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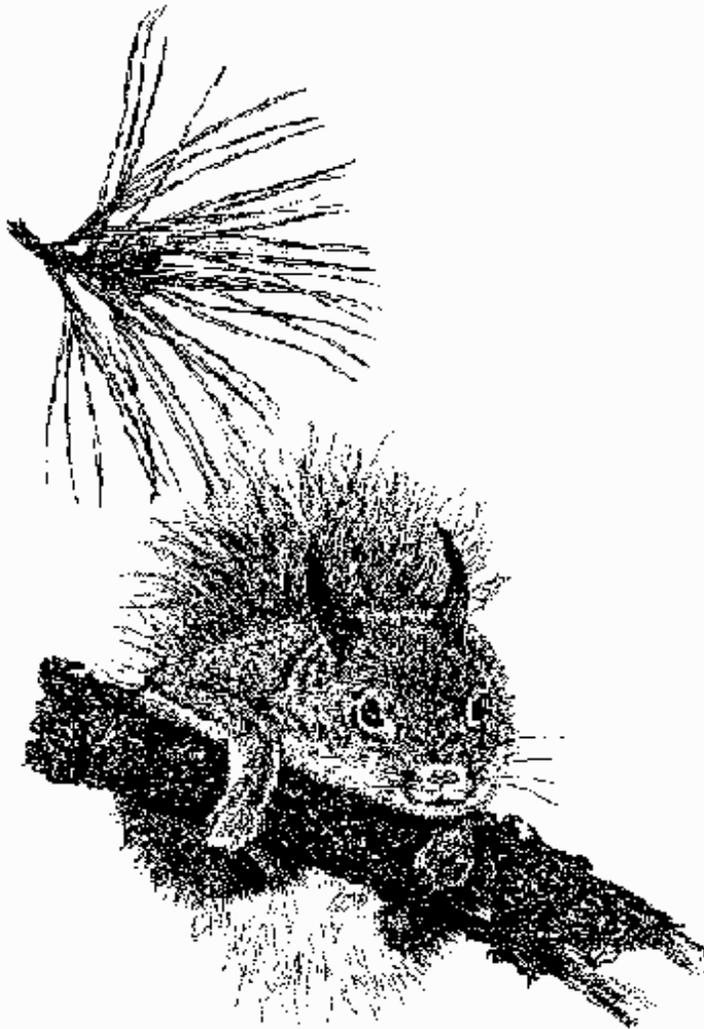
August 2002



Draft Environmental Impact Statement

AMENDMENT TO THE COCONINO FOREST PLAN FOR THE FLAGSTAFF/LAKE MARY ECOSYSTEM ANALYSIS AREA

Peaks and Mormon Lake Ranger Districts, Coconino National Forest
Coconino County, Arizona



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**AMENDMENT TO THE COCONINO FOREST PLAN FOR THE
FLAGSTAFF/LAKE MARY ECOSYSTEM ANALYSIS
Draft Environmental Impact Statement
Coconino County, Arizona**

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Abstract:

This amendment provides clarification to current Forest Plan language and adds additional direction for management of lands surrounding the City of Flagstaff, the Flagstaff Area National Park Service National Monuments and the Lake Mary Watershed. This Forest Plan amendment will be referenced during project-level analysis and decision-making in the future. Implementation of the desired condition described in the Forest Plan, including this amendment, will occur over a period of years. The Proposed Action adds an emphasis on fire risk reduction and recreation management for lands in close proximity to residential areas. There are proposed objectives for recreation settings (including motorized versus nonmotorized settings) based on landscape analysis and design. Recreation settings provide a framework for future site-specific planning and decision making for outfitter/guide and group uses, road management, and camping. There is new rock climbing direction. There are adjustments to wildlife cover and a redistribution of Mexican spotted owl habitat near residential areas. Items such as scenery, noxious weeds, land exchange, watershed, mountain meadows and riparian areas have added language for clarification and emphasis. There is language emphasizing continued cooperation and coordination with local, State, and Federal agencies. New Management Areas are delineated with additional emphasis items and direction. Management Areas were created based on land features, biophysical characteristics, and/or the lands relationship to adjacent communities. Issues include disagreement with the Proposed Action related to Recreation Opportunity Settings for certain places and requirements for big game hiding/thermal cover in areas of fire risk concern. Four alternatives have been developed that include a different mix of forest settings and wildlife cover requirements. All proposed amendment language is in addition to all the current Forest Plan direction.

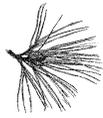
Reviewers should provide the Forest Service with their comments during the review period of the draft environmental impact statement. This will enable the Forest Service to analyze and respond to the comments at one time and to use information acquired in the preparation of the final environmental impact statement, thus avoiding undue delay in the decision making process. Reviewers have an obligation to structure their

participation in the National Environmental Policy Act process so that it is meaningful and alerts the agency to the reviewers' position and contentions. Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 553 (1978). Environmental objections that could have been raised at the draft stage may be waived if not raised until after completion of the final environmental impact statement. City of Angoon v. Hodel (9th Circuit, 1986) and Wisconsin Heritages, Inc. v. Harris, 490 F. Supp. 1334, 1338 (E.D. Wis. 1980). Comments on the draft environmental impact statement should be specific and should address the adequacy of the statement and the merits of the alternatives discussed (40 CFR 1503.3).

Send Comments to:

**Jim Golden
Attn: FLEA
2323 E Greenlaw Lane
Flagstaff Arizona, 86004**

Date Comments Must Be Received:



Summary

The Proposed Action adds an emphasis on fire risk reduction and recreation management for lands in close proximity to residential areas. There are objectives for recreation settings (including recommendations for motorized versus nonmotorized settings) based on landscape analysis and design. Recreation settings provide a framework for future site-specific planning and decision making for outfitter/guide and group uses, road management, and camping. There is new rock climbing direction. There are adjustments to wildlife cover and a redistribution of Mexican spotted owl habitat near residential areas. Items such as scenery, noxious weeds, land exchange, watershed, mountain meadows and riparian areas have added language for clarification and emphasis. There is language emphasizing continued cooperation and coordination with local, State, and Federal agencies. New Management Areas are delineated with additional emphasis items and direction. Management Areas were created based on land features, biophysical characteristics, and/or the lands relationship to adjacent communities.

The Flagstaff/Lake Mary Ecosystem Analysis (FLEA) Area surrounds the City of Flagstaff, and the Coconino County communities of Doney Park, Fort Valley, Kachina Village, Forest Highlands, Lake Mary Road, and Mountaineer. It also includes the Lake Mary watershed and lands between Sunset Crater Volcano and Wupatki National Monuments. Land features within the analysis area include Mt. Elden, the Dry Lake Hills, and numerous cinder cones that make up the San Francisco volcanic field, Walnut Canyon, Pumphouse Wash, Woody Ridge, Observatory Mesa, and A1 Mountain. There are approximately 300,423 acres of National Forest land within the FLEA area. This Draft Environmental Impact Statement is for National Forest lands only.

This action is needed because the current Forest Plan is silent on some aspects of recreation management, limits flexibility for reducing fire risk near residential areas, and fails to address some unique circumstances that occur on National Forest lands that are located adjacent to residential areas.

Scoping

The scoping process for this project included the following activities. In May of 1999 the *Ideas for Change* was published; this document described the need for considering changes and a variety of ideas and as a formal scoping document. The public responded by attending open houses, writing letters and e-mails, or attending topic-oriented meetings. Analysis of these comments refined the scope of FLEA and the Proposed Action was published in September of 2001. The Proposed Action contained the actual replacement page language proposed for the *Forest Plan*. The replacement language consists of clarification, new language on topics where the *Forest Plan* was previously silent, and management direction changes. One open house was held in September 2001 for the Proposed Action. The public is welcome to request presentations of information, obtain a copy of the DEIS, and write or e-mail in their comments.

Issues

The following significant issues were identified from the public comment on the Proposed Action.

Issue 1: Not retaining 30 percent hiding and thermal cover within the Fire Management Analysis Zone will affect native species including management indicator species. Wildlife would be impacted in the vicinity of Walnut Canyon if no cover were provided. There are large sized wildlife that take advantage of the thermal and hiding properties of dense stands along the Walnut Canyon rim, part of which falls within the Fire Management Analysis Zone. Wildlife would be impacted in the area of Woody Ridge if no cover is provided.

Issue 2: A Semiprimitive Motorized setting in the small area adjacent to private land in Fort Valley and south of A1 Mountain is not the best setting choice for this area. Fire risk reduction is better achieved with a nonmotorized setting where private lands are located in the path of prevailing winds. Wildlife habitat for elk, deer, fox, coyote, raptors, and prairie dogs is better served by a nonmotorized setting. The area is too small to be useful to motorized travel and many of the current routes dead-end. A quiet setting is desirable adjacent to homes.

Issue 3: A Semiprimitive Motorized setting surrounding Skunk and Fay Canyons and areas north of Fisher Point is not the best choice for this area. The type of recreation experience desirable is nonmotorized recreation such as hiking, mountain biking, and horse riding. Absence of vehicles will maintain areas with limited erosion especially in canyon bottoms and steep slopes. Absence or limited vehicles will lessen levels of human disturbance to sensitive wildlife species so that the wildlife are more likely to successfully occupy the canyon and its rim

Issue 4: The Semiprimitive Nonmotorized setting downslope from the Waterline Road (FR 146)¹ is not the best choice for this area. There are too many SPNM patches on the landscape, limiting opportunity for SPM experiences especially at high elevations and around the San Francisco Mountain. A nonmotorized setting is not necessary for disturbance sensitive species. Wildlife habitat can still be maintained with a well-designed SPM road system.

Alternatives

Four alternatives have been developed that include a different mix of ROS settings and wildlife cover requirements. Except for the issue areas, the action alternatives are similar in that most of the *Forest Plan* page language is the same for Alternatives A, C, and D. The Alternatives are different based on the four issues. When selecting an alternative, the

¹ Waterline Road (FR 146) is on the eastern side of the lower slopes of the San Francisco Mountain and forms the eastern boundary of the Kachina Peaks Wilderness.

decision maker can select different components of alternatives as they relate to the issues. ROS maps are located at the end of this document.

Under Alternative A, there is no cover requirement in the Fire Management Analysis Zone surrounding residential areas. In the remainder of the FLEA area, cover is provided on 30 percent of the forested lands within a 10K Block² with 10% in hiding cover, 10 percent in thermal cover, and 10 percent in a combination of hiding and thermal cover. The Waterline Road area is Semiprimitive Nonmotorized. The A1 Mountain area adjacent to private lands in Fort Valley is Semiprimitive Motorized. The Skunk/Fay Canyon areas and lands north of Fisher Point are Semiprimitive Motorized.

Under Alternative B, No Action which is a continuation of the current *Forest Plan* direction, cover is provided on 30 percent of the forested areas of a 10K Block with 10 percent in hiding cover, 10 percent in thermal cover, and 10 percent in a combination of hiding and thermal cover. The Waterline Road area is Semiprimitive Motorized. The A1 Mountain area adjacent to private lands in Fort Valley is Roded Natural. The Skunk/Fay Canyon areas and lands north of Fisher Point are Roded Natural

Under Alternative C, in the Fire Management Analysis Zone, cover is provided in a maximum of 15 percent of the forested acres per Section³. In the remainder of the FLEA area, cover is provided on 30 percent of the forested areas of a 10K Block with 10 percent in hiding cover, 10 percent in thermal cover and 10 percent in a combination of hiding and thermal cover. The Waterline Road area is Semiprimitive Motorized with roads located to limit impacts to disturbance sensitive species. The A1 Mountain area adjacent to private lands in Fort Valley is Semiprimitive Nonmotorized. The Skunk/Fay Canyon areas and lands north of Fisher Point are Semiprimitive Nonmotorized with one Semiprimitive Motorized road corridor linking Old Walnut Canyon Road to the Herold Ranch area.

Under Alternative D, cover is the same as C. The Waterline Road area is Semiprimitive Nonmotorized. The A1 Mountain area is Semiprimitive Nonmotorized. The Skunk/Fay Canyon areas and lands north of Fisher Point are entirely Semiprimitive Nonmotorized ROS setting with no exceptions.

Major Conclusions

All alternatives make small changes to the existing direction in the *Forest Plan*, and therefore only small differences in effects are expected. All the changes are to improve conditions in the FLEA area, so possible future impacts could be lessened. Because it is unknown what will happen in the future, these effects are described for trends and expected outcomes, assuming partial implementation of the *Forest Plan*.

²10K Block is a designation used in the *Forest Plan* to identify an approximately 10,000 acre contiguous area to which some management direction is applied. For example, the amount of desired old-growth is identified on a 10K Block basis, which will insure distribution of this forest characteristic across the landscape.

³ A Section is 640 acres, 1 square mile.

There is no significant environmental effect expected for air quality, soil and water quality, and vegetation. Slight effects to wildlife habitat occur where the amount and distribution of wildlife hiding and thermal cover is different than the current Forest Plan. The changes in cover guidelines continue to provide habitat necessary to support wildlife. There is no significant effect threatened or endangered species habitat in the FLEA area, (Mexican spotted owl, bald eagle, or black-footed ferret). There is not significant effect to sensitive species, management indicator species or migratory bird habitat. Slight improvements occur under all the action alternatives for these species.

There are some social effects from implementing the *Forest Plan* direction changes as described in Alternatives A, C, and D. Managers have more flexibility to take actions to lessen the potential for high-intensity crown fire that could destroy structures or important forest resources. The miles and distribution of user-created (social) roads and trails will be less over time, as some are converted to system roads and trails while others are closed. Camping opportunities will change along the Highway 89A corridor and around residential areas. Some people may feel a sense of loss if a favorite campsite, road or trail is changed.

In general, all the action alternatives set direction that, when implemented via site-specific projects, will result in some trends that are different than if the current management direction was implemented. These different trends are:

- Less potential for catastrophic wildfire in the wildland/urban interface
- Less human disturbance to wildlife, especially those species that are vulnerable to disturbance
- Increased opportunity for high quality recreation opportunities in a natural setting
- Increased opportunity for semiprimitive settings with opportunities for solitude and self-exploration
- Decreased impacts, where they are occurring, from high concentrations of dispersed campsites, social (user-created) roads and trails
- Increased monitoring of human uses and impacts in key areas as a basis for future understanding of management needs
- Decreased impacts and increased quality of the recreation experience in high-use areas.

Based on the effects of the alternatives displayed in this EIS, the Coconino National Forest Supervisor will decide whether to adjust *Forest Plan* direction as proposed in one of the Alternatives, or with a mix of the Alternative direction, or not at all.

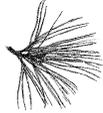




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INTRODUCTION

This *Draft Environmental Impact Statement for the Flagstaff/Lake Mary Ecosystem Analysis Area*, (FLEA DEIS) contains changes and clarification for our current *Forest Plan*. The overall goals and objectives of the *Forest Plan* continue to guide our management. Since the mid-80's, when the *Forest Plan* was originally written, there have been many amendments, which made either very minor changes in direction or more major shifts. The Flagstaff/Lake Mary Ecosystem Analysis (FLEA) Amendment needs to be considered within the context of the entire amended *Forest Plan*. It is not intended to be a stand-alone document. These proposals are focused on making needed changes to current management direction.

There is very little site-specific direction here. Please remember that the purpose of this amendment is general management direction that will be referenced when the Forest Service plans and implements subsequent site-specific projects.

DOCUMENT STRUCTURE

The Forest Service has prepared this Environmental Impact Statement in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations. This Environmental Impact Statement discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives. The document is organized into four chapters:

- *Chapter 1 Purpose and Need for Action:* The chapter includes information on the history of the project proposal, the purpose of and need for the project, 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.
- *Chapter 2 Alternatives, including the Proposed Action:* This chapter provides a more detailed description of the agency's proposed action as well as alternative methods for achieving the stated purpose. These alternatives were developed based on significant issues raised by the public and other agencies. This discussion also includes mitigation measures. Finally, this section provides a summary table of the environmental consequences associated with each alternative.
- *Chapter 3 Affected Environment and Environmental Consequences:* This chapter describes the environmental effects of implementing the proposed action and other alternatives.
- *Chapter 4 Consultation and Coordination:* This chapter provides a list of preparers and agencies consulted during the development of the environmental impact statement.

- *Index* The index provides page numbers by document topic
- *Appendices* The appendices provide more detailed information to support the analyses presented in the environmental impact statement. They include,
 - Appendix A – Forest Plan New and Replacement Pages (with Maps)
 - Appendix B – Comment Analysis and Response to Comments
 - Appendix C – Background Information on Forest Plans
 - Appendix D – Explanation of Nonsignificant Amendment
 - Appendix E – Summary of Development of ROS Objectives
 - Appendix F – Crosswalk from *Ideas for Change* to DEIS

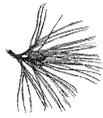
For your comments to be most helpful they need to be clear and as specific to the DEIS as possible. If your comments are directly linked to a specific part of the DEIS, please indicate the page number(s) and paragraph(s).

The texts of this DEIS, the *Proposed Action* and the *Ideas for Change* are all located on the Coconino Forest website at www.fs.fed.us/r3/coconino Click on the Management page, then the NEPA page.

Some of you may be interested in reviewing the current *Forest Plan*. The Forest Plan is available at the Flagstaff and NAU public libraries and copies may be requested from the Coconino Supervisor's Office. There have been many amendments since the Forest Plan's adoption in 1987 (currently there are 16). It is important to obtain all the pages from the amendments to have a complete and accurate copy. Contact Katherine Farr at (928) 527-3411 to obtain copies of the Plan or its amendments.

Additional documentation, including more detailed analyses of project-area resources, may be found in the project planning record located at the Peaks Ranger District. If you have questions about the information presented here, or would like to view larger scale maps, please contact Alvin Brown or Debbie Kill at the Peaks District Office, (928) 526-0866.

Please mail your comments to Jim Golden, Forest Supervisor, Attention FLEA, 2323 E. Greenlaw Lane, Flagstaff, AZ 86004. You may send your comments via e-mail to dkill@fs.fed.us. Please note that these proposed text changes apply to the FLEA area only.

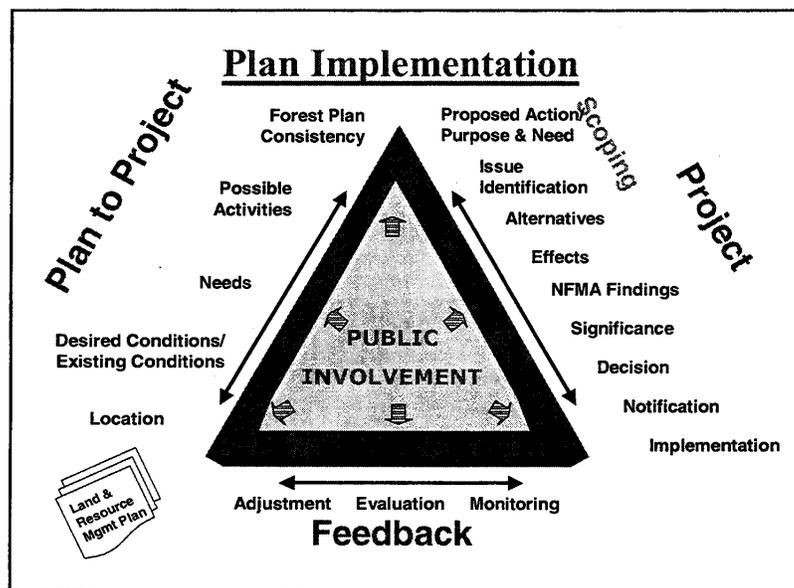


CHAPTER 1 - PURPOSE AND NEED FOR ACTION

SCOPE OF THIS PROJECT

What this analysis is, and what it is not – the story of the NEPA triangle

The Forest Service uses a two-phase planning process, which is represented by the planning triangle below. In the first phase (the “left side”), for a specific location, we compare the desired condition with the existing condition and determine if there is a need for change. If there is a need for change, we look for possible ways to accomplish that change, determine if they are consistent with the forest plan, and make them available for analysis. No decisions are made on the left side. The analysis for site-specific projects is on the “right side” of the triangle, and is the process we follow for the National Environmental Policy Act (NEPA). Only when a possible project is brought over to the right side with an official “proposed action” under NEPA does the NEPA process start, and end with a NEPA decision.



From 1997 to 1999 team members were evaluating the Flagstaff/Lake Mary Ecosystem Analysis (FLEA) area for the “left” side of the triangle. Forest Service staff reviewed existing conditions, and discussed where currently we are not progressing towards desired conditions, or where desired conditions described in the *Forest Plan* no longer “fit”. Options were identified for change (possible management practices) that ranged

from site-specific items, to *Forest Plan* direction adjustments. The publication *Ideas for Change* documented this work. The *Ideas for Change* is the document that represents the "ecosystem analysis" for the FLEA area. It is not a decision document, but rather a summary of existing and desired conditions, goals and objectives, and a list of possible management practices. National Forest Management Act primarily governs this type of analysis. Public comment to the *Ideas for Change* is part of the package of information that represents the "ecosystem analysis" or "left" side product for this area. The comments received are referenced regularly for this project as well as various other site-specific projects on the Districts.

In moving from the left side to the right side of the NEPA triangle, the "ecosystem analysis" portion was complete and the task remained of choosing which management practices (changes to the *Forest Plan*) were most important to carry over in a Proposed Action for NEPA analysis. In addition, at this step, the choice was made to do separate proposed actions for some site-specific projects and gather the *Forest Plan* amendment actions into the *Proposed Action to Amend the Coconino Forest Plan for the Flagstaff/Lake Mary Ecosystem Analysis (FLEA) Area* (Proposed Action). Publishing the Proposed Action started us on to the right side of the planning triangle and the standard NEPA process for conducting a nonsignificant amendment to the *Forest Plan*. Appendix D describes the rationale for why this is a nonsignificant amendment in terms of National Forest Management Act, which guides the contents of forest plans.⁴ The comments received in response to the Proposed Action are "scoping" as defined under NEPA and presented us with the information needed to determine the significant issues. Alternative actions were created in response to the significant issues.

It is interesting to note that the interdisciplinary team reviewed the details of the current *Forest Plan* and found that many of the topic areas identified in the *Ideas for Change* did not require any changes or additions. Many concerns have been more about implementation of the current *Forest Plan* rather than changes to that Plan. Therefore this is not a revision of our *Forest Plan*, rather a set of course corrections applying only to the FLEA area.

The Proposed Action (Alternative A) contains actual replacement page language. Some of this language provides clarification only, in that it brings the *Forest Plan* up to date with current concepts and terms the Forest Service currently uses. Some of the text provides direction where there previously was none, that is to say the *Forest Plan* was silent. The remainder of the text represents an additional or changed goal, objective, standard, or guideline.

The discussion in the Draft Environmental Impact Statement will center around those items where change is proposed, including those items where issues were raised related to the proposed changes. Where the Proposed Action recommended clarification to the *Forest Plan*, and where no issue was identified with the clarification, there will be little discussion. The DEIS focuses on the items where the *Forest Plan* was silent, and items of change (usually additional direction for the FLEA area).

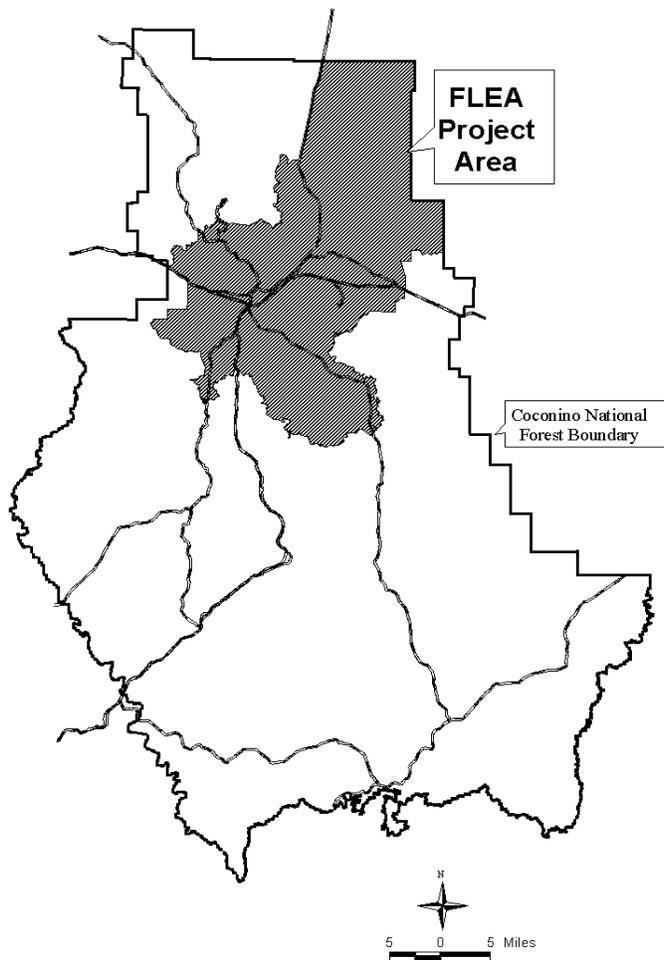
⁴ *The 1982 planning regulations are being used for this amendment.*

Since multiple site-specific proposed actions have and will be generated from the *Ideas for Change*, it might have been prudent to change the name of this project. However, so many people were familiar with the FLEA name it was retained. Other NEPA documents have their roots in the FLEA process but were not so named, such as *Old Caves Crater Roads and Trails Project*.

Most of the new and replacement page text in the Proposed Action (Alternative A) is common to all alternatives. These pages are located in Appendix A.

There are forces that can affect the production of outputs and implementation rates, such as weather, budget appropriations from Congress, local economies, and political decisions. This amendment, in conjunction with the current *Forest Plan* is used as the

basis for developing budget proposals. The FLEA area is only a portion of the Coconino National Forest and priorities for FLEA will be balanced with other Forest priorities. This analysis assumes partial implementation of FLEA direction over the next 10 years. The trends that result from partial implementation are described.



LOCATION

The Flagstaff/Lake Mary Ecosystem Analysis (FLEA) Area surrounds the City of Flagstaff, and the Coconino County communities of Doney Park, Fort Valley, Kachina Village/Forest Highlands, Lake Mary Road, and Mountainaire. It also includes the Lake Mary watershed and lands between Sunset Crater Volcano and Wupatki National

Monuments. Land features within the analysis area include Mt. Elden, the Dry Lake Hills, numerous cinder cones that make up the San Francisco volcanic field, Walnut Canyon, Pumphouse Wash, Woody Ridge, Observatory Mesa, and A1 Mountain. There

are approximately 300,423 acres of National Forest land within the FLEA area. This DEIS is for National Forest lands only.

PURPOSE AND NEED FOR ACTION

The purpose and need statements below are written to show the current *Forest Plan* language, the desired *Forest Plan* language, and the gap between the two. There is not one overarching purpose and need statement that can be written for this project. Rather the Interdisciplinary Team (team) determined a variety of different needs based on what the current *Forest Plan* did or did not provide. The purpose and need statements below are more refined than the concepts presented in Chapter 1 and 2 of the *Ideas for Change*. Many of the management actions identified in the *Ideas for Change*, were already permitted under the current *Forest Plan* and are not carried on here.

In addition to the topics discussed below, some *Forest Plan* text was updated for clarification reasons and did not substantially change the goals, objectives, standards, and guidelines already in place.

A Zone of Influence

National Forest lands adjacent to Flagstaff residential areas need to be managed somewhat differently than the remainder of the Coconino National Forest. This is because of the greater number of people using this zone, the concentrated regular use this zone receives, and the increasing amount of development immediately adjacent to the Forest. These areas are often referred to as wildland urban interface, where wildland characteristics are strongly influenced by human use.

In most cases, the current *Forest Plan* treats acres similarly according to vegetation type; for example, management direction for “Ponderosa Pine and Mixed Conifer Less Than 40% Slope” (MA3)⁵ is similar whether or not it is adjacent to residential areas or miles away. The current *Forest Plan* defines the Urban Interface and places emphasis on fire risk reduction in these areas.

There is a high risk of fire ignition. Because a wildfire in this zone could travel onto private property, and because a fire originating in this zone could impact important forest resources, this zone has the highest priority for fire risk reduction.

The *Forest Plan* does not recognize that higher amounts and different types of recreation use occur adjacent to residential areas. The majority of these influences occur within approximately ½ mile of private land.⁶ Influences include user-created (social) trails, utility corridors, private land access roads, dogs, cats, and other pets, and some trash dumping.

⁵ MA = Management Area, which is a piece(s) of land with similar management direction.

⁶ Per interviews with Forest Service field personnel.

Some types of wildlife are negatively affected by frequent contact with people. It is difficult for these types of wildlife to successfully occupy and reproduce in areas that are highly used by people. Topography and vegetation play a role in the level of human disturbance that can occur.

The desire is to have a *Forest Plan* that 1) continues to place emphasis on fire risk reduction, and gives even greater emphasis for fire risk reduction within approximately ½ mile of private land, 2) recognizes the high levels and types of daytime recreation uses prevalent near residential areas, and 3) recognizes human disturbance to wildlife is greater in areas adjacent to residential areas.

Forest Settings – Recreation Opportunity Spectrum Objectives

The current *Forest Plan* uses Recreation Opportunity Spectrum (ROS)⁷ primarily as an inventory tool. The current inventory was done based on a standard definition for each ROS class. The current *Forest Plan* also directs that Forest-wide ROS settings should only deviate +/- 15 percent from the ROS inventory completed at the time the *Forest Plan* was signed. Currently ROS definitions describe factors related to human experiences, that is to say the number of social encounters, opportunities for solitude and risk, administrative presence (signs, patrols, or regulations), facility development scale and character, and scenery.

There is a need to describe an expected recreational experience and character that a land manager could strive for. When creating these objectives, it is beneficial to consider not only human experiences, but also human interactions with wildlife, quality of wildlife habitat, fire risk and hazard, and watershed conditions.⁸

The current ROS inventory shows 26.9 percent of the FLEA area⁹ in Semiprimitive Motorized (SPM¹⁰) ROS setting, 2.7 percent in Semiprimitive Nonmotorized (SPNM)¹¹ and less than 1% in Primitive (P¹²) settings. The desired settings for the FLEA area are a greater amount of semiprimitive settings and a better distribution of these settings across the landscape.

The current ROS inventory shows Roded Natural(RN)¹³ settings where disturbance sensitive species live. The desire is for semiprimitive settings where disturbance sensitive species occur, thereby providing a level of human disturbance to wildlife that

⁷A land classification system that categorizes National Forest land into six classes, each class being defined by its setting and by the probable recreation experiences and activities it affords.

⁸ This kind of consideration is accomplished via landscape analysis.

⁹ All percentages are for percent of National Forest lands in the FLEA area and do not contain acres in other ownership.

¹⁰ SPM areas include evidence of primitive roads and/or trails.

¹¹ SPNM areas have few and/or subtle modifications by people, and a high probability of isolation from the sights and sounds of people.

¹² Primitive settings are essentially unmodified, where trails may be present but structures are rare.

¹³ RN settings are predominantly natural environments with evidence of moderate permanent resource use.

does not cause wildlife to leave or to be unsuccessful at rearing young. It is desirable for many of the areas currently supporting key wildlife habitat to be in Semiprimitive settings, either motorized or nonmotorized.

The current Roded Natural ROS objective, which is prevalent throughout the FLEA area, sometimes overlaps areas important to sensitive or threatened species. A semiprimitive objective would often be more compatible with the long-term needs of such species. It is desirable to have most threatened species habitat within a semiprimitive or primitive ROS objective zone.

It is desirable to enhance and expand Primitive settings to include more of Walnut Canyon and some of the plateau above the canyon in order to protect canyon resources, such as disturbance sensitive species. In addition, this setting provides an area with relatively primitive nonmotorized recreation settings close to the residential/forest interface.

The current ROS inventory shows some areas in a Rural or Urban setting. These settings are, in general, not desirable on National Forest lands because they represent more developed structures, and other resource uses than is appropriate to the overall goals and objectives in the *Forest Plan*. In addition, many people have expressed a desire for semiprimitive type settings, even adjacent to neighborhoods where social encounters are high.¹⁴ The desire is to move away from, not towards, Rural and Urban ROS settings.

Camping Objectives (including description for designated dispersed camping)

The current *Forest Plan* does not describe stay limits nor does it prohibit camping within one mile of recreation facilities such as campgrounds. The desire is for the *Forest Plan* to recognize these ongoing practices.

The current *Forest Plan* addresses dispersed camping. However, there is no mention of designated camping as a management tool. There is no differentiation between lands adjacent to residential areas and lands that are not.

The desire is for a *Forest Plan* that describes a wider variety of camping management techniques. Examples of techniques include designated dispersed sites, area closures, or parking management. The *Forest Plan* should recognize that areas of high daytime recreation or very high concentrations of dispersed camping warrant special consideration for camping management.

Currently, unacceptable impacts occur in some places where dispersed camping has become so concentrated that soil and water impacts are occurring. These areas are the Highway 89A corridor, Marshall Lake, Lake Mary, Pumphouse Wash, and Walnut Canyon. The desire is for camping that maintains soil and water quality, with improved conditions in all of these areas.

¹⁴ *Per comments to the Ideas for Change.*

In some places, the high numbers of people take away from the quality of the camping experience. The desire is for camping opportunities that provide high quality experiences in terms of scenery and opportunities to camp away from the sights and sounds of nearby campers.

Camping adds to unacceptable fire risk in some areas. Currently 39 percent of the Urban/Rural Influence Zone is closed to camping. The desire is for more of this zone to be closed to camping.

Outfitter/Guides and Group Use

The current *Forest Plan* provides little direction on how outfitter/guide proposals are processed. Clear parameters are not in place, causing a more time-consuming review process by Forest Service staff. The desire is to have an efficient process for review, approval, or denial of outfitter/guide proposals.

The current *Forest Plan* does not recognize the quality of recreation experience in areas with high levels of use and how that quality could be enhanced or degraded by adding outfitter/guide activities. The desire is for a tool by which forest settings are evaluated when approving outfitter/guides. The desire is to provide consistent direction and identify those areas where outfitter/guide activities may be suited, given ecological sensitivity or existing levels of non-commercial use or both.

Rock Climbing

The current *Forest Plan* is silent on the topic of rock climbing. The desire is a *Forest Plan* that recognizes this activity and provides management guidance.

Current climbing activities occur in sites that are often fragile because of steep slopes, riparian or mixed conifer vegetation, and other rare plants. Climbing sites are often habitat for sensitive species. The desire is to provide climbing opportunities while protecting sensitive wildlife and vegetation.

Trails

The current *Forest Plan* does not differentiate between trail management near residential areas, and in outlying areas. The current *Forest Plan* does not recognize the high levels of use that occur on Forest Service system trails near residential areas. The current *Forest Plan* makes no mention of user-created trails. The desire is a *Forest Plan* that recognizes the trail situation that occurs adjacent to residential areas such as the higher levels of daytime use and many user-created (social) trails.

Currently, user-created trails impact two Mexican spotted owl (MSO) Protected Activity Centers (PACs) in the FLEA area. The desire is *Forest Plan* language that reverses deleterious trends.

Currently, user-created trails impact fragile riparian areas including rare plants in certain drainages and lakebeds. The desire is *Forest Plan* direction that allows for reduction or elimination of impacts.

Currently, there are so many user-created trails that site-specific management of each trail is beyond our abilities. The desire is *Forest Plan* language that progresses towards more ecologically sound trail conditions, without micromanaging each user-created (social) trail.

Currently, the *Forest Plan* makes little mention of community linkages and access points. The desire is a *Forest Plan* that recognizes this need.

Currently, the *Forest Plan* provides little guidance on the type of motorized or non-motorized trail experiences to be provided. The desire is for a planning tool (ROS and transportation planning) that helps managers determine the locations and types of trails to construct.

The current *Forest Plan* does not recognize the access issues currently occurring in some residential areas for motorized and nonmotorized trail use. The desire is a *Forest Plan* that allows for neighborhood access where appropriate, and adequate parking at access points outside of neighborhoods. The desire is to cooperate with other landowners to provide public land trail access.

The current *Forest Plan* does not discuss non-motorized off-trail use. The desire is to recognize those areas where stay-on-trail use is desirable in order to maintain areas of minimal human disturbance to forest resources.

The current *Forest Plan* is silent on the topic of motocross.¹⁵ Current user-created motocross/bmx tracks are causing resource damage. The desire is for *Plan* direction on this topic, and the reduction or elimination of impacts.

Roads

Although many criteria exist for road management in the current *Forest Plan*, the list lacks a few considerations.¹⁶ The current *Forest Plan* lacks mention of recreation experience (ROS settings) as a reason for maintaining or closing roads. The current *Forest Plan* lacks mention of redundant roads, the spread of noxious weeds, or illegal human activities, as reasons to close roads. The current *Forest Plan* does not list criteria for keeping roads open. The current *Forest Plan* does not address user-created (social) roads. There is a lack of priorities for where roadwork should occur first.

¹⁵ *Motocross is motorcycle or bmx bike riding on a small course with tight turns and bumps. Impromptu motocross courses occur in meadows, usually adjacent to residential areas.*

¹⁶ *Road management criteria apply regardless of the type of road policy that currently exists, or change as a result of the five forest off-road driving amendment Cross-country Use of Motorized Vehicles in Five Arizona National Forests that is currently underway.*

The desire is for a sense of priority when choosing areas to work on and updated road management criteria that takes into account the topics mentioned above. Such adjustments will make it easier for future land managers to make reasoned choices about individual roads.

Wildlife Habitat – Mexican Spotted Owls – Fire and Human Uses

The current *Forest Plan* fails to distinguish the impacts on wildlife and wildlife habitat of noise, pets, user-created trails, and other recreation uses that occur adjacent to residential areas. Current *Forest Plan* requirements for certain kinds of MSO habitat do not achieve low fire potential as is desired near residential areas. The desire is to recognize these factors in our *Forest Plan* and provide flexibility to land managers as they make management choices in the Urban/Rural Influence Zone.

Wildlife Habitat – Northern Goshawk and Recreation

The current *Forest Plan* is vague about recreation use in Post Fledgling Family Areas (PFAs). The desire is more concrete direction and recognition of the unavoidable level of human disturbances that will occur adjacent to residential areas.

Wildlife Habitat – Threatened and Endangered Species and Human Disturbance

The current *Forest Plan* is vague about monitoring human disturbance to these species. The desire is emphasis on monitoring human disturbances prior to approving new site-specific projects. The desire is for *Forest Plan* language that allows for recreation use restrictions if needed in threatened and endangered species habitat.

Wildlife Habitat – Big Game Hiding And Thermal Cover and Fire Risk Reduction

The current *Forest Plan* states that 30 percent cover will be provided within a 10K Block.¹⁷ This has been interpreted to mean 30 percent of the forested acres within a 10K Block. The desired condition in the Urban/Rural Influence Zone, and in the Fire Management Analysis Zone (1U)¹⁸ is for low potential for catastrophic fire losses. The desired condition for fire hazard management cannot be achieved if the 30 percent guideline is applied. The desire is for *Forest Plan* language that adds flexibility to the implementation of wildlife cover within the Fire Management Analysis Zone. The

¹⁷ 10K Block is a designation used in the Forest Plan to identify an approximately 10,000 acre contiguous area to which some management direction is applied. For example, the amount of desired old-growth is identified on a 10K Block basis, which will insure distribution of this forest characteristic across the landscape.

¹⁸ FMAZ 1U - 1 stands for ponderosa pine and U stands for Urban Interface as described in the Forest Plan page 93 –The FMAZ 1U boundary is shown on a map at the end of the replacement pages in Appendix A.

desired condition is to maintain cover at key sites such as northern goshawk post fledgling family areas, travelways, steep slopes and canyon rims, but to have flexibility to reduce cover outside of these areas.

Wildlife Habitat – Wildlife Travelway

The current *Forest Plan* does not mention wildlife travelways. The desire is a *Forest Plan* that recognizes the importance of wildlife travelways and the influences of people and fire risk reduction on the travelways. The desire is to maintain the usability of these areas by wildlife.

Wildlife Habitat – Bald Eagle Winter Roost

The current *Forest Plan* guidelines call for a 300-foot no-cut area around roost trees. Not allowing any cutting may increase risk of losing habitat to wildfire, decrease longevity of roost trees, and decrease availability of future replacement roost trees. The desire is to be able to conduct activities within this zone and in surrounding areas for the purpose of maintaining the longevity of the roost tree and promoting replacement roosts in the future.

Forestry – Accomplish Fuel Treatments on Cultural Sites as Appropriate

The current *Forest Plan* recommends avoiding cultural sites when conducting fuels reduction work such as thinning and broadcast burning. The desire is to evaluate each site to see if fuels reduction work can be accommodated, so as not to create islands of heavy fuels that, if burned in a wildfire, could damage the site.

National Park Service, City, County, Research, and Centennial Forest Coordination

The current *Forest Plan* does not recognize important communication and coordination needs with these entities. The desire is an emphasis on communication and coordination especially related to adjacent land uses and development.

Viewshed to National Monuments

The current *Forest Plan* does not mention the viewsheds to the National Monuments as areas where management activities could affect visitor experience within the Monuments. The desire is to recognize these viewsheds and consider them in site-specific planning on adjacent National Forest lands.

Management Area Boundaries

The current *Forest Plan* delineates Management Areas based on vegetation and topography, for example, ponderosa pine and mixed conifer on slopes greater than 40 percent is MA4. The desire is to maintain this link to vegetation and topography, but also

to identify relationships to communities and major land features. The desire is for management areas that describe easily recognizable locations that have an inherent “sense of place” associated with them. Another desire is for a more detailed breakdown of management areas that takes into account different land uses because of adjacency to residential areas. In addition, it is desirable to identify and set boundaries around currently established uses. Management areas do not currently follow watershed boundaries. In some areas watershed boundaries are a more advantageous boundary, such as the Lake Mary area.

Cinder Hills OHV Area Management ¹⁹

The current *Forest Plan* designated the Cinder Hills Off Highway Vehicle (OHV) area and set management direction for the site. The current *Forest Plan* directs the use of designated routes in areas where resource concerns call for more controlled use. On steep slopes the idea of designated routes is unwieldy because it requires more signing, can add to confusion and because it does not allow for safe turn out of the off-road vehicles. The desire is *Forest Plan* direction that identifies other kinds of management techniques to respond to resource concerns.

Under the current *Forest Plan*, riders are not distributed evenly within the area. Some areas receive very heavy use, and other areas receive little use. This is mostly due to road access and the location of popular camping areas. The desired condition is to change the location of improved roads, and relocate camping to better distribute OHV use to maintain enjoyment of the area and to respond to resource concerns. Increased use is anticipated in the future.

The current *Forest Plan* does not recognize geologic features in the OHV area that are tied to the eruption of Sunset Crater. The desire is a *Forest Plan* that recognizes and manages for these sites because of the geologic story they provide for research and education.

The current *Forest Plan* has allowed for impacts to the viewshed as seen from an overlook inside Sunset Crater Volcano National Monument, thereby distracting from visitor experience objectives for the Monument. The desired condition is for a reduction of these impacts and public education on different public land uses.

Flagstaff MA – Lands within Growth Boundary

There are currently small areas of National Forest land that fall within the Urban Growth Boundary for the City of Flagstaff. The desire is to recognize the situation that occurs here. Currently there is a potential land exchange that may transfer many of these lands to City of Flagstaff jurisdiction for city parks and increase the size of the airport.

¹⁹ *Much of the text in the replacement pages is clarification for this management area. This section lists the purpose and need statements for those places where the text is changed.*

Parking

The current *Forest Plan* does not speak to parking management. The desire is to recognize parking management as a tool for managing recreation use in popular areas.

Environmental Study Areas (ESA's)

The current *Forest Plan* identifies one Environmental Study Area. The desire is to recognize the ongoing use by Flagstaff public schools of additional sites within the FLEA area.

The current *Forest Plan* does not recognize the high levels of daytime recreation use in the Mt. Elden Environmental Study Area. The desire is to provide direction that maintains the landscape features that make these areas desirable to study and enjoy.

Priority For Watershed Restoration and Maintenance

The current *Forest Plan* does not emphasize watershed condition related to important waters such as Lake Mary and Oak Creek Canyon. The desire is to set priorities for conducting roadwork, meadow restoration, and other practices that recognize important watersheds. Examples are the importance of the Lake Mary watershed to municipal water supply and the importance of Oak Creek Canyon as a specially designated watercourse.

DECISION TO BE MADE

Based on the environmental analysis in the Final Environmental Impact Statement, the Coconino National Forest Supervisor will decide whether to adjust *Forest Plan* direction as proposed in one of the alternatives, or with a mix of the alternative direction, or not at all.

PROPOSED ACTION

When the Proposed Action was made available in September 2001, it consisted of the replacement pages that would be used to update our current *Forest Plan*. These pages are located in Appendix A. Based on public comment, some of the replacement pages were edited. These clarifications are shown as underlined if they are added text and overstrike if they are meant to be deleted.

Because of the volume of replacement page text, it is difficult to summarize the content of the Proposed Action. Readers are encouraged to look at Appendix A for details about the Proposed Action. Topics include: Forest Settings, Camping, Outfitter/Guides, Group Use, Rock Climbing, Trails, Scenery, Roads, Wildlife Habitat (including Mexican spotted owls and goshawks), Land Exchange, Forestry, Noxious Weeds, Watershed, Mountain Meadows, Riparian, Firewood, National Park Service Coordination, Research

Coordination, Other Organization Coordination, and Data Management, Cinder Hills OHV area, Lakes Mary, Environmental Study Areas and Management Areas.

Using comments received on the Proposed Action (see discussion of Significant Issues later in this chapter) and information from preliminary analysis, the interdisciplinary team developed alternatives to the Proposed Action. These are discussed in detail in Chapter 2 in the section titled Alternatives Considered in Detail.

PUBLIC PARTICIPATION

The Council on Environmental Quality (CEQ) defines scoping as "...an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action" (40 CFR 1501.7). In addition to the following specific activities, the FLEA project has been listed on the Coconino National Forest Quarterly Schedule of Proposed Actions since January 1999, which is mailed to approximately 500 persons, organizations, and agencies.

Proposed Action (PA)

The Proposed Action was mailed to approximately 800 addresses.

Notice of Intent (NOI)

A Notice of Intent to prepare an EIS was published in the *Federal Register* on April 17, 2002.

Public Meetings

An Open House was held on October 22nd, 2001, from 4 till 8 p.m. in the conference room of the Coconino Supervisor's Office in Flagstaff, where people could view larger scale maps and ask team members questions about the Proposed Action.

Local News Media

A public service announcement was aired on local TV and Radio stations announcing the availability of the Proposed Action prior to the October 22nd Open House. On Friday, October 19th, a notice appeared in the community news section of the local newspaper, the *Arizona Daily Sun*, announcing the open house and availability of the Proposed Action.

Meetings with Agencies, Communities, Native Groups, and Others

During the weeks of October 22 to November 16th, meetings were held with representatives from the U.S. Fish and Wildlife Service, the Arizona Game and Fish Department, the Grand Canyon Trust, and Bruce Johnson. These meetings were at the

request of these individuals so that they could ask team members questions about the Proposed Action.

Other Sources

Team members, when developing the Proposed Action reviewed public comment received in response to *Ideas for Change for the Flagstaff/Lake Mary Analysis*. This document was published in May of 1999. Three Open House meetings occurred, one on May 26th at the Flagstaff High School, one on May 27th at the Cromer School in Doney Park, and one on June 3rd at the Highlands Fire Station in Kachina Village.

Responses to the *Ideas for Change* included: 150 letters or e-mails, 10 petitions, and 185 open house comment sheets. Organizations that commented included: Friends of Walnut Canyon, Bullhead 4 Wheelers, Inc, Cinder Hills Rough Riders, American Motorcyclist Association, Arizona Snowbowl, and Southwest Forest Alliance and Mountain Musers. Commenting agencies included Flagstaff Fire Department, Game and Fish Department, City of Flagstaff, White Mountain Apache, and Navajo Tribes.

ALTERNATIVES NOT ANALYZED IN DETAIL

The following options were considered by the interdisciplinary team, but were not carried forward for different reasons: they did not meet the Purpose and Need; they were already covered under another alternative; or because further analysis excluded a need for the alternative. The public comment that generated the alternatives considered but not analyzed in detail is written in italics. The rationale as to why the alternative was not carried forward for detailed analysis follows in regular type. Additional comments are located in Appendix B.

Comment from Taylor McKinnon, Grand Canyon Trust

The proposed management area delineations are arbitrary because they are primarily based on “sense of place” and other subjective recreational values rather than on natural geographical or biological boundaries on the landscape. We are concerned that the proposed management areas will not provide an ecologically based context for future environmental analyses, and does not represent the best and latest thinking in land management planning. The importance of using ecological or biogeographical boundaries to delineate management units has been emphasized in innumerable studies and Forest Service publications. Considering that the Forest Service has been moving towards using ecological or geographic boundaries such as watersheds in determining management units, the proposed Management Area delineation seems to represent a step backwards rather than forward in the Forest Service ecosystem management. Please consider an alternative that delineates management areas according to ecological or biogeographical

units such as 6th order watersheds (or aggregations of these) or other natural boundaries.

In a portion of the Coconino National Forest dominated by social concerns, it seems very appropriate to have a sense of place be the dominating reason for creating management areas. Many other National Forests are using sense of place for the designation of MAs where it is appropriate for communicating with the public and where it makes sense to have common management direction for an area. The "sense of place" for each of the FLEA Management Areas is provided in part by landscape features. For example, the Walnut Management Area is drawn around the canyon itself and surrounding landscapes that affect the canyon. The addition of lands between Sunset Crater Volcano and Wupatki National Monuments was added based on concerns from the National Park Service for additional consideration of the "cultural landscape" of ancient peoples.

During the identification of these MAs many biophysical resources were also considered, such as MSO habitat and similar vegetation types. The FLEA analysis boundary does not follow watershed lines entirely, although portions do. Administrative allocations, such as wilderness and the OHV area, create anomalies if all of the management areas were based on watershed boundaries. Watershed boundaries also make more sense if you are in a landscape where the transportation system design has been strongly influenced by heavily dissected terrain, such as the Pacific Northwest or the Rockies. Here the watershed boundaries are often not even noticeable as one travels across the gentle rolling terrain that dominates most of the FLEA area.

For many topics, management direction still comes from the current *Forest Plan* direction that is based on vegetative type and topography. For example, Management Area 3 - Ponderosa Pine less than 40 percent slope – standards and guidelines still apply, with FLEA providing additional direction.

There is a difference between management area delineations and the boundaries used to determine environmental effects. Effects analysis is ecologically based and will be accomplished using a variety of locations depending on the nature of the resource. For example, visual resources are addressed via lines of sight that are variable depending on topography and may cross watershed boundaries.

Comment from Taylor McKinnon, Grand Canyon Trust

Nonetheless, we have three specific concerns with the proposed ROS designations. Our first concern is that designations, whatever they are eventually determined to be, should be established as standards rather than guidelines (as proposed). Secondly, we are concerned that without maximizing the acreage of semi-primitive non-motorized designations in important habitats (as listed above), motorized designations will continue to facilitate trends of ecologically unsustainable use patterns of increasing road proliferation that are tremendously difficult and expensive to undo once established. We are concerned that without aggressively addressing these issues, we will continue to see increasing trends of road proliferation and

associated effects consistent with those documented in our San Francisco Peaks Roads inventory project (much of which occurred within the FLEA area):

- *Only 45% of the 1300 roads had any evidence of being constructed, the rest were user-created or illegal ghost roads*
- *Only 11% showed evidence of being maintained*
- *71% of all the roads showed signs of erosion*
- *Roads were directly correlated with introduction of exotic species and illegal dumping*
- *Road densities often significantly exceeded the Forest Service's road density guidelines for the study area.*
- *In many areas road densities exceeded densities which have been shown to negatively impact habitat for black bear, mountain lion, elk, and deer.*

While we are greatly encouraged by and extremely supportive of the 5-forest ORV policy, we believe the effects listed above merit that all opportunities to improve road and recreation management—including ROS—should be addressed accordingly. We encourage the Forest Service to evaluate a range of alternatives for ROS designations that includes an alternative with significantly more acreage designated as semi-primitive non-motorized than is proposed for the explicit purpose of evaluating the greatest level of protections for important ecological values in the FLEA analysis area.

The definition used in the Proposed Action for a guideline²⁰ allows some flexibility as staffs implement site-specific projects with more detailed inventory information. Recreation Opportunity Spectrum (ROS) setting designations have been drawn based on a variety of resource information; however, site-specific analysis may indicate that some modification in the location of those lines is appropriate. Therefore, it is important to leave this option for future refinement available.

This comment is asking for consideration of an increased amount of SPNM areas on the FLEA landscape. However, the rationale for this request is unsound in that it links ROS objectives with road policy and administration. Two separate agency activities. The ROS objectives are something to strive for, similar to the northern goshawk guidelines and other descriptions of desired conditions. These objectives are generally not based on how quickly they will be achieved. There is some confidence among land managers, that because of road policy and budget trends, the semiprimitive motorized objectives can be achieved, thereby creating patches of unroaded landscape in between the open roads.

²⁰ *Guidelines describe a preferred or advisable course of action, desired policy or conduct. Variation of a project from a guideline does not trigger a forest plan amendment. Guidelines may be used for the following purposes: 1) To describe a preferred or advisable method for conducting resource activities specific to the forest plan area and 2) to describe a preferred or advisable sequence or priority for implementing various types of projects when such guidance is deemed useful in facilitating achievement of a forest plan goal.*

The concern of road proliferation is being addressed via other avenues outside of the FLEA process. As this comment mentions, the current mix of road policies has resulted in some areas with high mileages of user-created roads. Currently, approximately 26 percent of the National Forest acres in the FLEA area are under either an area closure, or “drive only on designated open roads” policy. When the seasonal motorized closure in the Pinegrove Quiet area is considered, the total acreage rises to 30 percent. The remainder of the FLEA area has an “open unless designated closed” travel policy. This means a person may drive on a road or two-track or off of roads (provided resource damage does not occur) unless posted otherwise. Another factor in successful implementation of road management and subsequent ROS settings is the number of personnel available to patrol, public information campaigns, and signs. These factors are administrative in nature and best addressed in debates over funding and priorities. The ongoing *Cross-country Use of Motorized Vehicles in Five Arizona National Forests* analysis, may lead to policies that enhance our ability to successfully achieve the SPM setting.

Settings that are SPM include patches of unroaded landscape in between the road network. Many of the ecological values maintained under SPNM settings are also maintained under SPM settings. A well-designed system of secondary roads, with unroaded patches in between, maintains the ecosystem and provides for a remote recreation experience.

In addition, roads are only one element of ROS settings. Other items include vegetation management, facilities, and numbers of social encounters.

Comment from Sam Henderson, Flagstaff Area Monuments, National Park Service

In keeping with our comments and issues regarding motorized access to the Monument boundaries, we would prefer to see “semi-primitive non-motorized” objectives emphasized in a buffer area surrounding each of the three monuments. This includes the area surrounding the eastern end of Walnut Canyon NM, where we are very concerned about continued convenient motorized access within close proximity to the canyon rim, and potential impacts to archaeological sites and sensitive raptor species (MSO, and Goshawk) which nest in the canyon. This would also require revising the ROS Objectives map.

We propose specific emphasis be added for reducing all road access to within one mile of the Walnut Canyon rim (not the NM boundary). This would effectively deter access to the canyon slopes, cliff dwellings, and sensitive raptor nest sites throughout the canyon, preclude clandestine access via the heavily vegetated side canyons, and increase our ability to enforce general access restrictions within Walnut Canyon NM.

A discussion of the effects of alternatives on the Monuments will be a part of Chapter 3. The ROS objectives do not lend themselves to strips of different settings. Physical road

closures and road management policies are not required to follow ROS boundaries. On the contrary, actual roadwork and road policies will use easy-to-find landlines and physical features. The ROS objectives do not preclude continued efforts to close roads as needed that are adjacent to or enter the Monuments.

Expanding the SPNM setting near the northeastern end of Walnut Canyon National Monument was considered but not carried forward. The SPM setting in this area is sufficient and recognizes the need for some open roads in this area to serve the range permittee, provide access to private land, and to provide road access to the First Fort area as mentioned in the National Park Service's preferred alternative in the Draft General Management Plan for Walnut Canyon National Monument.

Rather than use a statement such as "reduce all road access within 1 mile of the Walnut rim" the ROS setting objectives provide a similar end product. There are alternatives analyzed for the area northeast of Fisher Point that will have different distances to open roads from the Walnut Canyon rim. In addition, the *Roads Analysis Report for the FLEA Area*, which is a concept plan for managers and not a site-specific decision, recommends road choices in keeping with the ROS objectives and goals for protection of Walnut Canyon. In some cases, a mile long distance may be too far for trailhead parking access. It is beneficial to have some places where people can park and hike, mountain bike or ride horses less than a mile to enjoy sites such as Fisher Point or Canyon Vista.

Comment from Ivo Lucchitta

According to your own statements, areas within ½ mile of private land have a high risk of fire ignition and have the highest priority for fire risk reduction. This is even more pressing when the private land contains dwellings, as it is the case here. Consequently, it would make sense to decrease the fire danger by eliminating access by vehicles to this 1½ by 1 mile area (area between Fort Valley and Al Mountain). For the same reason, the area should be assigned to the proposed No Camping/No Campfires category. There are just too many dwellings down wind. Other areas where people can travel in vehicles and camp are not in short supply. It is sobering to know that we have seen transients' camps in the area. Eliminating vehicles and camping would have a positive impact on wildlife.

Note: This response discusses the camping part of this comment. ROS alternatives were developed and analyzed in detail.

Currently camping in this area is minimal. Implementing camping restrictions cannot be done everywhere given Forest Service personnel and funding levels, therefore camping restrictions are not proposed around the Fort Valley Community. However, if there are increased threats and disturbances, such as fire, trash, noise, or crime to residents, the *Forest Plan* language in Alternative A allows expansion of camping restrictions as necessary in the future without a *Forest Plan* Amendment. Contact the Recreation Staff of the Peaks Ranger District to report impacts.

Comment from Taylor McKinnon, Grand Canyon Trust

First we are concerned that proposed actions to abandon recovery goals for the MSO will, when considered in combination with the region 3 Wildland Urban Interface MSO amendments, contribute to jeopardy of the Mexican spotted owl. Second, we question need for such a proposal: existing management directions outlined in the Recovery Plan provide for fire risk reduction treatments in MSO habitat, and the subject restricted habitat constitutes only 1539 acres (2%) of the approximately 65,000 acre U/RIZ. Surely management scenarios can be developed that provide for MSO habitat and a satisfactory reduction in fire risk for the community. Our third concern rests in the fact that this proposal (unnecessarily) pits ecosystem restoration goals against community protection goals when, in actuality, these values are entirely compatible—which may undermine existing collaborations based upon shared interest between the fire protection community and restoration community.

We urge the Forest Service to evaluate an alternative that does not include changes to Mexican spotted owl habitat management.

The No Action alternative will provide a basis for comparing no change to MSO habitat management.

The Recovery Plan for the Mexican spotted owl as adopted by the Coconino Forest Plan Amendment 11 displays that 10 percent of pine-oak habitat and 15 percent of mixed conifer restricted area should be managed for target-threshold conditions and states the following:

“In project design, no stands simultaneously meeting or exceeding the minimum threshold values should be reduced below the threshold values unless a district-wide or larger landscape analysis or restricted areas shows that there is a surplus of restricted area acres simultaneously meeting the threshold values. Management should be designed to create minimum threshold conditions on project areas where there is a deficit of stands simultaneously meeting minimum threshold conditions unless the district-wide or larger landscape analysis shows there is a surplus.”

To address issues of fuels reduction in the urban interface the Urban/Rural Influence Zone (U/RIZ) was created. No management changes are proposed for existing MSO PAC’s or protected habitat within this zone.

A clarification to the FLEA proposed guideline for future projects within the FLEA area would be to **not** allocate target threshold stands within the U/RIZ. However, target threshold habitat would be allocated in other parts of the FLEA area. The replacement pages text have been clarified to indicate the allocation of target threshold habitat within the Lake Mary Watershed and Shultz Management Areas.

Existing condition displays 186 acres of mixed conifer and 850 acres of pine oak restricted habitat within the U/RIZ. The distribution and patch size of the restricted areas within the U/RIZ would provide marginal nest/roost habitat for Mexican spotted owls. Potentially, 100 acres of mixed conifer and 85 acres of pine oak habitat could be designated to maintain or promote target threshold conditions within the U/RIZ. The FLEA guideline to not designate target threshold habitat within the U/RIZ is in the best long-term interest of habitat management for the Mexican spotted owl. The FLEA allocation of target threshold habitat within the Lake Mary Watershed and Shultz Management Areas would better provide for long-term management of roost/nest habitat for the Mexican spotted owl. It is estimated that approximately 18 percent of the Shultz Management Area and 11 percent of the Lake Mary Watershed would be managed for target-threshold conditions in the future, due to not allocating target threshold conditions in the U/RIZ.

ISSUES AND EVALUATION MEASURES

Significant issues for the FLEA Project were identified through public scoping. The issue statements that follow were written by the interdisciplinary team, and represent a synthesis of a variety of public comments. The following issues were determined to be significant and within the scope of the project decision. These issues are addressed in the Proposed Action and alternatives to the Proposed Action. Additional concerns were considered but determined to be non-issue questions or comments, or nonsignificant issues. These concerns are discussed separately in Appendix B, Comment Analysis and Response to Comments.

Issue 1 – Wildlife Cover

Not retaining 30 percent hiding and thermal cover within the FMAZ 1U will affect native species including management indicator species. Wildlife would be impacted in the vicinity of Walnut Canyon if no cover were provided. There are large-sized wildlife that take advantage of the thermal and hiding properties of dense stands along the Walnut Canyon rim, part of which falls within the FMAZ 1U. Wildlife would be impacted in the area of Woody Ridge if no cover were provided.

Evaluate this issue by estimating the amount of cover that would likely occur in Post Fledgling Family Areas (PFA's), steep slopes, wildlife travelways, and canyon rims within the Fire Management Analysis Zone. Determine the effect to wildlife. Describe whether or not the amount and configuration of low fire potential stands that can be achieved meets fire management goals.

Issue 2 – A1 Mountain Area ROS

A SPM setting in the small area adjacent to private land on the south side of Fort Valley and south of A1 Mountain may not be the best setting choice for this area. Fire risk reduction is better achieved with a nonmotorized setting where private lands are located

in the path of prevailing winds. Wildlife habitat for elk, deer, fox, coyote, raptors, and prairie dogs is better served by a nonmotorized setting. The area is too small to be useful to motorized travel and many of the current routes dead-end.

Evaluate this issue by describing the recreation experience achieved under a SPNM and SPM setting. Describe risk of fire ignition under the two settings. Describe big game use under the two scenarios and the relative importance of this area to big game. Describe prairie dogs and raptor use under the two scenarios.

Issue 3 – Skunk/Fay Canyons and North of Fisher Point ROS

A SPM setting surrounding Skunk and Fay Canyons and lands north of Fisher Point may not be the best choice for this area. The type of recreation experience desirable is nonmotorized recreation such as hiking, mountain biking, and horse riding. Absence of vehicles will maintain areas with limited erosion especially in canyon bottoms and steep slopes. Absence or limited vehicles will lessen levels of human disturbance to sensitive wildlife species so that the wildlife are more likely to successfully occupy the canyon and its rim.

Evaluate this issue by describing the recreation experience achieved under a SPNM and SPM setting. Describe trends in soil erosion especially on steep slopes and canyon bottoms under the two setting scenarios. Describe disturbance sensitive species in the area (turkey and MSO) and whether or not there is a difference in levels of human disturbance under the two different settings.

Issue 4 – Waterline Road Area ROS

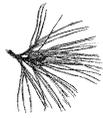
The SPM setting downslope from the Waterline Road (FR 146²¹) may not be the best choice for this area. The Proposed Action creates too many SPNM patches on the landscape, limiting opportunity for forest driving experiences especially at high elevations and around the San Francisco Mountain. A nonmotorized setting is not necessary for disturbance sensitive species. Wildlife habitat can still be maintained with a well-designed SPM road system.

Evaluate this issue by describing the overall percentage of the FLEA area in the SPM settings under various alternatives. Make a statement about the overall amount and quality of motorized experiences in the FLEA area, and cumulatively around the San Francisco Mountain, especially related to the ability to enjoy remote, rough road, driving experiences. Describe disturbance sensitive species in the area (turkey and MSO) and whether or not there is a difference in levels of human disturbance under a SPM or SPNM setting. This includes estimating the amount and types of human use that occurs here.

²¹ *FR146 travels along the Kachina Wilderness boundary on the east side of the San Francisco Mountain. It is gated and used as a recreation trail and provides maintenance access to the City of Flagstaff wells in the Inner Basin.*

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CHAPTER 2 - ALTERNATIVES

INTRODUCTION

This chapter describes and compares the alternatives considered for the Flagstaff/Lake Mary Ecosystem Analysis. It includes a description of each alternative considered. This section also presents the alternatives in comparative form, sharply contrasting the differences between each alternative and providing a clear basis for choice among options by the decision maker and the public. Some of the information used to compare the alternatives is based upon the design of the alternative and some of the information is based upon the environmental, social and economic effects of implementing each alternative.

COMMON TO ALL ACTION ALTERNATIVES

Based on the comments received on the Proposed Action, most of the proposed changes to the *Forest Plan* remain the same for the alternatives. This is because we received no comments that could have been a basis for evaluating a change. Some adjustments were made to the Proposed Action for clarification, but they did not change the intent. This type of change is highlighted in the replacement page texts in Appendix A.

Another item that is common to all alternatives is the definition of wildlife cover that is listed in the current *Forest Plan* on page 124.

At the beginning of Chapter 3, there are assumptions related to Recreation Opportunity Settings (ROS) that were used throughout this analysis. These assumptions are common to all action alternatives.

ALTERNATIVES CONSIDERED IN DETAIL

Except for the issue areas, the action alternatives are similar, and most of the *Forest Plan* replacement page language is the same for the action Alternatives A, C, and D. These alternatives are different based on the four issues. When selecting an alternative, the decision maker can select different components of alternatives as they relate to the issues. ROS maps are located in Appendix A.

Alternative A (Proposed Action)

Alternative A consists of all the replacement page text located in Appendix A, plus the following changes from current management (Alternative B).

- There is no cover requirement in the FMAZ 1U. In the remainder of the FLEA area, cover is provided on 30 percent of the forested areas of a 10K Block²² with 10 percent in hiding cover, 10 percent in thermal cover and 10 percent in combination hiding and thermal cover.
- The Waterline Road area is classified as a SPNM.
- The A1 Mountain area adjacent to private lands in Fort Valley is classified as a SPM.
- The Skunk/Fay Canyon areas and lands north of Fisher Point are classified as a SPM.

Alternative B (No Action)

Alternative B does not use the replacement page text in Appendix A, rather the current Forest Plan text applies.

- Under No-Action, cover is provided on 30 percent of the forested areas of a 10K Block with 10 percent in hiding cover, 10 percent in thermal cover and 10 percent in combination hiding and thermal cover.
- The Waterline Road area is classified as SPM.
- The A1 Mountain area adjacent to private lands in Fort Valley is classified as RN.
- The Skunk/Fay Canyon areas and lands north of Fisher Point are classified as RN.

Alternative C

Alternative C consists of all the replacement page text located in Appendix A, plus the following changes from current management (Alternative B).

- In the Fire Management Analysis Zone, cover is provided in a maximum of 15 percent of the forested acres in a Section. In the remainder of the FLEA area, cover is provided on 30 percent of the forested areas of a 10K Block with 10

²² 10K Block is a designation used in the Forest Plan to identify an approximately 10,000 acre contiguous area to which some management direction is applied. For example, the amount of desired old-growth is identified on a 10K Block basis, which will insure distribution of this forest characteristic across the landscape.

percent in hiding cover, 10 percent in thermal cover and 10 percent in combination of hiding and thermal cover.

- The Waterline Road area is SPM with roads located to limit impacts to disturbance sensitive species.
- The A1 Mountain area adjacent to private lands in Fort Valley is SPNM.
- The Skunk/Fay Canyon areas and lands north of Fisher Point are classified as SPNM ROS settings with one or two SPM road corridors.²³

Alternative D

Alternative D consists of all the replacement page text located in Appendix A, plus the following changes from current management (Alternative B).

Cover is the same as Alternative C.

- The Waterline Road area is classified as a SPNM.
- The A1 Mountain area is classified as a SPNM ROS setting.
- The Skunk/Fay Canyon areas and lands north of Fisher Point are entirely classified as SPNM.

Table 1 Summary of Issues and Alternatives

Issue	Alt A	Alt B	Alt C	Alt D
#1 – Cover	No requirement in FMAZ	30% of forested acres in 10K block	15% of forested acres in a Section ²⁴ within FMAZ	15% of forested acres in a Section within FMAZ
#2 – A1 Mountain	SPM	RN	SPNM	SPNM
#3 – Skunk/Fay	SPM	RN	SPNM with SPM corridor(s)	SPNM entirely
#4 – Waterline	SPNM	SPM	SPM roads designed for wildlife	SPNM

²³ The map for this alternative shows a SPM road corridor linking Old Walnut Canyon Road to Fisher Point area. An alternate open road corridor may be chosen based on site-specific analysis. The final outcome would not be required to follow the existing FR301 alignment.

²⁴ A Section is 640 acres, 1 square mile.

HOW THE ACTION ALTERNATIVES MEET THE PURPOSE AND NEED

Because there is a long list of items in Alternative A that do not change in the other action alternatives, it is advantageous to describe for the reader and decision maker how well these items meet the Purpose and Need. The items listed in the following table do not change by action alternative. Text changes for the *Forest Plan* apply to the FLEA area only.

Table 2 Summary of Changes Common to All Action Alternatives and How They Meet Purpose and Need

Topic Area	Summary of Change
<u>Fuels</u> Urban/Rural Influence Zone	Changes create greater emphasis for fire risk reduction within approximately ½ mile of private land. There is recognition of the high levels and types of daytime recreation uses prevalent near residential areas. There is recognition that human disturbance to wildlife is greater in areas adjacent to residential areas.
<u>Recreation Opportunity Spectrum</u>	Changes provide a forest setting tool (ROS objectives) giving land managers a recreation experience and forest character to strive towards. Much of the areas currently supporting key wildlife habitat would be Semiprimitive ROS setting, either Motorized or Nonmotorized. Objectives include an increase in Semiprimitive recreation opportunities.
<u>Recreation Camping</u>	Changes describe a wider variety of camping management options (an example is designated dispersed camping). Text is current concerning stay limits and no camping near developed recreation sites on the Peaks and Mormon Lake Ranger Districts. Text allows us to take actions to reverse deleterious trends and improve soil and water quality conditions in areas of very high concentrations of dispersed camping in the Highway 89A corridor, Pumphouse Wash, Marshall Lake, Lake Mary, and Walnut Canyon. Changes include a change from 53.7% to 75.9% of the

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Topic Area	Summary of Change
	Urban/Rural Influence Zone closed to camping thereby reducing risk of fire ignition in this zone.
<u>Recreation</u> Outfitter/Guides and Group Use	<p>Changes create a more efficient process for review, approval, or denial of outfitter/guide proposals. New outfitter/guide permits will be awarded competitively by soliciting proposals.</p> <p>ROS objectives would provide a tool by which recreation experience is considered when approving outfitter/guides. There is recognition of areas where outfitter/guide activities may not be suited, given ecological sensitivity or levels of individual use or both.</p>
<u>Recreation</u> Rock Climbing	<p>Changes provide direction for this activity.</p> <p>A desired condition is described to maintain climbing opportunities while protecting sensitive wildlife and vegetation.</p>
<u>Recreation</u> Trails	<p>Changes recognize the trail situation that occurs adjacent to residential areas in terms of higher levels of daytime use, and user-created (social) trails.</p> <p>Changes place emphasis on reducing impacts of social trails to threatened and endangered species.</p> <p>Changes place emphasis on reducing or eliminating impacts of social trails to riparian sites (drainage bottoms and lakebeds).</p> <p>Changes emphasize the need for community linkages and access points.</p> <p>Changes provide for ecologically sound trail conditions, without micromanaging each user-created (social) trail.</p> <p>ROS objectives would provide a planning tool that helps managers determine the amount and type of trails to construct for nonmotorized and motorized use.</p> <p>Changes identify some areas where off-trail use by large numbers of nonmotorized recreationists is discouraged in order to maintain minimal human disturbance to wildlife or limit soil movement on steep cinder or canyon slopes.</p> <p>Changes identify motocross as an activity that is not suited for National Forest lands.</p>

Topic Area	Summary of Change
<u>Roads</u>	<p>Changes add items to the list of criteria used to make road closure decisions. Examples include, recreation experience and opportunity, (ROS settings), redundant and/or poorly located social roads, noxious weeds, and illegal human activities.</p> <p>Changes create a list of criteria for keeping roads open.</p> <p>Changes provide direction on how to choose where roadwork should occur first.</p>
<u>Wildlife Habitat</u> <u>Mexican Spotted Owls</u>	<p>Changes recognize the inevitable impacts of noise, pets, user-created trails, and other recreation uses that occur adjacent to residential areas.</p> <p>Changes emphasize future allocation of target threshold habitat outside of the U/RIZ and in the Shultz and Lake Mary Management Areas.</p>
<u>Wildlife Habitat</u> <u>Northern Goshawk</u>	Changes provide more detailed direction concerning recreation use in PFA's, and a recognition of high levels of human influences in PFA's located adjacent to residential areas.
<u>Wildlife Habitat</u> <u>Threatened and Endangered Species</u>	Changes emphasize monitoring human disturbances prior to approving new site-specific projects. Proposed changes allow for future recreation use restrictions, if needed, based on monitoring.
<u>Wildlife Habitat</u> <u>Bald Eagle Winter Roost Guidelines</u>	Changes allow management activities to occur within and adjacent to winter roost trees and in surrounding areas for the purpose of maintaining the longevity of the roost tree and promoting replacement roosts in the future.
<u>Wildlife Travelway</u>	Changes allow for the maintenance of wildlife travelways through balancing human uses and fire risk reduction needs with wildlife cover needs in travelways.
<u>Forestry</u> <u>Fuel treatments on Cultural Sites as Appropriate</u>	Changes allow for fire risk reduction activities to occur on cultural sites if those activities are determined to be nonimpacting and/or in the best interest of protecting the site.
<u>Coordination with Other Agencies</u>	Changes emphasize communication and coordination especially related to adjacent land uses and development.
<u>Visuals</u> <u>Viewshed to National Monuments</u>	Changes identify viewsheds of the National Monuments as important considerations in future decisions.

Topic Area	Summary of Change
<u>Recreation</u> Cinder Hills OHV Area	<p>Changes allow for slope closures instead of designated routes to respond to resource concerns and provide for safe, enjoyable riding.</p> <p>Changes allow for distributing riders more evenly within the area and away from areas of resource concern by relocating improved roads and camping areas.</p> <p>Changes identify geologic features in the OHV area that are tied to the eruption of Sunset Crater. Proposed changes identify potential activities such as road relocations, camping relocation, slope closures, and an area closure around Gyp Crater to better maintain and protect these sites.</p>
<u>Management Areas</u> Boundaries	Changes maintain the link to vegetation and topography, but also provide references to communities and established uses.
<u>Management Areas</u> Flagstaff MA lands within growth boundaries	Changes identify lands within the Urban Growth Boundary for the City of Flagstaff. These lands are suited for transfer to other ownership in keeping with local City plans.
<u>Recreation</u> Parking	Parking Management is added as a tool for reducing impact and providing for recreationists.
<u>Environmental</u> Study Areas (ESA's)	<p>Changes adopt two new ESA's at Old Caves Crater and Griffiths Springs and expand the existing ESA at the base of Mt Elden.</p> <p>Desired Conditions are described for the high levels of daytime recreation use and landscape features that make these places available to study and enjoy.</p>
<u>Lake Mary and</u> <u>Oak Creek</u> <u>Watersheds</u> Priority for Watershed Restoration and Maintenance	New language identifies the Lake Mary/Walnut and Oak Creek Canyon as important waters. Within the FLEA area, priorities are identified for conducting roadwork, meadow restoration, and other practices.

COMPARISON OF ALTERNATIVES

This section describes the effects of alternatives for the significant issues. In many environmental impact statements, Chapter 2 contains only a brief summary of the effects of the alternatives. However, in this document, Chapter 2 is larger and more detailed.

This is for two reasons, 1) because the issue areas are only a small percentage of the overall FLEA area and separate discussion was necessary and 2) to separate for the reader key issue information and other required topics. Both chapters should be read for an understanding of all the environmental and social effects.

Issue 1 (Cover) Comparison of Alternatives

How the Alternatives are Different

Alternative A would remove the wildlife cover guideline and not require the minimum 30 percent guideline be applied per 10K Block within the U/RIZ and FMAZ 1U boundary's. Dense stand conditions would be maintained within Mexican spotted owl PAC's, northern goshawk PFA's, steep slopes, and wildlife travelways and provide approximately 16 percent cover within the U/RIZ and FMAZ 1U boundaries. The distribution of 16 percent cover would be in large blocks and concentrated in the Schultz MA, West MA, and along Walnut Canyon in the Walnut Canyon MA.

Alternative B (No Action) is the current *Forest Plan* management direction. This guideline requires that a minimum of 30 percent cover be applied on the landscape per 10K Block²⁵ within MA3. Generally during site-specific project level environmental analysis cover is identified at the stand level and cover deferrals are made in key wildlife areas, such as Mexican spotted owl PAC's, northern goshawk PFA's, or wildlife travelways.

Alternative C and D would apply a maximum 15 percent cover guideline within forested areas distributed by Section²⁶. The cover would be distributed in small patches and linear patterns. Cover would not be in large patches. Recent examples are cover allocations made on the A1 Ecosystem Management Project, Fort Valley Ecosystem Restoration Project, and the upcoming Kachina Village Forest Health Project. Dense stand conditions would be maintained within Mexican spotted owl PACs, northern goshawk PFA's, steep slopes, and wildlife travelways and provide approximately 16 percent cover within the U/RIZ and FMAZ 1U boundaries.

Fire Risk and Hazard

Both fire risk and fire hazard have increased within the Ponderosa Pine Urban Interface Fire Management Analysis Zone (FMAZ 1U). The retention of at least 30 percent of the forested area within this zone in dense cover conditions (Alternative B) prevents fire managers from achieving the desired future condition for fire potential within the FMAZ 1U. It is conducive to a severe wildfire occurring in close proximity to residential and commercial development.

²⁵ 10K Block is a designation used in the Forest Plan to identify an approximately 10,000 acre contiguous area to which some management direction is applied. For example, the amount of desired old-growth is identified on a 10K Block basis, which will insure distribution of this forest characteristic across the landscape.

²⁶ A Section is 640 acres, 1 square mile.

Alternative A would lift the cover requirement only within the FMAZ 1U, placing a clear emphasis on fire safety within the wildland urban interface. It would not prohibit the retention of wildlife cover. Some wildlife cover would be maintained within this zone under Alternative A. However, it would provide fire managers with the flexibility to thin dense stands that are particularly at risk of ignition or that are particularly hazardous to neighborhoods. The percentage and arrangement of wildlife cover retained within the FMAZ 1U for any subsequent project would be determined by the “fire risk” and “fire hazard” of the particular site. Under Alternative A fire managers could achieve the desired future condition for fire potential within the FMAZ 1U.

Alternatives C and D both reduce the 30 percent wildlife cover requirement within the FMAZ 1U to a maximum 15 percent per Section. This would provide fire managers with less flexibility than Alternative A to thin dense stands that are particularly at risk of ignition or that are particularly hazardous to neighborhoods. However, if the cover patches (comprising the 15 percent) were kept small and distributed carefully with considerations for topography and the prevailing wind direction, fire managers could achieve the desired future condition for fire potential within the FMAZ 1U.

Wildlife Habitat

Alternative A would result in a potential 50 percent reduction or 18,000 acres less cover within the FMAZ 1U boundary compared to Alternative B (No Action). The acres that would be managed for cover condition would be predominately large blocks of cover concentrated within the Schultz Management Area; West Management Area along Woody Ridge, Fry Canyon, Kelly Canyon; wildlife travelway between A1 Mountain and southern slopes of the San Francisco Mountain; and Walnut Canyon within the Walnut Canyon Management Area. Outside of the areas mentioned above, the general trend would be less cover in close proximity to the community of Flagstaff. This would result in fewer occurrences of species requiring dense stand conditions, including: Abert squirrel, turkey, mule deer, and elk.

There are approximately 230 miles of private landline bordering the National Forest. Human use on these lands is high and increasing annually. Human impacts on wildlife have increased (Randall-Parker, USFS, BA&E Fort Valley Ecosystem Restoration Project, 2000). Dense stands providing cover for wildlife allow for screening and escape cover where human use is high and thus a reduction in cover will lead to fewer occurrences of animals requiring the escape and screening protection. Approximately 60 percent of the FMAZ 1U area currently supports dense cover conditions, however, turkey are nearly absent from much of the Urban Interface. Local wildlife professionals frequently suggest that high human use has affected turkey within the FMAZ 1U area. A couple of exceptions are the Woody Ridge Wildlife Quiet Area, where turkey numbers have remained high, however this area is closed to vehicles and represents the outer reaches of the FMAZ 1U area, and the Dry Lake Hills area where turkey numbers have increased in recent years. The Dry Lake Hills area is also closed to motorized access, however daytime human use is high.

Currently mule deer and elk numbers within the FMAZ 1U area are stable. The change in cover allocation for Alternative A is expected to have moderate to minimal effects on

deer and elk use of the FMAZ 1U area. Cover is maintained in major travelways and in approximately 16 percent of the forested lands of the FMAZ 1U. This will maintain population numbers or lead to slight decreases. Due to increasing conflicts between wildlife and humans, such as deer and elk eating gardens, flowers, and frequent vehicular accidents, a reduction in deer and elk within the FMAZ 1U area is a benefit by reducing conflict with some people, however may be less socially acceptable to other people.

Nesting habitat for Abert squirrel²⁷ will be decreased with a reduction in cover. Recent studies by the Arizona Game and Fish Department, suggest that Abert squirrel use small patches of cover for nesting as small as possibly 35 trees per dense clump (Miller, Dodd personal communication). Alternative A would provide for Abert squirrel habitat on approximately 16 to 30 percent of the FMAZ 1U area, however declines in Abert squirrel populations are possible given the proposed guideline change from current management. This would not have a detectable effect on population trend for Abert squirrel on the Coconino National Forest.²⁸

Alternative C and D would result in a reduction of 0 to 15 percent cover per Section of the FMAZ 1U area. The Craters, Deadman, Doney, Flagstaff, and Walnut Canyon Management Areas (excluding Walnut Canyon and its rim) have very few Mexican spotted owl PAC's, northern goshawk PFA's, steep slopes, or travelways. These management areas would be primarily managed with a 15 percent cover allocation.

The effects of implementing Alternative C or D would be very similar to those of implementing the current *Forest Plan* guideline of 30 percent. The general trend and effects analysis for Alternatives A, C, and D are similar, however Alternatives C and D would provide for improved cover conditions for Abert squirrel and mule deer. Alternatives C and D would better meet nesting requirements for Abert squirrel based on recent research conducted by the Arizona Game and Fish Department. Cover patches as small as 35 trees may be important for squirrel nesting, (personal communication with Dodd and Miller). Recent projects such as the A1 Ecosystem Assessment Project, Fort Valley Ecosystem Restoration Project and the upcoming Kachina Village Forest Health Project have included small patches of cover to primarily benefit Abert squirrel, songbirds, and mule deer. Alternatives C and D would have 15 percent cover patches and increased number of patches, which when added to dense habitats maintained for Mexican spotted owl, northern goshawks, and travelways, should support populations of Abert squirrel and mule deer in the FMAZ 1U.

All action alternatives provide increased protection of cover habitat from loss during a stand replacing wildfire in comparison to Alternative B. The effect of changing the patch size, distribution, and reducing the quantity of high-density stands will protect cover allocations from stand replacing wildfire.

²⁷ Abert squirrels are listed in the Forest Plan as a management indicator species for ponderosa pine and mixed conifer less than and greater than 40% slope (MA3 and MA4).

²⁸ Additional discussion of effects are located in Chapter 3.

The No Action Alternative (B) would maintain trends that currently exist for wildlife species habitat on the Coconino National Forest.

- Alternative B would best meet cover requirements for wildlife habitat, however this alternative has the highest risk of loss of cover because it has the highest risk for a stand replacing wildfire to occur.
- Alternative C or D will provide adequate wildlife habitat cover given the amount of human use in the FMAZ 1U and will also provide good protection for long-term cover habitat because of the reduced risk of stand replacing wildfire.
- Alternative A is the least desirable for wildlife habitat management, however this alternative does pose the least risk of losing cover because it has the least likelihood of a stand replacing wildfire.

Under Alternative A, C, and D, the change in cover guidelines would not result in a significant cumulative effect for the Forest. This is because the FMAZ 1U area represents a small portion of the Forest. Cover is maintained in key areas under all alternatives.

Issue 2 (ROS between Fort Valley and A1 Mtn) Comparison of Alternatives

Recreation Settings

The following discussion also applies to Issue 3 described in later sections of this chapter.

It is usually desirable to create gradations in Recreation Opportunity Spectrum (ROS) settings rather than jump from say an Urban setting to SPNM. This is the recommended technique for mapping ROS objectives (USDA, ROS Handbook, 1986) that comes from collective agency experience in managing the effects of people in the landscape. It is generally impractical, for example, to locate “primitive” landscape objectives next to or within more urban environments and expect the more primitive attributes to prevail or even to survive. It is more practical to create buffer areas between areas with widely disparate characteristics and objectives.²⁹

Table 3 ROS in the Area Between Fort Valley and A1 Mountain For Each Alternative

	Alt A	Alt B	Alt C	Alt D
ROS Setting	SPM	RN	SPNM	SPNM

A good example of how this principle can facilitate the protection of Forest resources is in the interface between the growing “rural” residential communities that surround

²⁹ *Exceptions to this concept have already been made in Alternative A, where some areas have SPNM settings adjacent to developed private land. These sites were chosen because of key resources such as archaeological sites.*

Flagstaff proper, and the undeveloped public lands surrounding them. Inevitably, houses around the periphery of communities have trails from the houses onto public land that often makes the management and protection of National Forest resources more difficult. In several areas around the local communities a road will occur (either through design or convenience) that runs parallel to the private property line. These roads tend to act as collectors for traffic coming out of the neighborhoods. An SPNM zone objective next to residential areas could preclude such management options and should be reserved for areas with specific resource concerns.

While the lack of motorized traffic would be desirable for an individual residence, designation of a small area as nonmotorized will often have the practical effect of pushing such traffic farther out into the forest, expanding the effect from the community periphery into the forest interior. The result would be an area that is difficult to manage for SPNM objectives and that will likely not enhance overall forest resource protection. Proposed designation of small SPNM areas³⁰ elsewhere in the FLEA area (Alternative A) results from the recognition that important forest resources in some areas could best be managed if motorized vehicles were excluded. These areas typically have some combination of steep slopes, fragile soils, and some other resource concern such as important cultural resource, scenic, or wildlife values that are sensitive to motorized traffic.

The area between A1 Mountain and Fort Valley suggested for SPNM has an adjacent SPNM area proposed for wildlife corridor purposes so there would be some utility in managing the area between the SPNM zone and the residences also as SPNM. This designation would help buffer the north side of the corridor from additional motorized traffic which would likely decrease overall human presence in the local area and in the wildlife corridor. Key to the effectiveness of SPNM next to residences is the willingness of the residents to help maintain SPNM characteristics, such as by limiting extent of neighborhood trail system access to the Forest, by not creating roads or “2 track” trails, and by being good stewards of National Forest lands adjacent their property. This project will set the stage for more detailed future transportation planning. A more refined level of planning will be needed to assess small areas near neighborhoods with more subtle resource concerns than were captured in the “coarse filter” analysis suitable for this FLEA assessment.

Alternative A has a gradation from private land to SPM to a SPNM setting. Under Alternatives C and D there is a direct interface between private land and SPNM settings.

Fire Risk and Hazard

Managing an area as non-motorized removes an ignition source of wildfires (fire risk) from that particular area and may decrease the number of visitors within that area. Managing motorized vehicle access does not however, eliminate all human-caused wildfires, nor does it address lightning ignited wildfires. Alternatives C and D would

³⁰Areas smaller than the national standard of 2,500 acres or more and designated with the name SPNM1 in this analysis.

tend to reduce the risk of a human-caused wildfire occurring slightly more than Alternatives A and B.

Wildlife Habitat

This area provides potential habitat for bald eagle roosting, prairie dogs, mule deer, Abert squirrel, elk, and foraging opportunities for raptors. A bald eagle potential roosting area was designated during the design of the A1 Ecosystem Restoration Project, and District personnel actively searched for roost locations, however none have been located. Black-footed ferret surveys were conducted in the area in 1996, as mitigation to the Rudd Tank Road Project adjacent to the FLEA analysis area. Prairie dog populations were abundant during surveys, however plague outbreaks have been reported in the Baderville (Fort Valley) area in recent years. Many forest raptors actively hunt this area, including red-tailed hawk, ferruginous hawk, and Swainson's hawk. The area is adjacent to an important wildlife movement corridor, where vehicular restrictions are currently in place and many roads have been obliterated. The movement corridor is important for emigration, immigration, regular seasonal movements, and extraordinary movements, such as those that might occur in a winter of exceptionally deep snow. This travelway for wildlife is the only corridor left on the southwest side of the San Francisco Mountain, connecting the mountain with lands south of A1 Mountain, and it is impacted by development and social trails and is at risk of crown fire, which could severely impact the corridor for several decades. The A1 Ecosystem Management Project and Fort Valley Ecosystem Restoration Project both include management to protect this important corridor including: fuels reduction thinning, prescribed burning, and road and trail relocation and/or obliteration.

Alternative A would manage the area as SPM. The current ROS setting is RN. The change to SPM would be positive for wildlife habitat management given the adjacency to the wildlife movement corridor and species that use this area.³¹

Alternative C and D manage the area as SPNM and would provide for the greatest degree of habitat protection. The designation of SPNM would improve the long-term habitat protection for the adjacent wildlife movement corridor.

Alternative B manages the area as RN and provides the least amount of habitat protection for the area compared to all action alternatives, because the risk for wildfire is the greatest. Alternative B is least desirable for managing for the adjacent wildlife movement corridor.

Conclusion: The Flagstaff/Lake Mary Forest Plan Amendment has proposed under Alternative A an increase of approximately 40,000 acres of SPNM compared to the existing condition. The SPNM areas were chosen based on many factors, including protection of key wildlife habitats. This area managed as SPNM would be valuable for wildlife, however other areas proposed are critical due to protection needed for reproductive areas, travelways and presence of TE&S species. The priority for

³¹ See also the literature review in Chapter 3 regarding human interactions with wildlife.

implementation of this area as SPNM would be lower than other proposed SPNM areas described for Alternative A.

- Alternative C and D would improve wildlife habitat and provide the greatest protection for the adjacent wildlife movement corridor.
- Alternative A improves habitat conditions.
- Alternative B offers the least protection for long-term management of wildlife habitat.

Issue 3 (ROS setting around Skunk/Fay Canyon and Northwest of Fisher Point) - Comparison of Alternatives

Background

Based on current conditions, the estimated road distribution for the Skunk/Fay and Fisher Point areas is described in the following table.

Table 4 Anticipated Road Distribution

Alternative A	Alternative B	Alternative C	Alternative D
SPM	RN	SPNM with SPM corridor(s)	SPNM with no SPM corridor
A few open level II roads located up on top and not in drainages	A few open level II roads located up on top and not in drainages	One or two open level II roads located up on top and not in drainages	Open roads on the exterior, no open roads in the interior

Fire Hazard

Alternatives C and D would tend to reduce the risk of a human-caused wildfire occurring in this area slightly more than Alternatives A and B. Managing motorized vehicle access does not eliminate all human-caused wildfires, nor does it address lightning ignited wildfires. It is important to retain administrative motor vehicle access to this area for fire suppression and other management activities.

Wildlife Habitat

The Skunk and Fay Canyon area surrounding Walnut Canyon provides habitat for deer, elk, pronghorn antelope, Abert squirrel, northern goshawk, and many other species. The habitat is diverse including ponderosa pine, Gambel oak, pinyon-juniper and small inclusions of mixed conifer. The area currently has a very low road density due to past closures and includes a non-motorized closure area. The past closures emphasized, in part, the protection of wildlife in Walnut Canyon by managing human use through the elimination of roads and social trails and development of Forest Service trail system.

Alternative A maintains current management for the area, same as Alternative B (No Action).³² There are two key access points to the area, one off Lake Mary Road and the other off of FR 301. The area as managed currently is providing for very low human disturbance and is resulting in positive habitat benefits for wildlife in the area. Positive benefits to pronghorn antelope, Mexican spotted owl, and deer have been observed.

Alternatives C and D would assign the area an SPNM objective. Alternative C would manage one or two small open road corridors. The area as managed currently is providing for very low human disturbance, the addition a few additional road closures will result in slightly more positive habitat benefits for wildlife in the area.

Conclusion: Alternative A proposes an increase of approximately 40,000 acres of SPNM compared to the existing condition. The SPNM areas were chosen based on many factors, including protection of key wildlife habitats. This area managed as SPNM would be valuable for wildlife, however other areas proposed for the SPNM setting are critical due to protection needed for reproductive areas, travelways, and presence of TE&S species. The classification of this area as SPNM would be a lower priority than other proposed SPNM areas described for Alternative A.

- Alternative A and B maintain the current beneficial habitat conditions that exist.
- Alternatives C and D have slightly more positive trends.

Soil and Water Quality

Under Alternative A and B there are roughly 19 acres of land in a roaded condition. Assuming that the roads are located out of drainage bottoms and that there is adequate drainage, the surface soil erosion, and runoff produced by compacted surface is slight.

Under Alternative C there are roughly 9 to 11 acres of land in a roaded condition. Assuming that the roads are located out of drainage bottoms and that there is adequate drainage, the surface soil erosion and runoff produced by compacted surface is probably very slight.

Alternative D assumes no acres in a roaded condition. There is no effect from roads.

Conclusion: There is very little difference between alternatives for soil and water quality.

Recreation Setting

This assessment will include all of the discussion for Issue #2 as well as the following concerns

Subject area as SPNM (Alternative D)

The subject area for this issue is considerably larger than the one for Issue #2 and if the State Trust Lands could be inferred into the larger SPNM area (the Forest Service does

³² *The Alternative B ROS inventory map would continue to show the area RN, but current vehicle management policies would remain in place under Alternative B.*

not make policy for State Trust Lands; however present state land management is compatible with the visible characteristics of semiprimitive ROS settings even if their access policy is not) management would be larger than the national standard of 2500 acres minimum for SPNM settings (ROS Handbook, 1986). One reason for the minimum size suggestion is that the attributes that comprise the SPNM ROS setting include such things as “opportunities for solitude” and a scarcity of the “sights and sounds of others” that are easier to achieve in a larger contiguous area.

However, some areas within FLEA have been proposed for SPNM that are considerably smaller than 2500 acres. All of these areas have some combination of resource value, such as cultural sites, steep slopes, wildlife habitat, that would be more effectively managed as SPNM. The Skunk/Fay Canyons contain some similar features of steep slopes. The remainder of the adjacent area is flatter to rolling terrain.

The Skunk /Fay area is contiguous to a larger area (Walnut Canyon and west Anderson Mesa) that presently has, and is proposed for continuing, SPNM characteristics over a large contiguous area. If the Skunk/Fay areas are designated as SPNM, the combined extent of this classification would enhance the effectiveness of management SPNM in and around Walnut Canyon itself that otherwise would be inherently difficult to retain next to developing residential areas.

The current management of this area is a motorized closure in the Skunk/Fay canyon areas and closure of obliteration of many of the existing roads. This roadwork would need to continue in order to meet the “high” scenic integrity standard for SPNM. There is likely to be more administrative presence needed, such as more signs, patrolling, and administrative access roads, to meet semiprimitive objectives for this area than would ordinarily be seen in SPNM not near to residential areas. This occurs in the other SPNM1 areas as well.

Visitors to the area under Alternative D would be less likely to see or hear evidence of other people than under Alternatives A or B. Opportunities for solitude, natural scenery and sound, challenge and risk of a nonmotorized nature, would be much more likely than with Alternatives A and B.

Under Alternative D, parking is within 1 to 2 miles of Fisher Point, a popular destination. This is the farthest distance of all the alternatives.

Subject Area as SPNM with one or two motorized corridor(s) (Alternative C)

This alternative is similar to Alternative D. Opportunities for solitude, natural scenery and sound, challenge and risk of a nonmotorized nature, would be more likely than with Alternatives A and B.

Under this alternative, parking is ½ to 1 mile from Fisher Point, depending on the location of the open road corridors.

Subject Area as SPM Motorized (Alternative A)

The area presently has many SPM characteristics because of the current motorized closure in the Skunk/Fay Canyon areas, and because of the deterioration of roads to more primitive conditions in the remainder of the area. Roadwork would need to continue efforts to achieve less road density to meet SPM objectives. Bringing roads down to below 2 miles of road per square mile of land and removing visible evidence of closed roads to meet basic scenic integrity levels for an SPM area could improve scenic quality of the area significantly and will improve opportunities for solitude, and experiencing natural sights and sounds away from other people for the areas presently heavily impacted by peoples activities and vehicles.

The reasons to consider a SPM or RN ROS buffer near residential areas where many roads already exist, discussed in more detail for Issue #2, are also relevant for some parts of this discussion. Road locations should be fairly close (within ¼ mile) and mostly parallel to property lines for the buffer effect between residential and semiprimitive areas to be effective. Roads that extend towards the interior of the SPM areas will tend to diminish semiprimitive characteristics.

The distance from parking to Fisher Point is less than ½ mile under Alternative A.

Subject Area as RN (Alternative B)

The no-action Alternative B would retain the current ROS classification that shows a large portion of this area as a RN setting. The more refined inventory conducted for this project reveals more primitive conditions closer to development in areas where terrain or vegetation limit the influence of the developed environment. Current motorized road closures would also be retained. In the areas north and west of Fisher Point, management that meets RN ROS settings would result in the rehabilitation of a few sites and some road realignments or closures to eliminate some of the more unsightly erosion or rutting problems on the existing roads. A RN objective would allow for (but not prescribe) the existence of roads that are suitable for standard low clearance passenger vehicles as well as a higher road density over all than a semiprimitive objective would. Opportunities for solitude, and experiencing natural sights and sounds away from other people would remain as at present or decline due to increased use of the area.

The distance from parking to Fisher Point is less than ½ mile. This alternative allows for passenger car road access in the area.

Issue 4 (ROS in the Waterline Road area) Comparison of Alternatives

Background

The amount of each ROS class for the FLEA area by alternative is as follows:

Table 5 ROS Setting by Alternative

ROS Setting	Percent			
	Alt A	Alt B	Alt C	Alt D
SPM	45.7	26.9	45.3	43.9
SPNM	16.2	2.7	16.5	17.9
RN	34.5	67.8	34.5	34.5
P	3.6	0	3.6	3.6
R³³	0	2.0	0	0
U	0	0.7	0	0

Recreation Setting

The high level of recreation use on public land adjacent to urban areas and neighborhoods is a trend noted in both nationwide and local surveys (Center for Social Research, 1990). It is desirable to offer a diverse array of recreation settings and opportunities in close proximity to residential areas in order to meet the diverse demands of National Forest visitors (Driver, Bown, Stankey, Gregoine, 1987).

The Waterline area proposal for a large contiguous SPNM area between the Waterline Road (that is also the wilderness boundary) and the Timberline residential property boundary is an opportunity to designate additional high quality SPNM ROS setting where there are few designated roads at present and where there is an opportunity to enhance the protection of some sensitive wildlife habitat. SPNM areas presently comprise just 2.7 percent of the FLEA area versus SPM that comprises 26.9 percent of the FLEA area. It would be desirable to increase the percentage of SPNM to help meet the demand for diverse ROS settings in close proximity to Flagstaff.

There appears to be little shortage of high quality SPM opportunities within the FLEA area and within a short drive. Many outlying areas that were once RN in character are changing to SPM characteristics as roads built for logging operations during the last couple of decades change from passenger car roads into more primitive high clearance vehicle roads. Prospects for road improvement funding into the future appears to be

³³ The 1992 inventory used for Alternative B shows Urban and Rural ROS settings. These were not carried forward as objectives in Alternatives A, C, and D. See Recreation Settings under the Purpose and Need section of Chapter 1.

slight. It is anticipated roads will continue to become more primitive and rugged throughout the Coconino National Forest and on adjacent Forests creating more SPM. The trend across the Colorado Plateau has been for roads to generally become more primitive as timber related funding for road maintenance and construction have decreased. The Waterline SPNM area would serve as a high quality recreation area while funding that would have been used for maintenance of area roads could go for road maintenance elsewhere.

Present recreation use of the total area is light. Biking on the Waterline Road (closed to private vehicles) is probably the most popular use, though very few bikers venture off of that road. FR 420, the southern boundary of the area, is accessible by passenger car and is frequently used for dispersed camping. Equestrian access to and through the area is common because of the proximity to the Elden Horse Camp and from numerous local equestrians. Most people who venture into the interior of the Waterline area travel by high clearance vehicle.

Table 6 Anticipated Road Distribution For Each Alternative in the Waterline Area

Alt A	Alt B	Alt C	Alt D
SPNM Roads on the exterior No roads on the interior of the area	SPM Fairly well distributed level II roads High clearance vehicles	SPNM Fewer level II roads than B (high clearance) designed to limit wildlife impacts	Same as A

Driving high clearance and four wheeled drive vehicles (Alternatives B and C) through the scenic landscape on the primitive roads of the Waterline area is an opportunity valued by some people. The quality of the primitive road driving experience is considered to be high by those who use it. The entire interior of the area is accessible by primitive roads that normally require, at least, a high-clearance vehicle for passage. Road densities are not high, probably below 2 miles per square mile, and the present forest setting characteristics are well within the parameters for semiprimitive ROS setting objectives. Conflicts between different types of recreation users are rare at present and overall use is light.

Closing the area to public motorized travel (Alternatives A and D) would eliminate a convenient and high quality opportunity to those seeking a SPM setting on the flanks of the San Francisco Mountain. There are plenty of other SPM opportunities in the FLEA area and adjacent to it. However, many areas below the Kachina Peaks Wilderness have been closed to motorized use for various reasons over the past few years and creating a new closure of this area would remove one of a few remaining areas open to vehicle use adjacent to the Kachina Wilderness at a high altitude. Closing the area to motorized access will likely reduce overall use significantly.

Wildlife Habitat

The Waterline area provides key habitat for wildlife including the Mexican spotted owl, turkey, deer, elk, and northern goshawk. An important movement corridor for turkey exists near Jack Smith Peak. An elk calving area is present. Human use is increasing through use of previously closed roads and the addition of user-created (social) trails created by both motorcycle and mountain bike use. At present the increasing human use is affecting turkey movement according to Arizona Game and Fish Department personnel (Barsh, personal communication).

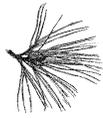
Alternatives A and D would manage this area as SPNM which would increase habitat protection and curtail increasing human use. Mexican spotted owl, turkey, and elk would benefit from the proposed change. Turkey would be expected to benefit the most, with the change maintaining a key summer and fall movement corridor in the vicinity of Jack Smith Peak. Turkey travel from summer habitat in the waterline area to winter habitat north and east where there are pine stringers in pinyon/juniper woodlands.

Alternative C would manage this area as SPM, which would improve the habitat protection for the area and curtail increasing human use, however not to the same degree as Alternative A or D. Alternative C includes the management of only key roads and closure of all others. Road and social trail closures would improve habitat for turkey and lessen habitat disturbance to the movement corridor.

The area currently is inventoried as SPM, however the high human use and road density resembles management as RN. All action alternatives will improve trends that support positive wildlife management

Conclusion: Alternative A would increase of approximately 40,000 acres of SPNM compared to the existing condition. The SPNM areas were chosen based on many factors, including protection of key wildlife habitats. This area managed as SPNM is a very valuable improvement for wildlife, and is critical due to protection needed for reproductive areas, travelways and presence of Threatened Endangered & Sensitive species. The designation of this area as SPNM or SPM Motorized with key road closures is a high priority within the FLEA area.

- Alternative A and D provide for the best improvement of wildlife habitat and greatest protection for the turkey movement corridor.
- Alternative C improves habitat conditions.
- Alternative B offers the least protection for long-term management of wildlife habitat.



CHAPTER 3 - AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

INTRODUCTION AND ASSUMPTIONS

This Chapter summarizes the physical, biological, social, and economic environments of the project area and the effects of implementing each alternative on that environment. It also presents the scientific and analytical basis for the comparison of alternatives presented in Chapter 2. The FLEA area covers approximately 300,423 National Forest acres, which is 16 percent of the Coconino National Forest (approximately 1,842,100 acres).³⁴

A forest plan does not require that any activities or projects occur on the land. It is a permissive document that outlines what is allowed to happen in certain areas of the National Forest lands. The National Forest Management Act of 1976 requires that all site-specific projects be consistent with the forest plan's goals, objectives, standards and guidelines, or that the plan be amended to allow the activity. The plan can also have a programmatic amendment (which this document is) to change management direction when needed. Again, this amended direction does not include any on-the-ground activities, but only the direction for any future proposed activities. Those future activities would all have to go through their own NEPA analysis and decision-making process.

There is less than complete knowledge about many of the relationships and conditions of wildlife, fish, forests, jobs, and communities. The ecology, inventory, and management of a large area is a complex and developing science. The biology of wildlife species prompts questions about population dynamics and habitat relationships. The interaction of resource supply, the economy, and communities is the subject matter of an inexact science. However, the basic data and central relationships are sufficiently well established in the respective sciences for the deciding official to make a reasoned choice between the alternatives. New or improved information would be unlikely to reverse or nullify these understood relationships.

The CEQ regulations implementing NEPA (40CFR 1500-1508) require a determination of possible conflicts between the Proposed Action and the objectives of Federal, State, and local land use plans, policies, and controls for the area. Alternative A (Proposed Action) and the other action alternatives do not conflict with other land use plans. In fact, the action alternatives are complementary to other plans.

³⁴ *These averages are from the current Forest landownership data coverage.*

In the final environmental impact statement (FEIS) for the current *Forest Plan*, and subsequent amendments, the possible effects of implementing the *Forest Plan* were disclosed. The FLEA amendment makes small changes to the existing direction, and therefore only small differences in effects are expected. All the proposed changes are to improve conditions in the FLEA area, so possible future impacts could be lessened. Because we do not know what will happen in the future, this document describes trends and expected outcomes, assuming partial implementation of the Forest Plan.

There are a variety of site-specific projects currently in the planning stages within the FLEA area (*Coconino Forest Schedule of Proposed Actions* published quarterly). These projects fall within current Forest Plan direction. Trends resulting from current site-specific projects, are not different from trends that are expected to result from implementing Alternatives A, C and D.

The sections that follow, refer to the current Management Areas that are drawn on topography and vegetation type, examples are Ponderosa Pine and Mixed Conifer less than 40 Percent Slope (MA3). This is because the direction in the current *Forest Plan* for many items still applies based on the existing Management Areas. This chapter also refers to the new proposed Management Areas common to Alternatives A, C, and D. Maps of the MA's are located at the end of Appendix A.

At earlier stages in the FLEA process there was discussion about changes that might lead to different outputs and implementation schedules related to forest thinning. These earlier discussions centered around which areas might be thinned and in what manner (site-specific planning). However, as the FLEA scope changed, this site-specific analysis was not completed, rather future analysis will determine actual thinning activities for a given area. Some people expected FLEA to analyze the cumulative effects of implementing forest thinning in the urban interface. Because the FLEA is programmatic and does not identify specific locations, timing, or intensity of thinning, this kind of cumulative effects analysis is not possible. Cumulative effects analysis will occur if and when site-specific occur across the landscape.

The Use of Recreation Opportunity Spectrum (ROS) Objectives

Recreation in the FLEA landscape is more than people camping, viewing scenery, hiking, biking, or riding horses. Research shows people choose a specific setting for each of these activities to gain certain benefits. For example, hiking in a large undeveloped setting with difficult access and few facilities offers a sense of solitude, challenge, and self-reliance. In contrast, hiking in a setting with easy access and highly developed facilities offers more comfort, security, and social opportunities.

The *Recreation Opportunity Spectrum* (ROS) is a framework for understanding the relationships and interactions between these recreation settings and benefits. The key to providing these benefits is the setting and how it is managed. "Setting indicators" such as access, remoteness, naturalness, facilities, social encounters, visitor impacts, and the visitors themselves influence the benefits people gain from recreation.

It is known from research that setting characteristics are especially critical. People who visit and live here have high expectations for National Forest recreation settings. Setting characteristics can be affected by such simple things as number of signs, number of people, noise, natural vs. human-made materials, artificial lighting, disturbed soils, or curbs and sidewalks. Where developments occur, how they are placed and the materials from which they are constructed, profoundly affect the recreation setting.

Definitions of ROS settings are as follows:

Urban (U)³⁵ - Paved roads, many encounters with other people, high management presence and facilities, low degree of “naturalness”. An Urban designation is found in areas such as the City of Sedona or Village of Oak Creek.

Rural (R)³⁶ - Less development than in Urban, typical of agricultural areas. Paved or gravel all-weather roads, moderate to high numbers of encounters with other people, high management presence, facilities are generally more rustic, but common and convenient, moderate degree of “naturalness”.

Roaded Natural (RN) - Paved or gravel all-weather roads, moderate number of encounters, moderate management presence, rustic facilities, moderate to high degree of “naturalness”.

Semiprimitive Motorized (SPM) - Primitive roads and trails, low number of encounters with other people, subtle and limited management presence, rustic facilities constructed of native materials, high degree of “naturalness” with infrequent evidence of human activity.

Semiprimitive Nonmotorized (SPNM) - Trail access only - no motorized vehicles, low number of encounters with other people, subtle and limited management presence, scarce rustic facilities constructed of native materials, high degree of “naturalness” with infrequent evidence of human activity.

Primitive (P) - Cross-country or primitive trail access, very few encounters with other people, low to non-existent management presence, facilities only for site protection - not for comfort, very high degree of “naturalness”.

Semiprimitive Nonmotorized 1 (SPNM1) - High numbers of social encounters – Someone in a SPNM1 setting can expect similar setting as SPNM except that there may be more encounters with other people than other SPNM areas. These areas are near residential areas, or are places that draw large numbers of people.

The objectives for where different ROS settings should occur in the future were developed using a landscape analysis and design process that incorporated wildlife, vegetation, topography, watershed, recreation, and road and trail data (see Appendix E).

³⁵ *Urban settings were not used as objectives in Alternatives A, C, and D.*

³⁶ *Rural settings were not used as objectives in Alternatives A, C, and D.*

The ROS objectives provide a mosaic of forest and nonforest conditions. The interactions among wildlife and watershed values with those values of roads, trails, and recreation settings were the basis for the designations. The SPM and SPNM settings distant from urban areas provide for solitude, remote dispersed recreation experiences, opportunities for challenge and risk, and many different kinds of wildlife species sensitive to human disturbance. The smaller SPM and SPNM areas in close proximity to residential-influenced areas provide a diversity of recreation settings that are easily accessible from the more developed areas. Some of the semiprimitive areas are smaller than the minimum area generally required using national ROS Guidelines, but the team felt these semiprimitive designations were valid considering the strong public demand for such areas close to Flagstaff. Many of these same areas have high social encounters.

The table below summarizes all the ways that Forest setting objectives are used to guide management common to all action alternatives.

Table 7 Summary of How ROS Objectives Guide Management Under Alternatives A, C, and D

Type Of Activity	Link to ROS Objectives
Camping	When designating dispersed camping, consider existing resource damage, closeness to riparian communities, degree of use, and ROS objectives.
Signing and Scenery	Strive towards social encounters, signing, and scenery, and a sense of exploration that meets the ROS objectives
Groups and Special Uses	Use ROS objectives to aid in determining appropriate types and numbers of individuals, groups, and outfitter/guides and special uses.
Outfitter/ Guides	Commercial activities are consistent with MA emphasis and ROS objectives. Use level allocations will range from no allocation within some P and SPNM settings to relatively high use allocations within some RN areas. Other more site-specific resource concerns, such as the presence of significant archaeological sites, threatened, endangered, or sensitive plant or wildlife habitat, and areas with sensitive soils, will also influence outfitter/guide allocations.
Rock Climbing	Rock climbing areas are managed and maintained for appropriate experience, natural settings, attributes, and conditions, considering ROS objectives, wildlife, heritage, and soil and water resources.
Trails	Non-motorized and motorized trail opportunities provide a variety of challenges and experiences and meet ROS objectives
Roads	Reasons for closure or obliteration may include. SPM or SPNM settings as set through environmental analysis. Road maintenance standards are compatible with ROS objectives.
Priority for road work	When choosing areas to conduct road maintenance and obliteration, focus efforts in SPM and SPNM areas. Of the SPM and SPNM areas, consider the Lake Mary/Walnut Creek and Oak Creek watersheds as priorities for water quality reasons. Also focus work adjacent to National Monuments.

Table 8 Objectives For The Number Of Social Encounters Within Each Of The ROS Settings For Forest Service Permitted Commercial Tour Operators Only

ROS Setting³⁷	Social Encounters (All users)
RN	No objective
SPM	15 per day
SPNM	15 per day
P	6 per day

Common to all alternatives is the following relationship between ROS settings and roads. RN settings have Maintenance Level III passenger car roads and secondary roads off of the Level III roads. SPNM areas have most roads closed with access points at the exterior edges. SPM areas have relatively low density of mostly Maintenance Level II roads (high clearance vehicles). The Primitive setting has no roads and few trails.

WILDLIFE

This section describes affected environment and environmental consequences for threatened and endangered species, Forest Service sensitive species, management indicator species, and migratory birds.

Background Information on the Effects of Roads, Trails, and Human Use

The following provides an overview of the effects that roads, trails, and human disturbance can have on wildlife. The information was used to describe trends expected in wildlife habitat protection given the changes proposed for recreation, roads, and ROS classifications within the FLEA project area.

Deer/Elk

A great deal of research has been conducted on the effects of roads and recreation on both deer and elk. Deer are more highly vulnerable while elk are less affected. However, most studies found disturbance to be greatest within ¼ mile of roads. An important factor is the frequency of road use combined with existing cover availability adjacent to roads. If human use is low and cover is good along roads, the disturbance factor is lessened for elk. However, disturbance still may be high for deer. High traffic volumes reduced elk use more than did low traffic volumes (Edge and Marcum 1991). There is little or no effect of roads on elk distribution and movements during the summer when there was little or no vehicle traffic. However, as road use increased (during hunting

³⁷ Although social encounter criteria apply to all users, limitations based on social encounters will only pertain to commercial operations.

season) elk tended to move further away from roads (Gruell and others 1976). Lyon (1979) found that avoidance of roads by elk was greater where tree density was less. With less than 75 percent canopy cover, elk use increased or stabilized at 0.9 miles from the nearest road and with canopy closure greater than 75 percent, elk use stabilized at 0.6 miles from the road. Lyon (1980) found that avoidance of roads by elk was greater in meadows and openings and was least in heavy, dense cover.

In the Blue Mountains of northeastern Oregon, roads reduced big game use of adjacent habitat from the road edge to over ½ mile. Main roads had the greatest impact as well as roads through open vegetative types (Perry and Overly 1976). Perry and Overly also found that all roads reduced elk and deer use in meadow habitats. Elk habitat use was greatly reduced within ½ mile of either side of roads and deer use was greatly reduced within 1/8 mile of roads. Truett (1980) also found that moving automobiles were disturbing to elk in meadows at a distance of 1/3 to ¼ miles, and that response distance to humans on foot was generally less.

Rost and Bailey (1979) found that deer exhibited a stronger avoidance response than did elk to roads. They found that avoidance of roads was more evident in shrub communities than in ponderosa pine or juniper habitats, and that both screening and road use affected the avoidance. Rost (1975) found that deer avoided even dirt roads, some of which were used only by four-wheel drive vehicles, trail bikes, and hikers. Strickland (1975) suggests that deer may tolerate traffic disturbances until a disturbance threshold is reached. Once this threshold is reached, deer alter their feeding habits and habitat selection. He also found that mule deer seem to prefer at least ¼ mile distance from activities such as camping, fishing, and hiking. He also found that deer reacted much less to moving vehicles than to vehicles when they stopped. However, when trail bikes passed feeding deer, the deer ran into the nearest cover immediately.

Holbrook and Vaughan (1985) found that high traffic roads adversely affected turkey home ranges by shifting home ranges dramatically. Bailey and Rinell (1968) concluded that in West Virginia, thriving turkey populations did not exist where roads open to the public exceeded four miles per 2,500 acres. They also found that turkeys did not frequent an off-road vehicle use area and were not known to inhabit areas closer than ¾ mile to campgrounds. They also noted foot trail traffic had an adverse effect on the use of an area by turkeys.

Jones and Barsch (1992) found that illegal take of turkey was high in northern Arizona and that high road density is facilitating the illegal take of wild turkey. Lindezey (1967) reported that turkeys are not compatible with heavily used recreation areas, and even occasional use in some areas may cause nest abandonment.

Other Species

Other species that most likely are impacted by high road densities and high human use are some passerines,³⁸ bats, and fox. Chester (1976) found an inverse relationship between intensity of human use and frequency of wildlife observations. The frequency of

³⁸ *Small perching birds of the order Passeriformes, examples are sparrows and bluebirds.*

wildlife encounters by trail travelers is described as a function of time of year, altitude, noise, and party size. Garton and others (1977) found that the reaction of birds to humans in a campground was highly species-specific and varied even with the species. Birds were affected by modification of vegetation structure and actual human presence. Van der Zande and others (1984) found significant negative correlations between recreational intensities and bird densities for some species and not others.

Threatened/Endangered Species

Descriptions of these species' environmental needs are located in the more detailed wildlife report in the project record. Habitat that occurs in FLEA is described in the following text.

Effects are described for the action alternatives. There is no change in current trends under the No-Action Alternative B.

Mexican Spotted Owl (Threatened)

On the Coconino National Forest, the Mexican spotted owl (MSO) occupies mixed conifer and ponderosa pine/Gambel oak vegetation types, usually characterized by high canopy closure, high stem density, multi-layered canopies within the stand, numerous snags, and downed woody material. Much suitable nesting/roosting owl habitat is characterized by steep slopes and canyons with rocky cliffs. The breeding season occurs from March 1 through August 31.

There are thirty-two Mexican spotted owl PACs located all, or partly within, the FLEA area. The owls occupy mixed conifer habitat predominately within canyons such as Walnut Canyon and Pumphouse Wash, the slopes of the San Francisco Mountain, ponderosa pine/Gambel oak habitat along Woody Ridge in the West MA, and areas of the Shultz and Lake Mary Watershed MA's on mountain tops and along drainages.

Mexican spotted owls within the FLEA area are managed following standards and guidelines provided in Amendment 11 to the *Forest Plan*. Amendment 11 is silent on the appropriateness and application of guidelines in an Urban Interface environment. Land managers have struggled with the application of some standards and guidelines for MSO in the urban interface where conflicting objectives have surfaced. Increasing human activities, fuels reduction, and development have conflicted with current standards and guidelines.

A Landscape Analysis process for the FLEA project area included analysis of existing MSO PACs, protected, and restricted habitats. Existing PAC's and protected habitats were key to the proposal to increase SPNM and SPM settings. Where the current *Forest Plan* fell silent on how to manage recreational activities, ROS was used to increase protective measures for management of MSO PAC's and protected habitat.

Under Alternative A, twenty-three PACs fall within SPNM ROS objectives and six of them fall all or mostly within SPM ROS objectives.

To address issues of fuels reduction in the urban interface, the Urban/Rural Influence Zone (U/RIZ) was created. No management changes are proposed for either existing MSO PAC's or protected habitat within this zone.

Within the FLEA project area boundary, there are approximately 6,400 acres of mixed conifer and 11,800 acres of pine/oak restricted habitat. To meet the *Forest Plan* and MSO Recovery Plan guidelines, the FLEA project area would manage for approximately 940 acres of the mixed conifer and 1080 acres of pine oak restricted habitat to promote or maintain target threshold conditions.

Existing condition displays 186 acres of mixed conifer and 850 acres of pine oak restricted habitat within the U/RIZ. The distribution and patch size of the restricted areas within the U/RIZ would provide marginal nest/roost habitat for Mexican spotted owls. Potentially, 100 acres of mixed conifer and 85 acres of pine oak habitat could be designated to maintain or promote target threshold conditions within the U/RIZ. The FLEA guideline to not designate target threshold habitat within the U/RIZ is in the best long-term interest of habitat management for the Mexican spotted owl. The FLEA allocation of target threshold habitat within the Lake Mary Watershed and Shultz Management Areas would better provide for long-term management of roost/nest habitat for the Mexican spotted owl. It is estimated that approximately 18 percent of the Shultz Management Area and 11 percent of the Lake Mary Watershed would be managed for target-threshold conditions in the future, due to not allocating target threshold conditions in the U/RIZ.

The FLEA guideline for monitoring threatened and endangered species (Alternatives A, C, and D) was recommended due to the increased recreation activity on the Coconino National Forest since the time the *Forest Plan* was signed. This guideline will result in increased monitoring and possibly use restrictions where resource managers plan future projects within threatened and endangered species habitat and human disturbance concerns are raised.

The consequences of not managing for target threshold conditions for MSO habitat in the U/RIZ will have no effect on the Mexican spotted owl. The likelihood of occupancy of any of the unoccupied habitat is extremely low given patch size, human disturbance, noise, and poor foraging habitat potential adjacent to the small patches of restricted habitat. The designation of target threshold habitat above the minimum required for the Lake Mary Watershed and Shultz Management Areas where owl occupancy is high and habitat conditions are favorable will benefit the species.

The increase in SPNM and SPM ROS objectives in MSO PACs under the action alternatives will have beneficial trends to MSO habitat within the FLEA area. The ROS objectives will improve the bird's ability to reproduce in these areas. Alternative A and D are slightly better for MSO habitat management with the ROS objective of SPNM.

If the guidelines for social trail management are implemented as described under Alternatives A, C, and D, the trends likely to occur are decreasing impacts to MSO PACs from human disturbance.

All action alternatives improve habitat management for MSO. Alternatives A and D provide the greatest benefit due to the higher level of protection offered by SPNM designation within the Shultz MA along the Waterline Road. Alternative C would increase the number of MSO PACs managed as SPM from nine to twelve and reduce the number of SPNM by three compared to Alternatives A and D. The changes in the action alternatives are beneficial to the Mexican spotted owl. There are no significant cumulative effects expected under any alternative.

Bald Eagle (Threatened)

Bald eagles are primarily winter visitors to the Coconino National Forest occupying all habitat types and elevations. Wintering eagles arrive in the fall, usually late October or early November, and leave in early to mid-April. They feed on fish, waterfowl, terrestrial vertebrates, and carrion. Eagles are often seen perched in trees or snags near water or next to roadways where they feed on road-killed animals. At night, small groups (usually 2 to 12) or individual eagles roost in clumps of large trees in protected locations such as drainages and hillsides. Eagles usually roost adjacent to or very near food sources. Although bald eagles are primarily winter visitors to the Coconino National Forest, there are known summer roosts within the FLEA area.

There are six winter roosting areas and two summer roosting areas identified in the FLEA area. The largest concentration of roost trees is adjacent to Lake Mary. Other project level analysis have shown that these areas are decadent and at risk of wildfire and insect and disease.³⁹ This is assumed to be the case of most winter roosts in the FLEA area.

Threats to bald eagles include loss of existing or potential roosts due to catastrophic fires, disturbance, and fire.

The guidelines proposed under Alternatives A, C, and D, will increase the ability to treat around roost trees. If treatments occur, the chance of wildfire or insect and disease losses will be less. The improvement in longevity of old ponderosa pine roost trees will benefit the species.

All action alternatives will improve habitat conditions for the bald eagle. Alternatives C and D improve habitat slightly more with the inclusion of SPNM settings for the A1 Mountain/Fort Valley area. The SPNM objective in this area would further reduce potential for human disturbance in potential bald eagle wintering habitat.

There is no significant cumulative effects expected as future projects are implemented according to the management direction in Alternatives A, C and D

Black-Footed Ferret (Endangered)

The historical range of the black-footed ferret is nearly identical to that of three prairie dog species, the black-tailed prairie dog (*cynomys ludovicianus*), Gunnison's prairie dog (*C. gunnisoni*), and the white-tailed prairie dog (*cynomys leucurus*). Gunnison's prairie

³⁹ Reference the Lake Mary Fuels Reduction Project, Project Record located at the Peaks District Office.

dogs are the species found on the Coconino National Forest. Ferrets occupy the burrows made by prairie dogs and use prairie dogs as a main food source. They formerly ranged from the Great Plains of Canada to the intermontane region of the interior Rocky Mountains and the southwest. There is a 1952 specimen from an area 7 miles northeast of Williams, Arizona and another from the Bacas Ranch, 16 miles northeast of Springerville (Hoffmeister, 1986).

A complex is a series of towns within 4.35 miles of each other, the distance a ferret could travel in a night. Burrow density counts have not been conducted and it is assumed that each colony is of sufficient minimum size to support ferrets.

Implementing future projects based on the proposed language changes within the FLEA area will not change habitat trends for this species or its habitat.

Impacts to prairie dogs include predation by coyotes, raptors and bobcats, and legal shooting. They are also subject to significant local declines due to diseases such as plague and distemper.

Within the FLEA boundary there are numerous prairie dog towns. The best complex of habitats exist within the Doney, Craters, and Deadman Management Areas. All alternatives increase SPNM and SPM of these MAs and will benefit prairie dogs. However, adjacent to many grasslands are inclusions of private property which provide habitat for domestic pets. The likelihood of ever reintroducing ferrets into a complex located within the FLEA area is small, due to the likelihood of canine distemper and predation from domestic dogs and cats.

There are no significant cumulative effects expected as future projects are implemented under any Alternative.

Forest Service Sensitive Species

Descriptions of these species' environmental needs are located in the more detailed wildlife report in the project record. Habitat that occurs in FLEA is described in the following text.

Effects are described for the action alternatives. There is no change in current trends under the No-Action Alternative B.

This section on sensitive species describes trends. Where little to no change, or effect is expected, there is not a cumulative effect.

Navajo Mountain Mexican vole

Implementing future projects based on the proposed language changes within the FLEA area will trend towards positive habitat improvement for this species.

The FLEA area provides approximately 1,100 acres of riparian habitat. Lake Mary, Dry Lake, and Marshall Lake are key to habitat management for this species. All of these

areas have camping changes proposed for either closed to camping or designated camping. Proposed trail management direction emphasizes relocating or closing social trails and parking management at the lakes will help to control total number of people that can visit sites at one time. All action alternatives would improve trends for this species as new guidelines emphasize rehabilitation of water quality and non-motorized access.

Navajo Mountain Mexican vole would occupy Mountain Meadows (MA9), or Grasslands with Sparse Pinyon/Juniper (MA10). Additional road management criteria for meadow and grassland environments will trend towards improved cover, forage, and increased ground cover important for cover and forage. The table below shows the percentage of MA9 and MA10 managed as SPM and SPNM. These settings will have trends towards reduced number of roads resulting in improved understory conditions. The table below also shows the percentage of these MA's that are closed to camping under Alternatives A, C, and D. Camping closure limits site-specific locations of compaction and will help maintain cover.

Table 9 Percent of MA9 and MA10 in SPM and SPNM or Closed to Camping

Management Area	Percent of NF Acres in the MA by Alternative	
	Alt A, C, and D	Alt B
MA 9 Closed to camping	19.7	15.6
MA9 in SPNM	9.7	0
MA9 in SPM	32.2	16.8
MA10 Closed to camping	35.8	4.5
MA10 in SPNM	2.1	0
MA10 in SPM	7.1	16.8

The voles are also located throughout ponderosa pine less than 40 percent slopes (MA3) lands, within scattered openings that occur throughout MA3. Based on historical evidence, MA3 was much more open and probably used more by this species. Within the FMAZ 1U the cover guideline proposed in Alternative A would benefit this species by increasing open forest condition. Alternative A would provide for the greatest improvement in vole habitat and Alternatives C and D would cause a slight improvement.

Wupatki Arizona Pocket Mouse

Implementing future projects based on the proposed language changes within the FLEA area may benefit this species slightly.

All existing habitat on the Coconino National Forest for this species is located within the FLEA boundary. The species occurs within the Deadman Wash Management Area and

predominately within pinyon/juniper less than 40 percent slopes (MA 7). All action alternatives increase SPM and SPNM areas that will reduce roads and human impacts, in turn improving understory conditions that could potentially benefit this species.

American Peregrine Falcon

Recreational activities such as hiking, camping, rock climbing, and off-road vehicle use have the potential to cause adverse impacts to the peregrine falcon. Forest Service projects such as the clearing of trails and the construction of trails, trailheads, roads, and campsites have the potential to affect the peregrine falcon especially where these activities occur near peregrine eyries. Ellis (1982) states that camping and hiking activities can be compatible with nesting peregrines as long as these activities do not occur within a ¼ buffer zone. Other activities such as rock climbing and off-road vehicle use require broader buffer zones (Ellis 1982).

Proposed management direction for the Recreation Opportunity Spectrum (ROS) will provide more protection and overall, more conservative, management of known eyrie locations. The changes in ROS guidelines will benefit peregrine eyrie locations. All known eyrie locations and the best potential habitat have ROS objectives of either P or SPNM settings.

The current *Forest Plan* was silent on the management of peregrine falcon eyrie locations related to rock climbing. The proposed guideline changes include specific management direction within rock climbing areas. Rock climbing areas will be inventoried for peregrine falcon and other raptors. If monitoring shows a need, climbing and all other activities will be prohibited within ½ mile of peregrine eyrie locations during the breeding season.

All action alternatives will benefit habitat management for the peregrine falcon.

Northern Goshawk

There are 20 PFA's within FLEA. The changes to guidelines on human disturbance apply to all PFA's but are most relevant to those within the Urban/Rural Influence Zone.

There is no expected change in species viability or trends for northern goshawks from any alternative as no major changes to Amendment 11 (goshawk standards and guidelines) of the *Forest Plan* occur.

Mountain Silverspot Butterfly and Blue-black Silverspot Butterfly

Mountain and blue-black silverspot butterfly would have potential habitat within riparian areas and open water (MA12). Current databases show approximately 1,100 acres of riparian habitat. This habitat includes Lake Mary, Dry Lake, and Marshall Lake all of which are key to habitat management for this species. All of these areas have camping changes proposed to either close to camping or designate camping that will improve water quality and understory development. Proposed trail management direction emphasizes relocating or closing social trails and parking management at the lakes will help control total number of people that can visit sites at one time. All action alternatives would improve habitat trends for these species as new guidelines emphasize

rehabilitation, improvements to water quality, and non-motorized access. *Forest Plan* language changes under any of the action alternatives would be beneficial to these species.

Early Elfin

Early elfin could occupy various habitat types throughout the FLEA project area. None of the action alternatives will have any detectable effect on habitat trends for this species because there are no changes in standards and guidelines which would cause future effects to this species.

Freeman's agave borer

Habitat for this species may occur along the base of Mount Elden. None of the action alternatives will have any detectable effect on habitat trends for this species because there are no changes in standards and guidelines that would affect this species.

Northern Leopard Frog

Northern leopard frog would have potential habitat within riparian and open water (MA12). The FLEA area provides approximately 1,100 acres of riparian habitat. Lake Mary, Dry Lake, and Marshall Lake are key to habitat management for this species. All of these areas have camping changes proposed to either close to camping or designate camping. Proposed trail management direction emphasizes relocating or closing social trails and parking management at the lakes to help control total number of people that can visit sites at one time. All action alternatives would improve trends for this species as new guidelines emphasize rehabilitation, improvements to water quality, and non-motorized access.

Arizona Bugbane and Cliff Fleabane

There is limited habitat within the FLEA area for these species. Riparian canyon bottoms within the Walnut MA and West MA hold the greatest potential. All known species occurrence are within areas proposed for management as SPNM. There are changes recommended for Pumphouse Wash to reduce camping that may lead to less vegetative disturbance to Arizona bugbane. There are modest estimated trends expected for improving habitat potential for these species, however all action alternatives will have no major effects on Arizona bugbane or cliff fleabane.

Arizona Sneezeweed

Arizona sneezeweed would occupy mountain meadows (MA9) within the FLEA project area. Improvements in guidelines that manage for roads within meadow and grassland environments will improve habitat for this species. Within road criteria guidelines there is a priority to improve hydrologic conditions, emphasizing improving conditions in the Lake Mary Watershed where this species occurs. Most all of the potential habitat within the Lake Mary Watershed area is within SPNM and SPM and approximately 20 percent of MA9 within the entire FLEA area is proposed for camping restrictions. There are positive trends expected for improving habitat potential for this species. As future project are implemented based on the new direction, the action alternatives will benefit this species.

Flagstaff Pennyroyal

Populations of Flagstaff pennyroyal are numerous and abundant throughout the FLEA area. Populations are primarily located within the Walnut, Lake Mary Watershed, and Flagstaff MA's. The species has been studied by many and found to be quite hardy. Personal observations⁴⁰ in the Walnut Canyon Area find the plant has increased in numbers and continued to flower and spread even when located on well-used roads. The plant appears to respond positively to disturbance.

The plant is found most often growing in full sunlight with zero canopy closure. Alternative A would benefit this species where less area is managed for dense stand conditions (within the Fire Management Analysis Zone 1U). Alternatives C and D benefit the species more than B but somewhat less than A. Alternative B causes no change to future openness of stands from current management direction.

Flagstaff Penstemon and Rusby's Milkvetch

Numerous locations of Rusby's milkvetch are known from the FLEA project area. Few penstemon are known. Habitat for both species is widespread within the project area and all action alternatives propose new guidelines, which will benefit these species. Alternative A, will reduce tree cover within the FMAZ 1U, thus providing more favorable habitat conditions for these plants. Alternative D would provide for better protection from trampling or disturbance due to fewer roads and less human use of potential habitat based on ROS objective to manage for increased SPNM areas. All action alternatives result in beneficial impacts to these species.

Sunset Crater Beardtongue

Large expanses of potential and occupied habitat for this species are proposed for management as SPM and SPNM. Road closures will benefit this species. Management direction proposed for the Cinder Hills OHV Area under Alternatives A, C, and D will benefit the plant somewhat more than B where slope closures occur. All action alternatives will benefit Sunset Crater beardtongue.

Management Indicator Species

The National Forest Management Act of 1982 requires that the effects of each alternative on fish and wildlife be estimated and that "certain vertebrate and/or invertebrate species present in the area be identified and selected as management indicator species" (36 CFR 219.19(a)(1)). Management indicator species (MIS) were identified and selected for the Forest, as noted in the *Forest Plan* (USDA Forest Service 1987 as amended).

The *Forest Plan*, signed on August 28, 1987, and amended 16 times since, identifies 17 Management Indicator Species. MIS were developed by vegetative type and seral stage, plus the snag component of forested areas (USDA Forest Service 1987a) (Table 1). The Environmental Impact Statement for the Coconino Forest Plan (EIS) (USDA Forest Service 1987a) defined indicator species as:

⁴⁰ Personal observations by Tammy Randall Parker documented in field notes located in wildlife office.

“...a plant or animal whose population change reflects a population change in other species within a group. Indicator species respond to habitat changes early or at low levels of stress and, therefore, are sensors of the effect of management activities that occur in various habitats.”

In the Coconino Forest Plan, management of species is emphasized as follows for the different Management Areas located within the FLEA area.

- MA3 - Ponderosa pine and mixed conifer < 40 percent slope (110,400 acres) - pygmy nuthatches, Abert squirrel, red squirrel, hairy woodpeckers, turkey, and northern goshawk.
- MA4 - Ponderosa pine and mixed conifer > 40 percent slope (14,444 acres) - Mexican spotted owl, turkey, elk, Abert squirrel, red squirrel, northern goshawk, hairy woodpecker, and pygmy nuthatch.
- MA5 - Aspen (289 acres) - yellow-bellied sapsucker and mule deer.
- MA7 and 8 - Pinyon-Juniper woodland less than and greater than 40 percent slope (79,036 acres) - plain titmouse, mule deer, and elk.
- MA9 - Mountain meadow (9,031 acres) - pronghorn antelope and elk.
- MA10 - Grassland and Sparse Pinyon-juniper (19,964 acres) - pronghorn antelope.
- MA12 - Riparian and Open Water (1,100 acres) - cinnamon teal, Lincoln's sparrow, yellow-breasted chat, Lucy's warbler, and macroinvertebrates.

The following sections describe habitat changes for the FLEA alternatives.

Elk and Mule Deer

The increase in ROS setting SPNM and SPM will improve habitat for all MA3 species, with both deer and elk benefiting from less disturbance. Under Alternatives A, C, and D, camping closures, designated camping, and campfire restrictions will be implemented on 30.5 percent of the FLEA area and will lessen disturbance and improve habitat conditions by eliminating continuous human presence over a portion of the FLEA area. All action alternatives place emphasis on day-use and strategic recreation direction within the FLEA area and will help relieve some of the impacts from recreation.

Outfitter/guide, road and motorized trail development include guidelines to meet ROS objectives, and again key wildlife habitats will be managed to reduce the number of human encounters.

Forestry changes include reducing the amount and patch size of cover within the FMAZ area of FLEA. Less cover will have slight impacts on deer and elk. Alternatives C and D will have slightly less effect than Alternative A. The emphasis to improve understory and reduce wildfire potential will have positive impacts and trends on these species. All watershed, mountain meadow, and riparian guidelines will benefit these species.

Management of elk habitat is emphasized in Ponderosa Pine and Mixed Conifer greater than 40 percent slope (MA 4) within the FLEA project area. The effects are very similar to MA3, however due to topography this species is protected even more.

Management of mule deer habitat is emphasized in aspen (MA 5). Aspen stands are popular locations for camping, wildlife viewing, and human exploration. Aspen areas within the FLEA area are concentrated within the Schultz and West MA's. Under Alternatives A, C, and D, camping closures and designated camping have been proposed for 39 percent of aspen areas. SPM and SPNM designations occur within 92 percent of aspen areas and will provide fewer disturbances to mule deer and many other species, which use aspen habitats.

Mule deer and elk are also emphasized in Pinyon/Juniper Woodland Less Than and Greater Than 40 Percent Slope (MA 7 and 8). Large blocks of the pinyon juniper woodlands in the Deadman Wash, Doney, and Craters MAs are proposed for SPM management. The reduction in roads will benefit wildlife species and protect key winter range for mule deer and elk. The trend is improved winter range habitat.

Elk are also emphasized in Mountain Meadows (MA 9) within the FLEA project area. Road management guidelines, under Alternatives A, C and D, to locate roads outside of meadows and reduce road densities in grassland environments will improve forage and lessen disturbance. SPM and SPNM encompass 42 percent of mountain meadows and further will provide a trend for protection and improvement of these important habitats.

All action alternatives improve habitat conditions for elk and mule deer through improved access management of social trails and roads to reduce impacts to important habitats such as riparian areas and meadows. All action alternatives provide increased protection of cover habitat from loss during a stand replacing wildfire in comparison to Alternative B. Alternative D best improves habitat for elk and deer due to the largest acreage managed as SPNM and 15 percent cover allocation. Alternative B or no action is the least desirable due to the distribution of current ROS classifications and less direction and guidelines for recreation and road management. Alternative A will have some effect to elk and mule deer due to loss of cover. Alternative C is the least desirable due to changes in ROS objectives from SPNM to SPM for the Schultz MA near the Waterline Road. There are modest estimated trends expected for decreasing habitat potential for these species, however all action alternatives would not have a detectable effect on forestwide habitat trends for either mule deer or elk on the Coconino National Forest.

Pronghorn Antelope

Road management guidelines, under Alternatives A, C and D, to locate roads outside of meadows and reduce road densities in grassland environments will improve cover, forage and lessen disturbance to pronghorn antelope. See Table 9 (shown previously) for percentages of habitat in SPM and SPNM settings and percentages of habitat closed to overnight camping.

All action alternatives will result in a slight habitat improvement for this species.

Pronghorn antelope are not MIS for ponderosa pine and mixed conifer less than 40 percent slope (MA3) lands, however scattered openings occur throughout MA3, and based on historical evidence, MA3 was more open and used by pronghorn antelope. Action alternatives reduce tree densities and may improve conditions for antelope movement between scattered openings. There would be no changes in the forest-wide habitat trend.

Abert Squirrel

Forestry changes include reducing the amount and patch size of cover within the FMAZ area of FLEA. Less cover will have slight impacts on Abert squirrel. Alternatives C and D will have slightly less effect than Alternative A. Alternative B would affect Abert squirrel the least in the short-term, however wildfire potential would remain high and threaten habitat for this species. Although action alternatives reduced habitat quality, they also provide protection from total loss of squirrel habitat from a stand replacing wildfire. There are modest estimated trends expected for decreasing habitat potential from action alternatives for this species. This decrease will not change forest-wide habitat trends.

Red Squirrel

No changes are proposed on slopes greater than 40 percent that would impact this species. However, red squirrels also use mixed conifer habitat on slopes less than 40 percent.

Forestry changes include reducing the amount and patch size of cover within the FMAZ area of FLEA. Less cover will have slight impacts on red squirrel. Alternatives C and D will have slightly less effect than Alternative A. Although action alternatives reduced habitat quality, they also provide protection from total loss of squirrel habitat from a stand replacing wildfire. There are modest estimated trends expected for decreasing habitat potential for this species. This change will not affect forest-wide habitat trends.

Wild Turkey

The increased acres in ROS settings SPNM and SPM will improve habitat for all MA3 species, with turkey benefiting the most, as they are highly sensitive to disturbance. Camping closures and designated camping will be implemented on 30.5 percent of National Forest acres and will lessen disturbance and improve habitat conditions by eliminating continuous human presence over a large portion of the FLEA area.

Different ROS settings can affect disturbance sensitive MIS species such as turkey. The proposed ROS changes will benefit this species. Analysis of the *Flagstaff Area Open Spaces and Greenways Plan* (City of Flagstaff, 1998) produced a map identifying key and high quality wildlife habitat within the Flagstaff urban interface. This map was used in the landscape assessment for FLEA and was key to identification of ROS changes needed for wildlife habitat protection. Sixty-five percent of key and high quality wildlife habitat is proposed for Primitive, SPM, and SPNM management. Outfitter/guide, road, and motorized trail development guidelines implement ROS objectives, and again key wildlife habitats are managed to reduce the number of human encounters.

Alternative D best improves habitat for this species due to the largest acreage managed as SPNM and 15 percent cover allocation. Alternative B or no action is the least desirable due to the distribution of current ROS classifications and the lack of direction for some aspects of recreation and road management. Alternative A will have some effect to turkey due to loss of cover. Alternative C is the least desirable due to changes in ROS objectives for the Schultz MA near the Waterline Road.

All watershed, mountain meadow, and riparian guidelines in action alternatives will benefit turkey. Forestry changes include reducing the amount and patch size of cover within the FMAZ 1U area of FLEA. Less cover will have slight impacts on turkey. Alternatives C and D will have slightly less effect than Alternative A. Although action alternatives reduce cover habitat, they provide protection from loss of cover (forested stands) from stand replacing fires. These changes do not affect forest-wide trends.

Northern Goshawk and Mexican Spotted Owl

See the section on threatened and endangered species for a discussion of habitat within the FLEA area, and expected effects from the FLEA alternatives for the Mexican spotted owl. See the section on sensitive species for a discussion of northern goshawk.

Pygmy Nuthatch, Hairy Woodpecker, Red-naped (Yellow-bellied) Sapsucker, and Juniper Titmouse

None of the action alternatives will have any detectable effect on habitat trends for these species because there are no proposed changes in standards and guidelines, which would affect them.

Lincoln's Sparrow

The FLEA area provides approximately 1,100 acres of riparian habitat, however, only a few small areas provide or have the potential to provide the scrub habitat preferred by this species. Some of the seeps and springs that drain into Lake Mary, such as Babbitt, Clark, and Hoxworth Springs, may have the greatest habitat potential. Changes in recreation management include proposals to either close to camping or designate camping sites in most of the riparian habitat, including Lake Mary, Dry Lake, and Marshall Lake. Trail management under Alternatives A, C, and D emphasizes relocating or closing social trails and parking management at the lakes to help control total number of people that can visit sites at one time. All action alternatives would improve vegetation along the shorelines, improving foraging habitat for this small secretive bird when it migrates through the area. New guidelines that emphasize rehabilitation, improvements to water quality, and nonmotorized access, will result in improved riparian habitat. There are modest estimated trends expected for improving habitat potential for this species. These improvements do not change forest habitat trends.

Lucy's Warbler and Yellow-breasted Chat

There is limited habitat within the FLEA area for Lucy's warbler and yellow-breasted chat. Riparian canyon bottoms within the Walnut MA and West MA hold the greatest potential. There are changes recommended for Pumphouse Wash to reduce camping that may lead to slightly less disturbance of shrub communities. Walnut Canyon has objectives for primitive settings. There are modest estimated trends expected for

improving habitat potential for these species. These improvements do not change forest habitat trends.

Cinnamon Teal

The FLEA area provides approximately 1,100 acres of riparian habitat. Lake Mary, Dry Lake, and Marshall Lake are key to habitat management for this species. Under Alternatives A, C, and D, all of these areas have camping changes that either close them to camping or change them to designated camping sites. Alternative A, C, and D trail management direction emphasizes relocating or closing social trails and parking management at the lakes to help control total number of people that can visit sites at one time. All action alternatives would improve trends for this ground nester by providing improved nesting vegetation and reducing human disturbance. New guidelines emphasize rehabilitation, improvements to water quality, and nonmotorized access. There are modest estimated trends expected for improving habitat potential for this species. These improvements do not change forest habitat trends.

Macroinvertebrates

The FLEA area provides approximately 1,100 acres of riparian habitat. Lake Mary, Dry Lake, and Marshall Lake are key to habitat management for macroinvertebrates. Under Alternatives A, C, and D, all of these areas have camping changes that either close them to camping or change them to designated camping. Trail management direction emphasizes relocating or closing social trails and parking management at the lakes to help control total number of people that can visit sites at one time. All action alternatives would improve trends for riparian rehabilitation, which should benefit macroinvertebrates. New guidelines emphasize rehabilitation, improvements to water quality, and nonmotorized access. There are modest estimated trends expected for improving habitat potential for macroinvertebrates. These improvements do not change forest habitat trends.

Neotropical Migratory Birds

Following is a listing of priority migratory bird species, by habitat type, (Latta et al. 1999) that are or have the potential to be found within the project area. Northern goshawk and Mexican spotted owl are discussed in the early pages of this document. Mixed conifer habitat is found within the canyons and is deferred from treatment.

Table 10 Neotropical Migratory Bird Habitat in the FLEA Area

Bird species	Mixed Conifer	Ponderosa Pine, Pine- Oak	High Elevation Grassland	High Elevation Riparian
Northern Goshawk	X	X		
Mexican Spotted Owl	X	X		
Olive-Sided Flycatcher	X	X		
Cordilleran Flycatcher		X		X
Purple Martin		X		
Ferruginous Hawk			X	
Swainson's Hawk			X	
MacGillivray's Warbler				X
Red-Faced Warbler				X

Information on the environmental needs of these species is located in the Wildlife Report in the project file.

Under all action alternatives effects to reduce cover would benefit the olive-sided flycatcher, cordilleran flycatcher, and purple martin due to the creation of more open habitats. Canyons would remain dense and SPNM and Primitive ROS objectives will improve habitat for MacGillivray's warbler and red-faced warbler. There would be improved conditions to meadows and increased prey for Swainson's hawk and ferruginous hawk.

Alternative B would retain dense stands and would favor cordilleran flycatcher. Additionally under Alternative B, the high fire hazard potential would persist. In the advent of a large wildfire, habitat for all species, except Swainson's hawk and ferruginous hawk, would be destroyed.

There is no significant cumulative effects expected as future projects are implemented according to the management direction in Alternatives A, C, and D

SOIL AND WATER QUALITY

The FLEA area consists of portions of several 5th code watersheds and includes portions of both the Verde and Little Colorado River basins. The affected 5th code watersheds include:

- Cedar/Deadman - 98,588 acres⁴¹
- Sycamore Canyon - 12,268 acres
- Lake Mary⁴² - 90,460 acres
- Flagstaff - 129,705 acres
- Canyon Diablo - 18,116 acres
- Mormon Lake - 522 acres
- Oak Creek - 26,319 acres

Changes in *Forest Plan* language relate primarily to two watersheds: Lake Mary and Oak Creek. Ninety-three percent of the Lake Mary watershed lies within the FLEA area, and nine percent of the Oak Creek Watershed is within the FLEA area.

Future site-specific implementation of the language in the current *Forest Plan* or any of the alternatives does not change trends for soil and water quality, or overall watershed health.

Best Management Practices apply to all future projects. Forest Service roads and trails will be designed according to standards that prevent site-specific erosion.

By recognizing watersheds related to important waters such as Lake Mary and Oak Creek Canyon, there is a sense of priority for conducting roadwork, meadow restoration, and other practices. This will help ensure managers make choices with water quality in mind. The Lake Mary watershed is given its own Management Area to help with emphasis for management.

Increased flexibility for managers to reduce fire potential within the U/RIZ and the FMAZ 1U will lessen the risk of catastrophic fire losses that have effects on watershed characteristics. On- and off-site impacts on hydrologic function resulting from severe fire include:

- Precipitation flowing on the surface of the soil rather than infiltrating into it;
- Excessive erosion during precipitation events;
- Rapid stream flow response from precipitation; and
- A reduction in base flow between storms.

⁴¹ *These acres include all ownerships.*

⁴² *The Lake Mary 5th code watershed includes Walnut Creek.*

Watershed function is maintained under any alternative in the Cinder Hills. Increased emphasis on dispersal of riders, location of camping hubs, and improved road access will help improve site-specific instances of erosion.

Under Alternatives A, C, and D, many of the SPNM areas occur on steep slopes where erosion could be a concern. The sense of priority that the action Alternatives have because of the increased acres of SPNM areas within the Lake Mary and Oak Creek watersheds will focus attention where it is most needed for site-specific erosion concerns.

Under Alternatives A, C, and D, implementation of changes in camping management in key areas will improve site-specific compaction, run-off, and lack of ground cover in areas currently experiencing impacts. This includes the riparian areas of Pumphouse Wash, Walnut Canyon, Marshall Lake, and Lake Mary.

The increased emphasis on sanitation facilities will alleviate concerns at popular recreation sites including Lake Mary and Marshall Lake.

The action alternatives recognition that motocross is not an appropriate activity on National Forest lands will help managers make decisions on how to handle makeshift tracks especially in meadows. Meadows are a relatively rare component of the landscape, and an integral part of watershed function.

The overall amount of trails and to some extent roads on the landscape is lower in the action alternatives. As site-specific implementation occurs to accept, relocate, or remove user-created (social) trails and roads, there should be additional areas of vegetative ground cover versus bare soil.

There are no significant cumulative effects expected as future projects are implemented according to the management direction in any Alternative.

VEGETATION

The areas where changes are proposed for vegetation management are related to wildlife cover and fire hazard management. The desired condition of pine forests outside of Mexican spotted owl habitat is guided by northern goshawk guidelines (described in the *Forest Plan* pages 65-3 through 65-6). This is because goshawks are a forest dweller at the top of the food chain. Maintaining food, shelter, and water for the goshawk does the same for the goshawk's prey, the prey's prey, and the prey's prey's food base, thus resulting in all the parts of an ecosystem maintained. The desired condition outlined for goshawks can be achieved with a variety of prescriptions. Single or multiple treatments may be used so that trees grow to desired sizes and desired canopy closures and so that desired interspaces between trees are achieved.

The text additions proposed for the FLEA area are added direction for lands previously classified as ponderosa pine and mixed conifer less than 40 percent slope (MA 3). These

areas are where most vegetative treatments have occurred in the past, and where most vegetative treatments are likely to occur in the future. This is because of the large amount of ponderosa pine on the landscape, and the continued need to progress towards desired conditions.

Suitability of all lands for removal of a commercial timber product in the FLEA area does not change. However, the emphasis for management may be adjusted. Before *Forest Plan* Amendment 11 was adopted many of the acres of suitable timberlands in ponderosa pine less than 40 percent slope were classified under timber component 500 (suitable forest land-timber emphasis). Since Amendment 11 was adopted, most if not all of these acres changed to timber component 650 (suitable forest land - wildlife habitat emphasis). Alternatives A, C, and D provide added emphasis of fuels reduction in the U/RIZ and these lands could change to another form of the 600 series of timber components to reflect emphasis on fuels reduction.

There are no required rates of implementation listed in the *Forest Plan*, rather a range of outputs and acres were analyzed. Actions to progress towards goals, objectives, standards, and guidelines described in the FLEA additions, fall within the range of activities analyzed in the *Forest Plan*.

There is little difference among alternatives for vegetation. Under Alternative A, there will be trends towards less wildlife hiding and thermal cover. This translates into fewer acres in dense conditions and more acres in open growing conditions over time. Tree health and vigor is best maintained when there is less competition between trees for water and sunlight. Alternative A, provides for somewhat better growing conditions for trees in the FMAZ 1U area when compared to Alternative B. Alternatives C and D have slightly more cover (dense forest) than Alternative A and slightly less cover than Alternative B. Over all forest health is not different between the action alternatives.

Current Forest Plan direction (Alternative B) allows for thinning trees to reduce overstory canopy closure which promotes the growth of grass, forbes, and shrubs in the understory. Alternative A provides for slightly more openings than Alternative B, because Alternative A requires fewer acres to be held in dense wildlife cover conditions. Alternatives C and D fall in between Alternatives A and B, however, the difference is not great. The potential exists, for overall trends for composition, diversity, and quantity of grass, forbes to be upward under all action alternatives.

The clarification language brings the *Forest Plan* up to date with the current strategy that is two fold: control or remove existing plants and take steps to lessen the spread of noxious weeds. The *Noxious Weeds Strategy* (USDA, Coconino, Kaibab and Prescott Forests 1998) provides methods for conducting risk assessments and contains a flow chart of mitigation measures, such as cleaning equipment. This is especially important in the FLEA area because of the major highways and roadways which provide corridors for plants to spread, and because many of the noxious weed species have the opportunity to increase after ground disturbing activities such as thinning, prescribed fire, and road obliteration.

There are no significant cumulative effects expected as future projects are implemented according to the management direction in any Alternative.

FIRE RISK, HAZARD, AND FIRE POTENTIAL

Fire risk is a term used to indicate the probability of a wildfire ignition (particularly, a human-caused ignition). Just the increase in population of the Flagstaff/Lake Mary Area (FLEA) has increased the likelihood of a human-caused fire occurring within a threatening distance of a neighborhood. There are more local residents recreating in the forest around our community.

Other demographics have also shifted. Humans active in the forest now are more likely to come from urban settings and have less mastery of wildland fire prevention. The widespread use of sport utility vehicles has increased the number of visits into the forest, as well as the range or depth of those visits into the area surrounding residential developments.

Over the last ten years, there are many more people who would be endangered by a severe wildfire. Neighborhoods have spread into forested areas making them more difficult to protect. The length of “neighborhood” perimeter that public agencies must defend has grown, increasing our community’s exposure. There is currently 230 miles of forest boundary adjacent to private land within FLEA. Each of these changing fire risk factors suggests a higher degree of fire safety is needed.

Fire hazard is a term used to indicate the intensity with which a wildfire will burn and spread, once ignited. The fire hazard is influenced by many factors: the accumulated dead and down fuel, the number and spatial arrangement of living trees, the topography, the prevailing wind direction and speed, the air temperature and relative humidity, and typical site-dryness. A fire manager must also consider the site’s proximity to commercial and residential development. However, management actions can only reduce two of these factors to mitigate all of the other contributors, that is to say the dead and down fuel and spatial arrangement of living trees.

Effective reduction of dead and down fuel is accomplished by prescribed burning. However, it is difficult to conduct such burns in close proximity to commercial and residential development. It is especially difficult to burn near developments frequently enough to be effective, because residents feel frequent burning causes unacceptable smoke impacts even if burning is within ADEQ guidelines.

Creating open stand conditions near developments is a more viable option of reducing the fire hazard because of these constraints on prescribed burning in such areas. As the population of the Flagstaff/Lake Mary Area has grown, so have the number of fire-prone trees within it. The current *Forest Plan* direction limits fire managers’ ability to mitigate the increasing fire hazard quickly enough within FLEA because there is not enough flexibility in cover requirements to meet fire management needs.

Fire potential is a term often used to indicate the danger of a fire occurring when “fire risk” and “fire hazard” are considered together. Both fire risk and fire hazard have increased within the Urban/Rural Influence Zone (U/RIZ), within the larger Ponderosa Pine/Urban Interface Fire Management Analysis Zone (FMAZ 1U), and within FLEA, which is larger still. The action alternatives would reduce both fire risk and fire hazard to different degrees, and so reduce overall the fire potential of the three concentric areas.

Environmental Consequences Across the Entire FLEA Area

The action Alternatives A, C, and D reduce the risk of a wildfire occurring throughout the FLEA area. Each of these alternatives proposes to increase the area within the FLEA boundary where camping is prohibited from 11.5 percent of National Forest lands to 19.1 percent. This change would reduce one ignition source of wildfires (fire risk). In addition, Alternatives A, C, and D would increase the areas of designated dispersed camping from 0.1 percent to 9 percent of National Forest lands. Where designated dispersed camping could occur, agency managers could choose locations that are relatively less hazardous, such as areas where a low wildfire intensity is expected.

Managing an area as nonmotorized removes another ignition source of wildfires (fire risk), but only from that particular area. Each of the action alternatives proposes managing additional acres toward a nonmotorized recreational setting (16.2 percent in Alternative A, 2.7 percent in Alternative B, 16.5 percent in Alternative C, and 17.9 percent in Alternative D).

Managing camping and motorized vehicle access does not however, eliminate all human-caused wildfires, nor does it address lightning ignited wildfires. The fire hazard (intensity with which a wildfire will burn and spread) must also be mitigated.

Environmental Consequences only within the FMAZ 1U

Since prescribed burning near developments is limited by constraints cited above, reducing fire hazard depends almost entirely on managing the number and spatial arrangement of living trees.

In 1987 when the *Forest Plan* was completed, forest fire managers believed the application of the 30 percent wildlife cover requirement across the Ponderosa Pine/Urban Interface Fire Management Analysis Zone (FMAZ 1U) provided an acceptable fire potential. With the demographic changes cited above in Affected Environment, leaving 30 percent of the forested area within the FMAZ 1U in dense stands with closed canopies now presents an unacceptable combination of fire risk and fire hazard to our community.

Alternative A proposes lifting this cover requirement within the FMAZ 1U. This would not prohibit the retention of wildlife cover. Some wildlife cover would be maintained within this zone. However, it would provide fire managers with the flexibility to thin dense stands that are particularly at risk of ignition or that are particularly hazardous to neighborhoods.

Under Alternative A, the percentage and arrangement of wildlife cover retained within the FMAZ 1U for any subsequent project would be determined by the “fire risk” and “fire hazard” of the particular site. Outside the FMAZ 1U (Ponderosa Pine/Urban Interface Fire Management Zone) and across the rest of the forest the requirement for retaining at least 30 percent of the forested area in wildlife cover would remain unchanged.

Alternatives C and D both propose reducing the 30 percent wildlife cover requirement within the FMAZ 1U to 15 percent. This would provide fire managers with less flexibility than Alternative A to thin dense stands that are particularly at risk of ignition or that are particularly hazardous to neighborhoods.

Under both Alternatives C and D, any subsequent projects would strive to ensure that 15 percent of the FMAZ 1U is managed for conditions that could provide wildlife cover. The arrangement would be determined by the “fire risk” and “fire hazard” of the particular site. Outside the FMAZ 1U (Ponderosa Pine/Urban Interface Fire Management Zone) the requirement for retaining at least 30 percent of the forested area in wildlife cover would remain unchanged.

Environmental Consequences only within the U/RIZ

Canopy cover requirements for target threshold habitat result in high potential for crown fire. When accumulating existing Mexican spotted owl Protected Activity Cores (MSO PACs), wildlife travelways, and potential MSO PACs (target threshold acres) 40 percent of the National Forest land within ½ mile of private land is in a dense canopy condition. Reducing this percentage is necessary to achieve the future desired condition for fire potential within the U/RIZ.

Existing condition displays 186 acres of mixed conifer and 850 acres of pine oak restricted habitat within the U/RIZ. The location of these acres also makes them important for fire hazard reduction and the probability of a severe wildfire occurring is unacceptably high. The FLEA proposed allocation of target threshold habitat within the Lake Mary Watershed and Shultz Management Areas (Alternatives A, C, and D) would allow the creation of more open canopies within the U/RIZ. This would help achieve the desired condition of low fire potential within ½ mile of private land.

Conclusion:

Alternative A – Greatest ability to reach low fire potential in U/RIZ and FMAZ 1U

Alternative B – Least ability to reach low potential in U/RIZ and FMAZ 1U

Alternative C – More difficult, but likely to reach low fire potential in U/RIZ and moderate fire potential across FMAZ 1U

Alternative D – Same as Alternative C

AIR QUALITY

Management activities within the Flagstaff/Lake Mary Environmental Analysis Area would affect the Little Colorado River and the Verde River air sheds. Air quality over this area is generally good. Significant sources of air pollution are vehicle exhaust, smoke from prescribed burning and wildfires, and dust from unpaved roads.

The Clean Air Act of 1977 places responsibility for managing air quality within its borders to the individual state governments. Air degradation may occur temporarily during prescribed burning, but will not exceed air quality standards. The Coconino National Forest receives a permit for prescribed burning each year and must receive specific approval for each prescribed burn on a daily basis. There are no significant cumulative effects expected under any alternative.

There are no changes to *Forest Plan* direction for prescribed fire under any alternative. Current practices are not affected by any alternative. There is no change to current trends for smoke impacts to air quality under any alternative.

SOCIAL

Overall Outdoor Recreation Experiences

Inventory of Recreation Opportunity Spectrum (ROS) on the Coconino Forest has been an ongoing and iterative process beginning with hand drawn maps when the *Forest Plan* was signed in 1987. The past and present ROS maps (1979, 1993, and 2001) cannot be used as a rigid basis for comparison of changes to ROS settings over time due to differences in resolution and intent. In order to compare alternatives, a 1992 inventory was chosen because it had complete GIS information. The 1992 map was created at a grosser scale as a regional inventory map while the alternative maps for FLEA are more refined, and reflect updated information brought forward by team members during the analysis. When comparing the inventory map (no action Alternative B) to the action alternatives it is important to note that the comparison is between an inventory and a set of objectives. Regardless, such a comparison reflects differences in the future mix of ROS settings on the FLEA landscape under each alternative.

Trends in ROS (regardless of the type of inventory used) have shown increases in both the Urban (U) and Rural (R) settings, as the Flagstaff area development expands, and in the SPM settings, as some of the Forest access roads throughout FLEA deteriorate because they do not receive regular maintenance. The expansion of semiprimitive areas has occurred as the RN setting has shrunk.

The Alternative A map, located at the end of Appendix A, represents more refined and detailed knowledge, and a relaxed standard for the size of SPNM areas that would allow them to be smaller. The smaller minimum size for SPNM areas allows some flexibility in planning for complex areas such as within and near the FLEA U/RIZ, and has proven

useful for forest planning elsewhere in the Forest Service. The map produced for Alternative A represents a relaxed standard for social encounters for many of these smaller SPNM settings, shown as SPNM1.

National Forests, National Monuments, and other public lands act as reservoirs of “naturalness” in a rapidly urbanizing world. The Flagstaff area, along with many formerly rural or primitive areas in Arizona and throughout the west, has changed character rapidly as development has encroached on the natural-appearing landscape. The formerly primitive landscape, devoid of the evidence of human activity, such as buildings, roads, power lines, cell towers, and stock tanks, has given way to a landscape where such evidence is pervasive.

Research into the effects of natural settings on humans indicates that there are significant benefits to society from having natural settings available and accessible to people. The public lands of the FLEA area have special significance for the 50,000 plus residents and for the hundreds of thousands visiting the area annually. Surveys of local residents (Arizona Hospitality Research and Resource Center 1990) show that residents and visitors use the local National Forest lands extensively seeking natural settings for solitude, spiritual renewal, challenge, risk, and numerous other reasons. Existing recreation settings seem to meet the present needs of people for a variety of activities that are not always compatible in more crowded areas; however there is evidence that demands are starting to create conflicts with forest resources and between types of users.

Comments to most planning efforts often include expressions of a desire for the retention or restoration of “natural” values and appearances to forest landscapes. Included in these comments are requests for more opportunities for relative solitude, natural quiet, uncrowded, or isolated forest settings, and natural scenery uncluttered with non-natural objects, all characteristics of semi primitive settings. Responses to the FLEA planning efforts related to existing or proposed ROS settings have included several requests for semiprimitive settings and none for settings less primitive than semiprimitive nonmotorized. The most recent local study of peoples’ desires for various forest recreation setting characteristics was for the recent Sedona area Forest Plan Amendment (12), which clearly expressed a preference for semi primitive and primitive setting characteristics for those Forest visitors (Lee and Pierskalla, 1996).

Most debates about ROS settings involve whether an area should be open to motorized access. There are numerous advocates for both motorized and nonmotorized access for many sites in the FLEA area. Most Forest visitors use vehicles to get to their recreation destination, and many use their vehicles as a form of recreation. Motorized access to National Forest lands is considered to be a legitimate use of the National Forests within limits imposed by forest resource concerns. The Forests are also managed to provide a range of recreation settings that include some attributes, such as natural quiet, isolation from the sights and sounds of others and opportunities for solitude (USDA 1986), that are not always compatible with motorized use, especially where total recreation use levels are high. All of the action alternatives do not consider “motocross” activities on Forest lands as an appropriate activity in the FLEA area, since the sights, sounds, and effects of

such activities are not compatible with recreation settings or with other Forest resource values.

The ROS settings under Alternatives A, C, and D, reflect a desire to provide a diversity of setting opportunities distributed around the FLEA area. The presence of the Strawberry Crater, Kachina Peaks, and Red Rock/Secret Mountain Wildernesses near or within the FLEA area contribute to P and SPNM settings available for local use; however Congressionally designated Wildernesses were not created to meet all demands for primitive recreation.

Nonmotorized settings presently total less than 3 percent of National Forest lands in the FLEA area; although many areas are technically nonmotorized because of terrain limitations. Alternative D includes about 18 percent of the area as nonmotorized with other alternatives having slightly less. SPM settings would be the management objective on about 46 percent of the total area under all but the No Action (Alternative B) and RN settings would be the objective for approximately 35 percent of the area under all alternatives except for Alternative B. The most significant change from the existing *Forest Plan* 1992 inventory is the change from RN settings, which shrunk from about 68 percent down to about 35 percent; and the subsequent change in SPM from about 27 percent to about 46 percent of the total FLEA area. Primitive settings change from 0 to 3.6 percent.

There is a large demand for opportunities to explore the Coconino National Forest in a vehicle over rough roads that was expressed at our public meetings and that reflect national trends. The deterioration of Forest “system” roads over the past decade due largely to decreased emphasis on logging operations and on less funding for road maintenance, has caused many of those roads to become primitive roads. This has caused a large increase in the availability of primitive roads in the FLEA area. Areas where only primitive roads provide access make up about 46 percent of the FLEA area, or roughly 135,000 acres under Alternatives A, C, and D.

Road densities vary across the FLEA area and SPM settings in many places exceed 2 miles per square mile. Desired conditions for these areas range for 0.5 to 2 miles per square mile depending on the area, with the 2 miles per square mile a suggested maximum threshold for meeting SPM objectives⁴³. This would yield roughly 100 to 400 miles of primitive road in SPM settings. This would not include primitive roads that would still exist in RN settings that could easily add another 200 miles or so of primitive road. Opportunities for traveling through the Forest on primitive roads will remain plentiful for all action alternatives.

There is a large demand for opportunities to explore the Forest in a standard, low clearance passenger vehicle. RN ROS settings typically have roads that will allow such access. RN settings will occupy about a third of the FLEA area under all action alternatives. There has been a large decrease in areas accessible to passenger car type vehicles over the past decade, as the quality of Forest system roads has declined. This

⁴³ *The 2-mile per square mile is described in the current Forest Plan for the ponderosa pine type.*

decline in passenger car roads is one of the main reasons FLEA ROS setting objectives have shifted towards the more primitive; partially reflecting the reality of the situation in the Forest landscape.

The allocation of recreation settings in the action alternatives represents a reasonable balance of motorized versus nonmotorized settings dispersed throughout the FLEA area in order to help meet demands for a variety of recreation settings. Subsequent travelway planning at a more refined scale will likely adjust the location and configuration of the different areas.

Expected cumulative effects are as follows. Recreation settings have been used as objectives for defining future conditions on the landscape around Sedona under Amendment 12 to the *Forest Plan*. The remainder of the Coconino National Forest remains under recreation setting inventory. Generally, the ROS objectives around Sedona and Flagstaff (under Alternatives A, C and D) contain a higher percentage of SPM and SPNM settings than the remainder of the Coconino Forest. Wilderness areas continue to provide settings at the most primitive end of the ROS setting scale. Forest-wide, there will continue to be a variety of recreation settings and recreation opportunity.

People and Wildlife

People enjoy seeing wildlife as referenced by comments to the *Ideas for Change* and Arizona Game and Fish Department questionnaires (copies located in Project File). People like to know wildlife, such as bear and turkey, are using an area, even if the people don't get to see them everyday. Some species provide opportunities for hunting which is often an outing with family or friends or a source of meat for food. Some sites are becoming known for wildlife viewing opportunities just by word of mouth and from locally run news stories. Examples are the bald eagles at Lake Mary and the deer on the base of Mt. Elden.

Because the mix of ROS objectives proposed in the action alternatives was designed to help maintain disturbance-sensitive species, it is likely that these species will remain available for human enjoyment in the FLEA area over time. Even in the face of increasing human uses, bear and turkey can co-exist with people in many of the SPM and SPNM ROS settings.

The ability to view wildlife while driving is maintained in the SPM and RN settings. The ability to view wildlife while hiking, horse riding, or mountain bike riding, remains available throughout the FLEA area. The chances of seeing wildlife is greater if there is maintenance of the unroaded/untrailed patches on the landscape in between the open road and trail system.

There is a difference between the alternatives related to the future presence of deer and elk, and thus the ability to view them. Under Alternative A there may be a slight decreasing trend in the amount of cover habitat elk and deer use of the FMAZ 1U. Alternatives C and D would maintain deer and elk in the FMAZ 1U similar to the no action Alternative B.

Camping Experiences

The current mix of camping opportunities in the FLEA area is 87 percent general dispersed camping, 11.5 percent closed to camping and no campfires, 1.4 percent campfires not allowed, and 0.1 percent restricted to designated dispersed campsites. There are six developed campgrounds and additional private campground opportunities in Flagstaff.

General dispersed camping is very popular. Some areas close to major highways and attractions are heavily used, while other dispersed areas are remote and less impacted.

Forest Service recreation and fire prevention patrols have noticed a steady increase in general dispersed camping over the years. One example of significant increase in use and resource impacts is along the Highway 89A (south of Flagstaff) corridor that encompasses ½ mile on either side of the highway. As a result of limited number of camping sites in Oak Creek Canyon and increased visitation, recreationists have found Highway 89A north of Oak Creek Vista a good place to camp because of its close proximity to Flagstaff and Sedona. As a result of this increased use, dispersed campsite conditions suggest that user experiences and scenic quality have been adversely affected at some sites. Attractive settings and limited access have concentrated campsites within a confined area; therefore, many popular sites are located within sight and/or sound of each other. At these popular dispersed sites, occasional conflicts occur between parties due to loud noise, ATV use, and, in some cases, the use of firearms. Dispersed site conditions exhibit other characteristics that are a result of visitor behavior. It is common to find human waste near dispersed sites. In addition, litter is left at campsites and proliferates with each use if not removed promptly. This residue left by dispersed users is a health and safety concern, particularly during periods of peak use. The presence of human waste and litter, tree damage and loss, and denuded and compacted camp areas, suggest that both scenic quality and the intended recreation experience opportunity may be despoiled within high use and heavily impacted sites. Many visitors express concern about the damage to resources created by people and therefore the effect to recreational experience.

Some people like developed campgrounds and enjoy such amenities as running water, flush toilets, showers, RV hook-ups, picnic tables, and campfire programs. For people who like campgrounds there is no difference between the alternatives because no campgrounds are added or changed with any alternative.

Some people like to camp off of major highways and forest roads and often camp in close proximity to others in areas that are easy to find yet have no facilities. This is usually in a RN setting. In the FLEA area these people use Highway 89A corridor, Lake Mary Road, and Highway 180.

Some people like to explore the forest by vehicle and find remote camping settings with few or no other people around. This is usually in a SPM ROS setting. Forest Service

patrols say they see many people on summer weekends in the Lake Mary Watershed area, than during the week or other seasons.

Some people like to use horses, llamas, mountain bikes, or backpacking to carry in camping equipment and set up campsites in remote, natural forest settings with few encounters with others. This is usually in a SPNM ROS setting and current opportunities exist in Mt. Elden/Dry Lake Hills.

On National Forest lands, for Alternative A, C, and D, there is 70.8 percent of FLEA available for general dispersed camping, 19.1 percent closed to camping and campfires, 1.4 percent with camping with no campfires allowed and 9.0 percent with camping only in designated campsites.

There is less camping opportunity overall as the no camping/no campfire zone expands from a current level of 11.5 percent to 19.1 percent.

For people who like easy access, no facilities, and close proximity to others, the alternatives are different. The overall amount of this opportunity will be less as shifts are made to designated camping in some popular places. People will have to take a little more time finding a site and will need to read signs and follow the rules in these areas. Some people will feel that this restricts their recreational pursuits and therefore feel a loss of freedom would be greater in Alternatives A, C, and D than with Alternative B (No Action). The biggest change is along the Highway 89A corridor and the road to Marshall Lake.

Although the overall general dispersed camping area is less, the quality of the camping experience is better. There will be less visible bare ground, fewer rock fire rings, and less trash, all of which take away from the beauty of the campsite area. Some visitors will feel displaced and may move to previously undisturbed areas causing other impacts elsewhere.

For people who like to find remote out-of-the-way places, the quality of this camping experience is enhanced in SPM and SPNM ROS settings. All action alternatives strive to increase the amount of SPM and SPNM objectives and reduce the amount RN settings.

There is a difference in opportunity for camping with horse, mountain bike, or backpacking. There is more of this opportunity in the different alternatives based on the amount of SPNM settings.

Alternative B (No Action) provides the greatest amount of camping opportunities and freedom of where to camp because it has the least about of restrictions. However, it is expected more dispersed camping areas would become established over time and result in greater user conflicts, resource impacts, and complaints from residents who live adjacent to the forest.

When considering cumulative effects it is important to note that restrictions in camping under Alternatives A, C and D occur on a very small percentage of the Coconino Forest.

Similar changes are occurring in the Sedona area and described in Amendment 12 to the *Forest Plan*. The remainder of the Forest continues to provide dispersed camping opportunities.

Rock Climbing Experiences

Rock climbing within the FLEA area has been an ongoing and increasing recreational activity for many years. Rocks climbing groups and individuals have identified many user-developed climbing areas, and routes throughout the FLEA area, which include a range of climbing opportunities from bouldering, and traditional climbing to sport routes protected by bolts and fixed hardware. Several popular climbing areas are less than $\frac{3}{4}$ miles from a developed trailhead and have trails that lead to the climbing sites, either Forest Service trails or user-created trails. These popular areas close to town include: West Elden, The Pit, and Priest Draw. Other remote sites exist in the area, with no parking and user-created trails accessing the site.

A complete inventory of climbing routes in the FLEA area has not been done. Currently, the *Forest Plan* is silent, providing no specific management direction to either validate or promote climbing as a recreational activity or to manage resource impacts resulting from this use.

Climbers are generally explorers who do not generally desire a lot of developments, signs, or rules. Climbers hear about remote areas from other climbers.

Under all alternatives except B, there would be standards and guidelines that apply to climbing. In general, the availability of climbing opportunities is maintained. Monitoring will be done to collect information on resource conditions and use trends at climbing areas. This monitoring would be dependent upon available budget, and would likely rely heavily on partnerships and volunteer efforts. Where sensitive or rare plant or animal species exist, monitoring will be done to assess impacts. It could be that certain sites are closed seasonally, or different climbing routes are designated, based on monitoring.

The proposed *Forest Plan* direction allows for stricter management if necessary, however, the exact level of restrictions is not known at this time. If a change in management is necessary, such as a seasonal closure due to wildlife, resource, or cultural impacts, climbers may feel displaced and a sense of lost of a particular route for the short-term. The variety of technical difficulty available is not expected to change under any alternative.

For popular sites there may be changes in parking and trail locations, which will still maintain the area for use, but people may have to walk farther to access sites. For popular sites camping may be restricted, which does not change the climbing opportunity itself.

The proposed *Forest Plan* direction emphasizes the importance of climber input to future site-specific decisions.

Alternative B would have increased potential for increased resource damage due to the lack of management direction. Without adequate resource monitoring, trends in resource conditions resulting from climbing activities would not be detected until impacts become severe.

Trail Experiences

It is difficult to describe the complex social situation related to National Forest lands in the U/RIZ. For years, residents have enjoyed the ability to strike out from their own backyards, or nearby access points, and hike, bike, ride horse, or ride ATV's. Others exercise dog teams, or walk with llamas. For years, residents have not seen many Forest Service signs, developed facilities, or patrols. For years, trails have become established from use. The nearby forest is a leading factor in the quality of life in these communities. There is almost a sense of "ownership" by residents of the lands near them.

Sometimes use has resulted in unsightly impacts and trash.

A rapidly growing and diversifying residential population adjacent to the National Forest and its contrast with rural values in less urban areas are resulting in conflicting user experiences and desires.

The *Forest Plan* changes under Alternatives A, C, and D does not significantly change the ability of people to use and enjoy the U/RIZ. There may be a few more signs, some trails may be closed and others left open and debates over types of use will continue where conflicts exist. Access points may become more formalized over time, such as with signing and parking. The numbers of encounters with others remains high.

Recreation use in the U/RIZ for all the action alternatives will be more concentrated and higher use levels can be expected. Users conflicts may increase as incompatible uses aren't separated, or desired opportunities aren't available.

The proposed direction allows us to better manage forest settings to meet the needs and expectations of people using trails in the U/RIZ. There is an emphasis on keeping setting attributes, typical of remote and primitive forest areas, in close proximity to the places where people live. This expands the area of predominantly "natural" attributes, enhancing National Forest resource values while providing benefits to society in terms of settings that promote relaxation, outdoor exercise, and stress reduction close to where many people can benefit.

In the U/RIZ the ROS settings by alternative are:

Table 11 ROS in the U/RIZ

ROS Setting	Percent of ROS Setting by Alternative in the U/RIZ			
	Alt A	Alt B	Alt C	Alt D
SPM	10.9	0	15.1	15.3
SPNM	30.2	1.9	26.0	25.9
RN	58.8	86.0	58.8	58.8
P	0	0	0	0
R	0	8.6	0	0
U	0	0	0	0

The successful management of Forest Service lands adjacent to privately owned lands (there are 230 miles of public/private boundary within the FLEA area) is dependent as much on the attitudes and actions of people living on the Forest boundary as it is on the actions of the Forest Service. Trails are an important manifestation of peoples’ attitude towards the Forest next to them. The action alternatives give added emphasis to fostering good “stewardship” practices for those people through a commitment to address both the needs of Forest “neighbors” and those aspects of Forest resources that can benefit from good planning and implementation. Good planning and the commitment of neighbors to implement those plans can result in an enhanced “natural appearing” Forest environment that will enhance and preserve the quality of the Forest environment and the quality of life of local residents.

Much of the management direction in Alternatives A, C, and D focuses on the U/RIZ which is a very small portion of the Coconino. Road and trail management in this area will result in on-the-ground changes. People will appreciate many of these changes, other changes may be perceived negatively. Road and trail management will add cumulatively to similar effects from projects accomplished by Coconino County and the City of Flagstaff (see the *Greater Flagstaff Open Spaces and Greenways Plan* and the *Regional Land Use and Transportation Plan*).

There are currently 90.7 miles of Forest Service system trail within the FLEA area. The amount of user-created trails in the FLEA area is unknown, however, the highest densities of user-created trails occur in the U/RIZ.

Some user-created (social) trails that access National Forest land begin on private land and have been historically been used for access. Many of these trails have evolved where people like to hike, in drainage bottoms, and in fragile areas where there are threatened,

endangered, and sensitive plants and animals. As population increases and demands change these user-created trails have also created conflicts between nonmotorized and motorized users groups. It is likely that most visitors use the Forest System trails primarily; while most local use is via user-created, non-system, neighborhood trails.

Trail user experience is affected by many variables that include: parking, information, signing, trail conditions, maintenance, types of trail uses, and the number of trail users. Most trails are open to more than one type of user and there are some conflicts between user groups.

Technology has changed and increased the users' ability to access and use various parts of the National Forest that weren't easily accessed before. The increase in population and changes in technology have made it challenging to manage for all types of nonmotorized and motorized trail opportunities. An increased demand for trail activities has placed a greater emphasis on trail system planning, maintenance, construction, and reconstruction.

None of the action alternatives change the ability to use and enjoy the Forest Service trail system in the FLEA area. The proposed *Forest Plan* direction will, as implemented site-specifically, decrease the miles of user-created trails, especially where they occur in sensitive sites such as riparian areas.

The proposed direction allows us to evaluate and relocate or close user-created trails, and gives priority for this work to canyon bottoms, lake beds, cultural sites, steep slopes, threatened and endangered species habitat or for user safety.

People may be re-directed from their favorite user-created trail and may feel a sense of loss or inconvenience when this happens. But overall, the site that they have come to visit will be maintained over the long-term.

The action alternatives will provide opportunities for nonmotorized and motorized activities to increase over time with the addition of Forest Service system trails. Appropriate uses for each new trail would be decided on a case-by-case basis to help reduce user conflicts and resource impacts.

Under the action alternatives, text changes do not result in immediate closure of areas to human entry. However, text changes allow area closures should they be necessary to maintain threatened or endangered species, cultural resources, or other important land features. The alternatives emphasize that choices should be made based on monitoring results. The monitoring direction in the *Forest Plan* will set the stage for trail location decisions based on good information. The increase in more "primitive" ROS settings will increase opportunities for attributes, such as solitude, natural quiet, and scenery within close proximity for Flagstaff area trail users and visitors.

The action Alternatives A, C, and D will place additional demand on Forest Service resource and administrative overhead to maintain, construct, obliterate, and manage a larger Forest Service trail system in the FLEA area. Additional volunteer groups,

partnerships, and residential community support will be needed to help maintain the trail system.

This amendment, in conjunction with the current *Forest Plan*, is used as the basis for developing budget proposals. The FLEA area is only a portion of the Forest and priorities for FLEA will be balanced with other Forest priorities for trail and other recreation management. Current recreation budgets are not keeping up with current maintenance needs or new demands. It is likely that the rate of implementation will be opportunistic and tied to other resource projects. Partnerships with communities and other agencies can help facilitate implementation.

Scenery

The action alternatives would generally raise scenic integrity standards as a result of changes to ROS settings. The action alternatives all have changes in overall ROS objectives that tend to be more towards “primitive” than they are at present. There would be no immediate noticeable change in scenic quality as a result of any action alternative selection, but the change in setting objectives from roaded natural to semiprimitive could help retain existing desirable scenic characteristics in some areas, and could help focus priorities for future action that would enhance or retain scenic integrity.

Recent increases in off-road travel have led to increasing degradation of scenic quality in some areas as tracks and ruts proliferate. The problem varies by location, slope, soil type, and season of use, but is generally greatest close to communities and high use areas such as the Cinder Hill OHV area. Designation of SPNM areas will preclude most motorized use in those areas and could retain or enhance scenic quality in areas close to communities where scenic quality is highly valued. Areas managed to obtain an SPNM setting will eventually have a more natural appearance and will therefore maintain a higher degree of scenic integrity than areas with less primitive setting characteristics.

The recent, on-going efforts to reduce tree stand densities in order to decrease fire risk and to improve forest health will likely continue regardless of which alternative is implemented. The effect of these treatments will generally help scenic quality by decreasing the “thicket” effect and by enhancing the longevity of older trees.

Implementation of the new Scenery Management System will give us a tool for communicating with people to collectively develop a desired future condition for the overall landscape character of the FLEA area and for the entire Coconino National Forest eventually. In lieu of a definitive desired landscape character description, the action alternatives all advance actions such as thinning and transportation planning that will preserve options for future desired condition scenarios, and that will enhance scenic quality.

Under the action alternatives, the *Forest Plan* direction allows us to progress towards clean up and re-vegetation of bare soil/trashed out areas. A recent example is the Old Caves Crater area and this can be seen as example of future projects.

Both within the U/RIZ and in the remainder of FLEA the action alternatives maintain the emphasis of clean up after activities especially near major roads, developed sites, and private lands. The new direction recognizes landowner input as an important consideration when designing thinning projects.

The action alternatives will result in more semiprimitive and primitive settings that require a higher scenic integrity objective (FSM 2870). Eventually these areas will assume a more “natural” appearance with less evidence of human activity such as vehicle tracks and ruts. In addition, the rate of changes for those areas that still have largely “natural appearing” characteristics will be slowed or reversed. The result will be an improvement in scenic quality for those areas affected, assuming that scenic quality objectives are met.

Alternative A could result in a substantial increase in scenic quality over the No Action Alternative B as a result of proposed changes to ROS settings, assuming that new scenic integrity objectives assigned to the more “primitive” settings are met. Alternatives C and D will have an almost identical effect on aesthetic quality to each other but alternative D has slightly more SPNM area designated than Alternative A. The additional lands in Alternative D with a SPNM objective are adjacent to Walnut Canyon, where there is a very high concern for scenic quality with potential for high visitation rates. Both Alternatives C and D will result in more area with SPNM settings and therefore higher scenic integrity objectives than the other alternatives.



MANAGEMENT AREAS

The current Management Areas within FLEA are listed in the following table. These original MA's will continue to exist and provide reference for management direction in the current *Forest Plan*. For example, management indicator species will continue to be identified according to the original MA's.

Table 12 Current Management Areas

MA	Description	Percent of NF lands in FLEA
1	Wilderness	3.5
3	Ponderosa Pine And Mixed Conifer Less Than 40% Slope	36.7
4	Ponderosa Pine And Mixed Conifer Greater Than 40% Slope	4.8
5	Aspen	0.1
6	Unproductive Timber Land ⁴⁴	8.7
7	Pinyon And Juniper Woodland Less Than 40% Slope	23.0
8	Pinyon And Juniper Woodland Greater Than 40% Slope	3.3
9	Mountain Meadow	3.0
10	Grassland And Sparse Pinyon And Juniper	6.6
12	Riparian And Open Water	0.4
13	Cinder Hills	7.9
15	Developed Recreation Sites	0.5
17	Special Areas	0.2
18	Elden Environmental Study Area	0.1
EXP	Experimental Forest ⁴⁵	1.2

Under Alternatives A, C, and D, Management Areas are delineated to provide a geographical reference and “sense of place.” Management emphasis is defined for each MA, and there is some management direction that is specific to a particular MA. Most of the MA's are new. Two MA's are re-drawn from the current *Forest Plan*. MA13

⁴⁴ Unproductive timberlands are ponderosa pine areas that do not meet minimum standards for productivity or where there is not reasonable assurance that lands can be restocked as required by CFR219.27.

⁴⁵ Experimental Forest lands are administered by the Rocky Mountain Forest and Range Experiment Station and are not affected by this amendment.

previously covered the Cinder Hills OHV area and the surrounding landscapes. MA13 was reduced to include only the OHV area. The remaining landscapes surrounding MA13 were delineated as the Craters, Doney, and Deadman MA's. MA18 previously covered the Elden Environmental Study Area. The action alternatives move this classification to MA17, Special Areas. In addition, the action alternatives expand MA17 to include additional environmental study areas for Old Caves Crater and Griffiths Spring. Acres shown for each MA are National Forest acres only. The FLEA MA map is located at the end of Appendix A.

By separating the Cinder Hills OHV Area into its own MA (MA13) and placing the surrounding landscape in other MA's there is a focused set of management direction. Implementers will no longer have to differentiate between different sets of guidelines for inside of outside of the OHV area.

Delineating most of the Lake Mary Watershed in one MA helps focus a sense of identity and emphasis to that watershed. Delineating the Walnut Canyon MA provides a sense of place and emphasis to the canyon and its surrounding environment. Delineating the Deadman Wash MA helps focus discussions related to the geologic and cultural story of the lands between Sunset Crater Volcano and Wupatki National Monuments. These delineations are important given the set of resource and social values attached to these areas.

Flagstaff Public schools have developed curricula and use the two new environmental study areas added to MA17. These areas also have important features, one being archaeological sites and the other being a perennial stream.

Each MA has a relatively unique set of land features as described in the description section of the replacement pages.

Cinder Hills OHV Area

The *Forest Plan* currently states that slopes over 40 percent should have a dense network of designated trails. The new text, common to Alternatives A, C, and D, eliminates this language, as some slopes over 40 percent will be open to riding. On steep slopes, vehicles need the option of leaving intended travel routes, to have the option of making a quick loop to turn around and head back down without flipping over. In addition, designated routes cause difficulty because the large number of markers needed and the open nature of steep faces. Designated routes can create more impact than dispersed use on the slope. Safety concerns arise when many vehicles are driving two directions at high speeds on designated routes.

Rather than implementing a system of trails as indicated in the current *Forest Plan*, a combination of designated routes, and open faces and closed faces on some of the hills is described under Alternatives A, C, and D. Closed faces will have no OHV travel and open faces will have drive anywhere opportunities. Designated routes will be provided to ensure access to areas affected by closed slopes.

Roads within the OHV area influence parking and camping opportunities and dispersal of use. Currently, camping is focused along improved roads causing heavy use in proximity to the improved roads. Under Alternatives A, C, and D, roads are improved that lead into the center of the OHV area and through traffic is eliminated between the Highway 89 entrance and FR545.⁴⁶ Camping and sanitation facilities will be installed as appropriate along improved roads. Implementation of future projects related to these guidelines will create better dispersal of riders, maintain or enhance the riding experience and lessen impacts in sensitive locations. Implementing future projects based on direction in Alternatives A, C, and D, help alleviate visual, noise, and dust as seen from the Monument overlook, and commuter/user safety concerns on FR 776.

This geologic area is tied to the Sunset Crater Volcano story. It is visible, in general, as a line of red cinders that extends from Sunset Crater to the Double Crater area, and includes Gyp Crater. Gyp Crater itself is a deep hole with dangerous rocks and cliffs. In addition to being a significant geologic feature, it is too dangerous for OHV riding. *Forest Plan* text changes, and the Cinder Hills Implementation Schedule outline specific actions to help protect these features.

Common to all restricted slopes will be rehabilitation of major routes and ruts, as funding becomes available. Also, an additional criterion to pursue and develop is establishment of "no wake zones" where motors are kept quieter, (no engine revving) and speed is kept slow, using signs, information, and honor system. This avenue could be pursued in place of closing highly valued routes, as the Forest Service works with the OHV users on rehabilitation areas.

NATIONAL MONUMENTS

There are three National Monuments in or adjacent to the FLEA area managed by the National Park Service (NPS). This affected environment description is based on information in the three Draft Environmental Impact Statements for the General Management Plans of each Monument, published in September 2001. Additional details about each of the Monuments can be found in these documents.

Like many things, concerns about Monument resources have been more about implementation of the current *Forest Plan* rather than changes to that *Plan*. However, the discussions that follow focus on how the Alternatives are different from the current *Forest Plan* (Alternative B).

The following effects discussion focuses on these topics:

- Visual Quality – what a visitor to the monument may see in the surrounding viewshed
- Noise – what a visitor to the monument may hear in the surrounding area

⁴⁶ Through traffic is decreased by closing the intersection of FR 776 and FR 545.

- Resources – wildlife, watershed, archaeological resources to name a few
- Fire – potential for high intensity crown fire
- Incursions⁴⁷ – Instances of trespass into Monument lands outside of established Monument roads, trail and hours of operation.

The MA boundaries were drawn in part due to the location of the Monuments. Each MA lists activities where there should be NPS and FS coordination.

Walnut Canyon National Monument

Walnut Canyon is approximately 3,600 acres.⁴⁸ The park purpose is to protect ancient cliff dwellings and associated resources that are of great ethnographic, scientific, and educational interest and to properly care for and manage the cultural and natural resources of historic, social, and scientific interest within Walnut Canyon National Monument. Items related to the Monument's significance include: 1) concentrations of ancestral Puebloan habitations are found and the distribution, diversity, and location of sites are unusual and include the only cliff dwelling architecture of the Northern Sinagua culture, 2) natural and cultural resources within the monument are known to be significant to contemporary native tribes, 3) ecological communities overlap to form ecotones bringing together species usually separated by elevation, and creating a rare compression of flora/fauna zones, 4) topographic relief and biotic diversity make the canyon an outstanding scenic resource, 5) Walnut Canyon was one of the first archeological areas to be heavily visited (Draft EIS Draft General Management Plan Walnut Canyon National Monument, AZ, September 2001)

Implementing future projects based on the proposed guidelines will not result in dramatically different visual quality when compared to current *Forest Plan* direction. Current direction calls for a Visual Quality Objective of Retention along the entrance road. As with all National Forest lands, short-term visual impacts may occur as a result of activities such as thinning or broadcast burning, however long-term trends maintain visual quality. Projects immediately adjacent and within the viewshed of the Monument will be coordinated with NPS personnel to limit impacts.

Some illegal incursions into the Monument may occur under any alternative, because they are difficult to completely prevent. However, implementation of trail management strategies around urban areas will trend towards use on planned Forest System trails and lessen impacts from social trail use over time. Forest Service trails currently in place help direct people along routes that discourage nonmotorized incursions in the Monument from the Fisher Point area. An example is the Arizona Trail that currently exists on the west side of the Monument. Under Alternatives A, C, and D, 47 percent of the Walnut Canyon National Monument boundary is adjacent to a SPNM ROS setting, 47 percent is adjacent to a SPM ROS setting and 12 percent is adjacent to a RN setting. These ROS objectives increase the area of SPM and SPNM adjacent to the Monument, when

⁴⁷ *Incursions have occurred on foot, horse, bike, motorcycle, ATV, or vehicle, and by helicopter.*

⁴⁸ *Acreage figure from the DEIS for the General Management Plan, the outcome of ownership discussions about the entrance road may change this figure.*

compared to the current inventory. The current inventory shows zero percent SPNM adjacent to the boundary, although some actual road closures immediately adjacent to the Monument have been completed.

Strips of ROS objectives do not conform well to the intent of ROS objectives as a landscape scale expression of desired conditions. Within SPM area, site-specific projects could close individual roads adjacent to the boundary as appropriate.

Impacts from noise are not likely to be different by alternative. Noise in this area is a result of the occasional vehicle passing close by the Monument. This discussion of ROS settings and roads management above applies.

Alternative A gives managers increased flexibility to lessen potential for high intensity wildfire within the FMAZ 1U that lies north and west of the Monument. The risk of ignition in lands surrounding the Monument will be lessened as a result of camping management changes, and as road closures and open road maintenance are implemented. As the *Forest Plan* is implemented in ponderosa pine lands the resulting future forest conditions are similar between alternatives (northern goshawk and Mexican spotted owl guidelines). Northern goshawk guidelines provide for less potential for high intensity crown fire when compared to current conditions. Mexican spotted owl habitat in the canyon and along the rim will continue to have high fire potential, because this species thrives in thick, multi-layered forests.

The increase in Primitive and SPNM settings within Mexican spotted owl habitat will improve habitat conditions, as this desired condition is implemented. FLEA management direction does not change water flows (or the lack of flow) from Lake Mary. Air quality may receive short-term impacts from broadcast burning, but these impacts are not likely to be different by alternative. Although there are instances of site-specific soil erosion in lands surrounding the Monument, erosion is limited and sediment is not expected to move off-site as projects are implemented under any of the action alternatives. Continuation of cooperative efforts to limit spread of invasive noxious weeds occurs under all alternatives. Wildlife cover adjacent to the Monument and along the rim of Walnut Canyon for big game such as turkey and elk is maintained under all alternatives.

Sunset Crater Volcano National Monument

The purpose of the Monument is to preserve and protect Sunset Crater Volcano National Monument's geological formations, features, and resources for scientific interests and research, and for public interest, including scenic, educational, and recreation pursuits. Items related to the Monument's significance includes: 1) Sunset Crater Volcano is the Colorado Plateau's most recent eruption of the San Francisco Peaks Volcanic Field and one of the longest-lived cinder cone volcanoes known in historic time; 2) The volcanic eruption left a unique archeological and ethnographic record of human adaptation, response, and recovery to volcanic eruption and Sunset Crater Volcano and its natural resources continue to have cultural significance to contemporary native tribes; 3) The Monument's volcanic features are seen now with few human disturbances and provide excellent opportunities for science, education, and interpretation, including insight into

plate tectonics, ongoing geologic and ecological processes, and a larger view of how this area is important in the context of southwester US and world geology; 4) The microhabitat and climate of Sunset Crater Volcano create an unusual species mix, including lichens, molds, and endemic species that are highly visible examples of the scientific concepts of succession and adaptation (Draft EIS Draft General Management Plan, Sunset Crater Volcano National Monument, Arizona, September 2001).

Some of the results of the FLEA planning effort have been an identification of those areas where current *Forest Plan* direction was adequate, but where some ongoing activities were not meeting the intent of the *Forest Plan*. An example is the current *Forest Plan* guideline for a Visual Quality Objective of Retention along the paved FR 545 Sunset-Wupatki Road. OHV use was occurring within the Retention area, detracting from visual quality as seen from the road. Better identification of OHV riding boundaries is needed. Implementation of this and other current *Forest Plan* direction has and will continue to occur in the lands surrounding the Monument. As with all National Forest lands, short-term visual impacts may occur as a result of activities such as thinning or broadcast burning, however long-term trends maintain visual quality. Projects immediately adjacent and within the viewshed of the Monument will be coordinated with NPS personnel to limit impacts.

Some illegal incursions into the Monument may occur under any alternative, because it is difficult to limit them completely. All action alternatives decrease the potential for illegal incursions because of changes to management of the Cinder Hills OHV area. Increased signing, changes in maintained roads, and camping locations all lead to trends of decreasing riding immediately adjacent to the Monument, and increasing riding more to the interior of the area. In addition, if future projects were implemented according to FLEA direction for the O'Leary Group Campground area, trails would be located to give people a place to hike outside of the Monument.

Under Alternatives A, C, and D, approximately 33 percent of the Sunset Crater Volcano NM boundary is adjacent to SPNM ROS settings. Approximately 28 percent of the boundary is adjacent to SPM setting. A RN corridor surrounds the paved FR 545, covering the remaining 39 percent.

Noise is reduced somewhat as projects are implemented under the action alternatives. This is because of changes to camping locations and slope closures for some of the area visible from the overlook. On busy summer weekends, noise from OHV use will still be heard within some Monument areas. There is continued presence of noise from the campgrounds and the paved Sunset-Wupatki Scenic Loop Drive.

Wupatki National Monument

Wupatki National Monument was established as a two-piece area to preserve archeological resources. The purpose is to preserve, protect, and manage the ancestral Hopi sites, other prehistoric remains, and cultural and natural resources of historic, ethnographic, and scientific interest located within Wupatki National Monument. Items related to the parks significance include: 1) Wupatki is the only known location in the

Southwest where physical evidence from at least three archeologically separate ancestral Puebloan cultures is found together in a number of archaeological sites. According to Puebloan oral tradition, Wupatki represents one ancestral Puebloan group; 2) The natural and cultural resources within the monument are known to be significant to contemporary native tribes, as evidenced by oral history and continuing practices and the archeological record; 3) Many sites are well preserved and have a high degree of cultural resource integrity; 4) Historic material reveals a rich record of human endeavor left by Navajo families over a period of 150 years and continuing through the present day and by ranchers, sheepherders, prospectors, Mormons, the Civilian Conservation Corps, park custodians, and the Museum of Northern Arizona. Their activities, combined with environmental changes, have created a complex cultural landscapes within the monument; 5) Wupatki protects one of the few native grasslands in the Southwest that is not being domestically grazed, and its integrity is essential to perpetuating a native species and natural ecosystem processes; 6) The setting of Wupatki, undeveloped and largely unpolluted, provides the exceedingly rare opportunity to see more than 60 miles, view the night sky and encounter quiet-and experience comparable to that experienced by prehistoric peoples. These qualities are a baseline against which change can be monitored, managed, and mitigated. (Draft EIS Draft General Management Plan Wupatki National Monument, AZ, September 2001).

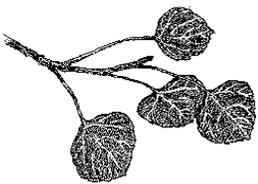
Incursions may occur into the monument from either motorized or nonmotorized means regardless of the alternative chosen. However, numbers of people are relatively low at present, and implementation of ROS settings under Alternatives A, C and D lessens the overall number of roads in lands immediately adjacent to Wupatki. Under Alternative A, approximately 65 percent of the Wupatki NM boundary is adjacent to SPM ROS settings and 35 percent of the boundary is adjacent to RN settings. This is because of the paved FR 545 that crosses in and out of the Monument along the boundary. These ROS objectives increase the area of SPM adjacent to the Monument, when compared to the current inventory. A narrow strip of SPNM adjacent to the Monument was considered, but not carried forward. Strips of ROS objectives do not conform well to the intent of ROS objectives as a landscape scale expression of desired conditions. Within SPM areas, future site-specific projects could close individual roads adjacent to the boundary as appropriate. Past discussions with NPS personnel have been recorded in the *Roads Analysis Report for the FLEA Area's* data table.

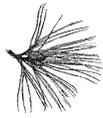
Noise is very minimal on National Forest lands adjacent to the Monument boundary.

As with all National Forest lands, short-term visual impacts may occur as a result of activities such as tree cutting or broadcast burning, however long-term trends maintain visual quality. Future projects immediately adjacent to and within the viewshed of the Monument will be coordinated with National Park personnel to limit impacts.

All alternatives, including Alternative B, provide emphasis on maintaining grassland habitat (current *Forest Plan* direction). All alternatives continue current *Forest Plan* direction that permits activities such as broadcast burning and tree removal to promote grasslands.

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CHAPTER 4 - CONSULTATION AND COORDINATION

Preparers and Contributors

The Forest Service consulted the following individuals, Federal, state and local agencies, tribes and non-Forest Service persons during the development of this environmental impact statement:

Table 13 ID Team Members and Experience

Name	Position / Organization	Contribution	Education	Relevant Years of Experience
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Geesey, Brenda	GIS Coordinator, Peaks and Mormon Lake RDs Coconino NF	Spatial Analysis Maps	B.S. Natural Resources M.S. Forestry	12
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Michele James and Shaula Hedwall of the US Fish and Wildlife Service
Al Hendricks of the Arizona State Land Department
Ursula Montano of the City of Flagstaff – Community Development
Bill Towler of the Coconino County – Community Development
Sam Henderson, Kim Watson, Todd Metzger, Paul Whitefield and other staff of the National
Park Service, Flagstaff-Area Monuments.

Distribution of the Environmental Impact Statement

This environmental impact statement has been distributed to individuals who specifically requested a copy of the document or commented on the Proposed Action. In addition, copies have been sent to the following Federal agencies, federally recognized tribes, State and local governments, and organizations representing a wide range of views regarding recreation and forest management in the Flagstaff area.

Arizona Department of Environmental Quality
Arizona Game and Fish Department
Betsy McKellar
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Bruce Johnson
C. James Krafft
Chris Newell
Christensen Elementary - John Coe
City of Flagstaff Planning Division, City Council, and Mayor
Coconino County Community Development and Board of Supervisors
Coconino County Parks and Recreation
Darling Environmental and Surveying, LTD, Mary E. Darling
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Grand Canyon Forest Partnership – Brian Cottam
Grand Canyon Trust - Taylor McKinnon
Havasupai Tribe
Hopi Tribe
Ivo & Baerbel Lucchitta
Jack Weiss
John Wahl
Marilyn Hanna
Motorcycle Industry Council, Deborah Napier
National Park Service Flagstaff Area Monuments
Navajo Nation
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Pueblo of Acoma
Pueblo of Zuni
Ruth Wright
San Carlos Apache Tribe
San Juan Southern Paiute Council
Southwest Forest Alliance - Brian Nowicki and Brian Segee
State Land Department
Steve Autry
Steve Autry
Susan Lamb
Tom Bean
Tonto Apache Tribe
White Mtn. Apache Tribe
Yavapai-Apache Nation
Yavapai-Prescott Indian Tribe

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APPENDIX A Forest Plan New and Replacement Pages

This appendix contains the Forest Plan pages that were originally published as part of the Proposed Action with slight adjustments for clarification or minor changes. The deleted text has a horizontal strike through and the new text is underlined. In addition, there is a vertical line on the outside margin, which will allow you to distinguish the headings that are underlined from the changes that are underlined. We tried to keep track of all changes that were made in response to your comments since these pages were published as part of the Proposed Action. However, it is possible that some typographical errors have been corrected and do not show as strikethroughs with the underlined corrections. It was not our intention to hide these, rather they are merely oversights during the editing process.

The page numbers for this appendix reflect the approximate page numbers (location) in the Forest Plan. They are distinguished as either new pages or replacement pages. The numbering convention of the original Forest Plan from 1987 has been maintained, meaning that Chapter 4 still starts with page 21. If additional pages are required between pages 180 and 181, they are numbered as 180-1, 180-2, and so forth. Some of the Management Areas direction is on replacement pages and some are on new pages, hence the numbering convention you will find. When the Forest Plan revision has been completed, all of the page numbering will be refreshed.

Map Urban rural influence zone – alternatives a, c, d,

Map Objective for recreation opportunity spectrum alt A a

Map Objectives for recreation opp strum alt c

Map Objectives for recreation opp spectrum alt d

Map Objectives for camping alt a c and d

Map Fire management analysis zone 1u

Map Management areas alternatives a, c, and d

APPENDIX B Comment Analysis and Response to Comments

The Forest Service received a variety of comments during the fall of 2001 and early 2002 in response to the Proposed Action (10/2001). Staffs have summarized the substantial comments and have numbered them in order of receipt. The responses were analyzed according to a series of filters. First, a determination was made as to whether or not a comment represented an issue as defined as a point of disagreement or debate with this Proposed Action (PA) based on some anticipated effect. A question is not normally an issue. Secondly, potential issues are screened to identify which ones are significant and require to the proposed action to be created and analyzed (40 CFR 1501(b)). Significant issues are those that meet all of the following criteria:

- Within the scope of the analysis (directly related to the Proposed Action);
- Not decided by law, regulation, or policy;
- Related to the decision;
- Amenable to scientific analysis rather than conjecture;
- Not Limited in extent, duration, nor intensity; and
- Not a point of clarification only

In this document the interdisciplinary team has responded to all comments, whether or not they were significant issues.

Comments #1-6 from Steve Autry

#1 Keep Skunk/Fay Canyon closed to motor vehicles. Need to redo map to show it closed.

Response: NonIssue Comment – The reason or effect that is of concern is not described. There is no change to motorized closure in this area proposed. See Comment #20 for more explanation of ROS in this area.

#2 Also no timber sales in Walnut Canyon area.

Response: NonIssue Comment - The reason or effect that is of concern is not described. The PA⁴⁹ does not specifically propose timber sales. See Comments #57 and #68 for more discussion about suitability for timber production.

#3 Close ghost roads in all of the National Forest

Response: NonIssue Comment - reason (effect) is not described

This analysis only covers the FLEA area not the whole forest. However, on page 27 of the PA there is a list of criteria for closing roads that would apply to user-created (ghost) roads. One of the criteria is a redundant road. In addition, the PA proposes that the Roads Analysis Report be reviewed and that roads not identified as part of the desired

⁴⁹ PA is the acronym for Proposed Action

open road network be considered for closure. Site-specific analysis and public involvement would occur prior to closure.

#4 Protection for Walnut Canyon

Response: NonIssue Question – There is no disagreement with PA and the type of protection is not described.

See Comment #8

#5 Change ROS in Skunk/Fay Canyon area to SPNM.

Response: Nonsignificant Issue – no reason or anticipated effect is given.

See Comments #20 and #54

#6 Continue to work in the understory of the forest and don't cut large trees

Response: NonIssue Comment - because reason (effect) not described.

Given current conditions in the FLEA area, forest thinning will focus on the understory in most cases.

#7 Internal comment resolved and deleted

Comment #8 from Brett A. Navin

#8 I am writing to share my opinion on the Walnut Canyon Recreation Area on the Coconino National Forest near Flagstaff. I live in Ohio now, but lived in Flagstaff for eight years and hope to return again. Flagstaff is unique, as you know, and I vote for protecting the resources which make it unique. If you have any influence in this, I hope you'll do your best to preserve and conserve the land. If you've ever been east, you know that much of the land has been destroyed by our need for natural resources. It's time we learned how to use resources wisely rather than willy-nilly. Protection of the forest and of the land itself will promote healthy ecosystems which promote healthy humans. Protecting the forest around Flagstaff is valuable because it will provide educational opportunities for other communities to see how Flagstaff has learned from the mistakes of the past to make the world a better place. Thank you for your time.

Response: NonIssue Comment – Comment not specific to the PA, nor is there an expression of disagreement with the PA.

The comment uses words such as preserve and conserve and protection. These words mean different things to different people; however, they all depict a sense of concern and value for the Walnut Canyon area and lands around Flagstaff. The FLEA proposal represents a course correction, not a major change in land use, and therefore the area continues to be conserved as a generally undeveloped natural landscape. FLEA recognizes the values people hold for this particular portion of the landscape and we have adjusted the Walnut Canyon Management Area boundary accordingly. There are differences of opinion among various agencies and interest groups about the specific details of land management for this MA. These debates will likely continue. However, the desired condition is to maintain ecological processes and there is also an emphasis to keep these lands in public ownership.

Comment #9 from Ed Lange

#9 The text does not discuss rationale for rescinding order 04-150 for the most of the areas. This matter was given careful consideration in the past and the FS has not changed its policy with no discussion. This is poor public policy.

Response: NonIssue Comment because reason (effect) is not described.

There is no change proposed to the current motorized closure. See comment #20 and 54.

Comment #10 from Jack Weiss

#10 I would like to provide my input into the Lake Mary Ecosystem area. As a Flag resident, I enjoy hiking and biking in the Skunk Canyon areas and would like to see it remain closed to motorized vehicles. Thank you.

Response: NonIssue Comment

There is no change proposed to the current motorized closure. See comment #20 and #54.

Comments #11-13 from Steve Autry

#11 Close FS Rd 522, 151, 794 after big snows so we can cross-country ski in peace. People drive their 4x4's down these roads even after large storms. Most of last winter after huge storm you had gate open on FS RD 522.

Response: NonIssue Comment because this is not specifically related to the PA.

Two of these roads are not in the FLEA area and specific gating of roads is outside the scope of this Forest Plan amendment. However, this suggestion has been forwarded to District engineer who is responsible for implementing wet weather closures.

#12 Also, people ride snowmobiles in wilderness areas all over the Peaks. You have no enforcement of the laws.

Response: NonIssue Comment – Outside of the scope of the FLEA analysis.

This comment has been forwarded to District Law Enforcement and Recreation staff.

#13 Consider leaving some large timber on ground after thinning to slow down cross county travel

Response: NonIssue Comment – Outside the scope of the FLEA analysis.

This is an interesting suggestion for an implementation technique - this suggestion will be forwarded to District Staff.

Comment #14 from Norm Wallen

#14 I have concerns related to p31, section on Land Exchange. I was a member of the task force that produced, after much hard work, the Greater Flagstaff Open space and Greenways Plan. I was a member of the City Council which, along with the County Board of Supervisors, approved the recommendations as part of City policy. At the time, it was understood that agencies, including the Forest Service, could not enter into agreements that might conflict with agency policies. However, I believe it was agreed, as reflected in a Memorandum of Understanding, that Forest Service, could would, prior to

placing into the base for exchange any properties identified in the Plan as high priority for preservation, consult with the other partners to the OSG Plan. I think this should be stated in the proposed amendment. The highlighted statement that land to be considered for exchange includes land within locally approved growth management boundaries appears to contradict this agreement. It was also my understanding that there were to be no properties so identified as high priority within the scope of OSG that were currently in the base for exchange. I would appreciate knowing whether this is the case .

Nonsignificant Issue – Clarification.

Response: We have made some management direction clarifications in the Forest Plan replacement pages, Appendix A, pages 16, 22, 59, and 62. It was not our intent to bypass any reviews by other agencies or government entities. We are not relying on the base-for-exchange map but placing more emphasis on the criteria and the maps in the *Open Spaces and Greenways Plan (OS&G Plan)* and the *Regional Land Use and Transportation Plan (RLUTP)* to aid in identifying how appropriate a proposal is to go forward with the NEPA analysis and public involvement. Therefore when someone comes to the Forest Service with a land adjustment proposal, the proposal will be evaluated against the criteria and the local governments' plans. In addition, if the proposal makes it through our screening, then the City and County will be consulted. This consultation is not dependent on the *OS&G Plan* classification.

Comment #15 from Susan Lamb and Tom Bean

*#15 We think it is important to clarify which roads are open and which are closed. There is a road that runs along the divide between Skunk and Fay canyons that has become a big problem. It is in frequent use regardless of the weather and has developed deep ruts and consequently, lots of 'user-generated' bypasses. On many evenings, especially warm summer nights or weekends, drinking parties are held along that road, complete with bonfires. Often, we can hear the noise from these parties until after midnight. Sometimes we report the parties, especially when we can hear women screaming, but it is not always possible for the police/Forest Service to respond (maybe because it is unclear from our groggy description just where the party is or because there is a jurisdictional problem or because the enforcement folks are so busy that night). We go out the following mornings and pick up the bottles, plastic cups, and cigarette butts. We check to be sure that the bonfires are out, and usually they are. We believe that there is a great danger of fire spreading into the forest from these frequent bonfires. IT worries us that there is so much screaming, and we feel that these parties are not in keeping with the intended use of our public lands. We also feel that the road is spreading out into the surrounding woods and introducing more and more invasive weeds. And because access to other party spots in the area has been reduced over the past year or so, the problem continues to worsen in the ridge between Fay and Skunk Canyons. In conclusion, we believe that the closure of this road is imperative. IF it is needed for access by authorities, perhaps it could be restricted with the use of a gate. Thanks for your attention on this, Debbie!
Thanks for your reply, the road in question is shown on the newest Forest Service map. It is Road 720. The problem area lies beyond the site where they drilled for water a few years ago (they were unsuccessful and capped the well). The drill site sort of looks like*

the end of the road, but 720 actually continues to the right, past the drilling area, up and along the ridge between Fay and Skunk.

Response: NonSignificant Issue – Outside the Scope of FLEA analysis.

Specific road closures are not part of this Forest Plan Amendment. However, Alternatives C and D provide different ROS settings for the general area that could affect the future of this road. Future decision makers need to consider whether to close the road, or leave it open and perhaps provide more formalized trailhead facility and trails at the end of the road. In addition, this comment has been forwarded to the Mormon Lake District Ranger and appropriate staff for their consideration.

Comment #16 from John Wahl

#16 I'm writing to comment on proposed forest plan revisions which would affect the Walnut Canyon Recreation Area. Over the years I have frequently hiked, first from the bend on Lone Tree and more recently from the Rio Bridge on Lone Tree, to Fisher Point and beyond, often on to Marshall Lake using the AZ Trail. Occasionally I go through lower Skunk Canyon on shorter hikes. Whatever the route or distance, I highly value the absence of motorized vehicles, although I see signs of their having trespassed now and then. It is of the utmost importance to continue the total ban on motors, including snowmobiles, over the entire area. It seems the FS is trying to deny the existence of WCRA, even to the point of considering logging some of the area. This area is a very important resource for hikers, bicyclists, runners, equestrians, and cross-country! skiers/snowshoers. I'm able to utilize the area without having to drive at all, and I would imagine that many others share that freedom; having these lands available so close to Flagstaff proper is among other things, a traffic reducer. Please construct FLEA so as to preserve the WCRA in its entirety, with a continued ban on all motorized use.

Response: NonIssue Comment – The reason or effect that is of concern is not described. However, under the PA there is no change to motorized closure in Skunk/Fay Canyon areas. This comment requests that the current motorized closure areas in and around Walnut Canyon be maintained. The FLEA PA does not suggest changing these orders.

Comment #17 from Ivo Lucchitta

#17 I am concerned with the assignment of a small area in the West Management Area, north of A-1 Mountain, and specifically between the pipeline and Fort Valley, to the Semi-Primitive Motorized, and Campfires/Camping categories. Assigning this area thus rather than to the Semi-Primitive Non-Motorized, No Camping/No Campfires categories bring little advantage to anyone, and considerable disadvantages to many.

Fire: According to your own statements, areas within ½ mile of private land have a high risk of fire ignition and have the highest priority for fire risk reduction. This is even more pressing when the private land contains dwellings, as in the case here. Furthermore, these dwellings are even more vulnerable because they are down the prevailing wind from the forest area in question. People going for walks or horseback ride generally are less likely to start a fire than people traveling in a vehicle to camping. Consequently, it would

make sense to decrease the fire danger by eliminating access by vehicles to this 1 1/2 by 1 mile area.

For the same reason, the area should be assigned to the proposed No Camping/No Campfires category. There are just are too many dwellings down wind. Other areas where people can travel in vehicles and camp are not in short supply. It is sobering to know that we have seen transients camps in the area.

Wildlife: The area is used by wildlife at least as much as the area to the east that has been designated as a Wildlife Corridor. We routinely see elk, deer, fox, and coyote. I have also seen badger. My neighbor reports mountain lion. Raptors of many kinds are common, and we have had Bald Eagles roosting in some of the snags we leave standing for such purposes on our property. The attraction is the large stock tank in Fort Valley below. We have large elk trails that lead from the mesa in the direction of the tank, and deer utilize some of the dog-hair pine thickets for cover. This in turn attracts the predators. Many of the raptors, including the eagles, are interested in the prairie-dog colonies below. Eliminating vehicles and camping would have a positive impact on wildlife.

Response Significant Issue – both the disagreement with the PA and the reasons are given. In the DEIS, Alternatives C and D are related to this issue.

Comment #18 from Baerbel K. Lucchitta

#18 This note is in reference to the “Proposed Action to Amend the Coconino Forest Plan”. I would like to bring to your attention some inconsistencies in your proposed action pertaining to a section of land located in your management plan “West”, north of Interstate 40, north of A-1 Mountain, and south of the Fort Valley residential area. Your plan currently classifies this section as semi-primitive motorized and open to camping without any restrictions. However, on p 7 of your plan summary, you state that the area “West”, it is particularly important to reduce the fire risk in the A-1 Mountain region, because it lies upwind from a large number of residential areas. You also state, that the A-1 Mountain region should provide more hike-in hunting opportunities and increased semi-primitive non-motorized travel. We have lived near the forest boundary in this area, and we are aware that currently there is only one motorized access to this forest area. Consequently, cars enter from the pipeline road (the access) and rattle around within the fenced region, reoccupying abandoned old logging roads, creating more ghost roads, and causing erosion. Also, people camp, leave trash, and shoot, unaware of the nearby houses. In addition, this area is part of the important wildlife corridor and home to a large number of wild animals. They would greatly benefit from having this section treated the same as A-1 mountain. In fact, I fail to understand why you exclude this small area from assignment to the A-1 Mountain region in the proposal. We urge you to follow up on your own suggestions and declare this parcel in your management plan as semiprimitive non-motorized, closed to camping, and part of the wildlife corridor. I suggest that the parcel be assigned the same classification as A-1 Mountain. Thank you for your attention.

Response: Significant Issue – both the disagreement with the PA and the reasons are given. See comment #17 above.

Comment #19- from Taylor McKinnon, Grand Canyon Trust

#19 Grand Canyon Trust will provide comments no later than wed the 21st
Not a comment

Comments #20-24 from Ralph Baierlain

#20 ROS map. Please amend the ROS map to show as Semi-primitive Non-Motorized all the FS land west and north of Walnut Canyon that is currently coded as Semi-Primitive Motorized. The reasons for this request are several. Order 04-150 closed Skunk and Fay canyons to motorized vehicles. The ROS map will be most informative if it shows closed areas as closed. Showing closure according to Exhibit A of Order 04-150 would leave only portions of the sections 36, 31, and 29 as SPM. The Fisher-Campbell decision (25 March 19921) included further road closures in that general area. So the most consistent approach is to show all of the land as Semi-Primitive Non-Motorized.

Non- Response: NonSignificant Issue –

Although both the disagreement and the reason are provided, ROS does not necessarily match closure order boundaries. Often closure orders are placed on easy to recognize boundaries for ease of enforcement. ROS designations are more general and do not conform to easily recognizable boundaries. On the contrary, sometimes the sights and sounds of a road might cause the ROS objective to Roaded Natural or Semiprimitive Motorized, when a physical motorized closure may come right up to the road itself.

Although as written this is not a significant issue, issues raised in comment #134 from the National Park Service and other information relayed to the District Ranger during discussions about Walnut Canyon National Monument Expansion ideas, combined to form a significant issue. Therefore Alternatives C and D were developed to analyze different ROS settings for this Skunk/Faye Canyon area.

#20.1 In conjunction with amending the ROS map, please change the fourth sentence on page 70 to read “North and west of Walnut Canyon emphasize non-motorized, daytime recreation activities.” I understand that the ROS map is not the same as a motorized open-or-closed map. Nonetheless, I remain concerned about the apparent inconsistency between Order 04-150 and the “Roaded Natural” strip along Lake Mary Road. Will dirt roads that emanate from Lake Mary Road be signed “Closed to motor vehicles”?

Response: NonIssue – Clarification.

The text was changed in the replacement pages for the Walnut Canyon Management Area, located in Appendix A, to show this clarification.

#21 Road closure. Please close FR 128B. FR 128B lies near the eastern border of the Skunk and Fay Canyon closure. Because the Proposed action shows much of the land immediately south of Walnut Canyon as Semi-Primitive Non-motorized, I presume that FR 128B would have motorized closures on both its west and east sides. Hunters on

FR128B, however, would not stay on the road. The best way to gain compliance with the area closures is to close the road as well.

Response: NonIssue comment – Outside scope of the FLEA analysis.

Specific road closures are outside the scope of the FLEA analysis. The proposed ROS objectives in the area could affect the future of this road, but site-specific road decisions are not a part of the FLEA decision. The current boundary between SPM and SPNM in this area was drawn based on discussions with Arizona Game and Fish Department personnel and Forest Service fire management personnel. There was a desire to have the road be a boundary between the two ROS settings, and that the road continue to provide fire management and hunter access in the area. Driving that may occur off of this road will be managed through road policy, dependent on the outcome of the current *Cross-country Use of Motorized Vehicles in Five Arizona National Forests*.

#22 Order for Campbell Mesa. Please request a formal order to close Campbell Mesa to motorized vehicles. The mesa has been closed to vehicles for a few years, and the rehabilitation is coming along well. It is long since time to give the closure the legal status of an order.

Response: NonIssue Comment – Outside scope.

A specific road closure order is outside the scope of the FLEA decision - ROS objectives show the area nonmotorized. A separate project on the District is underway in fiscal year 2002 that proposes to close roads, convert some roads to trails, and adopt a motorized closure policy for the mesa. Contact Alvin Brown for more information.

#23 Motorized trails. Please delete the suggestion (on p. 70) that some roads be converted to motorized trails. The Walnut MA is best suited to non-motorized recreation uses. Any motorized trail imposed on the MA would interfere with the conservation goals of the Monument or would detract seriously from the experience of those entering the MA from the urban interface.

Response: NonIssue – Clarification.

Forest Plan page 59 in Appendix A has been adjusted to indicate the areas south and east of Walnut Canyon, which had been the intent.

#24 Road reduction. I understand that the FS is currently surveying Campbell Mesa with the intent of ensuring that all roads that should be eliminated are indeed eliminated. Please extend that process to the area between FR303 and Walnut Canyon itself. Road abuse south of FR303 is rampant. Virtually every drainage has a road; many ridges have them also. The best first step would be to convert those roads to trails (by closing one rut of the pair). Then one could wait a few years, see which trails are not used, and close them, thereby eliminating the previous road entirely. Of course a very few roads should be maintained as two-track to provide access for fire trucks. Those roads should be gated. I am glad to see the FLEA process moving along toward completion.

Response: NonIssue Comment – Outside the scope.

Implementation of site-specific road closures is outside the scope of the FLEA decision. The District earmarks certain areas each year to conduct roadwork according to that year's funding. This suggestion has been forwarded on to the District Staff and the District Ranger for their consideration in the program of work. The manner in which the District responds to driving off roads and the creation of new user-created (social) roads may

change as a result of the *Cross-country Use of Motorized Vehicles in Five Arizona National Forests*. That analysis should provide consistency. The DEIS for that project should be out summer of 2002. Contact Jim Anderson of the Apache Sitgreaves National Forest at 520-333-4301 or e-mail janderson08@fs.fed.us

Comments #25-41 from Christensen Elementary School

The PA extends the current Mt Elden ESA to include lands behind Christensen School. Many of these comments talk about ‘saving’ the area (from development). Under the PA these lands remain National Forest regardless of the ESA extension. In general these comments support the idea of extending the Elden ESA to include lands behind Christensen School as described in the PA. These comments are a good reference for getting a sense of the overall values of the place. We are responding to them in a consolidated response at the end of comments.

Comments #25-26 from Chris George

#25 I am writing this letter to say that I want to keep the forest land behind Christensen the way that it is now. I want to keep it so the animals are not disturbed. I have seen deer come to the fence. If you build, all the animals may be forced to leave and they might not find anywhere else to stay. You could make animals become extinct in this area of the forest.

#26 If you keep the forest, you should make more trails without doing much harm. There is a lot of space, maybe we could help plant trees. Thanks for reading this. We will be waiting for your decision.

Comment #27 from Leandra Greyeyes

#27 I am writing this letter to you because I want you to save the land behind the school. Because I think it is a good habitat for animals, Also a good migration route. So animals don't have to risk there lives by crossing the streets. And going through the neighborhood. IT is also beneficial to us students. So we can learn about the environment. I also think you should save it because you can see many kinds of animals. You could see deer jump the fence sometimes elk eating grass around there. You can see rabbits hopping around and squirrels playing in the trees and don the ground. There might be human history around the places. Also there might some ruins there from the Native Americans who lived there long ago. There is also open space to see animals eating, playing, fighting, running and walking by to go to different places. So that is why I want you to try and help me save that land. For animals, humans and for the history that was there long ago. So thank you for reading my letter. Hope you help. And thank your or your time. Please!

Comment #28 from Julia Alvarado

#28 I am writing this letter to you because I want you to save the land behind Christensen School. WE would appreciate it a whole bunch if you did. IF you turn that

land into more the ESA we can learn about it more. We went on a hike a few days ago and I saw a lot of stuff that could teach us about the land. I also want you to save the land for use because there are lots of animals that we can learn about. We love having pretty horses that come to our gate. WE can learn more about the history of the people who once lived there. It's a special piece of land that has wide, open fore, but still has trees around it. IF you put something there like a building instead of saving it, the animals won't have their migratory route. There is also a lot of useful plants that might be able cure diseases. It also could be beneficial for future students. Please we want you to save that land for us. Thank-you for listening to my letter.

Comment #29 from Breand Barrandey

#29 I am writing this letter because I want to help save the land behind my school. If you take the land behind my school you will take the homes of plants and animals. The forest behind my school means a lot to me and other students. There is a lot of use out there. In the forest behind my school there are a lot of trees that help us breath. We want the land behind by school as a Environmental Study Area.

Comment #30 from Joseph Gutierrez

#30 Please preserve the school woods for future students so that they can enjoy this as much as I have while attending this school. If you build buildings in this area, we will not be able to see the wildlife. Their homes will be destroyed. IF a building is built, we will not be able to see the trees and the animals. Please make this area an Environmental Study Area to preserve the natural habitat. We will help pick up all the trash to make the area look nicer. Please allow the animals to run free and keep their homes.

Comment #31 from Dustin Banbury

#31 Please preserve the land behind our school. My classmates and I would like it if you did. So the school as an Environmental Study Area. Preserve it so people don't build on it. Preserve it so the animal habitat is not destroyed by builders. IT would be preserving human and animal history. Preserve it for ecological reasons. IT would be beneficial to students of the school for year to come. It is a migration path for animals. And it is the only way to get around the mountain safely for animals.

Comment #32 from Mimi Walton Taylor

#32 I am a 5th grader at Christensen Elementary. I think you should save the Christensen ESA because the animals that live here are not going to have a home anymore I you don't save the place. Also people can come here to relax or to do work, study, people also can take pictures here or play. So if you do not save this place none of this stuff would be possible. So please save this beautiful place.

Comment #33 from Brian Bedonie

#33 I want to save the land behind the school fence. It should be an environmental study area to learn all about animals and the history too. There is not replaceable stuff there. There are pieces of old building. If you don't save the land, the animals we saw by the school, we won't see them any more. If you don't save it, the other kids in 4th wouldn't go for a walk.

Comment #34 from Raquel Jackson

#34 I am writing to you about our forest. There are many reasons why you should leave our forest up. First of all it keeps our air clean and smells from the forest are very special. Many people come from all around to see many forests. The forest behind our school is very special. We use it for lots of things like to do reports, play, picnics, take pictures, tell scary stories, and fun stuff like that. We can also look at old things like rocks, holes in the ground, tunnels, old food, and many kinds of bugs. Please don't take it away. If you take our forest away your taking animals like food and your taking there homes what if we take away your home you wouldn't like it would you? Many kind of animals like there like birds, deer, bugs, lizards, and snakes.

Comment #35 from Valerie Ashton-Cody

#35 I'm writing this letter about the forest behind our school. It is a good place for animal's to live, all kinds of them live back there. We don't want anything to happen to it. If something did it would be ruining animals' homes. So we want you to protect the forest behind our school. It is really neat back there so please protect the forest behind our school. We would like it so much if you would.

Comment #36 from Samuel Cruz

#36 I think that they should save that land for horses and deer and javelins and for elk. Kids from Christensen School don't want to take the land and make a grocery store. To preserve land behind our school as an environmental study area. Human history ecological reasons beneficial to students (as well as) a migrating route (for wildlife).

Comment #37 from Dustin Beaver

#37 I am writing this letter to ask you to save the forest behind our school as an Environmental Study Area. There are a lot of animals live there, there is a lot of human history there, and it is beneficial to the students of Christensen Elementary School. That is why I want you to save the land behind our school as an Environmental Study Area. I want you to ask it so that no one can build anything in it or on it. And it is the safest way for animals to get from one side of the mountain to the other. So please save this area. It is also a beautiful place to take walks. If you do not grant this wish I will write a complaint letter and I do not want to write it, so please just grant my little favor I ask of you so not only me but everyone can study the forest behind our school.

Comment #38 from Georgia Behne

#38 I think the Coconino National Forest behind Christensen School should become an Environmental Study Area because of many different reasons. There are the remains of cabins that used to be a home to people, and concrete that used to be the ground of a home. These are amazing to study. There are trees and other plants which aren't usually found at this altitude. There are plants and trees that are about or older than 100 years old. These are amazing to study. There are places that are graves that once had tombstones. There are animals, deer that wander to our schools gate, which is neat to see and sometimes there are elk which wander all around, too. Horses, so beautiful, wander to our gate and graze beyond our fence. The migration route helps the deer and elk so they don't have to cross the highway and risk their lives. There are squirrels and snakes all around that the forest is home to, too. There are plants that are so unique that there is hardly even one. Our forest is one of the best, cleanest, and most natural forests in Flagstaff. Please make it an Environmental Study Area.

Comment #39 from Erin Keams

#39 It would be a good idea to save the forest behind Christensen. So we can study the history and so we can go on walks. Also the rangers would be able to help the animals. It would be good to save the forest because we will clean it. It has been part of Flagstaff a very long time. By building some thing it would be bad because the animals would have no place to live. Also we wouldn't have to go on field trips and pollute the air with the buses. Thank you for listening to my letter.

Comment #40 from Cody Smith

#40 I think the Forest Service should save the place behind our school because animals live in it. In different classes they study animals, trees, and plants. Last year, in my class, we studied animals and plants. It helped me a lot. That would be cool if we got to put little signs where all the different things are, and make new trails when all the little kids get older they can also use this are too. I think the deer like the grass and the pinyon trees whenever there is trash we will try our hardest to pick it up. It will be cool to have our own (area) and saved for use to use. There is a lot of human history up there.

Comment #41 from Dylan Buehler

#41 Please preserve the land behind the school for the students of Christensen Elementary School. You should because there is a lot of human history. All students could study there and get a better job. If you sell it then we won't be able to study there because they will probably turn it into apartments or something very local. It would destroy animal habitats trees and more. If it became an ESA then it would be protected by responsible people. There would be less litter and trash. If it got protected then the future students could study it and learn more about the outdoors. There is also lots of

animal food sources and if people destroyed it, it would kill animals. Thank you for listening to my letter!

Response to comments #25-41: Nonsignificant Issues –

Generally these comments support the extension of the Mt Elden ESA as described in the Proposed Action and common to all action alternatives. Some comments are outside the scope of this project because they mention specific trail locations or wildlife habitat needs. We appreciate your concerns for the trail, wildlife and general ecosystem health. We are glad to hear that you use the ESA in your studies. Perhaps in the future you and other classmates could be active in keeping the area clean and part of working on the trails. Specific trail locations and wildlife habitat ideas have been forwarded to District staff for future site-specific planning.

Comments #42-#47 from Brian Nowicki and Brian Segee, Southwest Forest Alliance

42 The FLEA requires an Environmental Impact Statement for a number of reasons. Many of the revisions involve landscape-scale plans affecting tens of thousands of acres, and significant changes to the forest structure. Also, the FLEA includes forest-wide impacts to northern goshawk and Mexican spotted owl in the Urban/Rural Influence Zone and the fire risk reduction forestry.

Response: NonIssue – Comment.

There is no disagreement with PA rather a comment on the type of document to be used. NEPA documentation will meet standard Forest Service NEPA practices. Per those, an EIS will be prepared for this project.

#43 The map of the Urban/Rural Influence Zones shows that the Urban/Rural Influence Zone includes large areas that are much farther than ½ mile from private properties. In effect, the map shows that the Forest Service has simply “filled in” the spaces between the ½ mile radii surrounding private properties. This is significantly different from the definitions of the Urban and Rural Influence Zones provided on page 14 of the FLEA. It is not appropriate to designate large areas for a particular management simply because it is convenient.

Response: NonSignificant Issue – Conjectural

Our review of the “filled in” areas shows that these areas are suited to the desired conditions and guidelines proposed for the Urban/Rural Influence Zone. In addition, there is a need to conduct fuels reduction treatments on some lands that are beyond a ½ mile strip area due to topography, dominant wind direction, and/or fuel hazard.

#44 Furthermore, the FLEA fails to distinguish the Urban and Rural Influence Zones from the Fire Management Analysis Zone. These designations should be associated with distinct management goals, but such distinctions are missing from the FLEA.

Response: Nonsignificant – Conjectural

Rather than distinct management goals each zone has a few changes proposed from the current Forest Plan management goals. The Fire Management Analysis Zone is not intended to be a separate emphasis zone in FLEA except for the few places where Forest

Plan language changes apply. These are wildlife cover, a goal statement about fire potential and reducing risk of catastrophic fire, and a sense of priority for fuels reduction work outside of the Urban/Rural Influence Zone. Also see response #45 below.

#45 The Urban/Rural Influence Zones and the Fire Management Analysis Zone may contain many of the same management objectives as the Wildland-Urban Interface. The WUI has been discussed and appears to be the appropriate terminology for many of these management objectives. Why is the Coconino National Forest using a unique and unclear set of terms for these zones?

Response: Non-Issue Question.

WUI is a general term used in different ways. The U/RIZ in FLEA is specific to the FLEA area only and is used to describe a type of WUI. The FMAZ 1U boundary has been in existence for many years and used as a tool for allocating fire suppression resources (the zone is identified in the initial Forest Plan text in 1987). The FMAZ 1U boundary fits the definition of wildland urban interface as described in the current Forest Plan. The FMAZ 1U describes another kind of WUI.

#46 The protection of houses and communities is best accomplished by treating houses and their immediately surrounding properties, and by creating a defensible space directly adjacent to the community. The Southwest Forest Alliance document “Protecting Communities from Forest Fires” discusses the effective treatment of the wildland-urban interface, and can be found on our website www.swfa.org

Response: NonIssue Comment - No disagreement with this PA.

The Forest Plan changes in the Proposed Action allow for treatments adjacent to houses as described in the comment above. The Forest Plan (as amended under the FLEA PA) also allows for treatments in areas distant from houses. The FLEA PA neither precludes nor prescribes the fire risk reduction occur immediately adjacent to homes. It is our understanding however, that reducing the risk of structure losses due to wildfire requires treatments in close proximity and a distance away. An example is the recent Kachina Village Forest Health Project DEIS that provided additional information on this topic. See the Coconino Forest website at www.fs.fed.us/r3/coconino

#47 The FLEA states that livestock grazing is “covered by various Allotment Management Plans”. However, the FLEA includes plans for many forest “topics” that are inextricably linked to livestock grazing, such as vegetation changes, restoration, wildlife habitat, and fire risk reduction. Livestock grazing profoundly affects all of these topics and more, and must be analyzed as a component of the FLEA.

Response: NonSignificant Issue - Outside scope.

Livestock grazing related issues are best handled through allotment plans. Only 63 percent of the FLEA area is an open allotment. This PA does not preclude or predetermine livestock grazing. We tried to stay focused on the human uses and the recreational aspects of management.

Comments #48-#67 from Betsy McKellar from Friends of Walnut Canyon

#48 *I'm sure you are aware that we think the area needs to still be considered the Walnut Recreation Area. This is even more obvious as we read the current document and see that very little emphasis was placed on the recreational use of the Walnut Management Area, or to the scenic values of the Walnut Canyon area.*

Response: NonSignificant Issue – Conjectural.

In the *Ideas for Change* we discussed the option of whether or not to name this a Recreation Area. The *Ideas for Change* includes some of the reasons for not formally naming the Walnut Canyon Recreation Area in the Forest Plan. Instead the FLEA PA proposes the Walnut Management Area with the boundary delineated on the *Proposed Management Areas* map. To date, the Walnut Canyon Recreation Area name has been an informal name used on signs in the area. The name does not appear in the Environmental Assessment or the Decision Notice for the Fisher-Campbell Timber Sale. The District Ranger who initiated this idea did not have the authority, nor was it his intention that the name would be applied without a Forest Plan level analysis. Although it has been many years, the necessary Forest Plan analysis and discussion has occurred via the FLEA process and the conclusion brought forward in the PA is to remove the name Walnut Canyon Recreation Area from all signs and replace it with Walnut Management Area as appropriate. We have made some clarifications to the language for the Walnut MA (see Appendix A) to clarify the intended emphasis on recreation, scenic values, maintenance of the biological diversity of Walnut Canyon itself, and the reduction in fire hazard to adjacent residential areas. The text emphasizes a need to balance all of these needs with each other. To name the MA as a Recreation Area, fails to place enough emphasis on wildlife habitat and fire risk reduction.

#49 *One of the major issues addressed by the Fisher Campbell EA was the scenic quality of the area. The first line of Alternative 5, the chosen alternative, said “Silvicultural treatments emphasize wildlife habitat and scenic quality”. The first line of the decision summary reads: “Manage forest vegetation in the area as needed to support the area’s value for wildlife habitat, scenic quality and recreation.” These values have not been captured in the current document. Nor have many of the goals and objects listed in the Fisher Campbell decision and EA. Most of the following comments will be relative to these promises previously made for the area which we view as the existing proposed management.*

Response: Nonsignificant Issue – Clarification.

The Proposed Action only added language or clarification where there was a need. Some of the items in this comment are already permitted under the current Forest Plan. This is because of changes in the Forest Plan that occurred after the Fisher Campbell decision was approved in 1991. For example, Amendment 11 changed the Forest Plan in 1996 so that “silvicultural treatments emphasize wildlife habitat” such as Mexican spotted owls and goshawks. The Forest Plan has direction for the Walnut Canyon MA that is also Forest-wide in nature. Items in the Walnut Canyon Management Area are additive to the Forest-wide direction. Additional clarification has been added to the replacement pages to include wording about scenery and other values of the area (see Appendix A for the Forest Plan new replacement pages).

#50 Specific changes that we see need to be made: Page 70 – We'd like to see the Management Emphasis statement read more like the above quote, or even the opening paragraph of the Fisher Campbell decision. This area has special scenic qualities – see page 7 of the Fisher Campbell EA. Of course management should be protect wildlife habitat, but that should not be done at the expense of the scenic quality of the entire area.

Response: NonSignificant Issue – Clarification.

The Walnut MA description was reviewed and refined, to reflect the scenic and recreation values of the area (see Appendix A for the Forest Plan pages). There will be times when site-specific scenic values will be affected for the short-term, of wildlife habitat will receive long-term protection.

#51 The text should not only concern the scenic quality of the viewshed of the National Monument, nor should it only meet the general forest guidelines of concern near houses or designated recreation sites. Both the thinning and the cleanup should reflect the special uses and values of this entire area.

Response: Nonsignificant Issue – Conjectural.

Page 26 of the PA suggests clarification language that emphasizes fast clean-up of slash along major roads, adjacent to homes and developed recreation sites. This guideline does not preclude additional areas from being set up for fast slash clean-up should site-specific analysis show the need. Additional language has been added to clarify the need to design project implementation so that scenic values are maintained in the Walnut MA.

#52 Likewise the ME (Management Emphasis) should say something more about the recreational values of the area. This IS the primary use of the majority of this area, and maintaining the quality of the recreational experience is essential.

Response: NonSignificant Issue – Clarification.

There is additional clarification language in the replacement pages text for recreation (see Appendix A for the Forest Plan pages). There is a need to balance recreational use with other values such as wildlife habitat and fire hazard reduction. This is not a single use area.

53 No mention is made of the campground which seems to be happening at Canyon Vista. How did this happen without public process? What are the plans for possible group sites and why is this even being considered so near to Walnut Canyon.

Response: NonIssue -- Question.

There has been concentrated use and facilities at this site since before the Forest Plan was approved. Originally a shooting range, the site now provides parking for system trails and a popular climbing area. Concentrated dispersed camping was changed to designated sites to limit resource impacts. Today, individuals and groups use the area. In the mid-90's the site was added to the Forest Service Region 3 Recreation Capital Investment Priorities. The site is listed on current Forest maps as a campground. The desired condition is to continue these uses and provide facilities that provide sanitation, limit erosion and compaction and control numbers of people at one time. There is not a specific proposal available related to group use sites at the campground. We have added clarification language to the Forest Plan replacement pages (Appendix A) related to this facility.

#54 We suggest that you expand the Semi Primitive non-motorized ROS setting to include the Skunk-Faye area order No 04-150, also to include the remaining area north of Walnut Canyon and south of the Continental area in consistency with the promise in the Fisher Campbell that these area be closed to motorized uses (Skunk-Fay) or off road travel (the other portion).

Response: NonIssue Comment – no reason (effect) described.
See comment #20.

#55 Do thinning with extreme sensitivity to scenic values and recreational uses. If this were a “designated recreation site” then at the very least a 1-3 year clean-up would be used. This area deserves even more consideration than that, not just a quicker clean-up.

Response: Nonsignificant Issue – Clarification.

Additional clarification has been added about conducting implementation in manners that maintain scenery (see Appendix A for the Forest Plan pages). Refer to comment #51.

#56 We do not feel that there are any locations suitable for motorized trails in the interior of the Walnut Management Area. Only roads along the eastern border should be considered for this type of corridor.

Response: NonIssue Comment -no reasons provided for why motorized trails are not appropriate. See comment # 23.

#57 Whether or not the area is capable of a timber sale, the area should be withdrawn from consideration for timber sales because of fragility and social sensitivity.

Response: Nonsignificant Issue – Conjectural.

This comment seems to be more related to larger scale Timber Sales of the past, such as the Fisher/Campbell proposal in the early 90’s or the Walnut Sale of the same vintage. There no longer is a Timber Sale Schedule for Timber Production in the Forest Plan. Timber Sales are now derived from specific project analysis as a tool to achieve other objectives and desired conditions. This shift in management emphasis has already taken place in the Forest Plan in the mid 1990’s with Amendment 11. Management for wildlife habitat, especially the Mexican spotted owl and northern goshawk, is the primary focus of timber management. To remove the ability to sell forest products would limit our ability to achieve ecosystem goals for the area. Reducing the fire hazard may be accomplished in the quickest and least damaging manner if we are able to sell the timber products. Please refer to the response to comment #68 for a more thorough discussion of timber suitability.

#58 Considerable new signage is needed on Campbell Mesa

Response: NonIssue Comment – Outside the Scope. This comment will be forwarded to the District staff responsible for signing.

#59 We feel that the current status of Campbell Mesa needs to be improved by having a signed order officially making it off-limits to motorized vehicles. The current situation makes enforcement of the so-called closure impossible.

Response: NonIssue Comment – Outside the Scope. See Response to Comment #22.

#60 We realize that there is no prescription written for the thinning which will occur in the Walnut MA. However, we are concerned that the exclusion of most of the area from the existing thermal and hiding cover guidelines is inappropriate. The Fisher Campbell EA state that

Vertical diversity – The presence of trees and shrubs of different ages and heights is important to wildlife habitat and scenic quality. (p7)

On page 12 of the FC EA:

Vertical Diversity is maintained on all acres

Besides the scenic qualities involved there is a lot of large sized wildlife in the area which take advantage of the thermal and hiding properties of the small stands of dense trees which used to be considered cover and now are considered fire hazard. We tend to agree with the Game and Fish dept that the current method of thinning is not necessarily the best way to manage wildlife.

Response: Significant Issue

This comment refers to Walnut MA. The PA allows managers to deviate from the current Forest Plan management direction for wildlife cover but does not require that they do so. Fire hazard reduction is a higher priority than maintaining high levels of cover immediately adjacent to residential areas. When future site-specific projects are being analyzed, it may be that the cover direction can be met in a project area. However, this part of the PA provides more flexibility for the site-specific project to consider going below current cover guidelines in light of a future site-specific project's needs. Please refer to the response to comment #80 for more information on this same concept. In addition, this issue is discussed in the EIS as an alternative action to the PA (Alternatives C and D).

#61 We have been waiting since 1991 for the promised closure of the entire Fisher Campbell area to off-road travel. This is not addressed in the document.

Response: NonSignificant Issue - Outside the Scope.

See response #24 and #59.

#62 At an earlier stage in the process, we were asked if we agreed to the closure of road 128B on Anderson Mesa. We still fell that this would be a good idea. Because that area is virtually unused except for hunting season, it is very well preserved, and very wild. That road is the only access to that particular region of Anderson Mesa, and the road is very, very, bad now. When bad weather occurs during hunting season, it only gets worse and multi-roading is occurring.

Response: NonSignificant Issue – Outside the Scope.

See response #21.

#63 On promises. We have been waiting for the “FLEA Process” to end for the following things to occur: Confirmation of the trail system on Campbell Mesa and signage

Response; NonIssue Comment - no reason (effect) described.

See response #22

#64 Completion of the Arizona Trail Trailhead south of Forest Dale mentioned in both the Fisher Campbell Decision and the Arizona trail Equestrian By-Pass Decision.

Response: NonIssue Comment - no reason (effect) described.
This comment has been forwarded to District staff and the District Ranger for consideration as a future work item.

#65 The order officially closing Campbell Mesa to vehicular travel.

Response: NonIssue Comment – Outside the Scope
See response #22.

#66 Closure of the entire Fisher Campbell area to off-road travel.

Response: NonIssue comment – no disagreement with the PA.
See response #24

#67 We find it extremely amusing that this document is considered to contain enough study and information to allow removal of the Walnut Recreation Area designation, but not to implement any of the actions that we have been waiting many years for. Many specific small projects, (and some large actions) largely those mentioned in the Fisher Campbell Decision, have been waiting for years because we were told that this document would somehow be necessary. When the Forest Service waits over 10 years to implement something clearly outlined in a legal decision, it makes the public suspect that they have no intention of ever taking that action.

Response: NonIssue Comment - No disagreement with PA nor effect described.
We are not removing a designation that never existed. We are identifying a Management Area for Walnut Canyon and surrounding lands. We also identify management direction that is tailored to the resources, values, and uses of this area, beyond existing Forest Plan direction. This type of area designation requires a Forest Plan analysis and decision, and an appropriate level of analysis has been completed to make this choice.

Items in the Fisher Campbell decision have been already accomplished for the most part. NEPA decisions, such as the Fisher Campbell Decision to not require the agency to implement the action, rather the Fisher Campbell EA discloses the effects of taking the action and the Decision Notice makes a choice between alternative methods for accomplishing the activity. Although not preferable, it is sometimes common that actions approved in NEPA decisions are implemented at a later date than expected, or not implemented at all. There are many factors that affect implementation such as funding, weather and other priorities. The choice to work on a particular project in a particular year is made during the District and Forest program of work discussions. There is no law that governs these choices; rather activities are largely dictated by the budget passed by Congress. The Forest Supervisor and District Ranger guide the program of work process by identifying priorities. The Friends of Walnut Canyon were advised that projects would not occur until after FLEA was completed so that the District Ranger or Forest Supervisor could ratify the desired conditions for the area, and make sure the on-the-ground work matched agreed upon future conditions. Many projects are complete that were described in the Fisher-Campbell Decision.

To summarize Fisher-Campbell items implemented include, 448 acres have been thinned in section 29 and 31, Portions of the rim adjacent to Walnut Canyon National Monument have been changed to SPNM settings through road closures (approximately 2-3 miles of

road closed), no land exchanges have been considered, approximately 2-3 miles of road have been converted to nonmotorized trail (Arizona Trail), Approximately 5 miles of road have been closed or obliterated in section 35 and 36 and Public Order 04-150 prohibits vehicles in the area of these sections (Skunk/Fay/Fisher Point area), Arizona Game and Fish Department has created a metro hunt unit which limits use of firearms for hunting, firewood gathering has been restricted to special permitted areas only, trash and abandoned vehicles have been removed, camping and campfire restrictions have been implemented, water sources have been improved with the construction of trick tanks. There are ongoing efforts to continue road closures and establish public order limiting vehicle use on Campbell Mesa (Fiscal Year 2002 project). Remaining work includes road closure and obliteration south of FR303 (Old Walnut Canyon Road).

Comments #68-#71 from C. James Krafft

I would like to voice my concerns about the recent Flagstaff Area Ecosystem Analysis as it pertains to Walnut Canyon. Please excuse my brevity, but I understand that this comment is late, and I want to get it in as quickly as possible.

#67.1 After years of work by the Friends of Walnut Canyon on Campbell Mesa, I expected this document to include some method of signing the tails there

Response: NonSignificant Issue – Outside the Scope.

Methods of signing are specific implementation techniques. The FLEA PA changes to the current Forest Plan add ROS objectives and scenic management objectives a tool for designing future projects.

68. After serving on the Fisher Campbell ID Team years ago, I am disappointed that almost one half of the “Walnut Management Area” is designated “suitable for timber.” Didn’t we have this discussion (same) over the Fisher Campbell sale which determined that a timber sale was not suitable for this area?

Response: NonIssue Question.

At the time of the Fisher-Campbell analysis, we did update our records with site-specific inventory data from this area and did conclude that some of the lands should have been classified as unsuitable for timber production according to the Forest Plan direction. Those updates to our database were made. The Fisher-Campbell decision did not change the lands ability to grow and regenerate trees (suitability) rather it decided not to conduct a timber sale as originally proposed with the Fisher-Campbell project.

Some of the confusion seems to be caused by the national classification system, which categorizes lands as *Tentatively Suitable for timber production or Unsuitable for timber production*. Perhaps an explanation of how this classification system works and what it truly indicates would be helpful.

There are some lands within the Walnut Management Area classified as “*Suitable Timber Lands*”. Because a piece of land is so classified does not mean that there has been a determination to have a timber sale. Classification of timber stands as “*capable*” or “*suitable*” does not equate to creation of a timber sale. For instance, there is no

crosswalk that would lead from a stand classification as “*suitable*” to a schedule for timber sale. The classification indicates that certain silvicultural activities could be permitted in relation to a host of objectives, which could include, wildlife habitat improvement, fuels hazard reduction, visual quality, habitat restoration, or others. If you can accomplish desired conditions using cultural methods such as non-commercial thinning or fire, then a project would proceed without a timber sale. However, future site-specific analysis may indicate that a timber sale could be used as a tool to accomplish project objectives. An appropriate time to use a timber sale versus a non-commercial thinning treatment might be when the by-product of the treatment prevents you from meeting the desired condition if a large amount of material is left on the site. Many of the fuel hazard reduction treatments require removal of the thinned material to meet the fire hazard reduction objective. Using a Timber Sale to have this material removed is often much more cost efficient as the government is getting paid to have it removed, versus the Forest Service paying someone to remove the same material. There are many acres of suitable land where we have determined through site-specific analysis that tree harvest of any kind is not appropriate at this time. Though these lands are “deferred” from tree harvest at this time, it does not change their timber suitability classification.

For land to be classified as “*Suitable*”, it must pass a rigorous series of filters.

Is it Forest Land? (There are definitions on what distinguishes forestland from Non-forest land)

Is the land Available Forest Land Area or has it been withdrawn from timber production? (Specific lands are withdrawn by legislation regardless of timber capability, such as congressionally designated wilderness)

If not withdrawn, is it capable to produce wood? (There are amounts of annual growth requirements that must be met to qualify as physically capable)

If it is capable, is it physically suited? (It must pass a regeneration requirement, have the assurance that timbering activities would not cause irreversible damage to soils or other ecosystem components, and other technical requirements before it can be classified as suitable).

In addition, this is only a first level of classification that helps categorize a timber stand. Once suitability has been established, the stand will be further classified by “Timber Component”. Timber Component identifies any special emphasis that has been determined for a stand. Timber Component can be assigned at the Forest Plan level or during and following specific analysis. For instance, as a result of Amendment 11 to the Coconino Forest Plan nearly all of the Suitable Forest Lands previously classified by a Timber Component of Land Suitable For Timber Production – Timber Emphasis (Timber Codes 500 – 521), on the Coconino have been re-classified to Suitable Forest Land – Resource Emphasis Other Than Timber (Timber Component Code 650, which is Land Suitable for Timber Production – Suitable Forest Land – Wildlife Emphasis).

Hopefully this explanation alleviates your fear that this national classification system leads to a Timber Sale, and explains why having the Timber Sale tool available could be useful. In addition, there has been a shift in emphasis since the days of the Fisher-Campbell and Walnut Sale proposals (that were based in timber production objectives) and today's emphasis on managing for healthy ecosystems, regardless of the vegetation classification. Please refer to the response to Comment 57 for related information.

#69 For years the roads and trails around Skunk Canyon have been closed to motorized vehicles. Why does the ROS map show that the area is now suitable for motorized vehicles?

Response: NonIssue Question.
See #20

#70 And of course my biggest disappointment, why did the Ideas for Change text talk about the Walnut Recreation Area at some length, but it is never mentioned in this document? What does this mean as far as continuing the designation? I personally feel that people of Flagstaff have embraced Walnut Recreation Area over years, and that it has afforded protection for the area by its very existence. The Walnut Recreation Area signs have set the mood and theme for the area for the last many years; to remove them would certainly show degradation in the management of the area.

Response: NonSignificant Issue – Conjectural.

A name, or lack of a name, would not show degradation in management. See response #48.

#71 The many “no this” and “no that” signs that are popping up all over the entrances to the Walnut Recreation Area certainly show a lack of concern over signage which is harsh in its wording and message, while the existing signs strove for saying “please” and giving an explanation for their action. At one time we were moving towards eliminating the profusion of individual harshly worded ones. Now it appears that we are moving back in the wrong direction.

Response: NonIssue Comment - not specific to PA.

Specific signs are outside scope of FLEA decision. This comment has been forwarded to District Recreation staff.

Comments #71-#92 from Taylor McKinnon, Grand Canyon Trust

#72 -The Proposed Action needs to include a vision statement, a statement of purpose and need, desired future conditions, and project objectives that unify and that are explicitly substantiated by the proposed Forest Plan amendments (as was done for in Ideas for Change). This is necessary for two reasons. First is for the simple purpose of placing the proposed amendments in context. That is to say, there are circumstances and needs unique to the FLEA area that have led to this proposal—what are these needs and how do we anticipate the proposed amendments will meet them? Second, because the project scope has changed since Ideas for Change due to new management priorities, duplication of existing Forest Plan direction, and jettisoned analyses, the original vision, background, needs and desired conditions need to be revisited accordingly.

Response: NonIssue Comment - No disagreement with PA, rather disagreement with document presentation.

We referenced the *Ideas for Change* for these items and indicated you needed to use the two documents together. The DEIS contains statements of purpose and need. The DEIS adjusts the descriptions of desired conditions⁵⁰ for some topics, and maintains current descriptions of desired conditions for other topics. The DEIS describes some additional objectives for some topics. A vision statement for the area has not been developed; rather the current statement in the Forest Plan under Mission continues to apply.

#73 – Have the original circumstances and needs unique to management of the FLEA area changed? If so, how? How do the proposed amendments meet these needs.

Response: NonIssue Question.

Again we refer you to the *Ideas for Change* for this background material, which is also presented in the DEIS in the Purpose and Need section of Chapter 1. Also, Appendix F provides a summary crosswalk from the *Ideas for Change* to present.

#74 Just as importantly, how do those parallel and/or jettisoned analyses intersect with FLEA?

Response: NonIssue Question.

A matrix that helps answer this question is in Appendix F of the DEIS.

#75 Proposed action needs to consider and address the Grand Canyon Forests Partnership⁵¹ as a concurrent and relevant planning effort. The proposed action does not discuss the Grand Canyon Forests Partnership. Of particular importance, the proposed action does not specify how the proposed amendments for the Urban Rural Influence Zone (URIZ)—which constitutes approximately 65,000 acres of the 100,000-acre Flagstaff Urban Wildland Interface—are consistent or inconsistent with the goals and objectives of the Grand Canyon Forests Partnership. If not carefully considered from the outset, we could end up with two sets of goals and objectives—one set forth in the GCFP Cooperative Agreement and the other in URIZ amendments—for the same 65,000 acres.

Response: Nonsignificant Issue –Conjectural.

The Partnerships goals have, to date, been met under current Forest Plan direction. FLEA adjustments do not change this. There will not be two sets of goals for the area. Rather the Forest Plan describes the overarching desired conditions for the area. Partnership goals and objectives, and implementation techniques, fall within this Forest Plan framework. Appendix B of the DEIS describes the GFFP efforts as concurrent planning activities.

#76 “First we are concerned that the proposed action to abandon recovery goals for the MSO will, when considered in combination with the region 3 Wild land Urban Interface MSO amendments, contribute to jeopardy of the Mexican spotted owl.” Second, we

⁵⁰ *Desired conditions are described in a combination of goal statements, objective statements, and standards and guidelines.*

⁵¹ *Since writing of this letter, the name of the partnership has changed to the Greater Flagstaff Forests Partnership*

*question the need for such a proposal: existing management direction outlined in the Recovery Plan provide for fire risk reduction treatments in MSO habitat, and the subject restricted habitat constitutes only 1,539 acres (2%) of the approximately 65,000 acre Urban Rural Influence Zone. Surely management scenarios can be developed that provide for MSO habitat and a satisfactory reduction in fire risk for the community”
“This proposal unnecessarily pits ecosystem restoration goals against community protection goals when, in actuality, these values are entirely compatible- which might undermine existing collaboration based upon shared interest between the fire protection community and the restoration community”.*

Response: NonSignificant Issue – Clarification.

See the DEIS under the section Alternatives Considered but Eliminated from Detailed Study for the response to this comment.

#77 We urge the Forest Service to evaluate an alternative that does not include changes to Mexican spotted owl habitat management. Note: The background notes provided for this amendment in the proposed action on page 30 state that the question the interdisciplinary planning team asked themselves in developing this proposal was “whether or not the Forest Service could successfully manage for owls in the urban/Rural Influence Zone.” Considering the paramount importance of MSO recovery goals as described in the Recovery Plan, and the very real threat of endangerment and extinction of MSO, the appropriate question should of been “how”, not “if” the Forest Service can successfully manage for MSO in the URIZ.

Response: Request for Alternative.

The No Action alternative will provide a basis for comparing no change to MSO habitat management.

#78 Proposed action to amend Forest Plan for threatened and endangered species. Human disturbance constitutes one of the greatest threats to the habitats of species at risk of becoming endangered or extinct as Flagstaff’s population and resulting human disturbances increase in time. The proposed management direction to monitor the effects of human disturbance to threatened and endangered species is excellent—but would be more appropriately proposed as standards rather than guidelines—this is clearly a case where the institutional commitment of designating standards rather than guidelines is appropriate and warranted by the importance of these species persistence on the landscape.

Response: Nonsignificant Issue – Conjectural.

Standards are usually quantifiable, i.e. a distance, and acreage or a percentage is used to quantify the standard. In the case of a monitoring requirement it is difficult less quantifiable. There is institutional commitment for applying a guideline. A standard is not necessary to ensure monitoring occurs.

#79 Proposed action to amend Forest Plan for use of two Management Indicator Species (pygmy nuthatch and hairy woodpecker) in URIZ. The National Forest Management Act directs the Forest Service to identify and monitor Management Indicator Species (MIS) as surrogate and representative measures of biological diversity and ecosystem health. It is unclear why the Forest Service has proposed to reduce the number of MIS to two in the URIZ, however it is inconsistent with the original intent of MIS and NFMA. If the

proposed amendment is based on a need to accommodate managing for more open forest conditions in the URIZ, then it should identify the appropriate representative suite of MIS for this forest condition consistent with the guidance and intent of NFMA. Reducing the number of MIS, however, is inconsistent with the guidance and intent of NFMA

Response: NonIssue Comment – Clarification.

The NFMA does not require that all Management Areas address Management Indicator Species. However, after thorough internal review and questions regarding this topic, the proposed action has been clarified and no change in MIS species will be evaluated in Alternative A (the Proposed Action). All management indicator species as currently defined for MA's will be evaluated.

#80 Proposed action to amend Forest Plan for hiding and thermal cover. We are concerned about the proposed amendment not to retain 30% hiding and thermal cover within each 10K block. Hiding and thermal cover are important habitat attributes for numerous native species that use the FUWI and URIZ, including many management indicator species. It is likely that future management actions allowed by this guidance would fall short of accommodating the habitat needs of these species that require thermal cover, hiding cover, or the localized more dense patches of forest—which is again contrary to the guidance and intent of NFMA.

As with the case of the MSO proposed amendment, we are concerned this proposed amendment falsely assumes that fire risk reduction goals are incompatible with species habitat management goals, which is why we so steadfastly maintain that a comprehensive ecosystem restoration approach that includes habitat and fire risk reduction goals is imperative, and that a narrow approach of fire risk reduction is inadequate.

Response: Significant Issue.

The EIS will include a No Action alternative that will evaluate the current management direction of 10% hiding, 10% thermal and 10% hiding/thermal cover. An alternative will be developed based on recent projects that have managed for cover at a smaller scale (small patches of cover, as described for Kachina Village Forest Health Project).

Currently within the FMAZ area, habitat management for northern goshawks, Mexican spotted owl, and movement corridors in addition to steep slopes, would maintain nearly 20% of the FMAZ in hiding and thermal cover conditions. The team had developed alternatives to address this issue and provide new ideas and concepts related to cover management (Alternatives C and D).

#81 Therefore, we would like to see the Forest Service evaluate an alternative that maintains the 30% hiding and thermal cover guidance (and adheres to Recovery Plan management directions for MSO).

Response: Request for Alternative.

The No Action Alternative provides comparison of no change in cover guideline to change.

#82 – Management area delineation. The proposed management area delineations are arbitrary because they are primarily based on “sense of place” and other subjective recreational values rather than natural geographical or biological boundaries on the landscape. We are concerned that the proposed management areas will not provide an ecologically based context for future environmental analyses, and does not represent the

best and latest thinking in land management planning. The importance of using ecological or biogeographical boundaries to delineate management units has been emphasized in innumerable studies and Forest Service publications. Considering that the Forest Service has been moving towards using ecological or geographic boundaries such as watersheds in determining management units, the proposed Management Area delineation seems to represent a step backwards rather than forward in the Forest Service ecosystem management. We recommend the Forest Service evaluate an alternative that delineates management areas according to ecological or biogeographical units such as 6th order watersheds (or aggregations of these) or other natural boundaries.

Response: Nonsignificant issue – Conjectural.

Response to this comment is located in the Alternatives Considered but Eliminated from Detailed Study section .

#83 We are encouraged to see management direction proposed for mountain meadows and riparian areas. The guideline to establish administrative exclosures on representative riparian areas to determine habitat potential is excellent. We encourage the Forest Service to consult with the research community in order to assess the adequate minimum sizes needed for assessment, to ensure that all local riparian types are represented, and to encourage research and documentation of these areas.

Response: NonIssue – Support for PA.

Several riparian exclosures have been established in the lake Mary watershed, primarily to establish a condition that is relatively un-impacted from grazing ungulates. Large areas (>4 acres) have been established to provide for areas that are grazed by cattle and elk, elk only, and neither ungulate. Research projects coordinated through Northern Arizona University are ongoing and include focus on vegetative diversity, insect diversity and abundance, small mammal habitat, and re-vegetation success. Some of the area has been the subject of successful stream channel restoration techniques designed to stabilize disrupted systems using elements of natural channel design and construction.

#84 We would like to see these same principles of protecting habitats to assess habitat potential applied to other important vegetation communities. We suggest establishing similar areas for all Terrestrial Ecosystem Survey types within FLEA for research purposes in order to acquire a representative suite of study units documenting habitat potential.

Response: Nonsignificant Issue – Conjectural.

The establishment of fenced exclosures in high elevation riparian systems came about, in some part, because of the favoritism shown by grazing ungulates for these highly productive areas. Other vegetation types that have been fenced from grazing ungulates include extensive aspen areas, and small areas in the piñon/juniper habitat showing heavy winter use by elk. These fences are expensive, and require frequent maintenance. If there were valid, long term, research interest and funds available, the current Forest Plan allows similar exclosures in other Terrestrial Ecosystem (TES) units. As many forested TES units are similar in nature, it would be unnecessary to establish a guideline for installing sites in all TES units found in the FLEA area.

#85 – Proposed Forest Plan amendment for USFS coordination with NPS. FLEA should explicitly articulate a commitment to exercise all options available to protect the resources that contribute to the significance of the Flagstaff National Monuments. Considering the special significance of the Monuments, it may worthwhile to consider creating a special management designation in areas where activities surrounding the monuments may fail to do so. Of particular importance, for example, would be the USFS lands between Wupatki and Sunset Crater Volcano National Monuments.

Response: NonIssue Comment

There is no disagreement with the Proposed Action. The MA boundaries were drawn in part due to the location of the Monuments. Each MA lists activities where the NPS and FS need to coordinate with each other. The ROS objectives were drawn, in part, based on NPS input. The Roads Analysis Report contains specific road management items developed from NPS input. Sometimes when an area is given special designation it draws more attention and use to the area often affecting the very resources that make the area special and unique. The FLEA team believes the Management Areas are sufficient designation at this time.

#86 Proposed Forest Plan amendment for USFS coordination with research and data management efforts. Opportunity exists for the Forest Service to collaborate with the Forest Ecosystem Restoration Analysis project at Northern Arizona University in order to identify and answer research questions pertinent to forest management and to develop spatial data, spatial data management systems, and analyses that have the potential to further inform forest management. In fact, funding for the FERA project was secured for the purpose of helping forest managers' efforts by providing state-of-the-art analytical capabilities. Therefore, we strongly encourage the Forest Service to include explicit mention of collaborating with FERA in FLEA, and, if possible to consider collaborating with FERA in the development and analysis of FLEA alternatives.

Response: NonIssue Comment – Clarification. Although FERA is not mentioned specifically, additional language has been added to the replacement pages that encourages continued efforts in partnership with other organizations.

#87 Proposed Forest Plan amendment for Recreation Opportunity Spectrum (ROS) designations. Our preliminary analyses of the proposed FLEA ROS designations indicate that designations within wildlife movement corridors are heavily weighted (76%) towards motorized designations. The purpose of this analysis was twofold; first, to assess the degree to which wildlife movement corridors were considered in ROS designations and second, to indicate the extent to which ROS designations may have considered important ecological values in general.

However, in raising our concerns with Peaks Ranger District staff we learned that our findings are not surprising because 1) ROS designations, due to designation criteria, do not occur at a resolution compatible with accommodating wildlife movement corridors in all cases and 2) ROS designation criteria must account for permanent landscape features such as highways and system roads. And, in fact, numerous biological ecological values were accounted for in the ROS designations. Therefore, prior to providing more detailed comments on this issue, we would like to learn more about the analysis of the relationship of ecological and biological values (such as breeding areas, important seasonal habitats,

movement corridors, etc) to ROS designations. Specifically, we would be interested to learn what information was employed in the analysis, what analytical protocols and criteria were employed, what assumptions were used, and how these results informed the ROS designations. In the future, in order to reduce the need for such inquiries and bolster public understanding of and support for proposals, it may be useful to disclose analyses such as this that have informed proposed actions and /or alternatives as appendix to the FLEA EA or EIS.

Response: NonIssue Comment – No disagreement with the PA rather a request for information.

Appendix E describes the process used to develop the proposed ROS objectives.

#88 Nonetheless, we have three specific concerns with the proposed ROS designations. Our first concern is that designations, whatever they are eventually determined to be, should be established as standards rather than guidelines (as proposed).

Response: NonSignificant Issue – Conjectural.

The definition used in the FLEA PA for a guideline⁵² allows some flexibility as we go to do site-specific projects with more detailed inventory information. These ROS lines have been drawn based on a variety of resource information, however, site-specific analysis may indicate that some modification in the location of those lines is appropriate.

#89 Secondly, we are concerned that without maximizing the acreage of semi-primitive non-motorized designations in important habitats (as listed above), motorized designations will continue to facilitate trends of ecologically unsustainable use patterns of increasing road proliferation that are tremendously difficult and expensive to undo once established.

We are concerned that without aggressively addressing these issues, we will continue to see increasing trends of road proliferation and associated affects consistent with those documented in our San Francisco Peaks Roads inventory project (much of which occurred within the FLEA area):

- Only 45% of the 1300 roads had any evidence of being constructed, the rest were user-created or illegal ghost roads*
- Only 11% showed evidence of being maintained*
- 71% of all the roads showed signs of erosion*
- Roads were directly correlated with introduction of exotic species and illegal dumping*
- Road densities often significantly exceeded the Forest Service's road density guidelines for the study area.*

⁵² *Guidelines describe a preferred or advisable course of action, desired policy or conduct. Variation of a project from a guideline does not trigger a forest plan amendment. Guidelines may be used for the following purposes: 1) To describe a preferred or advisable method for conducting resource activities specific to the forest plan area and 2) to describe a preferred or advisable sequence or priority for implementing various types of projects when such guidance is deemed useful in facilitating achievement of a forest plan goal.*

- *In many areas road densities exceeded densities which have been shown to negatively impact habitat for black bear, mountain lion, elk, and deer.*

While we are greatly encouraged by and extremely supportive of the 5-forest ORV policy, we believe the affects listed above merit that all opportunities to improve road and recreation management—including ROS—should be addressed accordingly

Response: NonSignificant Issue – Conjectural.

See DEIS in the Alternatives Considered but Eliminated from Detailed Study section for the response to this comment.

#90 We encourage the Forest Service to evaluate a range of alternatives for ROS designations that includes an alternative with significantly more acreage designated as semi-primitive non-motorized than is proposed for the explicit purpose of evaluating the greatest level of protections for important ecological values in the FLEA analysis area.

Response: Alternative suggested by public.

See DEIS in the Alternatives Considered but Eliminated from Detailed Study section for the response to this comment.

#91 Elements of proposed action in need of clarification. The following elements of the proposed action are not clear. First is the relationship of this comment period and the Ideas for Change comment period to the NEPA process. We are not clear when the scoping process began or whether our comments on the Ideas for Change document were to be officially considered as scoping.

Response: NonIssue Question.

We are all learning the details of how ecosystem analyses fit within NEPA regulations. If you picture the Forest Services' planning triangle and what we often refer to as the 'left side' there is a description of planning steps that include choosing an area, determining Existing conditions, Goals and objectives (Desired Conditions) Opportunities, Possible Management Practices and Forest Plan consistency. From 1997 to 1999 we were evaluating the FLEA area for these items. We reviewed existing conditions, and discussed where currently we are not progressing towards desired conditions, or where desired conditions described in the Forest Plan no longer 'fit'. We then identified options for change (possible management practices) that ranged from site-specific items to Forest Plan direction adjustments. The *Ideas for Change* documented this work. The *Ideas for Change* is the document that represents the 'ecosystem analysis' for the FLEA area. It is not a decision document, but rather a summary of existing and desired conditions, goals and objectives, and a list of possible management practices. This type of analysis is primarily governed by NFMA. Public comment to the *Ideas for Change* is part of the package of information that represents the 'ecosystem analysis' or left hand side product for this area. The comments are referred to regularly for various projects.

Comments to the *Ideas for Change* represent public participation on the left side of the planning triangle and do not provide for "scoping" described in NEPA regulations as "determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action".

In moving from the left hand side to the right hand side of the NEPA triangle, the ‘ecosystem analysis’ portion was complete and the task remained of choosing which management practices (changes in the Forest Plan) were most important to carry over in a Proposed Action for NEPA analysis.⁵³ Publishing the Proposed Action kicked off the right hand side of the planning triangle and the standard NEPA process for conducting a nonsignificant amendment to the Forest Plan. (The letter in Appendix D describes the rationale for why this is a nonsignificant amendment and this conclusion dictates our usual NEPA process from here on out). The comments received in response to the PA are “scoping” as defined under NEPA and they will determine the scope of issues to be addressed and they will identify the significant issues. The significant issues will drive alternatives to the PA. Although the CEQ regulations require scoping only for EIS preparation, the FS has broadened the concept to apply to all proposed actions.

A note on the scope of the DEIS.

Many people expect this Draft EIS to contain all the documentation suitable for an ‘ecosystem analysis’. This will not be the case. It might have been prudent to change the name of the project at this time, but so many people were familiar with the FLEA name it was retained. Really, other NEPA documents have their roots in the FLEA process but were not so named (Old Caves Crater as an example).

The Draft EIS is documentation of the NEPA analysis of those items proposed, and alternatives to those proposed items, and nothing more. The discussion in the DEIS will center around those items where change is proposed, including those items where issues were raised related to the proposed changes. Where the PA proposed clarification to the Forest Plan, and where there is no issue raised related to the clarification, there will be only brief discussion.

#92 Second, the purpose and relevance of the Fire Management Analysis Zone is unclear and briefly referenced only a few times in the text of the proposed action.

Response: NonIssue Question.

The Fire Management Analysis Zone is not intended to be a separate emphasis zone in FLEA except for the few places where Forest Plan language changes apply. These are wildlife cover, a goal statement about fire potential, reducing risk of catastrophic fire, and a sense of priority for fuels reduction work outside of the Urban Rural Influence Zone. The Fire Management Analysis Zone was developed, as a FS tool for determining fire suppression, placement of personnel and vehicles, and fuels reduction needs. It represents the wildland urban interface and described in the current Forest Plan.

Comments #93-#96 from John Sliva, Planning Director, City of Flagstaff

Thank you for the opportunity to comment on the Proposed Action for the Flagstaff/Lake Mary ecosystem Analysis Area, containing proposed changes to the Forest Plan. In response, the City of Flagstaff’s Planning Division submits the following comments for

⁵³ *In addition, at this step, we chose to do separate proposed actions for site-specific items, and lump forest plan amendment actions into the FLEA PA.*

your consideration: As you are well aware, the City of Flagstaff, in conjunction with the Coconino County, has recently adopted a general/comprehensive plan titled the Flagstaff Area Regional Land Use and Transportation Plan (Regional Plan). While the boundaries of the Proposed Action and the Regional Plan are not the same, most of the Proposed Action Management Areas are within the Regional Plan boundaries. Consequently, it is important and mutually beneficial that the two plans be complementary and not conflict in their proposals for action.

#93 The Regional Plan makes numerous references to cooperation and coordination with the Coconino National Forest. Most of these are in the form of policies and strategies for the development, protection and management of the public lands in and around the City of Flagstaff. Land Use Plan maps, through the designation of specific land use categories, indicate those Forest Service lands that are planned for some type of development or for their continued management by the Forest Service for multiple-use purposes.

The lands tentatively classified as base-in-exchange by the Forest Service that fall within the boundaries of the Regional Plan should conform to those designated for development in the Regional Plan. The City of Flagstaff used the Greater Flagstaff Area Open Spaces and greenways Plan (OS&GS Plan) as a basis for the delineation of the Urban Growth Boundaries. Both documents-the Regional Plan and the OS&GW Plan-have the net effect of providing credence to and support for preservation of those public lands that are high priority for retention as open space in the greater Flagstaff area. Consequently, on page 31, it is respectfully requested that reference be made to changing the base-in-exchange classifications to coincide with the lands considered high priority for retention as open space as indicated in the Regional Plan and the OS&GW Plan. It is also requested that the Proposed Action reference these two documents (Regional Plan and OS&GW Plan) and the reliance that the Forest Service has place don them in making the requested base0in-exchange amendment to the Forest Plan.

Response: Nonsignificant Issue – Clarification.

See comment #14 and review the adjusted text under the Land Exchange heading in the replacement pages (Appendix A).

#94 It is requested that a section be added to the Forest Plan that calls for coordination with the City of Flagstaff. This request is based on the Memorandum of Understanding that was entered into by the various governmental entities when the OS&GW Plan was adopted, including the Forest Service and the City. It calls for the implementation of the OS%GW Plan through our collaboration by providing resource protection, on-the-ground improvements, participating in public outreach education projects, and creation of an open spaces coalition, among others.

Response: NonSignificant Issue – Clarification.

A new section has been added as clarification to the replacement pages titled Coordination with the City of Flagstaff and Coconino County. Also, there is adjusted text under the heading Land Exchange. See adjusted text in replacement pages (Appendix A).

#95 Other forms of cooperative processes and long-term commitments are also proposed in the Regional Plan. Of major importance is the proposal to develop an inter-governmental agreement acceptable to the City and the Forest Service for the management and protection of the lands surrounding Walnut Canyon National Monument. Reference to these actions is respectfully requested in the Proposed Action, possible in Chapter Two-Area-wide Goals, Objectives, Standards, and Guidelines.

Response: NonSignificant Issue – Outside Scope.

We look forward to continued conversations about this agreement, however, it should not be mentioned in FLEA at this time, because it is still being developed.

#96 With specific reference to Chapter Three Walnut MA, the City requests that the FS consider adding the following to the PA setting forth the City's commitment to protect Walnut Canyon NM and its surrounding natural and cultural resources. It is a course of action included in the Regional Plan and is based on conversations we have had with the FS, NPS and others about the protection and management of lands surrounding Walnut Canyon NM.

It is proposed to protect natural and cultural resources around Walnut Canyon National Monument by simultaneously pursuing appropriate expansion of Walnut Canyon National monument and undertaking measures to formalize inter-reliant commitments by the various federal, state and local governmental entities. The City and County commit to providing the Forest Service with the support it needs to manage the intervening lands between the Monument and the Urban Growth Boundary in a manner that protects and mitigates impacts on the natural and cultural resources. To formalize each entity's commitment, the objectives and intent are to:

- Pursue and enter into an Intergovernmental Agreement with the various land managers to identify and confirm the issues and commit to addressing them in order to protect the natural and cultural resources in the urban interface area.*
- Support Forest Service efforts to manage the urban interface to mitigate future potential external threats to Monument resources through its FLEA process and amendment to the Forest Plan. The lands are being considered for recreation use with restricted motorized use.*
- Designate and require access points from developed to be developed areas onto public lands.*
- Provide a transition zone of open space or low density from higher density development where adjacent to public lands.*
- Support the National Park Service in this efforts to monitor the use of and impacts on the natural and cultural resources.*
- Pursue Arizona Preserve Initiative re-designation of State Trust lands as suitable for conservation purposes.*

Again we thank you for considering the City's Planning Division's comments to reflect in the Proposed Action either a varying direction for the management areas (e.g., intergovernmental agreement for Walnut Management Area and land exchanges respective of the Regional Plan and the OS&GW Plan) or placement of emphasis,

principally on coordination with the City to achieve our respective objectives for the FLEA area.

NonIssue Comment

Response: Nonsignificant Issue – Clarification.

The Walnut MA text has been clarified to include most of the language listed in this comment (see Appendix A replacement pages).

Comments #97-#134 from Sam Henderson, National Park Service, Flag-Area Monuments

We appreciate being given the opportunity to review and comment on the subject Proposed Action for the FLEA Amendment (FLEA PA). As you are well aware, the National Park Service (NPS) has concurrently been developing General Management Plans (GMP's) for Wupatki, Sunset Crater Volcano, and Walnut Canyon National Monuments (Flagstaff Area National Monuments). The draft GMP's are currently available for public review through January 7, 2002, and we look forward to receiving comments from you and your staff. Much of the scoping for the GMP's and the FLEA Amendment was done collaboratively, and the two documents clearly complement each other and do not conflict in their proposed actions. We are pleased to see that many of the concepts we have discussed over the last few years have been incorporated into the FLEA PA. Overall, we concur with the state "Management Emphasis" for the Deadman Wash and Walnut Management Areas adjacent to the Flagstaff Area National Monuments. As would be expected, most of our issues are centered on motorized access and the future management of the Cinder Hills OHV MA.

#97 We recognize that the contents and the nature of the PA have changed substantially from the previous draft, largely as a result of you efforts to identify broad objectives and guidelines for the FLEA area as appropriate to a Forest Plan amendment. We understand that numerous scoping issues and action items are to be addressed via a variety of separate planning, compliance, and implementation processes, while only a few issues and items have essentially be dropped from further consideration." As a matter of organization, the PA would benefit from the inclusion of an introductory table or matrix which lists: (1) the issues and actions items from the FLEA Ideas for Change; (2) the reason they have been excluded, deferred, or dropped; and, (3) shows their current scheduling status in the planning framework. This would allow us to understand how specific action items from prior discussions may eventually be implemented.

Response: NonIssue Comment – There is no disagreement with the PA.

See Appendix F of the DEIS for this information.

#98 All maps: The Walnut Canyon NM Entrance Road is displayed on all maps as a "highway," while the Sunset Volcano-Wupatki Scenic Loop Road (FR545) is not shown at all.

NonIssue Comment –No disagreement with the PA

This clarification was added to the replacement pages.

#99 “Proposed management Areas” Maps: The northern boundary of the Cinder Hills OHV Area MA should be corrected to match the boundary showing the 1991 Off-Road Driving Management Plan Map (copy enclosed). Although it may be difficult to convey at the scale of the map included in the FLEA PA document, it remains very important to us that forest users understand that off-road access is prohibited within ¼ to ½ mile south of the Scenic Loop Road (FR545) and between the OHV Area boundary and the Sunset Crater Volcano boundary. According to our best statistics, an estimated 225,000 visitors per year travel the Scenic Loop Road from Wupatki to Sunset Volcano, and 124,000 travel the other way (these statistics exclude local road use for other purposes). Our visitors are seeking the traditional national park experience of outstanding natural scenery, and many are out-of-state and international travelers. The scenic loop was designed and constructed to meet this purpose, and we believe that it was the intent of the original Coconino NF LMRP and 1991 Amendment to exclude ORV use adjacent to the Monument boundary and the loop road. To our knowledge, the 1991 Off-road Driving Management Plan Map shows the most recent decision pertinent to this issue. IF the OHV area boundary has been changed via another planning process, we would appreciate receiving a copy of the NEPA decision document. If this boundary change is deemed to be part of the current FLEA PA, we believe the change clearly has an adverse impact upon visitors to the National Monuments. This issue will likely generate considerable public controversy, and may require an EIS instead of an EA prior to your decision.

Response: Nonsignificant Issue – Clarification.

You are correct that the MA13 (Cinder Hills OHV Area) boundary shown in the Proposed Action is in error. We have found that our various GIS coverages do not match the hard copy map in the Forest Plan. We have had a meeting to discuss this and the GIS specialist will make the changes in the data, so that the MA13 boundary is the same as the hard copy map in the current Forest Plan, except for slight adjustments for administration. This change will result in the MA13 boundary being located approximately ¼ to ½ mile south of FR545. This also then matches the current Forest Plan objective for a visual quality of foreground retention along this road.

#100 P5 Scenery – Include the scenery along the Sunset Volcano-Wupatki Scenic Loop Road (FR545) and the Walnut Canyon Entrance Road as important to visitor experience in the “Summary of Purpose and Need” column.

Response: Nonsignificant Issue – Clarification for the *Summary of the Proposed Action*. This summary is not planned to be published with the DEIS, rather was only a document used at the Proposed Action stage of the process. However, this text was added to the appropriate places in the replacement pages (located in Appendix A).

#101 Roads and Off Road Driving: – For detailed comments on road policy and off-road use adjacent to the National Monuments, please refer to NPS scoping comments and maps submitted to Jim Anderson as part of the proposed multi-forest amendment and EIS (enclosed). Regardless of the decisions on the FLEA Amendment and Road Policy Amendment, we look forward to cooperating with the Coconino NF to develop action plans for limiting motorized vehicle access to the Wupatki, Sunset Crater Volcano, and Walnut Canyon NM boundaries.

Response: NonIssue Comment – No disagreement with the PA.

#102 Wildlife Habitat: We concur with the proposed forest management changes to reduce fire risk in the Urban/Rural Influence Zone. The resulting habitat changes in this zone should not affect sensitive species within the monuments.

Response: NonIssue Comment – Support for the PA

#103 Correct the name from Deadman to Deadman Wash in the MA column

Response: NonIssue Comment - Clarification.

See corrected replacement page text in Appendix A.

#104 We noticed that much of the discussion regarding each MA relates to issues and need. However, the discussion for the OHV Area doesn't appear to address the existing issues as the same level. We suggest that more detail be provided.

Response: NonIssue Comment

Although there is no clear disagreement with the PA this comment suggests ways to improve the writing related to the Cinder Hills OHV Area. We will take this into consideration writing the EIS. In addition, a copy of the Cinder Hills Implementation Report has been provided to the NPS.

#105 Recreational Opportunity Setting – In keeping with our comments and issues regarding motorized access to the monument boundaries, we would prefer to see “semi-primitive non-motorized objectives emphasized in a buffer area surrounding each of the three monuments. This includes the area surrounding the eastern end of Walnut Canyon NM, where we are very concerned about continued convenient motorized access within close proximity to the canyon rim, and potential impacts to archaeological sites and sensitive raptor species (Mexican spotted owl and northern goshawk) which nest in the canyon. This would also require revising the ROS Objectives map.

Response: Nonsignificant Issue

See the response under Alternatives Considered but Eliminated from Detailed Study section.

#106 Page 20 4th paragraph: We are unaware of the outfitter/guide activities that are occurring today in the Deadman Wash and Walnut Canyon from Fisher Point east. Can you inform use about these activities? If there are currently none, we suggest changing the sentence from “do no place additional outfitter/guide activities...” to “Do not place any outfitter/guide activities... in [list sensitive MA’s or specific sensitive area within MA’s] that have no current activity.”

Response: Nonsignificant issue

At the time of this writing there are no outfitter guides operating in the Deadman Wash area, issued by the Peaks RD. However, the Tonto National Forest issues some Statewide permits for hunting. The text will remain as is.

#107 P21-22. We concur with the proposal to prepare a rock climbing management plan. We are concerned that new routes are being pioneered within Walnut Canyon (including the tributary to Cherry Canyon), and are interested in participating in the FS planning process when it is initiated.

Response: NonIssue Comment – Support of PA.

#108 P26 “Guidelines” 2nd paragraph: Change sentence to “consider impacts to viewsheds of the three National Monuments, the Sunset Crater Volcano-Wupatki Scenic Loop Road (FR545), and the Walnut Canyon Entrance Road...”.

Response: NonIssue Comment – Clarification.

Although the reason for this change is not given, we agree that this clarification should be added, which follows current Forest Plan direction related to these roads (See replacement pages in Appendix A).

#109 P31 Land Exchange: In order to address NPS and public concerns about development threats to Walnut Canyon, strong emphasis should be placed upon retaining USFS jurisdiction over all lands between the proposed Flagstaff Urban Growth Boundary and the Walnut Canyon NM boundary, regardless of future development of non-USFS lands in the area. We also remain concerned about the potential long-term threat of base exchanges within the Walnut Canyon watershed below Lower Lake Mary (the enclosed Regional Planning Map for Walnut Canyon NM shows the watershed boundary to the west and south of the monument).

Response: Nonsignificant Issue – Clarification and Conjecture.

The response to the first part of this comment is to review the clarified text in the replacement pages of Appendix A. The Walnut MA includes additional language about retaining USFS ownership of lands between the growth boundary and the monument. To answer the second part of this comment, the likelihood of exchange of lands in the Walnut Canyon watershed (a subset of the Lake Mary Watershed) is very low. The replacement pages have been clarified to include reference to City and County growth boundaries and consultation with City and County prior to exchange (see Land Exchange section of the replacement pages in Appendix A).

#110 p35-37 Watershed, Mountain Meadows and Riparian and Open Water... These sections clearly emphasize desired future conditions in the Lake Mary Watershed MA. We want to remind the public that the Lake Mary watershed was formerly the Walnut Canyon watershed. The public benefits derived from the municipal water supply and popular recreation opportunities created by the lakes come at the cost of permanent adverse impacts downstream of the lakes in the Walnut Canyon and Little Colorado River riparian ecosystems. Within Walnut Canyon NM, documented effects include declining riparian tree cover (including box elder, Arizona walnut, and narrow leaf cottonwood), loss of seasonally reliable water for wildlife, and degradation of the presettlement cultural landscape setting along the canyon floor within Walnut Canyon NM. Although we have not scientifically documented other impacts, we remain concerned about observed increased storm run-off intensity from the tributary canyons below the reservoir (Cherry Canyon, and potentially Fay and Skunk Canyons), and reduced groundwater infiltration and recharge of the localized seeps within the canyon and tributaries (especially the Cherry Canyon seeps). In order to mitigate as much of these impacts as possible, we would prefer that emphasis also be placed on maintaining optimum vegetation cover conditions within the canyon and tributaries (especially the Cherry Canyon seeps). In order to mitigate as much of these impacts as possible, we would prefer that emphasis also be placed on maintaining optimum vegetation cover conditions within the Walnut Canyon watershed below Lower Lake Mary. Mitigating

downstream impacts of the lakes is also emphasized in the recently concluded general adjudication of the Little Colorado River Basin water rights between the City of Flagstaff and the United States.

Response: NonSignificant Issue - Clarification.

The Walnut Canyon watershed is a subset of the Lake Mary Watershed as identified for this analysis. Vegetative cover conditions are described in the current Forest Plan under Mexican spotted owl and goshawk habitat direction. The FLEA PA does not change this direction. Current direction speaks to a variety of forest structural stages, and also discusses ground cover, understory composition and diversity. In addition, a paragraph – a copy of the one at the bottom of P57 in the Lake Mary MA will be added to the Walnut MA – to emphasize watershed health (see revised replacement pages in Appendix A).

#111 P38 Coordination with National Park Service Under guidelines add... siting and management of NPS facilities on Coconino NF lands, NHPA (section 106), NEPA, and ESA compliance coordination to the list of MOU items. The items listed here differ from those listed under the topic heading for the Cinder Hills OHV Area MA (page 46), Deadman Wash MA (page 52), and Walnut MA (page 72).

Response: NonSignificant Issue – Clarification.

The items listed in this comment were added to the replacement pages text (see Appendix A). The lists of coordination were clarified to be consistent between area-wide and management area direction. The coordination items listed in the FLEA PA are not meant to be an all-encompassing list of items for coordination. Rather they were intended to point out some additions or highlights to current coordination. The MA items were supposed to be additions or highlights specific to that MA. Per this refinement, the list will be changed.

#112 General comment: In comparing this section to the earlier draft, it is apparent that many details and specific actions are not included in the PA. We have not received the referenced Roads Analysis Report – FLEA area and Cinder Hills Off-Road Driving Area Report. While we recognize that many of the issues will be addressed through the Arizona OHV Forest Plan Amendment process, the Roads, Analysis Report-FLEA Area, and the NEPA analysis for the Cinder Hills Off-Road Driving Area Report, we do think that it would be appropriate to retain some of the pertinent text form the draft PA. Examples include the discussions regarding the management of designated routes and the improvement, relocation, and closure of roads within the MA. Brief discussions for some of these topics would complement what already is presented in the document. If nothing else, specific reference should be made as to how the “desired condition:” will be validated or changed.

Response: NonSignificant Issue Clarification.

Chapter 3 of the DEIS describes additional details. The Cinder Hills Off-Road Driving Area report draft has been forwarded to the NPS. The Roads Analysis Report has been mailed to NPS staff. Corrections and update will continue to the data table and map.

#113 General comment Geologists, ecologists, and anthropologists do not view the cinder craters areas as a static “moonscape,” but as the current state of eight centuries of geomorphic weathering, soils development, and vegetation pioneering processes since

the Sunset Volcano eruption. These processes would ultimately result in the entire area being weathered to mature terrain and fully vegetated by forest and woodland vegetation. Scientific and public curiosity over these processes has led to the intensive study of recent volcanic activity all over the world, including Mount Saint Helen and the Hawaii volcanoes, and we are also proposing to interpret these processes in new exhibits at the Sunset Crater Volcano Visitor Center. Undisturbed control areas are needed in the area surrounding the Cinder Hills OHV Area in order to make valid scientific comparisons to understand the ecological sustainability of continuous perturbation by OHV use. While Sunset Crater Volcano NM and the Strawberry Crater Wilderness may be suitable as control areas, they are dominated by basalt flows and may not encompass enough cinder dominated area to account for the full range of landscape variability. In order to address this issue, we suggest that management emphasis be placed on increasing enforcement of existing off-road closures in the adjacent Deadman Wash and Craters Mas which are shown on the 1991 Off-road driving management plan map.

Response: NonSignificant Issue - Conjectural:

Current management direction and the FLEA PA do not preclude setting up control areas for study if needed. There is language in the current FLEA PA with emphasis on maintaining road and trail use so as to maintain ‘untracked’ areas, P48 and P49 directs us to discourage off trail use of any kind on large Cinder cones. The text will has been clarified to include this statement in the Deadman Wash MA as well. In addition, the word moonscape was changed to landscape in the area description (see replacement pages in Appendix A). The Forest Plan sets objectives for areas.

#114 P43 – The OHV area boundary is also currently posted in the wrong location on the northwest corner near the monument boundary and along the scenic loop road. The language in the last sentence leads the reader to conclude that the FLEA PA is intended to legitimize this error. Please refer to the comments on the Cinder Hills OHV Area boundary map, above, for our rationale why the language in the last sentence is unacceptable.

Response: Nonsignificant Issue – Clarification.

See response to comment #99

#115 “Reasons for closing areas may include: We suggest adding the following bullet: Excessive erosion to hills or slopes resulting in exposed roots and soil erosion and loss.

Response: Nonsignificant Issue – Clarification.

This text addition was made, see replacement pages in Appendix A.

#116 p43 3RD paragraph: We advocate establishing a recreation use fee program to ensure the Cinder Hills OHV Area remains a world class recreational area. Additional revenues are likely needed to meet the stated objectives of improving and maintaining the proposed facilities (signs, camps, loading ramps, restroom, bulletin boards, physical barriers at the limits of off-road travel), ensuring routine safety patrols, and restoring eroded slopes. Given our observations of user-behavior, facility vandalism, and resource impacts, all of these items are needed on recurring basis. ...

Response: Nonsignificant Issue – Support for PA.

#117 P44 “recreational signing”: The FLEA PA document presents a good opportunity to inform the public that the USFS is cooperating with the NPS to construct a physical barrier at the limits of off-road travel along the north boundary of the recreation area. We believe that language should be added giving the USFS the option of constructing physical barriers to define open travel areas if other attempts to gain user compliance fail.

Response: Nonsignificant Issue – Clarification.

See PA text clarification in replacement pages in Appendix A.

#118 P45 Cultural/Historical: We suggest that the following statements be added to this section: “Conduct active monitoring of cultural resources to assess impacts from recreation and other human uses. Changes in management can occur in response to demonstrated adverse impacts.”

Response: Nonsignificant Issue – Clarification.

The same paragraph relating to cultural resources in the area-wide direction and some of the other MA’s has been added to this MA (see appendix A replacement pages).

#119 P45 “Noxious Weeds”: Camelthorn is present in the Deadman Wash MA and may be expanding its range into the Cinder Hills and Crater MA’s

Response: NonIssue Comment – Clarification.

Added to text, see replacement pages in Appendix A.

#120 P46 “Coordination with the National Park Service”: We suggest that statements be added to: (1) allow the NSP inventory, map, and assess conditions of specific geologic features associated with the Sunset Volcano eruption (which may form the basis of a geologic interpretive program), and (2) address interagency efforts to establish physical barriers at the limits of off-road travel on the north boundary of the recreation area.

Response: Nonsignificant Issue – Clarification.

A sentence was added to the replacement pages (see Appendix A) adding inventory, mapping and condition assessment and the use of physical barriers to the list of activities that could occur in this MA.

#121 P47 3rd paragraph “Roads within the OHV area...” After reading this paragraph we are unsure of the continued USFS commitment to close FR776 to through traffic south of the Scenic Loop Road (FR545) or to gate FR 414 near Lenox Crater, which we understood were specific action items in prior drafts.

Response: Nonsignificant Issue – Clarification.

A sentence was copied from the Cinder Hills Implementation Report to the replacement pages in Appendix A.

#122 Deadman Wash MA: General comment: Again, while we recognize that many of the issues regarding roads will be addressed through the site-specific analysis associated with the Roads Analysis Report-FLEA Area, we do think that it would be appropriate to include some broad objectives and guidance for the improvement, relocation, and closure of roads within this MA. As stated in our October 1999 correspondence on an earlier draft of the FLEA PA, we still strongly recommend the USFS protect significant cultural resources through strategic land-use withdrawals in this MA. If nothing else, more

specific reference should be made as to how “desired conditions” will be validated or changed.

Response: Nonsignificant Issue – Clarification and Conjecture.

The paragraph on watershed health and roads that is currently written in the Lake Mary MA has been copied to the Deadman Wash MA (see replacement pages in Appendix A). Some of the criteria for reasons to close roads includes: Areas of important cultural resource sites vulnerable to damage that are being threatened or damaged, habitat for threatened, endangered, or sensitive species that is threatened, key wildlife areas being threatened or damaged, areas important to wildlife reproductions such as fawning or nesting areas, where disturbance is causing, or likely to cause, significant stress and reduction of reproductive success, semi-primitive non-motorized ROS objectives as set through environmental analysis, areas where the road system modifies the surface and subsurface hydrology, roads, which cause the introduction or spread of exotic plant species, insects, diseases, and parasites, and Redundant roads. These criteria provide the objectives and guidance for this and other MA's. The ROS objectives are another form of guidance for the MA. Land use withdrawals mentioned in the October 1999 letter were mineral withdrawals. At the time this was considered, District efforts focused on the San Francisco Mountain Mineral Withdrawal. The analysis of additional areas was too much for staff to accomplish at that time. The NPS could bring forward proposals for consideration in separate analysis. Other types of land-use withdrawals such as removing domestic livestock grazing, firewood gathering, or pinyon nut gathering, to name some examples, were not deemed necessary at this time. The FLEA PA emphasizes monitoring of impacts and making changes based on the results of monitoring. The FLEA PA does not set precedent for, nor does it preclude future options.

#123 Deadman Wash MA – “Description” This section should acknowledge that juniper densities have greatly increased during the last 100 years, and are encroaching into former grassland habitat for pronghorn and other grassland-dependent species.

Response: NonIssue Comment – Suggestion for clarification.

The FLEA PA does not propose changing current Forest Plan language related to MA10 grassland with sparse pinyon and juniper. The management descriptions for MA 6, 7 and 10 that are currently written in the Forest Plan still apply. These pages speak to the situation of increasing juniper densities and distributions. In the FLEA PA we emphasize the need to refer back the MA10 direction especially, because of the need to maintain and enhance grassland habitats for pronghorn and other species.

#124 P50 Management emphasis”: We concur with the management emphasis on pronghorn, and wonder if this Species is formally designated as a MIS for the Colorado Plateau grassland habitat type.

Response: NonIssue Question.

In the current Forest Plan, pronghorn antelope is a management indicator species for the Coconino National Forest MA10 Grasslands and Sparse Pinyon Juniper. The FLEA PA does not change this. The Forest Plan does not make MIS designations for grasslands outside of the Coconino Forest.

#125 P52 “Cultural/Historical,” 1st sentence... historical sites to assess impacts from recreation...”

Response: NonIssue Comment – Clarification.

This word was added to the sentence in the replacement pages in Appendix A.

#126 P52 Coordination with NPS – Additional issue/topics include fencing placement/removal needs and issues and proposed minor administrative boundary adjustments.

Response: NonIssue Comment – Clarification.

These items were added, see the replacement pages in Appendix A.

#127 Although we have not commented on this issue in prior scoping, we recommend that a “watershed management” topic be added. We are concerned about the decline of flows from Heiser Spring and Peshlaki Spring at Wupatki NM, which provide the only year-round sources of water for wildlife within the monument. Although the springs at Wupatki have been impacted by historic uses, we are in the initial stages of restoring them to presettlement conditions. According to hydrological studies, these springs are fed from a local, perched aquifer that is recharged via the basalts capping Woodhouse Mesa, immediately south of the monument boundary in the Deadman Wash MA. As with much of the MA, vegetation on Woodhouse Mesa has likely changed over the last century from open juniper grassland to dense juniper woodland with near barren cinder interstices. We believe restoring healthy vegetation cover within the recharge area is critical to maintaining flows at the springs.

Response: Nonsignificant Issue – Outside scope.

The current Forest Plan and the FLEA PA text do not preclude a future site-specific project to treat vegetation in the area described. This would a site-project. Please contact Alvin Brown or the District Ranger, Gene Waldrip, to discuss placing such a project on the District program of work.

#128 Given the recent conclusion of the adjudication of water rights in the Little Colorado River Basin between the City of Flagstaff and the United States, and the resulting agreement between the City of Flagstaff, FS and NPS (pursuant to the stipulations), additional management emphasis and guidelines should be presented to use best management practices for livestock grazing, timber harvesting, road draining, and recreational activities to maintain municipal water supply values, and to evaluate the methods that may improve the inner-canyon environment in Walnut Canyon.

Response: NonSignificant Issue – Conjectural.

Adjudication has not concluded. As mentioned in this comment, an Intergovernmental Agreement has been signed between the City of Flagstaff, Forest Service and National Park Service. A reference to this agreement has been added to the replacement pages (see Appendix A). The use of Best Management Practices is already described in the current Plan with no changes proposed under FLEA. Per the agreement, best management practices will be identified for implementation of site-specific projects that that are consistent with municipal values.

#129 Page 57 comments – As stated in our October 1999 correspondence on an earlier draft of the FLEA PA, the public should be provided more back ground information on the history and purpose of the lakes, and the respective management responsibilities of the USFS and City of Flagstaff for the lakes and dams. Our comments for pages 35-37

(“Watershed”, “Mountain Meadows”, and “Riparian and Open Water” Objectives) above, also apply here.

Response: Nonsignificant Issue – Clarification and Outside the Scope.

The management of the dams is outside the scope of the FLEA analysis. The FLEA PA does not change the Forest Plan related to the dams, so information on this topic is not needed in the NEPA document. Existing Recreation use and conditions of the lakes and use of the lakes by the City of Flagstaff is described in the Ideas for Change, which is to be used as a reference document for the PA. The history of the lakes and dams is not relevant to the NEPA analysis because the scope of FLEA is limited to small management changes to existing recreation.

#130 Walnut Canyon Management Area: General Comment: We strongly concur with the proposed management emphasis for this MA.

NonIssue Comment – Support for PA.

#131 P70 “Highlights” Our comments for pages 35-37 (“Watershed”, “Mountain Meadows”, and “Riparian and Open water” Objectives) and for the Lake Mary Watershed MA above also apply here (Walnut MA)

Response: See Response #110

#132 Page 69 Our comments for Page 15, “Recreational Opportunity Setting” and the Recreational Opportunity Spectrum Map, above also apply here (Walnut MA)

Response: See Response #105.

#133 Page 70, “Highlights”, 4th bullet: the 2nd sentence should be corrected to reflect concern for wildfires started southwest of Walnut Canyon NM

Response: NonIssue Comment – Clarification. See replacement pages in Appendix A.

#134 Non-motorized and Motorized Trails – we propose specific emphasis be added for reducing all road access to within one mile of the Walnut Canyon rim (not the NM boundary). This would effectively deter access to the canyon slopes, cliff dwellings, and sensitive raptor nest sites throughout the canyon, preclude clandestine access via the heavily vegetated side canyons, and increase our ability to enforce general access restrictions within Walnut Canyon NM.

Response: Significant Issue.

Under the PA, the Walnut rim is buffered by a semiprimitive nonmotorized polygon places roads as far away as 1 mile from the rim in some areas, and as close as ¼ mile from the rim (FR301) in others. One alternative will be considered that changes the ROS objective to SPNM for a greater distance from the rim but allows FR301 to remain open. One alternative will be considered that changes the ROS objective to SPNM without FR301 thus creating an area over 1 mile from the rim with no open roads. We prefer to use the ROS map instead of a straight 1-mile criterion. Roads may suited farther away than 1 mile, or slightly less than 1 mile. The objective described in the FLEA PA is to consider the overall protection of the values mentioned in this comment.

APPENDIX C - Background Information For The Forest Plan

National Forest System Land and Resource Management Planning regulations, 36 CFR Part 219, set forth a process for developing, adopting, and revising land and resource management plans. It states “the resulting plans shall provide for multiple-use and sustained-yield of goods and service... in a way that maximizes long-term net public benefits in an environmentally sound manner”. Plans determine resource management practices, levels of resource production, and management and availability and suitability of lands for resource management. The Forest Plan is a permissive document, which allows activities to occur rather than requiring activities to occur. There are 6 decisions that Forest Plans make. These are based on laws, regulations, and clarification from litigation. A Forest Plan establishes:

Forest-wide multiple-use goals and objectives - Most of the Forest-wide goals and objectives will remain the same, with some refined goals and objectives language specific to the FLEA area.

Management Area direction - New MA’s have been created or original MA’s have been adjusted.

Lands suited/not suited for resource use and production - We will not review suitability for timber or range under the FLEA process, as that is more appropriate for the Forest Plan revision, that is currently scheduled to begin in 2006.

Forest-wide management - We have reviewed Forest-wide standards and guidelines and developed additional management direction for the FLEA area.

Monitoring and evaluation - Current monitoring and evaluation in the Forest Plan will be retained and additional items are added for the FLEA area.

Recommendations for wilderness or wild and scenic rivers - There are no recommended changes for management direction for wilderness (Strawberry Crater Wilderness lies within the FLEA area) and there are no wild and scenic stream segments in this area.

Definitions for Goals, Objectives, Standards, and Guidelines

Goals

A goal is defined as “a concise statement that describes a desired condition to be achieved sometime in the future... it has no specific date by which it is to be completed.” (36CFR219.3). Goals have been identified for each resource element.

Objectives

An objective is defined as “a concise, time-specific statement of measurable, planned results that responds to pre-established goals” (36CFR219.3). Forest objectives are quantitative; they can be measured. They are completed in a given time and with a given budget level. The objectives are needed to meet mission and goal statements and are consistent with the missions and goals. Objectives are the annual activities implemented to accomplish the goals and to help address the issues.

Standards⁵⁴

Standards are limitations on management activities, a principle requiring a specific level of attainment, and a rule to measure against. Standards are limited to those actions that are within the authority and ability of the agency to meet or enforce. 1) Standards are the basis for determining whether a project is consistent with the Forest Plan as required by 36CFR 219.11(a). 2) Project compliance with relevant standards is mandatory. A project that would vary from a relevant standard may not be authorized, unless the Forest Plan is amended to modify, remove, or waive application of the standard.

Guidelines⁵⁵

Guidelines describe a preferred or advisable course of action, desired policy or conduct. Variation of a project from a guideline does not trigger a Forest Plan amendment. Guidelines may be used for the following purposes: 1) To describe a preferred or advisable method for conducting resource activities specific to the Forest Plan area and 2) to describe a preferred or advisable sequence or priority for implementing various types of projects when such guidance is deemed useful in facilitating achievement of a Forest Plan goal.

Coordinating Requirements

The Coordinating Requirements section of the current Coconino Forest Plan describes Integrated Resource Management (IRM) as an interdisciplinary approach to project design and implementation that recognizes the complex biological, administrative, and political interrelationships on the Coconino National Forest. In addition, Integrated Stand Management (ISM) is a concept for designing complex vegetation treatments by identifying the stand (or portion of a stand) to be treated and incorporating within its treatment prescription consideration for all the appropriate resources. ISM also recognizes that all vegetative communities within a given area are interrelated and therefore, stands that are proposed for treatment must be INTEGRATED with each other and with the surrounding area.

⁵⁴ This definition has been used for previous Forest Plan Amendments on the Coconino National Forest Amendment 12, page 274

⁵⁵ This definition has been used for previous Forest Plan Amendments on the Coconino National Forest Amendment 12, page 272

Mission Statement

As stated on page 21 of the Forest Plan “A mission is a guiding principle toward which activities focus and contribute.”... “The mission of the Forest Service is to manage National Forest lands and resources using the best systems available to meet the needs and desires of present and future generations, while protecting and enhancing the environment and effectively and efficiently administering Forest programs. Conflicts over allocating resources are inevitable and will increase. The management challenge is to be responsive, equitable, efficient, and understanding in making resource management decisions.”

Outputs and Range of Implementation

There are forces that can affect the production of outputs and implementation rates, such as weather, budget appropriations from Congress, local economies, and political decisions. This amendment, in conjunction with the current Forest Plan is used as the basis for developing budget proposals. The FLEA area is only a portion of the Forest and priorities for FLEA will be balanced with other Forest priorities.

Background Information On Other Planning Efforts In The Region

Other planning efforts in the Region are listed below with a note about their relationship to the FLEA process.

Cross-country Use of Motorized Vehicles in Five Arizona National Forests. – We have deferred changes to the off-road travel and travel management to this analysis. This analysis is running parallel to FLEA. Contact: Jim Anderson (928) 333-6370 – janderson08@fs.fed.us

Roads Analysis Report – FLEA Area – This proposed action contains **criteria** for road management. The Roads Analysis for the FLEA area, applies these criteria in the form of a database and map. Subsequent site-specific NEPA analysis will make decisions about the future management of any particular road. The Roads Analysis for the FLEA Area is a document that outlines desired known open road network and maintenance levels based on the FLEA analysis; it is not a NEPA decision. It will be continually updated based on new information or site-specific decisions.

Roads Analysis – Maintenance Level Three and Above – Coconino and Kaibab National Forests – Information from the FLEA roads analysis will be available for this analysis, that will outline the desired road networks for forest roads designed for passenger car travel. It will cover the entire Coconino and Kaibab National Forests. Contact: John O’Brien (928) 635-8371

Integrated Treatment of Noxious and Invasive Weeds – Develop actions to control noxious and invasive weeds, including the application of herbicides and a variety of non-chemical methods for the Kaibab, Coconino, and Prescott National Forests. A decision is anticipated spring of 2002. Contact: Dave Brewer (928) 635-8221

Livestock Allotment Analysis – In the FLEA area, 139,461 acres are closed to grazing by domestic livestock (not within a designated allotment) and various Allotment Management Plans cover 236,516 acres. These plans are either completed or we are in some stage of analysis. Contact: Mike Hannemann (928) 526-0866.

Flagstaff Area Regional Land Use and Transportation Plan – This Plan updates the Coconino County Comprehensive plan on lands surrounding Flagstaff. This plan also covers the City of Flagstaff was ratified by voters on May 21 2002 as required under Growing Smarter legislation recently passed in Arizona. Contact: Ursula Montaña, City of Flagstaff, (928) 779-7685.

Centennial Forest – The Centennial Forest was established in April 2000 through an intergovernmental agreement between the Arizona State Land Department and Northern Arizona University, to provide for forest health restoration, research, and management. Some Centennial Forest Parcels (State Land Sections) lie in the FLEA area. Contact: www.for.nau.edu/CentennialForest

Greater Flagstaff Forests Partnership – The Grand Canyon Forests Foundation (a nonprofit organization) and the Coconino National Forest have established a Cooperative Agreement to work together to demonstrate new forest management approaches in improving and restoring the ecosystem health of the ponderosa pine forest ecosystem where urbanized areas interface with National Forest lands (Flagstaff Urban/Wildland Interface). This cooperative effort seeks to involve the greater Flagstaff community extensively to develop a community-based solution to local forest health problems. This cooperative project is called the **Greater Flagstaff Forests Partnership (previously called the Grand Canyon Forests Partnership)**. Contact Brian Cottam (928) 226-0644.

National Park Service General Management Plans for Walnut Canyon, Wupatki and Sunset Crater National Monuments - The National Park Service has prepared three Draft Environmental Impact Statements, one for each Monument. These statements describe updated language for each Monument's General Management Plan. They will guide future management of the Monument areas. Contact Sam Henderson, (928) 526-1157

Appendix D - Explanation of Nonsignificant Amendment



United States
Department of
Agriculture

Forest
Service

Coconino
National Forest,
Supervisor's Office

2323 E. Greenlaw Lane
Flagstaff, AZ 86004-1810
Phone: (928) 527-3600
Fax: (928) 527-3620

File Code: 1950

Date: July 25, 2002

Route To:

Subject: Determination of Non-Significant Amendment to the Coconino Forest Plan for the Flagstaff/Lake Mary Ecosystem Analysis Area

To: The Files

The FLEA project has created a Proposed Action (PA) to amend the Coconino National Forest Management Plan. Based on the contents of the PA, this amendment will not be significant under NFMA (36 CFR 219.10 (f)).

FLEA has been an identified project for 4 years. Over that period of time the scope of the project has changed quite a bit. The amount of focusing and narrowing of the FLEA project has reduced the complexity of the task from the original topics that were scoped in 1998 and 1999. This project has been on hiatus for a variety of reasons: The worst fire season in 50 years (2000), the roadless policy evaluation under the Clinton administration (late 1999 and 2000), and conflicts in the scheduling of scarce human resources with other higher priority projects (range land management and the National Fire Plan projects).

The ID Team did a lot of iterative scoping with local publics and groups in order to craft a specific and clear PA for the management of lands surrounding Flagstaff Arizona. Some site-specific projects that had been scoped with FLEA have been separated from this project and are either proceeding on their own with NEPA or waiting for a proponent. One of the larger scale FLEA-wide topics (off-road driving policy) is being analyzed with a concurrent multi-forest project and has been removed from FLEA. The remaining topics for FLEA are focused on the amelioration of effects due to increased recreational use and projected demands on the lands immediately surrounding Flagstaff and a reduction of the fire hazard on these same lands. In addition, to create a sense of place, new management areas have been identified with varying management emphases. There are not many changes presented in the PA, but there is additional direction for clarification or for filling voids of the current Forest Plan. There are some topics upon which the Plan was silent and there is a need for consistent direction throughout the FLEA area that also needs the durability of Forest Plan status. For more information, see the *Proposed Action to Amend the Coconino Forest Plan*.

FSM 1909.12.5.32 – Process to Amend the Forest Plan, indicates 4 factors to consider when evaluating whether or not an amendment is a significant amendment under NFMA: Timing; location and size; goals, objectives, and outputs; and management prescriptions.

The timing factor considers whether or not this change will occur during the life of the Forest Plan, or does the change occur in the future beyond the scheduled time for the next revision. The changes and clarification the PA contains are meant for immediate implementation, therefore,

they meet the basic qualification of an amendment. At this time, the Revision is scheduled to begin in 2006 and will take from 3 to 5 years to complete.

Location and size factor are meant to evaluate the relationship of the affected area to the overall planning area. FLEA covers approximately 300,423 National Forest acres, which is 16 percent of the Coconino National Forest (approximately 1,8420,100 acres).⁵⁶

The goals, objectives, and outputs factor considers whether or not the long-term relationship between the levels of goods and services projected by the Forest Plan will be changed with this amendment. FLEA does not change the land suitability definitions in the Forest Plan. The outputs that FLEA provides are essentially within those effects described by the Regional Amendment (1996) FEIS, because we are following that direction. There is little change in the number of recreational visitor days (RVD), however, the types of RVD's will likely change as implementation occurs. The ROS setting changes in the PA reflect a change from the 1987 Forest Plan for this areas original inventory. However, the changes represent a small percentage change Forest-wide. The change in FLEA is towards more semi-primitive settings.

The management prescription factor is meant to evaluate whether or not the change for the standards and guidelines is meant to be planning area wide or for a specific part of the planning area. FLEA's PA is meant to only apply to the FLEA area and not beyond to other Forest locations. Most standards and guidelines are in addition to the existing Forest Plan direction, rather than a change or replacement. There are only a few changes that apply to the FLEA area only.

Though I feel these are important changes to make in our Forest Plan for the lands surrounding Flagstaff, when viewed in context of the entire planning area (Coconino National Forest), I do not feel the PA contains changes to the current Forest Plan that can be deemed as significant from an NFMA viewpoint. Therefore, this analysis will follow the appropriate public notification and satisfactory completion of NEPA procedures 40 CFR 1500 (CEQ regulations) and will fall under the 36 CFR 215 appeal regulations for the Forest Service.

Sincerely,

/s/ Jim Golden
JIM GOLDEN
Forest Supervisor

⁵⁶ *These averages are from the current Forest landownership data coverage.*

Appendix E - Summary of Development of ROS Objectives

A landscape analysis process was used to determine the boundaries of the MA's and to identify ROS objectives. The process was modeled after the USDA Forest Service, 1992 Forest Landscape Analysis and Design, Pacific Northwest Region.

The first step undertaken by the interdisciplinary team was to describe existing on-the-ground conditions and existing management policy. Various topics were displayed on GIS maps including fire potential, fire management zones, forest type, forest structure, camping policy, dispersed sites, roads, trails, recreation opportunity spectrum (ROS) setting, land ownership, threatened, endangered and sensitive species habitat, wildlife travelways, and wildlife reproductive areas. Overlaying these maps provided a picture of the overall landscape.

When overlaying the wildlife habitat and ROS maps we noted many areas where Semiprimitive Motorized and Nonmotorized recreation settings matched key wildlife reproductive areas or sensitive species habitat. Adding the main passenger car roads and wildlife travelway showed how people and wildlife accessed and moved through the areas. Adding the land ownership layer showed those lands highly influenced by residential areas.

The initial sets of lines were refined with the addition of the fire management zone map. This map displayed residential/forest interface areas in need of fuels management to reduce the risk of future catastrophic fire. MA boundaries were adjusted so that lands categorized as urban interface were located within the MAs that surround the private developed lands. A more open forest where fire plays a more natural role became an objective for the residential influenced MA's and especially the Fire Management Analysis Zone 1U. This objective was already described for the most part in current Forest Plan direction.

The Team gave each set of lands surrounding a particular residential area its own management area. The result was 12 potential "new management areas".

Then the Team reviewed the current recreation settings (ROS) for each of the MAs. We then asked ourselves what the desired recreation settings should be. In many places the desired recreation setting stayed the same as current, and in some places the desired setting was different. Expected future residential development influenced the way desired recreation setting categories were drawn. For this analysis, we chose to include a desired recreation setting of "semiprimitive" even in places with high numbers of people. We have differentiated between those semiprimitive motorized and nonmotorized places where we expect high numbers of people and those with low numbers of people. It is also important to note that the Forest Service ROS categories do not exactly match those listed in the Flagstaff Open Spaces and Greenways Plan, however the concepts are similar.

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Appendix E – Summary of the Development of ROS Objectives*

Given the ROS objectives, wildlife habitat needs, and recreation opportunities desired, the Team identified a framework of passenger car Forest Service roads. Then they discussed overall density goals for secondary roads. The desired recreation and road objectives complemented many wildlife habitat needs.

For each proposed MA the Team briefly described recommendations for camping, road and trail densities, and forest conditions. Additional meetings were held to refine proposals and discuss other needs.

Discussions were conducted regarding the status of current direction from Amendment 11 to the Forest Plan. These discussions along with information from the Fort Valley Analysis (in cooperation with the Grand Canyon Forests Partnership) resulted in a refined description of proposed future forest conditions surrounding residential areas.

The watershed and range management specialists and the botanist provided additional information on watershed health and noxious weeds.

Finally, we reviewed the unique sites that are visited by many people, and through meetings with appropriate staff, Arizona Game and Fish Department and individuals, we crafted site-specific proposals for these sites. These site-specific proposals each have or will undergo separate NEPA analysis.

The outcome of this effort has been a discussion of the interplay between current patterns of human use, wildlife use, and fire potential along with biological capabilities of this landscape. Also considered were the Flagstaff Open Spaces and Greenways Plan and the Vision 2020.

Appendix F - Crosswalk from Ideas for Change to DEIS

The Ideas for Change was published in May of 1999.

Table 14 Summary of the Disposition of Items in the Ideas for Change

Item	Page#	Disposition
Vision for the Future	2	Current Forest Plan Mission (p21) although somewhat old, still fits. Better to have a Forest-wide vision than separate vision for FLEA area. Wait for Forest Plan revision.
Background, Trends, and Needs	Chp2	Good summary of information and trends to be used as reference for FLEA PA and other projects. Future on the ground projects need to verify existing conditions based on data specific to that area. Good tool general discussions with public.
MA Descriptions and Desired Conditions	61-69	MA's were consolidated and much of the desired condition information transferred into management emphasis ⁵⁷ in the replacement pages (Appendix A). ⁵⁸
Forest Health Proposals for Change	70-74	The idea of a desired condition very different from current goshawk habitat direction (Amendment 11) was discarded. This was partly due to misconceptions among team members of what the guidelines actually allowed. A concept of progressing towards goshawk habitat conditions more aggressively in a zone around developed areas was carried forward as the Urban/Rural Influence Zone.
Access Proposals For Change – Road Policy Viewpoints	77-78	These pages give a good overview of the differences of opinion about off road driving policies. Neither policy was carried forward in the DEIS. This topic was deferred to the <i>Cross-country Use of Motorized Vehicles in Five Arizona National Forests</i> planning process. A Forestwide policy is more effective than a cookie cutter policy for the FLEA area only.
Access Proposals for Change – Proposal Common to All New Management Areas	78-80	Many of these ideas were carried forward in the DEIS.

⁵⁷ The language related to singing and information was not carried forward. Perhaps an oversight on our part – this language describes levels of contact with FS personnel, tools for sharing information and level of 'advertisement'.

⁵⁸ Forest conditions in the Ideas for Change are described very generally. Upon further review these descriptions are best met by the current Forest Plan direction for goshawk habitat.

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Item	Page#	Disposition
Access Proposals for Change – Proposals for Each New Management Area	81-94	The ROS objectives carried forward into the DEIS with some slight adjustments. Many of the remaining ideas are site-specific and are not carried forward in the DEIS. A roads analysis report is in draft form that captures this information as desired conditions with implementation dependent on site-specific analysis and decision. Some items have been implemented (see the list below).
Access Proposals for Change – Cinder MA and OHV Area	95-97	Site-specific items were carried forward and additional items added in the Cinder Hills Implementation Report – on file at the Peaks District Office – contact Debbie Kill or Lori Denton. This report is not a NEPA decision but a list of actions to consider is site-specific analysis. Overall desired conditions are in the DEIS with a mix of viewpoints 2 and 3 being the final outcome.
Unique Sites with High Visitation – Priest Draw, Canyon Vista, Pumphouse Wash, Old Caves Crater	98-106	All of these projects were not carried forward in the DEIS. Some have been implemented or are ongoing – see list below.
Environmental Study Areas	107-109	Elden and Griffiths Springs ESA’s are carried forward in the DEIS. Lake Mary ESA idea was dropped from further consideration. This was an idea brought forth from the public, however, schools were not linked to this site.
Snowplay Sites	110	Dropped from FLEA analysis. SnowPlay sites may be considered as a separate project on the District if a proponent or other agency or organization comes forward with support.
Outfitter/Guides	112-113	Carried forward in DEIS – funding for special use and outfitter/guide permit administration continues to be less than adequate.
Camping	114-115	Carried forward in DEIS.
Motocross	116-117	Per direction from Forest Supervisor motocross is described in DEIS as outside the mission of Forest Service and best suited to lands in other ownership.
Noncommercial Group Uses	118	Option 3 was carried forward (regulation of requiring groups of 75 or more to get a permit). However, the District still encourages groups of 25 or more to voluntarily get a letter of agreement from the District.
Special Use Events	119	Current Forest Plan did not require change to continue to approve Special Use Events on a case-by-case basis.
Commercial Use Special Uses (Forest Products)	119	Lack of good data and other priorities resulted in this topic being placed on hold until the Forest Plan revision.
Recreation Information and Education	120	The methods discussed in the Ideas for Change are already allowed under the current Forest Plan.

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Item	Page#	Disposition
Mineral Withdrawals	120-121	The San Francisco Mountain Mineral Withdrawal has been accomplished via a separate analysis and decision. Other mineral withdrawals in the FLEA are dropped from further consideration. Mineral withdrawal analysis and decision is extensive and costly. There are no locatable minerals to date in these sites so the risk of large-scale mining under the 1872 mining law is small. Nonlocatable mineral use will continue to be administered by FS under current Forest Plan direction.
Land Exchange	124	Carried forward in DEIS
Electronic Sites	125	Forest Plan amendments related to electronic sites are ongoing under separate analysis (see list below).
Marshall Lake	126-127	Not carried forward in DEIS because site-specific project. Not yet added to District program of work as of FY02.
Lower Lake Mary	128	Parking management carried forward to DEIS. Fence maintenance allowed under current Forest Plan. Idea for creating a pond was discarded after public input and analysis.
Upper Lake Mary	130	Parking, camping and sanitation carried forward in DEIS
Riparian Springs and Drainages in the Lake Mary Watershed	131	General discussion carried forward in DEIS. Specific implementation deferred to site-specific analysis.
Walnut Recreation Area Name Discussion	132-133	Carried forward in DEIS with Walnut Management Area as the name.

Completed or ongoing site-specific projects

- Old Caves Crater (completed on-the-ground)
- Priest/Howard (ongoing)
- Cinder Hills small stuff (portions are currently being implemented on-the-ground)
- Marshall Lake (coming up)
- Griffiths Spring (completed on-the-ground)
- Road obliteration in Deadman Area (completed on-the-ground)
- Strawberry Trail and Trailhead and Wilderness Implementation Schedules (completed on-the-ground)
- Kachina Village analysis, includes Pumphouse wash (ongoing)
- San Francisco Mountain Mineral withdrawal (completed)
- New metro hunt unit hunting regulations (completed)
- Fort Valley Roads and Trails (ongoing)
- Freidlein Prairie Road Designated Dispersed Camping (completed on-the-ground)
- Wireless Communication along the I-17 corridor (currently being implement on-the-ground)

The evolution of this project from the Ideas for Change to the Proposed Action

The interdisciplinary team assumed a 10-year window between FLEA and the completion of *Forest Plan* revision. The following is a summary of the assumptions and conclusions that resulted from these discussions. Changing priorities placed an emphasis on finishing the FLEA analysis as soon as possible.

Below is a summary of discussions held to determine which items to carry forward in the Proposed Action.

There is probably nothing in FLEA related to vegetation management that we “can’t live without” until the Forest Plan revision. There ARE items related to recreation that are needed NOW, and cannot wait for Forest Plan revision. There are other items (watershed) that are low risk and will be helpful to complete now rather than waiting for revision.

A majority of desired conditions for fuels treatment can be achieved in the Urban Interface under current Forest Plan direction. This is because the majority of the stands to be treated are VSS3. Aggressively thinning VSS3 stands and opening up canopies is allowed under current guidelines. We have discussed desired conditions and treatment parameters that work for this area and are consistent with Forest Plan. We have looked at this specifically for FLEA and both range and average is within what was modeled for the Forest Plan. There are only two MSO PACs that lie within the Urban Interface and they do not need treatments at levels that require amended Forest Plan language between now and the planned Forest Plan revision.

What about sustainable timber production, minimal stocking levels and regeneration requirements?

These things are Forest-wide requirements and the Urban Interface of FLEA is a small portion of the Forest total. We do not need to change these things for FLEA. All of the previous timber components 500 are changed via Amendment 11 to some form of 600. There may need to change timber components to track management emphasis changes such as in the U/RIZ. FLEA does not change suitability definition used in the Forest Plan.

There are points of clarification that will help alleviate internal Forest Service debates about implementing Amendment 11 (owl and goshawk guidelines).

Rather than carry these points through the NEPA process, the group recommended a Forest-wide letter, signed by the Forest Supervisor be prepared that documents internal agreement on the Forest.

There is some clarification language that is low-risk for generating issues and would be helpful to include in the Plan. These paragraphs are mostly related to Mountain Meadows and Watersheds in the FLEA area.

The group chose to keep many paragraphs that fall into this category. The work needed to carry them forward is minimal.

Recreation management direction specific to the Urban Interface and other parts of the FLEA area is not available in the Forest Plan, or what is written is not in enough detail. There is a need to add language to the Plan for Recreation. Recreation demands in the FLEA area have changed since the Forest Plan was written.

It is important for FLEA to focus on the criteria used to make road management decisions. Criteria are appropriate for a Forest Plan amendment. Site-specific road decisions are not.

We choose to create a left-hand side analysis product for roads that captures our work to date, and provides the District with desired conditions and information to be used in future site-specific NEPA analysis for actual roadwork. This product will compile our work to date but will not include additional analysis. Although the deadline for conducting roads analysis prior to decisions has been extended, the group felt this product is still a valuable one to complete now.

In past discussions about the FLEA PA, trail concepts were included. However, site-specific references to trail locations will not be carried forward in the FLEA PA.

The group then debated at length whether or not to delineate separate management areas within FLEA.

The need for management areas is driven by a desire to describe a sense of place that people can identify and discuss with us. The other reason for having management areas is to capture the social/political trends of areas and identify a management emphasis different from other Forestlands. The new management emphases are a combination of recreation and vegetation management items. Management areas allow us to recognize areas that influence or are influenced by other entities such as the City, County, State Trust Lands and National Park Service. An example is the need for identifying emphasis in the Lake Mary watershed for its special connections to City water supplies. We recognized there are little specific differences between the management areas.

The downside of separate management areas is that it places more work on us internally to find all the different places in the Plan where direction exists. Specialists will need to reference many places in the Plan, MA3, FLEA-Area wide and the Management Area itself for example. We discussed but dropped the idea of copying over all the plan language that applies to each MA. A paragraph will be added to the proposed FLEA language to explain the structure of the Plan.

Discussion of Lands North of Sunset Crater Volcano and South of Wupatki

Many of the items discussed in joint meetings between the FS and NPS are items best addressed in a revised Memorandum of Understanding (MOU) between the two agencies. The DEIS identifies some items to consider in the MOU. These items suited for the MOU include but are not limited to: management of Walnut Canyon entrance road and Sunset Crater-Wupatki Scenic Loop Road, management of fences, signs or other features related to maintaining the boundaries of the monuments and preventing illegal entrance into the Monuments, coordinated monitoring of geologic features and archaeological sites on NF and NPS lands, and coordinated information and interpretation services

The following items were discussed but not carried forward in the FLEA PA.

Table 15 Points of Discussion with National Park Service

Item	Source	Disposition
Training of special use permittees that includes a strong emphasis on minimizing impacts to natural and cultural resources	Meetings and Letters ⁵⁹	Ongoing efforts by FS to improve administration of special use permits. Forest Plan amendment not required in order to accomplish.
Add to the Forest Plan list of areas to withdraw from mineral entry 1) the viewsheds of the Monuments and 2) the Deadman Area	Meetings and Letter	The FS preferred course of action is to evaluate mineral withdrawal proposals on a case-by-case basis. At time this was considered, District efforts focused on the San Francisco Mountain Mineral Withdrawal. The analysis of additional areas was too much for staff to accomplish at the time. The NPS could bring forward proposals for consideration in separate analysis after FLEA.
Increase patrols for enforcement and monitoring of impacts	Meetings and Letters	The Forest Plan does not provide direction for the number or type of patrol activities. Staff decisions, which weigh funding, needs, and available personnel govern administration and enforcement.
Relocate the Bonito and O’Leary Group Campgrounds farther away from resources Sunset Crater	Meetings and Letters	This concept was discussed in meetings, however decommissioning or moving facilities is a large endeavor. The FLEA PA does not change current Forest Plan language

⁵⁹ Items that are covered in the discussions above, are not included in this table.

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Item	Source	Disposition
Volcano National Monument		related to these facilities.
Restore Walnut Canyon, inner canyon, to pre-dam conditions	Meetings and Letters	The Lake Mary dam limits water flow into Walnut Canyon that historically occurred. This issue was deemed outside the scope of the FLEA process. During the FLEA process an adjudication process was underway between various entities related to water rights. See the LFEA area-wide guidelines under the heading Watershed for acknowledgement of this process.

Other lessons learned

One process error that the *Ideas for Change* did not describe management direction that was already in place for the various topics. The *Ideas for Change* accomplishes two things 1) identifies areas where action is needed to implement the current Forest Plan (and implement it better) and 2) identifies areas where Forest Plan language change is needed. It would have been easier for FS personnel and public to sift through the large amount of information, if these categories had been listed in the document. It would also have been a cleaner transition from the *Ideas for Change* to the Proposed Action. That being said, the *Ideas for Change* is a good barometer for where we are today.

The *Ideas for Change* also lists site-specific as well as general ideas. It was impossible to accurately identify the effects and come to a NEPA decision on both. So programmatic items were carried forward in the FLEA PA and site-specific items were or will be ‘peeled out’ for site-specific decisions. See the chart at the beginning of this Appendix for a listing of projects. The *Ideas for Change* compiles information about the FLEA area that was previously scattered in many different sources.

Another process problem is that the lands north of Sunset Crater and east of Highway 89 were added after the *Ideas for Change* was published. These lands missed out on receiving the overall description and discussion of needs for change. Documentation for these lands is in meeting notes in the project record.

A landscape analysis process was used to determine the boundaries of the MA’s and to identify ROS objectives. The process was modeled after the USDA Forest Service, 1992 Forest Landscape Analysis and Design, Pacific Northwest Region. The MA’s listed in the *Ideas for Change* are different from those in the DEIS. We consolidated some MA’s as we found more and more similarities and fewer differences between areas. The MA boundaries were used as a reference tool for describing *Ideas for Change*. Again, the lands north of Sunset Crater were not listed in the MA’s in the *Ideas for Change*.

