

Decision Notice
and
Finding of No Significant Impact (FONSI)

Jacob-Ryan Vegetation Management Project
USDA Forest Service
North Kaibab Ranger District, Kaibab National Forest
Coconino County, Arizona

Portions of: Townships 38, 39 and 40 North, and Ranges 1, 2, 3 East and 1 West

Decision and Reasons for the Decision

Background

The Jacob-Ryan Vegetation Management Project was originally initiated in 1998. It was 33,000 acres and proposed treatments to enhance wildlife habitat, reduce fuels, remove hazard trees, and restore meadows in ponderosa pine, aspen, and pinyon-juniper woodlands. The project was re-evaluated, revised, and re-initiated. The current project is smaller, less complex and focuses on vegetation management of the ponderosa pine forest around Jacob Lake and the surrounding area.

The Jacob-Ryan Vegetation Management Project is in the north central portion of the Kaibab Plateau and encompasses approximately 26,000 acres of ponderosa pine forest. The purpose of the project is to make progress toward the desired conditions outlined in the Kaibab National Forest Land Management Plan (Forest Plan) as amended 2004. There is a need to reduce ladder fuels, fuel loads, and fire-flame lengths to better manage fires in the project area. There is a need to reduce stand densities to promote a sustainable size class distribution and an interspersed mosaic of vegetative structural stages in an uneven-aged forest. The desired forest structure has lower tree densities than current conditions and is adapted to frequent low-intensity fire. The desired forest structure is based on the Kaibab National Forest Plan and the Kaibab National Forest Interpretation and Implementation Guidelines (2005), which incorporate the management recommendations for maintaining northern goshawk breeding habitat and abundant populations for its prey as described in the Forest Service General Technical Report-RM 217.

The Environmental Analysis analyzed three alternatives in detail:

- Alternative 1 - No Action
- Alternative 2 - Proposed Action – thinning trees less than 18 inches in diameter at breast height (DBH) and prescribed burning to achieve the desired forest structure.
- Alternative 3 – 12 inch cutting limit. Similar to Alternative 2, but the maximum sized trees that would be cut is 11.9 inches in diameter.

In addition to the above alternatives, I considered three other alternatives. One was evaluated and not carried forward (Comprehensive Implementation with no maximum tree diameter) and two others were considered, but eliminated from detailed analysis: 14- and 16-inch diameter cutting limits (EA, page 20). Alternative 2 (Proposed Action) and Alternative 3 analyze diameter cutting limits above and below these treatment levels, which fall within the range of alternatives analyzed.

Decision

Based upon the Environmental Assessment, the associated project record, comments received from interested parties and direction from the Kaibab National Forest Plan (2004), it is my decision to implement **Alternative 2** as described in Chapter 2 of the EA without modification. Alternative 2 best meets the purpose and need and makes the most progress toward the desired conditions set forth in the Kaibab Forest Plan. The effects of Alternative 2 were disclosed and documented in the Final EA.

Kaibab Forest Plan Direction

This decision is consistent with the Kaibab National Forest Land and Resource Management Plan (USDA 2004), as amended. Relevant Forest Plan direction includes the following:

- Manage for uneven-aged stand conditions for live trees and retain live reserve trees, snags, downed logs, and woody debris levels throughout the ponderosa pine forest cover type.
- Formulate, design and propose resource operations or improvements that contribute, over time, to the achievement or maintenance of desired resource or ecological conditions in landscapes.
- Improve habitat components and diversity through vegetative manipulations and the coordinated interaction of other planned resource projects.
- Apply best management practices to mitigate adverse effects of activities on all forest resources.

Compliance with Applicable Laws

- **National Forest Management Act of 1976:** The National forest Management Act requires the Secretary of Agriculture to specify “guidelines for land management plans developed to achieve the goals of the Program, which provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-used objectives” (16 USC1604 (g) (3) (B)).

All alternatives were developed in compliance with NFMA by assuring consistency with the Kaibab Land and Resource Management Plan, as amended. The Forest Plan contains guidance for the design of vegetation treatments to improve habitats for management indicator species (MIS), including provisions for diversity, old-growth, habitat components (i.e. snags and logs), and a range of vegetation successional stages. The Wildlife Specialist Report and the EA Chapter 3 evaluate the effects to MIS in light of current research, habitat availability, and existing population data.

- **National Environmental Policy Act of 1969:** The Forest Service procedures for implementing NEPA are codified in 36 CFR part 220. These establish procedural and content requirements for the environmental analysis and documentation of federal actions. The Jacob Ryan Project environmental analysis was prepared in compliance with NEPA.
- **Federal Water Pollution Control Act 1977 (Clean Water Act):** Alternative 2 conforms to the Clean Water Act as amended (1982). This act establishes a non-degradation policy for all federally proposed projects. Through the use of best management practices, Alternative 2 meets the standards agreed to in an MOU between the State of Arizona and

U.S. Department of Agriculture Forest Service Southwestern Region (1990). Additionally, the project is far enough from 303(d) listed water bodies to not affect any listed streams. Executive Orders 11990 (Wetlands Management) and 11998 (Floodplain Management) would be met as there are no affected flood plans or wetlands within the project area.

- **The Endangered Species Act of 1973 as amended:** There are no endangered and threatened species in the project area. A biological assessment has been prepared that documents the analysis and finding of “no effect” of the proposed activities to threatened and endangered species. See discussion under Finding of No Significant Impact; item B (9) “Intensity” later in this document.
- **Migratory Bird Treaty Act:** Executive Order 13186 was enacted to ensure federal agencies protect migratory birds through project design that limits adverse impacts to migratory bird resources and assures that migratory bird species receive consideration in the decision-making process. Executive Order 13186 also tasks federal agencies to identify unintentional take of migratory bird species during land management actions. Four species in the project area have been identified: northern goshawks, olive sided flycatchers, Cordilleran flycatchers, and purple martins. The northern goshawk is considered in detail in the sensitive species report of the EA, Chapter 3. Effects to olive sided flycatchers, Cordilleran flycatchers, and purple martins are considered minor short term effects, with long term beneficial effects. The other potential effects to migratory birds populations are expected to be low to non-existent (see EA, p. 76-78).
- **Grand Canyon Game Preserve:** The Jacob-Ryan project is located within the Grand Canyon Game Preserve, which was established by proclamation by President Theodore Roosevelt on November 28, 1906 to protect game species and their habitat. The Kaibab Forest Plan states “Cooperate with the Arizona Game and Fish Department to achieve management goals and objectives specified in the Arizona Wildlife and Fisheries Comprehensive Plan, and in carrying out the cooperative agreement for the management of the Grand Canyon National Game Preserve.” The Forest Service and Arizona Game and Fish Department agreed to allow hunting on lands managed by the District; the management activities in the Jacob-Ryan Project are designed to maintain huntable populations of game animals and continue to provide breeding places for those species (for further discussion see EA p. 80).
- **National Historic Preservation Act of 1966, as amended:** Section 106 requirements for survey and evaluation have been met for all undertakings listed under this proposed action. Also, see discussion under Finding of No Significant Impact; item B (8) - Intensity, in the discussion of the Ten Significant Criteria later in this document.
- **Clean Air Act of 1970 as amended:** Protect and enhance air quality while ensuring the protection of public health and welfare. Alternative 2 is designed to meet the National Ambient Air Quality standards through avoidance of practices that degrade air quality below health and visibility standards. Burning would be done only after receiving approval from the Arizona Department of Environmental Quality (ADEQ) that burning can proceed. ADEQ is the regulatory agency for air quality (including smoke) in Arizona, (see EA, Chapter 3 – Air Quality section).

Decision Rationale

This decision applies to the area and activities analyzed under the Jacob-Ryan Vegetation Management Final Environmental Assessment, which includes a supplemental analysis in Appendix A that directly responds to comments received (January 2009). The project design and environmental analysis used the best available science from scientists like Richard Reynolds, Peter Fule and Wallace Covington and many others who are authorities in the fields of goshawk habitat and ponderosa pine restoration. Opposing science material from authorities like Dana Backer, and R. Seager also informed my decision.

Alternative 2, the Selected Action, best meets the project's purpose and need to reduce ladder fuels, fuel loads, and fire-flame lengths to better manage fires in the project area. It would also reduce tree densities and promote the desired size class distribution and a mosaic of vegetative structural stages in an uneven-aged forest. The Jacob-Ryan project is a first step to restoring the desired uneven-aged forest in this area. Subsequent projects at 20 and 40 year intervals may be required to achieve a sustainable uneven-age structure as identified in the forest plan.

Alternative 2 best ensures that the remaining trees would have more light, moisture and nutrients for increased growth. The resulting stand structure and landscape would better resemble the historic patterns of age, size, and understory that would be more able to withstand frequent low-intensity surface fires. Other advantages to implementing Alternative 2, the Selected Action include:

- Progress toward converting almost 8,000 acres of even-aged stands to the desired uneven-aged structures, thereby providing long-term beneficial effects for the northern goshawk and its prey species that include better habitat and foraging opportunities.
- Areas lacking in dead and down coarse woody debris would be augmented to protect deficient soils, and dwarf-mistletoe infected trees would be retained where needed as future snags. Those areas with erodible and impaired soil conditions have mitigations to protect and minimize adverse effects (EA, Chapter 2, page 17).
- Existing forest openings would be expanded for nutrient uptake by residual trees and recruitment of understory vegetation.
- Progress toward the desired conditions in the Forest Plan including providing for quality habitat, the desired size-class (VSS) distribution, canopy cover requirements, and old growth.
- Retains and promotes mature and large trees across the project landscape that would enhance the amount and quality of old-growth on the Forest.

Alternative 3, with a 12-inch diameter cutting limit, makes considerably less progress toward the Forests' desired condition, particularly in the uneven-aged areas. It initiates converting the even-aged forest structure, but lacks the ability to promote a complete size class distribution in uneven-aged stands. Some areas would exceed desired tree densities and have more continuous canopies in the 12 to 18-inch size class. As a result the beneficial effects to the habitat for northern goshawks and their prey are reduced.

Analysis Factors

The issues raised during public scoping were addressed through alternative development, mitigations, or modifications to the proposed action. The analysis completed by the interdisciplinary team is contained in the EA. The issues centered mostly on natural resource

concerns, however other factors such as visual quality objectives and socio-economic benefits for local communities were also raised.

Public scoping identified three significant issues. One resulted in Alternative 3 and the others in mitigation and monitoring requirements. The 3 issues are:

- (1) Cutting trees larger than 12 inches DBH may negatively affect wildlife habitat and old growth and result in a lost opportunity to develop additional old growth. *Issue addressed and analyzed in the EA in Alternative 3.*
- (2) Heavy equipment used during thinning activities would cause soil disturbances, compaction and erosion problems. *Issue addressed in mitigation measures for action alternatives in the EA on page 17 and acres withdrawn from project activities (EA, Figure 14, page 53).*
- (3) During implementation there would be unanticipated mortality of some large trees, resulting in fewer large trees than desired. *Issue addressed in the implementation prescription as well as the prescribed burn modeling plans and effectiveness monitoring for unintended mortality and adjustments in the EA on page 18.*

Alternative 1 – No Action: Under the no-action alternative, mechanical thinning and prescribed burning would not occur in the project area. The trees in the overly dense stands would continue to compete for limited moisture, nutrients and light slowing their rate of growth. I did not select Alternative 1 because it would not move the project area toward the desired uneven-aged site conditions; it would leave the area highly susceptible to insects, disease and resource losses due to uncharacteristic wildfire. With no action, these stands would have more than twice the recommended stand density after 40 years and understory production would continue to decline. Alternative 1 is not consistent with Forest Plan direction to enhance the overall habitat for northern goshawks or help maintain the populations of their prey species.

Alternative 3 – Twelve-inch Diameter Limit: This alternative is similar to the selected action except that the maximum size tree that would be cut is 11.9 inches DBH. The effects to even-aged stands and goshawk nesting areas would be similar to Alternative 2, because the selected alternative would cut very few trees in the 12- to 18-inch size class in the uneven-aged areas. I did not select Alternative 3 because it would make less progress toward the desired uneven-aged structure than Alternative 2 (Selected Action). In addition, without the ability to cut trees over 12 inches, there would be a reduced ability to maintain groupings, create openings or develop tree regeneration in VSS 1 and 2 size classes. Table 1 below describes vegetation structural stages (VSS) and the range of sizes in each class. Alternative 3 may result in more trees in larger size classes in the short term, but they would not necessarily have the desired arrangement or suitable spacing among tree groups to achieve long term beneficial effects to northern goshawk habitat. There would also be higher inter-tree competition, slower diameter growth, and greater susceptibility to insects, disease and wildfire.

Table 1—Size ranges and class designation for each vegetation structural stage

GROWTH STAGE	Grass/forbs Seedlings/Shrubs	Seedlings Saplings	Young Forest	Mid-aged Forest	Mature Forest	Old Forest
*SIZE	0 - 1"	1"-4.9"	5"-11.9"	12"-17.9"	18"-23.9"	24" over
VSS	1	2	3	4	5	6

* Size designation refers to the diameter of the vegetation

Comprehensive implementation alternative with no maximum tree diameter: This alternative would more closely achieve the desired size-class distribution and better protect wildlife habitat from high-intensity stand replacing wildfires in the project area. It was not carried forward because there are deficits in the greater area due to the 2006 Warm Fire, which resulted in a reduction in large trees (VSS 5/6) for the geographic area (EA, page 20).

Two other alternatives were suggested by commenters, but had 14 and 16-inch diameter cutting limits (EA, page 20). These were considered, but eliminated from detailed analysis because the Proposed Action and Alternative 3 analyze diameter cutting limits above and below these suggestions, and they fell within the range of alternatives analyzed.

Alternative 2, the selected alternative, includes the following project specifics:

Even-aged Stands Outside Goshawk PFAs (3,170 acres)

To achieve the desired diameter distribution, thin trees mostly less than 12 inches in diameter, leaving groups of trees in the VSS classes 4, 5, and 6. Thin trees up to 18 inches if they are diseased, infected with insects and/or dwarf mistletoe. Retain some dwarf-mistletoe infested trees up to 18 inches to create snags if the stand is deficient. Focus thinning between clumps and groups of trees to open up the rooting zones and increase moisture and nutrient availability. Thin within some groups to reduce ladder fuels and competition, and to promote faster diameter growth so that some of the smaller trees may grow more quickly into the larger size classes. Create some areas of VSS 1 by removing some VSS 2 and 3 groups. These openings are needed to provide for tree regeneration and the desired size class distribution over time. Maintain current and manage for future canopy cover of at least 40 percent in VSS 4, 5, and 6 groups. Because these areas lack the desired groups of VSS 5 and 6 trees, additional thinning projects would be needed in the future (at approximately 20 and 40 years) to promote the development of VSS 5 and 6 groups.

Even-aged Stands Within Goshawk PFAs (3,460 acres)

Treatments in these even-aged stands are similar to areas outside PFAs above except that more emphasis is placed on maintaining current and managing for future canopy cover at 50 to 60 percent in VSS 4, 5, and 6 groups. These even-aged areas would require thinning projects in the future at approximately 20 and 40 years intervals to achieve the desired conditions.

Uneven-aged Stands Outside Goshawk PFAs (8,026 acres)

These areas currently have three or more size classes, but generally have higher densities than desired and do not have the desired clump/group arrangement in some areas. Treatments would thin from below for trees up to 18 inches DBH to enhance and promote the desired arrangement and distribution of VSS groups within the stands. Although the average trees per acre of the smaller trees exceed the desired condition, many trees are scattered within larger VSS groups. Expansion of existing openings by removing individual trees or some clumps would be the preferred method of providing open areas for moisture and nutrient uptake as well as recruiting VSS 1 and 2 size classes. Maintain or create conditions within groups so that trees form clumps with interlocking canopies. Manage canopy cover in VSS 4, 5, and 6 groups to maintain or achieve at least 40 percent. Thin to reduce ladder fuels and reduce the potential for stand-replacing wildfire.

Uneven-aged Stands Within Goshawk PFAs (7,200 acres)

Treatments in these uneven-aged stands are similar to areas outside PFAs above except that more emphasis is placed on maintaining current and managing for future canopy cover at 50 to 60 percent in VSS 4, 5, and 6 groups. These uneven-aged stands could require additional thinning projects in the future at approximately 20 and 40 years intervals to achieve the desired conditions.

Goshawk Nest Areas (3,205 acres)

Maintain or make progress toward tree canopy cover between 50 and 70 percent so that many trees form clumps with interlocking canopies. Focus thinning in existing nest areas from below primarily up to 12 inches DBH to raise crown base height and reduce the potential for undesired tree mortality following fire. In nest areas where VSS 5 and 6 groups are lacking, thin from below in some of the VSS 4 groups to promote the development of VSS 5 and 6 groups with interlocking crowns. Implement best management practices to minimize human disturbance and maintain satisfactory soil conditions. Use fire as the preferred tool to maintain desired conditions over time.

In replacement nest areas thin from below for trees up to 18 inches DBH to reduce tree density and continue the development of structural mature and old tree groups. Maintain or create conditions within the replacement nest areas so that trees form clumps with interlocking canopies that maintain current and manage for future canopy cover at 50 to 70 percent in VSS 5 and 6 groups. Create or enhance existing open areas between tree groups and stands for accessibility to nutrients and moisture as well as seedling recruitment.

Dwarf-mistletoe Areas (994 acres)

In areas infected with dwarf mistletoe, conduct treatments that (1) remove the infected source trees if they are less than 18 inches DBH and the understory is relatively disease free; (2) leave infected trees if they are greater than 18 inches DBH as future snags for wildlife, but remove understory trees around the sources of infection; or (3) do nothing if the infected tree is greater than 18 inches DBH and the tree is isolated and not at risk of spreading the infection. Regardless of mistletoe infection status, desired conditions for canopy cover and VSS distribution apply. Some infected trees regardless of size may be left to create future snags however; openings around them would be created to prevent future infections.

Prescribed Burning

Prescribed burning would normally follow mechanical treatments in order to reduce the dead and down fuel loads, reduce flame length and raise crown base heights. In some areas thin and then burn. In other areas, thin and burn piles (when high fuel loads exist) before initiating a prescribed burn and in some other areas burn and then thin if needed. Generally initiate burns one to three years following mechanical treatments. Incidental mortality from mechanical treatments or after prescribed burns would be included and modeled in each of the burn activity prescriptions. The timing of the burns would vary to achieve desired conditions. Prescribed burns may be postponed or excluded in young pine stands due to the potential for mortality and loss of smaller trees groups where they are needed to meet the desired size class distribution. If invasive weed species are present, prescribed burns may be delayed until they can be effectively treated.

Due to the road density in the area, existing roads and natural features would be used in most instances to control prescribed burns. However, some fire lines may be constructed to connect existing fuel breaks. Any ground disturbing activity would follow soil and watershed BMPs and

receive heritage clearance prior to line construction. Maintenance burns may be implemented on about a five to twelve year cycle provided that a review of new information and changed circumstances has been documented in accordance with Forest Service Handbook 1909.18.

Expected Implementation

Project implementation is planned to begin in 2009. This is a phased implementation project and will take several years to complete all the selected action treatments.

Mitigation Measures Specific to Alternative 2, the Selected Action

Mitigation measures were developed in response to issues and concerns raised during proposal development to avoid, minimize or compensate for actions anticipated to have adverse effects. The following project-specific mitigation measures were identified:

- No trees over 18 inches DBH would be cut.
- No presettlement trees, regardless of size, would be cut. Presettlement trees are those trees with characteristics indicating they are more than 130 years old (yellowish, mosaic plating bark with flat tops).
- Prescribed burning would not be initiated for at least a year following mechanical treatments, however some pile burning of activity created fuels could occur sooner to reduce the amount of fuel loading.
- Skid trails and fire lines located in TES map units 294, 298, 620, and 624 would have water bars constructed by hand where excessive slope prevents improper water bar construction by machine.
- No log landings or decking areas would occur on slopes exceeding 15 percent in TES map units 294, 298, 620 and 624.
- No machine piling of slash would occur in TES map unit 9.
- Approximately 860 acres on seven soil types were removed from the project because they either occurred on steep slopes or were not dominated by ponderosa pine (EA, Figure 14, page 53).

Monitoring for Action Alternatives

The following monitoring activities would be conducted for the selected alternative:

- Survey for and treat invasive weed species before, during, and after project implementation.
- Monitor implementation during and after project completion for compliance with project specifications, particularly erosion control measures associated with burning and harvesting operations.
- Host a monitoring field trip after the first phase of mechanical treatment to adaptively collaborate with project commenters and stakeholders on implementation design adjustments necessary for more effective project completion.
- Monitor unintended mortality caused during implementation so that treatment prescriptions may be adjusted to maintain the desired forest structure.

- Follow up after five years to monitor effectiveness of erosion control measures for skid trails, log landing or decking areas, road maintenance, and burned areas (EA, Appendix H, Soils, page 112).

Best Management Practices

In addition to project-specific mitigations, project implementation would use best management practices (BMPs) commonly applied for these types of activities to prevent resource impacts. These come from a number of sources including the Kaibab Forest Plan, Forest Service Handbooks and Manuals, and interagency agreements. A detailed list of BMPs is included in Appendix H of the EA on page 95.

Public Involvement

The proposal was placed in the Schedule of Proposed Actions in October 2007 and first listed in January 2008. It has been listed quarterly since that time. A scoping letter and notice detailing the project proposal was distributed to interested parties on October 23, 2007 seeking public input and comments. The original mailing was sent to approximately 70 individuals. The scoping notice was also posted on the Kaibab National Forest web site with a request for comments.

Five comment letters were received following the fall 2007 scoping notice. Using the comments received from the public, other agencies, tribes and the interdisciplinary team, a list of issues and alternatives were developed. Responses to the scoping comments can be found in the EA, *Appendix G, Response to Comments for Jacob-Ryan Scoping* and the project record (PR 53, 57, 59, 60 and 61).

Team members discussed the proposed action, issues, and potential alternatives with a range of stakeholders including the Arizona Game and Fish Department, Arizona Department of Environmental Quality, Arizona Department of Transportation, Grand Canyon Trust, Center for Biological Diversity, Grand Canyon Wildlands Council, Sierra Club, Kaibab-Paiute Tribe, and Hopi Tribe. Comments from these meetings and field trips (project record) were considered and incorporated into the analysis and development of alternatives.

A legal notice was published in the *Arizona Sun* on November 5, 2008 announcing the 30-day public comment period on the Jacob-Ryan Project. Copies of the draft EA were mailed to those who had expressed an interest or requested the document on November 3, 2008. The draft Environmental Assessment was also posted on the Forest website.

Four comment letters were received on the draft Environmental Assessment. A supplemental analysis was prepared as an appendix (A) to the Final EA that included:

- Additional explanation on how canopy cover is measured
- How unanticipated large tree mortality would be managed
- How climate change was considered, and
- A detailed description of the evaluation at different scales of analysis conducted for invasive weed species, goshawk guidelines for VSS requirements and the status of old growth.

Responses to comments on the EA are found in *Appendix I, Response to EA Comments*.

Finding of No Significant Impact

After considering the environmental effects described in the Final EA, I have determined that the proposed actions in Alternative 2 would not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Therefore, an environmental impact statement (EIS) will not be prepared. My decision is based on the following:

- A. Context: The disclosure of effects in the EA found the actions to be limited in context. The project area is limited in size and the activities limited in duration. Effects are local in nature and are not likely to significantly affect regional or national resources. Both short- and long-term effects of the proposal have been considered including cumulative effects that are limited to a portion of the Kaibab Plateau in Coconino County, Arizona on the North Kaibab Ranger District.
- B. Intensity: The following discussion is organized around the Ten Significance Criteria described in the National Environmental Policy Act (NEPA) regulations that refer to the severity of impact (40 CFR 1508.27).
 - (1) **Environmental Effects** – Environmental effects that may be both beneficial and adverse associated with the project are discussed in Chapter 3 (Environmental Consequences) of the EA (pages 22 through 85) and the Supplemental Analysis (Appendix A). Project activities would not significantly affect any resource. Long term effects for most resources are expected to be beneficial in nature.
 - (2) **Effects on Public Health and Safety** – There would be no significant effects on public health and safety. Treatment activities would be conducted in a safe manner to protect the public. Road closures and air quality precautions are described in Chapter 3 of the EA (pages 10 and 34).
 - (3) **Unique Characteristics of the Geographic Area** - There would be no significant effects on unique characteristics of the area or adverse effects on historic places, loss of scientific, cultural, historical, or other unique resources. This project is in compliance with the programmatic agreement between the State Historic Preservation Office and the Advisory Council on Historic Preservation. The area would be monitored for potential heritage sites that may have been overlooked prior to project implementation. This project does not contain park lands, farmlands, wetlands, wild and scenic rivers, fisheries or ecologically critical areas. The project area is typical of many areas on the Kaibab Plateau in geology, soils, vegetation and wildlife species (EA, Chapters 2 and 3).
 - (4) **Controversy** – The cutting and removal of large trees is sometimes controversial, especially considering the number of large trees killed during the 2006 Warm Fire. The Jacob-Ryan project design is intended to protect and enhance mature and old trees within the project analysis areas (EA, page 25). The project would not cut any trees greater than 18 inches or any pre-settlement trees regardless of size. Project objectives can be met with an 18 inch cutting limit in this area. Some discussion continues about what constitutes a “large tree”, but project design features address most concerns about large tree protection. There are no other effects considered to be highly controversial by specialists or scientific professionals in the associated fields of forestry, wildlife biology, range, and visuals/recreation. I do not believe that significant controversy remains over

the effects of this project or on the quality of the human environment based on the analysis and public comments received.

(5) **Uncertainty** – Scoping and request for comments did not identify highly uncertain, unique, or unknown risks. The Forest Service has considerable experience with the types of activities to be implemented. The technical analyses conducted for determinations of the impacts to the resources are supportable with the use of accepted techniques, reliable data, and professional judgment. Therefore, I conclude that there are no highly uncertain, unique, or unknown risks (EA, Chapter 3 and Appendix A).

(6) **Precedent** - This is a site-specific project that does not establish a precedent for future actions or present a decision in principle about future considerations. Any proposed future project must be evaluated on its own merits and effects. The project design used the best available science about vegetation management, fire adapted landscapes and wildlife habitats and populations. Opposing science was also taken into consideration for making this decision.

(7) **Cumulative Impact** - There are no significant cumulative effects on the environment from the selected action when combined with the effects of past, current projects, and reasonably foreseeable future projects. Effects are disclosed in Chapter 3 of the EA (pages 22 through 85) and Appendix A.

(8) **Effects to objects listed in or eligible for listing in the National Register of Historic Places, or significant scientific, cultural, or historic resources.** – All activities have been evaluated for potential impacts to these historic and cultural resources including districts, sites, highways and structures. Any potential effects have been mitigated to avoid impacts (EA, pages 70 through 72). Prehistoric and historic sites in the area would be located, marked and then avoided prior to any ground disturbing activity. When all design criteria and mitigation measures are followed, the project would result in no adverse effect. The State Historic Preservation Office concurred with the no adverse effect determination on July 9, 2008. The project record contains the cultural resource clearance reports and concurrence from the State Historical Preservation Office (PR 55).

(9) **Endangered or Threatened Species** – No listed species or designated critical habitat occurs within the project area. Concurrence on a *no effect* determination for any endangered, threatened, candidate or conservation agreement species was received from the U.S. Fish and Wildlife Service on November 30, 2007 (EA, pages 45-47 and 77-78).

(10) **Legal Requirements for Environmental Protection** – The selected action would not violate Federal, State or local laws and requirements for the protection of the environment. Applicable laws and regulations were considered (EA, pages 22 through 85) by resource along with additional requirements for project consistency in the Kaibab National Forest Land and Resource Management Plan (Forest Plan, 2004, as amended). The project is consistent with the Forest Plan. The project is located in Geographic Area 13 in the north central portion of the Kaibab Plateau and is consistent with the stated emphasis for the area. The project would not involve road construction, reconstruction or road access changes within the project area. Public involvement has occurred throughout project planning, and potential environmental effects were considered and

documented in the EA (EA, pages 12 through 14, and Chapter 3) and in the Supplemental Analysis to the EA (Appendix A).

Administrative Review or Appeal Opportunities

This decision is subject to administrative review (appeal) pursuant to 36 CFR 215. Individuals or organizations who provided comment or otherwise expressed interest in the proposed action during the comment period may appeal. Interest expressed or comments provided on this project prior to or after the close of the comment period do not have standing for appeal. Appeals must be filed (regular mail, fax, email, hand-delivery, express delivery, or messenger service) with the Appeal Deciding Officer:

Mike R. Williams, Forest Supervisor
Appeal Deciding Officer
Kaibab National Forest
800 South Sixth Street
Williams, Arizona 86046
Fax: 928-635-8208

If hand-delivered, appeals must be received at the above address during business hours (Monday - Friday 8:00 am to 4:30 pm), excluding holidays. Electronic appeals may be submitted to: appeals-southwestern-kaibab@fs.fed.us (.doc, .rtf, or .txt formats only). Appeals must have an identifiable name attached or verification of identity will be required. Please put the project name in the "subject" line. Names and addresses of appellants will become part of the public record. A scanned signature may serve as verification on electronic appeals.

Appeals, including attachments, must be in writing, fully consistent with 36 CFR 215.14, and filed (postmarked) within 45 days following the date that the notice of decision is published in the *Arizona Daily Sun*, the newspaper of record. This publication date is the exclusive means for calculating the time to file an appeal. Those wishing to appeal this decision should not rely upon dates or timeframes provided by any other source.

Implementation Date

If no appeals are filed within the 45-day time period, implementation of the decision may occur on, but not before, five business days from the close of the appeal filing period established in the Notice of Decision in the *Arizona Daily Sun*. If an appeal is filed, implementation may occur on, but not before, the 15th business day following the date of the last appeal disposition.

Contact Information

For information concerning the decision or the Forest Service appeals process, contact:

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TIMOTHY J SHORT
District Ranger
North Kaibab Ranger District
Kaibab National Forest

DATE

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