed Fire Policy and Implementation Guide of 1995, Wildland and Prescribed Fire Policy and Implementation Guide of 1998, National Fire Plan of 2000, and more recent legislation supporting forest restoration, such as the Healthy Forests Restoration Act (H.R. 1904). Wildland fire use on a landscape scale is needed to reduce fuel loading, sustain fire-adapted ecosystems into the future, and return fire to its natural role in the ecosystem.

Proposed Action

The PNF proposes to amend the Forest Plan to allow wildland fire use to meet current Federal wildland fire management policy, direction, and terminology. As part of this proposal, PNF management direction and both forest-wide and management area (MA)-specific standards and guidelines in the Forest Plan would be amended to reflect changes in policy, direction, and terminology. See **Appendix 1** for the proposed changes in Forest Plan language. This amendment would allow managers to employ the current suppression actions or the option of managing natural ignitions to achieve resource benefits (wildland fire use) within the areas identified in **Figure 1**. The areas proposed for wildland fire use occur outside of the wildland/urban interface. Choosing the wildland fire use option would involve resource specialist

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

review of the wildland fire use event to ensure that Forest Plan goals and objectives and standards and guidelines would be met for the resources within the wildland fire use event project area. When federally listed species or critical habitats would be affected, Endangered Species Act (ESA) emergency Section 7 consultation would be initiated prior to implementing a wildland fire use event.

Decision Framework

The PNF Forest Supervisor as the Responsible Official will decide whether to implement the proposed action to amend the Forest Plan direction to allow wildland fire use, or the no-action alternative which keeps the current fire management direction in the Forest Plan. The Responsible Official will also decide whether an Environmental Impact Statement (EIS) is needed.

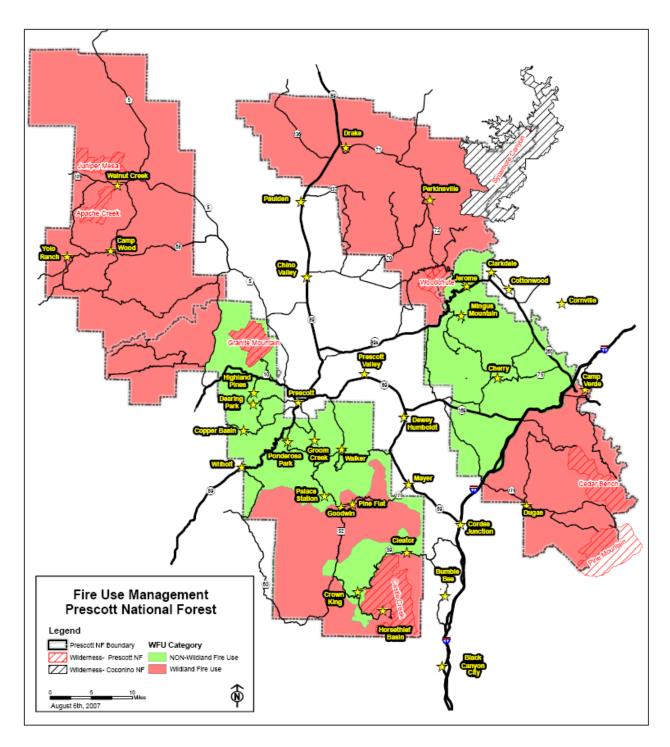


Figure 1: Prescott National Forest Proposed Wildland Fire Use Locations

Public Involvement

Scoping for the proposed amendment was initially conducted in October of 2001 as part of a proposal that included changes in direction for fire use, fuel wood management, and forest plan monitoring. This was accomplished by mailing postcards announcing the proposed amendment to the Forest Plan to 595 individuals, organizations, and agencies on the Forest's mailing list of potentially interested parties (PR # 3, 5, & 6)². The announcement briefly described the proposed amendment and indicated that the amendment was available for review at the PNF's Website (www.fs.fed.us/r3/prescott); at the PNF's offices in Prescott, Arizona; and at Prescott area libraries. The announcement was also posted on the PNF's website. Fifteen responses were received in the form of letters, e-mails, a telephone conversation, and one visit in person to PNF offices in Prescott, Arizona. All comments received and the names of the submitting persons and organizations are located in the project record (PR # 11 - 22).

In addition, the completed Environmental Assessment for the above described amendment was mailed out for comment in October of 2002. A total of five responses were received from individuals and organizations and are included in the project record (PR #s 42 - 46). The project has been listed on the PNF Schedule of Proposed Actions since November 2000 and subsequently on the PNF Schedule of Proposed Actions on the Forest's internet website.

The responses that included remarks about the fire use portion of the amendment from both the October 2001 scoping and the October 2002 comment period were considered in this analysis.

This project is subject to the appeal regulations of 36 CFR 217 for forest-wide Forest Plan amendments. These regulations do not require a separate 30-day comment period on the EA to determine appeal eligibility (see 36 CFR 217.6).

Public Issues

The interdisciplinary team for this project analyzed the scoping comments to determine if any of them constituted an issue. An "issue" is defined as "a point of discussion, debate, or dispute with a proposed action based on some anticipated effect." The majority of comments expressed concern about the wording of the proposed amendment or other aspects of the amendment process that were not based on anticipated environmental effects. Such comments, while providing valuable input into the PNF's planning process, do not fit the definition of "issues" for the purpose of a NEPA environmental assessment. Two issues (described below) were identified that do fit that definition.

The two identified issues were then evaluated for their significance to the analysis. Issues were considered "non-significant" if they fit any of the criteria listed below, or "significant" if they did not.

- The issue is outside the scope of the proposed action.
- The issue has already been decided by law, regulation, Forest Plan, or other higher-level decision.
- The issue is irrelevant to the decision to be made.

² The proposed amendment that was scoped in October 2001 also included changes in policy and direction for fuelwood management and the monitoring program. In February of 2005, the scope of the amendment was revised to address only wildland fire use.

• The issue is conjectural and not supported by scientific (or factual) evidence.

Significant Public Issue

The following issue raised during public scoping was determined to be significant and is included in the Environmental Consequences analysis in this EA. A description of the issue and an explanation of the significance finding are provided below.

- ➤ **Issue -** *Air Quality* Implementation of the policy to allow naturally caused fires to burn could result in excessive amounts of smoke and unacceptable degradation of air quality.
- Reason for Finding of Significance This issue is within the scope of the proposed action and is relevant to the decision to be made. It has not already been decided by a higher-level decision, nor is it purely conjectural. The potential effects on air quality will be addressed in the EA.

Non-significant Public Issues

An issue raised during public scoping met the above criteria and was determined to not be significant to the analysis. A description of the issue and an explanation of the non-significance finding are provided below. This issue is not included in the Environmental Consequences analysis in this EA.

- Issue Wildland Fire Use The use of wildland fires (let burn policy) is unwise because fires need to be targeted to get the maximum benefit, whether to protect urban areas or to achieve specific management goals. Opportunistic fires, which are allowed to burn, will seldom meet those criteria.
- Reason for Finding of Non-significance This comment is an opinion and considered to be conjecture and therefore is not a significant issue. Land managers would only employ wildland fire use where resource objectives are being met.

Scope of the EA

This EA analyzes the potential impacts resulting from amending the Forest Plan to: (1) meet current Federal wildland fire management policy, direction, and terminology; and (2) allow the PNF to use wildland fire for resource benefit within the areas identified in **Figure 1**.

This EA is a programmatic NEPA document. This EA analyzes the general, landscape-level, environmental impacts of implementing the proposed amendment. The best available science was considered in this landscape-level analysis. At this time, site-specific details regarding the spatial extent (acreage or percent of each MA) of wildland fire use to be allowed per fire and/or per year, or the frequency/return rate of such wildland fire use, cannot be accurately calculated; these details would vary widely and would be dependent on numerous factors, such as the location of the ignition, weather conditions, fuel types, topography, and whether all necessary conditions to manage the fire for resource benefit are met.

Chapter 2 - Alternatives

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

Proposed Action – Amended Forest Plan

Revision of Forest Plan Text

Text Revision - Chapter 4, Management Direction

The proposed action would be accomplished by the Forest Supervisor's approval of changes to Forest Plan goals, standards and guidelines for fire management. The present text in the Forest Plan would be changed by the establishment of new standards and guidelines applicable forest-wide on the PNF. Forest Plan direction for wildland fire use would only apply to the areas identified in **Figure 1**. Details of the particular deletions and insertions are listed in **Appendix 1**.

The proposed action puts safety first and foremost, calls for proactive fire management messages and public education, and provides for the opportunity to implement wildland fire use to achieve

resource benefits within specified areas on the forest.

Each consideration and approval to manage a specific wildland fire for resource benefit would be based on a rapid but detailed evaluation of site-specific and resource-specific criteria and documented by a team of PNF resource specialists in a fire-specific Wildland Fire Implementation Plan (WFIP). During development of the WFIP (see text box), this team would identify site-specific resource issues and protection measures to be implemented during that particular wildland fire (e.g.,

Wildland Fire Implementation Plan (WFIP):

A progressively developed assessment and operational management plan that documents the analysis and selection of strategies and describes the appropriate management response for a wildland fire. A full WFIP has 3 stages: initial fire assessment ("go/no go" decision); short-term implementation actions, which include short-term fire behavior predictions and risk assessments; and long-term implementation actions, which include long-term fire behavior predictions and risk assessments.

protection of known locations of threatened, endangered, and sensitive species and cultural resources; identification of human safety issues; habitat evaluation of fire frequency and desired conditions). Acreages that may be affected by wildland fire would also be determined at that time using a defined set of criteria and possibly through computer modeling.

Site-specific resource reference information would complement the WFIP Decision Criteria Checklist (included in **Appendix 1**) for assessing wildland fire use and would be referenced in the PNF's Fire Management Plan (PR #56), which is reviewed and updated annually. This information shall be an essential part of the WFIP team's go/no-go evaluation process.

No Action Alternative - Current Forest Plan

If no action is taken, the Forest Plan, as written, would continue to guide management of wildland fire suppression and wildland fire use on the PNF. No wildland fire use would be permissible beyond designated wilderness areas. Appropriate management response would be limited to the current confine, contain, and control response. Fuels would continue to be actively managed by means of prescribed fire and mechanical treatments.

Comparison of Alternatives

Table 1 provides a summary comparison of the environmental consequences that would result from implementation of the proposed amendment to the Forest Plan's fire management direction (i.e., the proposed action) and of the no action alternative. However, this Forest Plan amendment is a planning level document that proposes a change in policy and management direction. It does not propose or approve site-specific projects and therefore would not have any site-specific "on-the-ground" impacts.

Table 1. Sur	Table 1. Summary Comparison of Effects by Alternative.			
Resource Topic	No Action Alternative (Current Forest Plan)	Proposed Action (Amended Forest Plan)		
Significant Issue: Air Quality - The policy to allow naturally caused fires to burn could result in excessive amounts of smoke and unacceptable degradation of air quality.	Implementation of the suppression strategy in the current forest plan would minimize the amount of smoke produced by those fires that would be containable, thereby having the best air quality. However, the potential for large landscape fires with extreme impacts to air quality would be increased as fuel loads build. Suppressing fires would delay the impacts to air quality until large events occurred with extreme negative short-term impacts.	Implementation of the proposed amendment to allow wildland fire use in specified areas (Figure 1) away from areas of high urban concentration would have intermittent short-term impacts to air quality. All wildland fire use incidents would adhere to the Clean Air Act. Arizona Department of Environmental Quality (ADEQ) would be consulted during preparation of the Wildland Fire Implementation Plan (WFIP). Smoke emissions would be authorized by ADEQ and monitored for compliance with all Federal and state regulations pertaining to smoke emissions.		
Vegetation	Implementation of the current suppression strategy would continue to be the course of action for fire management. This alternative would not restore the natural disturbance pattern from fire to any of the vegetation types except in those areas where WFU is currently allowed. The forest-wide problem of disrupted fire regimes would persist. Vegetation age and size classes would continue to be unbalanced as more areas grow old and no areas are made young again by fire. The potential for high-intensity wildland fires would increase in areas not affected by prescribed burn or mechanical treatments. Also, the resistance to insect or disease would be decreased with increased vegetation density and decreased variability.	Fire managers would have the option of allowing wildland fire use in specified areas. In the short term, the fire return interval would be shortened in areas burned by low-intensity, managed fire. Over the long term, an increasing proportion of the Forest would return to a more natural fire regime. The natural fire regime would allow for areas to be made young and diverse by fire while other areas became old. Age and size class and species diversity of the vegetation would begin to be restored. This would also lower the probability of high-intensity, destructive fires. Also, the resistance to insect and disease would be increased with varied vegetation densities, age and size classes and species within the various vegetation types.		
Watershed and soils	Implementation of the current suppression strategy would continue to protect soil and watershed resources during fire suppression activities. More extensive suppression activities would require more extensive soil rehabilitation after fires. The potential for large landscape scale fires to occur would increase with continued suppression. The impacts to watershed and soil resources would be dependent upon the size of the fire, vegetation type, soil type, slope, aspect, time of year, and watershed condition at the time of the wildland fire.	Implementation of the proposed amendment would protect watershed and soil resources during wildland fire use. Less use of suppression tactics could lessen impacts to soils. Fires allowed to burn for resource benefit would be done under circumstances that contribute to meeting site specific resource goals for the soil and watershed resources. Watershed and soil conditions would be expected to improve as fire is reintroduced to its natural role in the ecosystem.		

Resource Topic	No Action Alternative (Current Forest Plan)	Proposed Action (Amended Forest Plan)
Visual Quality	Implementation of the current suppression strategy would put out all fires as quickly as possible after they start. This would minimize the impacts of wildland fire to visual resources. However, the potential for large landscape scale fires would be greatly increased. The visual changes from these types of fires are extreme, extensive, and long term.	The proposed amendment would allow wildland fire use in areas identified as appropriate for fire use. If implemented, effects from fires might be visible across PNF landscapes in the short term; however, these effects would usually be temporary. In the long-term, restoring the natural fire cycle on National Forest System lands would result in a decreased risk of intense and uncharacteristic wildland fires than can have increased visual impacts.
Wetlands	Implementation of current fire suppression policy would suppress fires occurring within wetland areas, protecting terrestrial and aquatic resources. However, a long-term effect may be the increased probability of large-scale, high-intensity fires that could destroy wetland vegetation and introduce excessive sedimentation via post-fire erosion.	Implementation of the proposed amendment to allow wildland fire use in or near wetlands would meet the site-specific resource objectives for that wetland. In the long-term, restoring fire to the ecosystem would reduce the chance of large-scale, high-intensity fires that could destroy wetland vegetation and introduce excessive sedimentation via post-fire erosion
Wild and Scenic Rivers	Implementation of current fire suppression policy would suppress fires occurring within the wild and scenic river corridor, protecting terrestrial, aquatic, and visual resources. However, a long-term effect may be the increased probability of uncontrolled, high-intensity wildland fires spreading into the area and degrading ecological, scenic, and cultural values.	Implementation of the proposed amendment to allow wildland fire use within areas of the Verde Wild & Scenic River (W&SR) (Figure 2) would meet the site specific resource objectives identified for the Verde W&SR corridor (USDA 2004). All management activities in and near the river corridor shall be administered in such a manner as to protect and/or enhance the identified outstandingly remarkable values for the Verde W&SR.
Wildlife	Implementation of the current suppression policy for fire management has few direct impacts to wildlife. However, in the long-term, following current plan direction may increase the probability that stand-replacing fires would occur, which could harm individual plants and animals and their habitats. Another long-term impact would be the loss of late seral stage habitat characteristics and development of early seral stage habitat in large landscape fires, thereby shifting the relative abundance of wildlife habitats.	Implementation of the proposed amendment would meet wildlife objectives as identified in the Forest Plan. Increased mortality to wildlife species could occur during fires that burn during the breeding season. Short-term effects would include disturbance by personnel monitoring the fire and smoke inhalation. A long-term indirect effect would be the change in habitat structure in chaparral vegetation types. Typically, there would be a gradual decrease from the current amount of mid-seral stage habitat and an increase in the amount of early seral stage habitat, reflecting a more natural balance of habitats. When federally listed species or critical habitats would be affected, Endangered Species Act (ESA) emergency Section 7 consultation would be initiated prior to implementing a wildland fire use event.
MIS	Implementation of the current forest plan suppression strategy would approximately maintain the quantity of vegetation habitat types and their relative quality. Long-term effects would be lack of early seral stage due to lack of fire and potentially a loss of late seral stage due to large landscape fires.	Implementation of the proposed amendment would allow fire to return to its natural role within the areas in Figure 1. This would move the landscape toward more natural proportions of early and late seral stages. Typically, for the forested and chaparral vegetation types, there would be a decrease from the current amount of mid-seral stage habitat and an increase in the amount of early seral stage habitat. There would not be a seral stage change for grassland vegetation types.

Table 1. Sur	Table 1. Summary Comparison of Effects by Alternative.			
Resource Topic	No Action Alternative (Current Forest Plan)	Proposed Action (Amended Forest Plan)		
Migratory Birds	Impacts to migratory birds would be similar to the current impacts to other wildlife. Individuals may be impacted but entire species would not be affected.	Impacts to migratory birds would be similar to the impacts to other wildlife. Individuals may be impacted but entire species would not be affected. When federally listed species or critical habitats would be affected, Endangered Species Act (ESA) emergency Section 7 consultation would be initiated prior to implementing a wildland fire use event.		
Recreation	Implementation of the current Forest Plan policy to suppress all fire ignitions except in designated wilderness areas would minimize the amount of time that trails, roads, or areas may be unavailable for recreation pursuits and reduce the extent of change in the vegetation and visual experience for forest visitors. However, the probability of major, high-intensity fires occurring across the Forest would continue to increase and could have greater impacts to road, trails, and the overall recreation experience.	The proposed amendment does not change Forest Plan direction for the management of recreation. However, implementation of the proposed policy could lead to short term negative impacts such as changes to recreation settings and public access, and long term positive impacts such as healthier forests and a lower risk of more damaging fires.		
Heritage Resources	Implementation of the current suppression policy in the forest plan would continue to protect heritage resources during suppression activities. However, the increased probability of uncharacteristically severe fires may result in damage to features and artifacts. Damage may result directly from fire or indirectly from erosion caused by loss of plant cover or from fire suppression activities. Historical structures and artifacts, prehistoric surface features, and artifacts made of combustible organic materials are at greatest direct risk from fire.	Implementation of the proposed amendment would meet the heritage resource objectives as identified in the Forest Plan. There would be a reduced probability of uncontrolled, large-scale, high-intensity wildfires that can damage or destroy historical and prehistoric sites and artifacts. While significant known sites would likely be avoided by wildland fire use, unknown and known non-significant, fire-susceptible sites in Wildland Fire Use Areas could be damaged or destroyed.		
Human Health and Safety	Implementation of the current suppression unlikely to result in any changes relative to human health and safety in the short term. Continued fire suppression activities pose risks to firefighters. Over the long term, the increased risk of uncontrolled, high-intensity fires could directly endanger human life and indirectly affect human health due to the massive amount of smoke that accompanies these types of wildfires.	Implementation of the proposed policy to allow fires to burn for resource benefit may affect human health and safety in the long term by reducing the risk of uncontrolled, high-intensity fires. Fire Use fires can be used to break-up the continuity of vast expanses of flammable vegetation. Areas of the forest subjected to Fire Use events can serve as fuel breaks and these breaks in fuel may help prevent large, uncontrollable wildfires from threatening communities and impacting human safety. In the short-term, increases in particulate emissions from more frequent wildland fires may affect smokesensitive individuals, but this effect would be mitigated by the distance of the largest population centers from Wildland Fire Use areas, and the atmospheric conditions under which managed fires would be allowed to burn.		
Social, Economic, and Environmental Justice	All homes are protected equally there fore there would not be a social impact from this project. With the increased potential for a large landscape fire that would drastically change the vegetation, there is a potential for long term loss of revenue from tourism based upon a forested environment.	Implementation of the proposed amendment is unlikely to have disproportionate effects on minority and/or low-income communities in or around the Forest because wildland fire use would be based on the random ignitions from lightning. Economically, wildland fire use would retain forested environment that would continue to support tourism based on forested landscape.		

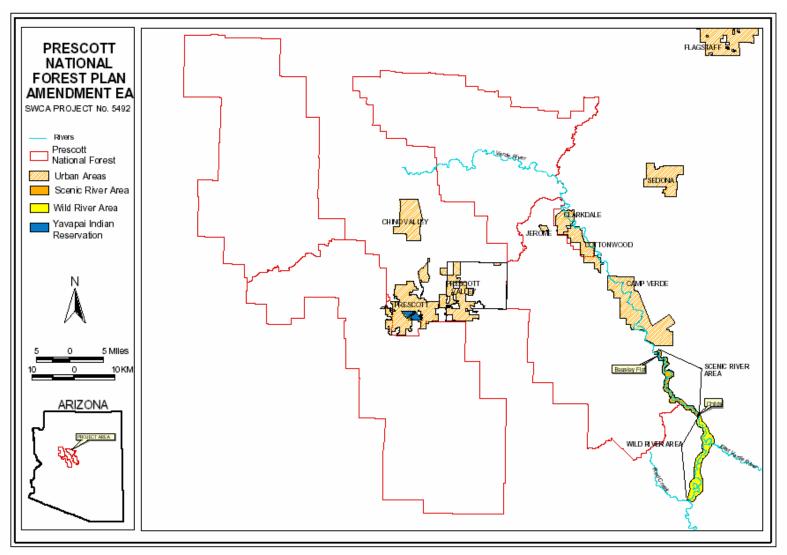


Figure 2. Verde Wild and Scenic River Segments.

Chapter 3 - Environmental Consequences

Updating the Forest Plan with any amendment is an administrative and programmatic action that itself has no effects on the environment. This Forest Plan amendment would allow the use of fire outside of wilderness as a tool to meet the current resource objectives to those areas identified in **Figure 1** (see Chapter 1). The following discussions of impacts for each resource area are generic in nature and reflective of the implementation of this change in policy. Site-specific resource values and effects would be assessed in the Wildland Fire Implementation Plan (WFIP). This would be developed when an actual wildland fire-use incident occurs, and potential fire locations and possible affected resources are known.

Impacts of the Proposed Action: Wildland Fire Amendment to the Forest Plan

Air Quality, Watershed and Soils, and Vegetation

The proposed amendment would not change Forest Plan standards and guidelines that relate to air quality, watershed, soils and vegetation management on the PNF; therefore, implementation of the amendment would not result in impacts to the management of these resources. The proposed action would provide the opportunity for land managers to use naturally occurring fire to meet the Forest Plan goals and objectives and would result in the opportunity for some fires to burn in fire-adapted ecosystems.

Air Quality (significant public issue). The proposed amendment would allow resource managers to manage wildland fire within the site-specific resource parameters described for air quality. Arizona Department of Environmental Quality (ADEQ) would be consulted during preparation of the WFIP. Smoke emissions would be authorized by ADEQ and monitored for compliance with all Federal and state regulations pertaining to smoke emissions. All Federal, state, and local laws and regulations would be adhered to during the course of managing a wildland fire-use incident.

In the short-term, smoke from a wildland fire that is being managed for resource benefits may be longer in duration than a wildfire that is quickly suppressed. 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 more historic conditions. Implementing the proposed action would return much of the landscape to more natural fire-return intervals and would thus decrease the potential for large, high-intensity wildland fires and the substantial amount of smoke that accompanies them.

Watershed and Soils. With the proposed amendment, wildland fire use within the specified areas could be used to accomplish site-specific resource objectives for watershed and soil resources. Management direction for watershed and soil resources within the individual Management Areas would not be changed.

Implementing the proposed policy to allow fires to be used for resource benefit would reduce the use of suppression tactics which would diminish the need for soil rehabilitation activities. However, managed wildland fire could 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. Wildland fire use would be expected to comply with water quality standards applicable to these water resources. In the long-term, soil stability and watershed conditions would benefit from implementing the proposed amendment, due to the decline in woody vegetation and the return of herbaceous ground cover resulting from restoring a more natural fire cycle.

Vegetation. The proposed amendment would allow managers to use naturally occurring fires to meet site-specific objectives identified for the various vegetation types that occur within approved wildland fire use areas. The management direction for the different vegetation types would not be changed with this amendment. This policy change would give managers an additional tool to accomplish the resource objectives. The predominant effect would be a shift in relative abundance of age classes within the various forested and chaparral vegetation types. There would be a gradual decrease in late seral stages and an increase in early seral stages in chaparral. Seral stage shifts would not occur within grassland, woodland, or ponderosa pine vegetation types. Wildland fires in riparian areas would be managed to meet site-specific riparian resource objectives for individual areas.

Verde Wild and Scenic River

Allowing natural ignitions to burn within prescribed parameters within the area designated as the Verde Wild and Scenic River (VW&SR) would enhance some of the outstandingly remarkable values of scenic quality, and fish and wildlife habitat in the long term. Wildland fire use would meet the site specific resource objectives identified for the VW&SR corridor (USDA 2004). All management activities in and near the river corridor would be administered in such a manner as to protect and/or enhance the identified outstandingly remarkable values for the Verde W&SR. Effects to historic and cultural values would be the same as those discussed under Heritage Resources.

With the occurrence of natural fire, vegetation on the upland may change towards more natural variations evident of natural disturbance patterns. This would result in improved or enhanced scenic quality relative to vegetation. Landforms, water quantity, and geologic features would not be impacted by wildland fire use events. Managing fires on the upland would reduce the impacts of fires to the riparian corridor vegetation. Fires may be permitted to burn in riparian areas where the impacts of the wildland fire event mimic the natural range of historic fire events or move the riparian area in that direction. These impacts would include VW&SR objectives. When federally listed species or critical habitats would be affected, Endangered Species Act (ESA) emergency Section 7 consultation would be initiated prior to implementing a wildland fire use event. Wildland fire use events within the VW&SR would be managed to maintain or enhance the outstandingly remarkable historic and cultural values.

The 33-mile Paulden to Clarkdale river segment of the Verde River is eligible (but undesignated) for inclusion into the Wild & Scenic River system. It is eligible under the Recreation Category based on the scenic, cultural, and fish and wildlife attributes. The effects would be similar to those discussed above. This amendment would not affect the eligibility status of the Paulden to Clarkdale river segment.

Wildlife, Fish, and Rare Plants including Special Status Species

The proposed policy change does not have any direct effects to wildlife in and of itself. However, an effect of implementing the policy may include increased mortality to wildlife species during fires that burn during the breeding season. Indirect effects of the policy change may include changes in habitat quantity and quality, and disturbance by personnel monitoring wildland fires. Impacts to Federally listed species or critical habitats would be assessed on a site-specific basis during Section 7 (ESA) consultation prior to implementation of a wildland fire use event.

While short-term impacts may occur, they would most often be temporary in nature. For example, breeding of some 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 restoring a fire-adapted ecosystem and natural fire regime would be positive for the species.

Because the actual time and location of future wildland fire use cannot be predicted, long-term effects on wildlife populations and habitat cannot be estimated on a site-specific basis. Nevertheless, wildland fire use for ecological restoration in the chaparral vegetation types would be expected to generally decrease the amount of late seral stage vegetation and increase the amount of early seral stage vegetation. This would increase habitat quantity and quality for MIS (management indicator species) that prefer early seral stage habitat, and decrease it for MIS that prefer late seral stage habitats. Seral stage changes would not be expected within the grassland, woodland, and ponderosa pine vegetation types. Current MIS population trends and habitats are listed in the 2003 MIS Report (PR# 58).

Impacts to migratory birds of implementing the proposed policy change would be similar to impacts to other wildlife. Individuals may be impacted but entire species would not be affected.

A return to natural fire regimes would benefit native plants that evolved with fire as a normal disturbance process. Short term impacts may kill individual plants. Long term impacts would be improved habitat for native plant species, and the possibility of post-fire establishment of invasive weeds such as cheat grass.

While wildland fire use fires may not directly impact aquatic fish habitat, they may cause some sediment to move into fish habitat. When federally listed species or critical habitats would be affected, Endangered Species Act (ESA) emergency Section 7 consultation would be initiated prior to implementing a wildland fire use event Eventually, allowing wildland fires to burn would considerably reduce the possibility of a large, high-intensity wildfire having severe impacts to fish habitat.

Visual Quality

The amendment itself would have no direct effect on scenic resources. Implementation of 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 of implementing the proposed amendment would be both negative (such as blackened landscapes in the short term) and positive (healthier forests, increased diversity of vegetation, and lower risk of more damaging fires in the long term). Although fires managed for ecosystem benefits still result in blackened landscapes, the impacts are far less devastating than the impacts from large, high-intensity wildfire events that have played out across the West in recent years. Effects to viewsheds are more quickly recovered with naturally occurring fire events. 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 role in the ecosystem.

Recreation

The proposed amendment does not change Forest Plan direction for the management of recreation, and therefore would have no direct effects. However, there would be possible indirect effects of implementing the proposed amendment, both short-term negative (such as changes to recreation settings and public access restrictions) and long-term 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 Fire Management Plan (PR#56) contains information on recreation-related issues including public safety, protection of facilities, scenic quality, and heritage resources. Criteria in the Fire Management Plan would be used when implementing the proposed amendment.

Heritage Resources

Articulating the fire management policy change in an amendment to the Forest Plan 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 implementation 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, if fire managers are aware of heritage resource concerns, such sites are less likely to be impacted during a low- or moderate-intensity fire managed for resource benefit than during a large, high-intensity wildland fire.

If low- and moderate- intensity wildland fires are allowed to burn more often than in the past, there would likely 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 less likely to be subjected to damage from large, high-intensity fires. The ability to protect heritage sites is much greater with low- or moderate-intensity fires, which would result with the return to a natural fire regime.

The locations of known heritage sites are assessed for risk as part of the WFIP. Involving heritage-resource specialists in evaluating fire-management actions would largely mitigate the potential adverse effects of wildland fire use.

Social and Economic Resources

The proposed action is to amend language in the Forest Plan, 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) (USDA/USDI 2000), "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."

The option to use wildland fire to achieve ecosystem benefits (such as fuels management) under the proposed action would reduce the potential for uncontrolled, large, high-intensity 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 may not be immediately suppressed. Recent fire activity in the Southwest has resulted in public sensitivity to the potential losses and impacts resulting from uncontrolled fires. Public scrutiny would be intense. Public education efforts would help to increase the level of understanding of the need to utilize all tools available to treat the 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.

Economic impacts may extend beyond the communities directly impacted by wildland fire use. Access to the forest could be restricted in certain wildland fire use events, sending some forest users to alternate locations for recreation, including adjacent communities. As a result, these adjacent communities may experience increases in economic activity. In addition, visitation may increase or decrease based on the location of wildland fire activities and related publicity, resulting in positive and/or negative economic impacts.

Environmental Justice

A specific consideration of equity and fairness in resource decision-making is encompassed in the issue of environmental justice and civil rights. As required by law and Executive Order, all Federal actions should consider potentially disproportionate effects on minority or low-income communities. Where possible, measures should be taken to avoid negative impacts to these communities or mitigate the adverse affects.

Table 2.	Population	Trends and	l Economic 1	Levels
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Measure	United States	Arizona	Yavapai	Prescott
	(National)	(State)	(County)	(City)
% Unemployed	3.7	3.4	2.7	2.4
% Families Below Poverty Level	9.2	9.9	7.9	7.4
% Individuals Below Poverty Level	12.4	13.9	11.9	13.1
% Minorities	22.9	36.2	13.4	11.8

¹ Source: U.S. Bureau of Census. Census 2000 Summary File (SF 3) - Sample Data. Minority Data Source: U.S. Bureau of Census, 2000. Census 2000 Redistricting Data (PL94-171) Summary File, and Profiles of General Demographic Characteristics, 2000.

The proposed amendment has no effect on low-income or minority communities. It would allow fire managers to evaluate letting wildland fires burn in certain areas (**Figure 1**) which are

relatively distant from population centers. These evaluations would not be influenced by the race, color, creed, income status, sexual preference, or physical limitations of the residents or owners of private lands. Use of wildland fires would be based on the random ignitions from lightning and their potential to achieve resource benefits. Therefore implementation of the proposed action would not result in any disproportionate impacts to low-income or minority populations.

Impacts of the No Action Alternative – Current Forest Plan

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

If the no action alternative is selected, all wildland fires on the PNF outside of Wilderness would continue to be suppressed according to current Forest Plan direction. In the short term, implementation of this alternative 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 current policy of suppression would continue to support and may even exacerbate the present trend in fire-adapted ecosystems toward higher fuel loadings, high-intensity, uncharacteristic 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 large, high-intensity fire would continue to increase.

Air Quality, Watershed and Soils, and Vegetation

Air Quality (significant public issue)

Implementation of the suppression strategy in the current Forest Plan would minimize the amount of smoke produced by those fires that would be containable, thereby having the best air quality. However, the potential for large landscape fires with extreme impacts to air quality would be increased as fuel loads build. Suppressing fires would delay the impacts to air quality until large events occurred with extreme negative short-term impacts.

Watershed and Soils

Implementation of the current suppression strategy would continue to protect soil and watershed resources during fire suppression activities. More extensive suppression activities would require more extensive soil rehabilitation after fires. The potential for large landscape scale fires to occur would increase with continued suppression. The impacts to watershed and soil resources would be dependent upon the size of the fire, vegetation type, soil type, slope, aspect, time of year and watershed condition at the time of the wildland fire.

Vegetation

Implementation of the current suppression strategy would continue to be the course of action for fire management. This would not restore the natural disturbance pattern of fire to any of the vegetation types except in those areas where WFU is currently allowed. The forest-wide problem

of disrupted fire regimes would persist. Vegetation age and size classes would continue to be unbalanced as more areas grow old and no areas are made young again by fire. The potential for high-intensity wildland fires would increase in areas not affected by prescribed burn or mechanical treatments. Also, the resistance to insect or disease would be decreased with increased vegetation density and decreased variability.

Verde Wild and Scenic River

Implementation of the current fire suppression policy would suppress fires occurring within the wild and scenic river corridor, protecting terrestrial, aquatic, and visual resources. Suppressing fires on the upland would prevent fires from impacting the riparian corridor vegetation and have the least impacts on fish and wildlife habitats within the VW&SR. However, a long-term effect may be the increased probability of uncontrolled, high-intensity wildland fires spreading into the area and degrading ecological, scenic, and cultural values Any natural ignition would be suppressed and subject to emergency consultation under Section 7 (ESA) when listed species or critical habitats are affected.

The 33-mile Paulden to Clarkdale segment of the Verde River is eligible (but undesignated) for inclusion into the Wild & Scenic River system. It is eligible under the Recreation Category based on the scenic, cultural, and fish and wildlife attributes. This alternative would not affect the eligibility status of the Paulden to Clarkdale river segment because the attributes would be impacted similarly to the designated portions previously described.

Wildlife, Fish and Plants including Special Status Species

Implementation of the current Forest Plan suppression policy would for the most part maintain the current existing habitat conditions. Suppression efforts would stop fires sooner and would impact smaller areas of habitat for wildlife and plants. Existing relative ratios of early to late seral stages would likely be maintained and may even increase the amount of late seral stage vegetation within the various vegetation types. However, in the long-term, implementing current plan direction may increase the probability that stand-replacing fires would occur, which could harm individual plants and animals and their habitats. Another long-term impact would be the loss of late seral stage habitat characteristics and development of early seral stage habitat in large landscape fires, thereby shifting the relative abundance of wildlife habitats.

Fire suppression tactics may have adverse impacts to wildlife, plants, and fish. The main impact to wildlife would be disturbance from suppression activities including retardant drops, helicopter flights, staging and camp areas, and line construction. The main impact on plants would be from suppression tactics such as retardant drops, burn outs, and line construction. Impacts to fish from suppression activities may include accidental dropping of retardant in aquatic habitats, increased sediment from burnout operations, and drafting of water for suppression efforts. Wherever Federally listed species or their respective habitats may be impacted by fire suppression activities, emergency Section 7 consultation would be initiated.

Visual Quality

Implementation of the current Forest Plan suppression policy would have minimal impact to visual quality by extinguishing all ignitions and preventing large-scale impacts to vegetation. However, the probability of major large, high-intensity fires occurring across the PNF would

continue to increase. In the short- and long-term, the incremental effects of large, high-intensity fires could result in substantial negative changes in the overall visual quality of the PNF.

Recreation

Implementation of the current forest plan policy to suppress all fire ignitions would minimize the impacts to recreation resources on the PNF. Suppressing fires would minimize the amount of time trails, roads, or areas may be unavailable for recreation pursuits. Suppression would also minimize the extent of change in the vegetation and visual experience for forest visitors. However, the probability of major large, high-intensity fires occurring across the PNF would continue to increase. In the event of a large, high-intensity fire, roads, trails or even entire areas may be unavailable to public access or recreational activities for extended periods of time due to safety and resource concerns. Recreational experiences would probably be changed within an area after a large, high-intensity fire commensurate with the post-fire change in vegetation. That change could be perceived as positive or negative depending on the individual's expectations for the experience.

Heritage Resources

Implementation of the current forest plan policy would suppress all ignitions outside of wilderness. Suppression activities often involve ground-disturbing actions, particularly the staging of resources, and construction of control lines by hand or heavy equipment. Given the emergency nature of the situation, line construction is often done quickly, with minimal 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).

One notable adverse effect would be the longer that fire-adapted areas go without exposure to wildland fire, the higher the probability of occurrence of large, high-intensity fires, 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 large, high-intensity, uncontrolled fire event.

Social and Economic Resources and Environmental Justice

Under the No Action Alternative, the current Forest Plan would continue to direct managers to suppress all fires outside of wilderness regardless of the value of threatened resources. However, the potential for a large, high-intensity fire is greatly increased with the current suppression policy because of the continual increase in fuel loads. The potential positive economic impacts from a large, landscape, high-intensity fire would be geographically limited and of short-duration. Increased restaurant and hotel expenditures would be short-lived. The potential negative economic impacts could be long term due to loss of business or tourism dependent upon existing and post-fire forested conditions.

Cumulative Effects for the Proposed Action Alternative

Cumulative effects result from the incremental effects of the proposed action, 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.

The proposed action is a change in existing fire management policy that would provide the PNF with more options to help restore fire to its natural role in the ecosystem. This policy change does not have "on the ground" site-specific effects and therefore there are no cumulative effects. Wildland fire use as a tool used to achieve resource benefits would not be implemented or reviewed in isolation, as other actions and natural events would also be considered when making an evaluation approving a wildland fire use event.

Chapter 4 - Consultation and Coordination

The PNF sought input from 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 Game & Fish Department
Arizona State Historic Preservation Officer
Congressman Rick Renzi
Congressman Raul Grijalva
Congressman Jim Kolbe
Senator John McCain
Senator Jon Kyl
U.S. Fish and Wildlife Service

Native Americans

Hopi Tribe Yavapai-Prescott Tribe Yavapai-Apache Nation Fort McDowell Indian Community Hualapai Tribe Tonto Apache Tribe Navajo Nation

Others

Audubon Society
Forest Guardians
Center for Biological Diversity
Southwest Forest Alliance
The Nature Conservancy
Members of the general public

Chapter 5 - References

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Chapter 6 – List of Preparers

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