



United States
Department of
Agriculture

Forest Service

Pacific Southwest
Region

Plumas
National Forest

Plumas County
California

R5-MB-121

September 2006



Freeman Project

Final Environmental Impact Statement

Record of Decision

For More Information Contact:

Sabrina Stadler, Freeman Project Interdisciplinary Team Leader
Plumas National Forest
Beckwourth Ranger District
23 Mohawk Dr.
PO Box 7
Blairsden, CA 96103
530-836-2575

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Table of Contents

Introduction	1
Background.....	1
Purpose and Need	2
Decision.....	3
Reasons for the Decision	3
Legal and Regulatory Compliance	10
Means to Avoid Environmental Harm.....	10
Findings Required by Other Laws and Regulations	10
Principle Environmental Laws.....	11
Executive Orders.....	11
Special Area Designations	11
Public Involvement.....	12
Alternatives Considered in Detail but Not Selected	13
Alternative 1 (Proposed Action)	13
Alternative 2 (No-action).....	14
Alternative 3	15
Environmentally Preferable Alternative	16
Implementation Date	16
Administrative Review or Appeal Opportunities	17
Contact Person.....	17

Introduction

The Freeman Project is located north of Portola and west of Lake Davis in Plumas County, California, within the Beckwourth Ranger District of the Plumas National Forest. The project area covers approximately 14,967 acres. It is within all or parts of T23N, R12E; T23N, R13E; T24N, R12E; and T24N, R13E.

Background

This project was proposed according to management direction provided by the Plumas National Forest Land and Resource Management Plan (LRMP) as amended by the Herger-Feinstein Quincy Library Group (HFQLG) 1999 Final EIS and Record of Decision (ROD), the 2003 HFQLG Supplemental EIS and ROD, the 2001 Sierra Nevada Forest Plan Amendment (SNFPA) and ROD as amended by the 2004 SNFPA Supplemental EIS and ROD. The 2004 SNFPA required that land allocations and application of Standards and Guidelines embodied in the HFQLG ROD be preserved for the life of the pilot study. The pilot study provided for by the HFQLG Act was designed to test the effectiveness of certain resource management activities at meeting various ecologic, economic and fuel reduction objectives. Fuel break construction consisting of a strategic system of Defensible Fuel Profile Zones (DFPZ) is just one of the requirements of the Act. Other activities include Group Selection (GS), Area Thinning treatments (or Individual Tree Selection), as well as riparian management and restoration projects.

The 2002 Healthy Forests Initiative and 2003 Healthy Forest Restoration Act (HFRA), affirmed the need to reduce the risk of wildland fire to communities, municipal water supplies, forests, rangelands and other important landscape components. One of the primary goals of this Act was to create a National Fire Plan that would address the fuels reduction needs in the Wildland Urban/Interface (WUI).

The Plumas County Fire Safe Council finalized the 2005 Plumas County Communities Wildfire Mitigation Plan, which was adopted by the Plumas County Board of Supervisors. The Wildfire Mitigation Plan was developed through a collaborative process involving participation from county, state, federal agencies and the public. As a partner in the development of this Plan, the Forest Service is committed to do its part to implement the Plan in a coordinated fashion and reduce fuels in WUI on National Forest System (NFS) land. The Freeman Project is part of the commitment to implement the Plumas County Communities Wildfire Mitigation Plan, as well as the HFQLG Act.

On September 1, 2006, the California Department of Fish and Game and the Plumas National Forest issued a Draft Environmental Impact Report/Environmental Impact Statement for the Lake Davis Pike Eradication Project. This project affects Lake Davis and its tributaries. The tributaries overlap the Freeman Project Area. The potential cumulative effects of the Pike Eradication project that were known at the time the analysis for the Freeman Project have been considered. These effects are primarily addressed in the consultation with USFWS for the Bald Eagle and as a

reasonably foreseeable action in the project area. Should the Pike Eradication project be implemented during the operation of the Freeman Project, scheduling coordination should enable both projects to continue with little conflict.

Purpose and Need

Reduce Fuels

The first purpose is to reduce fuels to achieve the following results: provide continuity with existing DFPZ and existing fuel reduction project areas; provide continuity with Plumas Fire Safe Council's efforts to reduce fuels inside the WUI; contribute to the larger HFQLG landscape level DFPZ network; reduce the potential size and intensity of wildfires by creating conditions that improve fire suppression effectiveness in the Lake Davis Recreation Area; and reduce the risk of stand-replacing fire in riparian habitat conservation areas (RHCA).

Improve Forest Health

The second purpose is to improve forest health by reducing the amount of and susceptibility to disease infection and insect infestation of forested areas; accelerating the growth of California Wildlife Habitat Relationship (CWHR) size class 4 towards size class 5; and reducing fuels and improving conifer-growing conditions in the Area Thinning treatment areas.

Improve Bald Eagle Habitat

The third purpose is to improve bald eagle (*Haliaeetus leucocephalus*) habitat by promoting the growth and development of CWHR size class 5 trees, which are preferred for foraging, roosting and nesting habitat.

Contribute to the Economic Stability of the Local Community

The fourth purpose is to provide an adequate timber supply that contributes to the economic stability of rural communities.

Improve Aspen Stands

The fifth purpose is to provide for greater biological diversity in the Freeman project area by releasing aspen stands from conifer competition.

Provide Access Needed to Meet Other Project Objectives and Reduce Transportation System Impacts

The sixth purpose is to reduce impacts of the transportation system on forest resources and provide the necessary access for the vegetation treatments.

Decision

Based on the analysis in the 2006 Freeman Project Final Environmental Impact Statement (FEIS), and the associated planning record, **I have decided to implement Alternative 4 with the following modification:**

- In response to public comments, the economic viability of the helicopter logging was reconsidered for this project. Two area thinning helicopter units totaling 186 acres (including 14 group selection acres) were re-evaluated and it was determined that 22 acres of unit 87 could be treated as tractor ground. The remaining acreage in these units was too steep to use this method of treatment and the volumes per acre were too low to support this method of logging and are therefore being dropped from this decision. The numbers of acres involved did not significantly change the effects analysis.

Alternative 4 will create 3,037 acres of DFPZ and treat an additional 2,211 acres in the area thinning zone to improve forest health surrounding the DFPZ. This alternative will change the original Proposed Action (Alternative 1) treatments on approximately 1,000 acres from grapple pile, masticate and hand thin to mechanical thinning. It would create group selection openings on approximately 160 acres. Whenever possible, these openings will focus on treating insect and disease centers, while keeping economic feasibility in mind.

All DFPZ, area thinning treatments and group selection treatments will meet the standards and guidelines as described in the Sierra Nevada Forest Plan Amendment Supplemental Environmental Impact Statement (SEIS) ROD (2004). The project will adhere to the Specific Design Features and Resource Specific Mitigations Section Chapter 2 and the Standard Operating Procedures described in Appendix D of the Freeman FEIS. The Resource Specific Mitigations are for soils, range, recreation, air quality, botany and visual quality.

Alternative 4 will implement 232 acres of aspen restoration, eliminate the variable width extended treatment zone surrounding each aspen stand, leaving some conifers within the aspen stands, offering both visual retention for recreation users and ecological diversity.

Road access for treatments will be provided by reconstructing 15-miles of road, along with construction and subsequent decommissioning of approximately 2-miles of temporary road. Decommissioning will occur on approximately 7.9-miles of system roads as identified for riparian habitat and water quality needs.

Reasons for the Decision

In reaching my decision, I have considered the purpose and need for action, the issues and range of alternatives and environmental consequences. I have also considered public comments on the Draft Environmental Impact Statement (DEIS) and the original proposed action (Alternative 1), the LMRP and amendments, the FEIS, the documents incorporated by reference and the specialist reports. My decision to implement Alternative 4, with the modification, will best address the concerns expressed by the public, while meeting the purpose and need for action. Alternative 4

will result in a more cost effective and efficient fuels treatment by minimizing the need for post-treatment pile burning, while simultaneously providing for the removal of more biomass materials which can be generated into electricity. The aspen treatment in Alternative 4 will also address visual concerns regarding the large openings (extended treatment zones) that would have been created surrounding the aspen stands; as well as, ecological concerns regarding the removal of all conifers up to 30 inches dbh within the aspen treatment areas.

Reducing Fuels

I have determined that this decision will meet the purpose and need to reduce hazardous fuels by reducing the potential size and intensity of wildfires and providing firefighters with a safe place to control and suppress fires. It will also provide continuity with existing DFPZ and fuel reduction projects adjacent to the Freeman Project area. The proposed treatments will reduce the risk of stand-replacing fire in RHCAs.

This alternative meets the desired 40% canopy cover in the DFPZ and 50% in the area thinning units over more of the project area than any of the other action alternatives; just 3% of the treatment units would not meet the desired canopy cover conditions. As with all of the action alternatives fire types become surface fires after treatment; surface fuels will be between 5-10 tons/acre; canopy base heights will be raised to greater than 12 feet tall; and flame lengths modeled to less than 4 feet tall should a wildland fire occur. These fuels treatments will result in a significant increase in the rate of fire-line construction, thus resulting in a reduction of fire suppression costs and increased firefighter safety. This level of treatment will provide an effective step toward a fire resilient forest with limited risk to watershed and wildlife. Although fuel treatments may not decrease the risk of human or lightning caused fires starting in the Freeman Project area, they *will* decrease the risk of fire spread by modifying fire behavior and enhancing the ability of firefighters to contain, suppress, and control fires within the fuel treatments.

My recent experience with the Boulder Fire in the Antelope Lake Recreation Area on the Mt. Hough Ranger District in late June and early July, 2006, illustrated just how important these landscape level fuels treatments are in reducing the size and adverse impacts from wildfire. The DFPZ treatments that burned in this fire demonstrated that crown separation, as well as reducing ladder fuels are necessary to provide safe working conditions for firefighters. I observed that where crown separation and ladder fuel reduction occurred, stand loss was prevented. Significant wildlife and riparian habitat was lost in areas where riparian and visual retention areas were not treated. I believe this experience has direct application to the situation in the Freeman Project area. Therefore, I believe it is necessary to adopt a lower canopy cover prescription to provide an effective fuels treatment.

This decision should reduce the potential size and intensity of wildfires by creating conditions that improve fire suppression effectiveness on the westside of Lake Davis Recreation Area. Constructing DFPZs will provide firefighters with safe locations to take a stand against wildland fire. By assuring firefighter safety and the ability to gain control of a wildfire, fewer acres of

forest landscape will be adversely affected by high-intensity wildland fire and the surrounding communities will benefit from a shorter duration fire with less impacts from smoke or to private property. This project will provide connectivity with the existing Humbug DFPZ while creating continuity with efforts by the Plumas Fire Safe Council's to work with the Lake Davis Highlands community. Implementation of this decision will truly help fire fighting personnel effectively protect this community by reducing the potential for spread of wildland fires into and out of the WUI.

All of the proposed fuel treatments will move the existing conditions toward the desired conditions. However, this alternative treats the most number of acres with a mechanical thinning treatment, moving away from grapple-piling, hand thinning and mastication treatments.

Although the canopy cover prescribed in the DFPZs is lower than some comment makers advocated for, I have considered the trade-off that this will have on the amount of wildlife habitat remaining following treatment. There is a marginal difference in wildlife habitat reduction between the action alternatives and the No-action Alternative (existing condition). The consequences of leaving stands in their existing condition, with high stand densities, is that crucial impacts to wildlife habitat may occur when a wildfire moves through the area. I am satisfied that the species of concern will not be adversely affected in the long run. In fact, in the long run, DFPZ treatments likely will prove to benefit wildlife habitat as described earlier with the Boulder Complex Fire.

Improve Forest Health

As the Deciding Official, I evaluated treatment approaches in the Proposed Action and the other alternatives in order to meet the desired condition for improving forest health. While more is not necessarily better, in this case, the more acres of mid-successional stands thinned the greater probability that these stands will be able to maintain adequate health and vigor. Healthier stands will decrease mortality from insects and disease. This will directly enable these stands to progress into larger size classes and provide the large tree component that is in low representation now.

As previously mentioned, Alternative 4 meets the desired canopy cover better than the other action alternatives, by using mechanical thinning to treat almost 1,000 acres more than Alternative 1 (Proposed Action), thus equating to less PM 2.5 (3-11 tons) in the air from grapple pile burning than the other action alternatives (11-65 tons). Alternative 4 leaves approximately 158 acres overstocked in the treatment units, as opposed to the other action alternatives which leave more acres overstocked (209 acres). The number of acres that depart from the regulated stand condition is slightly less than Alternative 3 and approx. 400 acres less than Alternative 1 (Proposed Action).

The increased reliance on mechanical thinning that this alternative provides allows for the harvest of trees of all sizes such that all stand types can be thinned to a desired density, while allowing for the removal of biomass materials from the site. This material can then be converted to products, reducing the number of acres of follow-up burning. This also addresses air quality

concerns for decreased burn days and smoke emissions. Forest health will be improved throughout the project by a “thin from below” silvicultural prescription that reduces tree density, increases fire resilience, and provides for the removal of insect infested and diseased trees, thus preventing their spread into adjacent trees. Reducing tree density will increase crown spacing, thereby lessening the risk of crown fire. It will also substantially reduce inter-tree competition and subsequent mortality, which also contributes to higher fuel loading.

Improve Bald Eagle Habitat

In 2004, the Beckwourth Ranger District wrote the Lake Davis Bald Eagle Habitat Management Area (BEHMA) Plan with concurrence from the United States Fish and Wildlife Service. The Lake Davis BEHMA is considered optimal bald eagle habitat; except for the fact that only 21% of the potential nesting area is covered by mature timber. The Plan addressed the need to improve bald eagle habitat surrounding Lake Davis through thinning CWHR size class 3, 4 and 5 stands in order to increase the average height and dbh of the trees. The analysis shows that thinning within these stands will accelerate growth and provide for future larger diameter trees. Alternative 4 will address conifer spacing and the presence of insect and disease in the stands; so that the BEHMA will benefit from decreasing the risk of habitat loss from stand-replacing wildfire and disease/insect infestation.

As with the other area thin and DFPZ treatments, the treatments in the BEHMA stipulate a ‘thin from below’ prescription to create optimal conifer growing conditions in the BEHMA, coupled with group selection. Alternative 4 moves the most CWHR size class 4 (12-24” dbh) toward size class 5 (> 24” dbh) of any of the action alternatives. Approximately 1,528 acres will be thinned, releasing approximately 1,116 acres of CWHR size class 4, which is expected to become size class 5 in 5-50 years. Alternative 4 also has the least loss of CWHR size class 4 habitat from group selection openings and aspen extended treatment zones.

Bald eagle needs are provided for in the prescription, by emphasizing retention of the largest-limbed pine trees suitable nesting and roosting habitat (trees > 24” dbh). The thinning prescription will leave the largest dominant and co-dominant trees, focusing on removing small diameter trees and increasing conifer spacing. Approximately 52 acres of group selection will occur in the BEHMA. Creating openings in habitat within the BEHMA is considered compatible with bald eagle habitat management, due to their preference for relatively open forest structure in California (Lehman et al. 1980). The Forest has complied with Section 7 of the Endangered Species Act through concurrence of this selected alternative with the U.S. Fish & Wildlife Service (Cons. # 1-1-06-I-1410, August 1, 2006).

Contribute to the Economic Stability of the Local Community

I must evaluate all alternatives to ensure that a balance is provided between economic stability and environmental concerns in order to implement the Forest Plan direction as amended.

Although the Proposed Action provides the most timber product volume, Alternative 4 provides a better economic and environmental balance.

Alternative 4 has a sawlog volume of 4 million board feet less than the Proposed Action. As with Alternative 3, the loss of volume is attributed to the elimination of extended treatment zones that were associated with the aspen treatments. This alternative treats more biomass tonnage than the other two action alternatives. With the modification to helicopter logging, the total project value is about \$300,000 more to implement than the Proposed Action would have been. This decision will contribute to economic stability by providing approximately \$10.2 million in employee related income and approximately 240 full-time jobs. It is regrettable that this alternative doesn't make the same contribution to the local economy that the initial Proposed Action did, however this is due to the change in aspen treatment in the Lake Davis Recreation Area and is a fact that I'm willing to accept at this time.

Alternative 4 would implement more acreage in the form of a timber sale than Alternative 1 and Alternative 3 because it treats more volume with mechanical treatments. This ultimately results in less cost to the government, saving approximately \$300,000 when compared to Alternative 3. This will enable more work to be accomplished.

Improve Aspen Stands

Alternative 4 will address public concerns regarding creating large openings surrounding aspen stands while still meeting the purpose and need to improve aspen stands by reducing conifer encroachment thereby increasing their overall health and vigor. This alternative also addresses additional public concern regarding aspen treatments outside of RHCAs, by confining aspen treatments to stands associated with RHCAs. Finally it addresses public comments regarding ecological diversity in aspen stands, by leaving some conifer within and around the stands. It also provides for an alternative specific mitigation, allowing operators to work on < 35% slopes, as opposed to the < 15% slopes that will be required in the rest of the RHCAs outside aspen treatments.

Removing conifer in and around the aspen stands will contribute to the overall health and vigor of aspen stands in the Freeman Project area by allowing sunlight to reach the ground. Sunlight will stimulate the growth of aspen seedlings. We expect to see more than 500 stems per acre in otherwise decadent stands of aspen. The Alternative 4 silvicultural prescription will leave the oldest conifer in the stands. This will be more visually appealing to recreation users until the aspen stands regain a multi-tiered canopy covering all age classes. The ratio of conifer to aspen is anticipated to be 1 conifer to nine overstory aspen and no mid-story conifer to ten aspen.

One of the priorities in the Freeman Project Area was to improve aspen stands. Aspen stands provide some of the most biologically diverse areas on our Forest. Aspen in the project area are at high risk of loss due to conifer encroachment. The aspen clones in the project area are on the western range of this species, contributing to the overall genetic diversity of the species. Without this treatment, the Freeman Project Area runs a serious risk of further aspen mortality.

Provide Access Needed to Meet Other Project Objectives and Reduce Transportation System Impacts

I want to ensure that the alternative that is selected will provide for reducing transportation system impacts and meet other project objectives. The road related work that is proposed for this project area was planned according to May 31, 2005—OHV Route Designation Process which applied consistent standards for determining which routes and areas will be closed as part of the Interim Forest Order and subsequent Final Forest Order.

As with all of the action alternatives, this alternative will implement road work that will result in improved forest access as well as road decommissioning. None of the action alternatives go over the threshold of concern, due in part to the ability to decommission dead end spur roads that are no longer needed for use. Road decommissioning, totaling approximately 6.0-miles, will focus on areas with resource damage or unnecessary dead end spurs. The only other roads being decommissioned are non-system roads that were specifically identified in order to reduce the Equivalent Roded Area (ERA) values. This roadwork will restore hydrologic function by approximately 24 acres (or 8-miles of system and non-system roads). Each of the action alternatives will reduce the number of stream crossings by eight crossings. Road decommissioning will remove culverts, subsoil the roadbed, recontour the hillslope and/or seeding of the affected area. These measures will help initiate revegetation and recovery of the decommissioned road area. The 15-miles of road reconstruction will not only support project implementation, but it will have the added benefit of enhancing access for fire suppression and recreation use of the project area in and around the Lake Davis Recreation Area.

Watershed and Soil Concerns

Alternative 4 reduces the potential for watersheds approaching the threshold of concern as compared to the Proposed Action. This alternative results in ten watersheds remaining below the threshold of concern and just one approaching threshold. The percent of the project area disturbed by grapple pile burns would be less in this alternative than the other action alternatives. The percent of the project area outside of Standard for fine organic matter (0-3" size) would be equal to Alternative 1 and approximately 2% more than Alternative 3. The number of acres outside of Standard for ground cover would be the same as the Proposed Action and approximately 100 acres more than Alternative 3. The amount of soil compaction above the recommended threshold would be about the same for each of the action alternatives.

Alternative 4 will enhance the ability of fire management personnel to suppress, control and contain fires that impact or start in fuel treatment areas under 90th percentile weather conditions. This will produce long-term benefits for soil productivity and watershed values that would otherwise remain vulnerable to the damaging effects of stand-replacing fires. Alternative 4 applies mechanical fuels treatments to 747 acres of RHCA. In reducing the fuels in the RHCA, we will provide for meeting or enhancing long term Riparian Management objectives. I believe the fuels prescription for this project reasonably considers the need to protect the RHCA by

providing for mitigation measures that will exclude equipment from entry into the inner RHCA, restrict the use of group selection in the RHCA, and apply canopy cover restrictions depending on whether or not the stream is perennial fish bearing. It will also apply the use of standard operating procedures (SOP), such as retaining trees that provide bank stability.

I observed the fire effects to riparian areas (Lost and Antelope Creeks) from the Mt. Hough Ranger District's Boulder Complex Fire, which showed that failing to address heavy fuel loads adversely affects riparian habitat when impacted by fire. In this fire, fuel treatments were not applied to Riparian Habitat Conservation Areas (RHCAs) when the surrounding DFPZs were completed under the Antelope Border project. The unintended result was both of these drainages experienced some of the highest vegetative and soil burn intensity in the fire area, and as a consequence, Riparian Management Objectives under the SAT guidelines were not met.

The impacts to soil cover would be less than the other action alternatives, due to less mechanical treatment within 100' of the stream channel. The proximity of mechanical treatment to the stream channel increases the risk of sediment transport into the channel.

Any soil impacts that are considered detrimental compaction will be mitigated through additional subsoiling of previously used skid trails, requiring additional monitoring, and the placement of additional ground cover where standards are not met. The Freeman Project will follow the PNF LRMP and USDA Forest Service Region 5 Soil standards that will lower risk of the soil productivity being impaired.

Wildlife Concerns

I have considered the risk and uncertainty associated with project impacts, including direct, indirect and cumulative impacts to spotted owls. These impacts have been acknowledged and addressed in the FEIS. This decision is consistent with the SNFPA SEIS and ROD (2004) Standards and Guidelines that amend the Plumas National Land and Resource Management Plan (LRMP) (1988).

On May 24, 2006, the United State Fish Wildlife Service (USFWS) issued a 12-month status review based on a comprehensive study of California spotted owl populations (Federal Register Vol. 71, No. 100). They assessed the best scientific and commercial information available; reviewed comments and information received during two public-comment periods; and consulted with recognized spotted-owl experts and Federal and state resource agencies, including an interagency Science Team. They concluded that the California spotted owl should not be listed as a threatened or endangered species under the ESA. This conclusion was based in part on the best available data that indicated "most California spotted owl populations in the Sierra Nevada are stable or increasing and adult survival rates show an increasing trend" and that "Forest fuels reduction activities, notably those provided for in the Sierra Nevada Forest Plan Amendment of 2004, may have a short-term impact on owl populations, but fuels reduction will have a long-term benefit to California spotted owls by reducing the risk of catastrophic wildfires that pose a major threat to California spotted owl habitat".

I realize that this decision will involve some risk of decreasing spotted owl habitat and subsequent uncertainty with regard to owl activity; however, Alternative 4 will retain approximately 84 percent of the existing foraging habitat and 94 percent of the existing nesting habitat for the California spotted owl in the 46,039 acre wildlife analysis area. Alternative 4 creates just slightly more acres of edge habitat from group selection and aspen treatments as Alternative 3 and 60% less than Alternative 1 (Proposed Action). No treatment will occur in spotted owl Protected Activity Centers (PACs) and spotted owl habitat areas (SOHAs) and all PAC and SOHA land allocations will be maintained. Based on the information presented in the analysis and public comments, the short-term risk to owls is far outweighed by the knowledge that in the long run a significant amount of fuels reduction will have occurred, providing firefighters with the ability to better protect the existing PACs and SOHAs when a wildland fire starts in the area.

Alternative 4 retains 86% of the northern goshawk nesting habitat in the project area. Northern goshawk PACs will only be entered in some aspen treatments (approximately 25 acres). There will be an 18" dbh upper diameter limit required within these units, in order to limit the amount of canopy cover reduction within the PAC. This will maintain the added biological diversity contributed by aspen to the PAC. The risk and uncertainty associated with habitat reductions would be offset by fuel reduction treatments if a wildland fire were to occur in the area. The PACs, SOHAs, HRCAs, and old-forest habitat will be less vulnerable to loss to wildfire.

Legal and Regulatory Compliance

My decision complies with the laws, policies, and executive orders listed below and described in Chapter 3 of the 2006 FEIS.

Means to Avoid Environmental Harm

Extensive measures to avoid or minimize environmental harm are being continued in this decision. These measures have been discussed previously, and include forest-wide standards and guidelines, which at a minimum meet all requirements of applicable laws, regulations, State standards, and additional standards and guidelines for each land allocation. Mitigation measures are an integral part of the standards and guidelines. Singularly and collectively, they avoid, rectify, reduce, or eliminate potential adverse environmental impacts of forest management activities.

Findings Required by Other Laws and Regulations

This decision to implement the Freeman Vegetation Management Project is consistent with the intent of the Forest Plan's goals and objectives. The project was designed in conformance with Forest Plan standards and incorporates appropriate Forest Plan guidelines for the Plumas National

Forest LRMP (1988), as amended by the HFQLG FEIS and ROD (1999), and the 2001 SNFPA and ROD as amended by the SNFPA FSEIS and ROD (2004).

Principle Environmental Laws

I have determined that the Freeman Project meets the requirements of the following laws as described in the 2006 FEIS:

- Endangered Species Act
- Civil Rights Act
- Clean Water Act—Best Management Practices and State Water Quality Standards will be enforced
- Clean Air Act—to prevent exceeding the 24-hour PM 2.5 standard, fire managers take the precautions discussed in the Fuels, Fire and Air Quality Management Section of the Freeman FEIS.
- Healthy Forest Restoration Act
- National Historic Preservation Act
- National Forest Management Act
- National Environmental Policy Act

Executive Orders

Executive orders provide additional direction to federal agencies. I have determined that the Freeman Vegetation Management project meets the requirements of the following executive orders as described in the FEIS:

- Consultation and Coordination with Indian Tribal Governments, Executive Order 13175 of November 6, 2000.
- Indian Sacred Sites, Executive Order 13007 of May 24, 1996.
- Invasive Species, Executive Order 13112 of February 3, 1999.
- Recreational Fisheries, Executive Order 12962 of June 6, 1995.
- Migratory Birds, Executive Order 13186 of January 10, 2001.
- Floodplain Management, Executive Order 11988 of May 24, 1977, and Protection of Wetlands, Executive Order 11990 of May 24, 1977.
- Environmental Justice, Executive Order 12898 of February 11, 1994.
- Use of Off-Road Vehicles, Executive Order 11644 and 11989, amended May 25, 1977.

Special Area Designations

I have determined that the Freeman Vegetation Management project complies with laws, regulations, and policies that pertain to the following special areas:

- **Research Natural Areas**—there are no Research Natural Areas within the Freeman Project area and, therefore, no areas will be affected.
- **Inventoried Roadless Areas**—there are no Inventoried Roadless Areas within the Freeman Project area and, therefore, no areas will be affected.

- **Wilderness Areas**—there are no Wilderness Areas within the Freeman Project area and, therefore, no areas will be affected.
- **Wild and Scenic Rivers**—there are no designated wild and scenic rivers in the Freeman Project area and, therefore, no areas will be affected.
- **Special Interest Areas**—there are no Special Interest Areas within the Freeman Project area and, therefore, no areas will be affected.

Public Involvement

Notice of the pending action first appeared in the Plumas National Forest quarterly Schedule of Proposed Actions (SOPA) issued April 2004 and has appeared on the SOPA ever since. The Ranger District started the NEPA public scoping process by publishing a Notice of Intent (NOI) in the Federal Register on August 25, 2005. On August 24, 2005, a legal notice of the NOI was published in the *Feather River Bulletin*, the Forest's Newspaper of Record, as well as the *Portola Reporter*. The Proposed Action, Purpose and Need was mailed to approximately 93 public agencies, non-profit organizations, Native American tribes and entities, adjacent landowners and individuals who expressed interest in the project. The advertised scoping period ended on September 26, 2005, although the District continued to receive and consider comments after this date.

During scoping, the Beckwourth Ranger District staff met with the Plumas Fire Safe Council (October 13, 2005) and the Quincy Library Group (August 25, 2005) to discuss the Freeman Project, providing copies of the Proposed Action, Purpose and Need to members in attendance.

The purpose of the scoping process was to inform the public about the Proposed Action, Purpose and Need in order to seek different points of view on the pending action and issues to be addressed during the project analysis period. The Freeman Project received written or verbal scoping comments from one agency, five organizations, one Tribe and two individuals (Table 1.3 of the FEIS).

The Forest Service Interdisciplinary Team (IDT) reviewed public comments and data collected during the 2004-2005 field seasons to identify issues related to the Proposed Action. They separated the issues into three groups: significant issues, non-significant issues and concerns. The process the IDT went through to develop alternatives and summary of the comments received are provided in Chapter 1 of the FEIS.

Based on internal and external feedback, an additional ten alternatives were considered. Of the ten, eight were considered but not analyzed in detail. Two were developed, considered and analyzed, along with the Proposed Action and No-action alternatives.

The significant issues were:

- Aspen treatment outside RHCA's not authorized by the Standards and Guidelines (Frank Stewart).
- Aspen treatment units greater than 2 acres may be considered too big (Linda Blum).

- Aspen treatment involving the removal of larger conifers is objectionable to some, due to the loss of larger trees and their potential ecological importance (John Preschutti).
- Design cost effective and efficient fuels treatments (Sierra Pacific Industries).

The preferred alternative addresses all of these issues by restricting treatment of aspen units to areas associated with RHCAs, eliminating the extended treatment zone surrounding the aspen stand, retaining some conifer within the aspen stand units and changing treatments from grapple pile, masticate, hand thin to mechanical thin, which allows for more effective treatment with less post-treatment fuels pile and burn.

The Notice of Availability was published in the Federal Register for the Draft EIS on May 26, 2006. A summary of public comments and response to comments is provided in the FEIS (Appendix G). Six letters were received from three agencies and three organizations.

Alternatives Considered in Detail but Not Selected

In addition to the selected alternative, I considered three other alternatives in detail, which are discussed below. A more detailed comparison of these alternatives can be found in Chapter 2 of the FEIS.

Alternative 1 (Proposed Action)

Alternative 1 would implement 3,066 acres of fuel treatments by reducing the amount of surface, ladder and canopy fuels. Fuel treatments would retain 40 percent canopy cover (whenever possible) and all trees greater than 30 inches diameter at breast height (dbh) with the only exception being for operability. Group selection harvest would occur on 175 acres and area thinning would occur on 2,727 acres within the project area. Alternative 1 would implement improvements to the transportation system and provide the necessary access for the treatments. These improvements include approximately: 7.9-miles of decommissioning; 0.3-miles road relocation; 2-miles of temporary road construction and subsequent decommissioning; 15-miles of road re-construction/maintenance. Alternative 1 would have provided a timber supply of 13.3 million board feet, generated an estimated \$798,000 of timber sale value, directly and indirectly created 310 full-time jobs.

Alternative 1 does not meet the desired canopy cover in the DFPZ and Area Thinning for 483 treatment unit acres; while Alternative 4 does not meet the desired canopy cover on just 168 acres. It would leave 209 acres in overstocked condition, as opposed to Alternative 4 which would leave slightly less acreage overstocked (158 acres). The removal of all trees < 30" dbh within the extended treatment zone surrounding aspen stands would have created more CWHR size class 0-2 (0-6" dbh) (611 acres) than Alternative 4 (approx. 210 acres).

Alternative 1 improves less bald eagle habitat CWHR size class 4 than Alternative 4. Fewer acres of CWHR size class 4 are lost to group selection and aspen openings as well.

This alternative would provide more sawlog volume, which in turn would have provided more full-time jobs and employee related income than Alternative 4. Alternative 4 treats more

biomass volume than Alternative 1. The total project value would have been negative \$1 million for Alternative 1. With the dropping of the helicopter thinning the total project value for Alternative 4 is approximately \$1.2 million.

I did not choose this alternative due to public input regarding the size of the openings surrounding aspen stands in the Recreation Area. Because the project falls within the Lake Davis Recreation Area, an area known for its splendid displays of fall aspen foliage, I decided to pursue a less aggressive treatment that would meet the purpose and need for treating the aspen, while eliminating the controversial aspects of large openings surrounding the aspen stands. Watershed issues were also becoming apparent as we analyzed this action. It was determined that 40% of the project area was at the threshold of concern due primarily to the aspen unit treatments. Based on the analysis in the FEIS I did not choose this alternative. All of the action alternatives met the purpose and need for reducing hazardous fuels by reducing the number of tons of surface fuels per acre; reducing the rate of spread (chains per hour) and flame length of a potential wildfire; and increasing the canopy base height. In all cases the fire type changed from an active or passive crown fire to a surface fire. However, Alternative 1 would leave 11% more piles to burn than Alternative 4 and the number of post-treatment grapple pile acres would be 11-65 acres as opposed to 3-11 acres. This equates to PM 2.5 of 11-54 tons in Alternative 1 vs. 3-11 tons in Alternative 4.

Alternative 2 (No-action)

Under the Alternative 2 (No-action), current management plans would continue to guide management of the Freeman Project area. No fuel treatments, DFPZ construction, forest health improvement, aspen stand improvement, biomass removal, or transportation system changes would be implemented to accomplish the purpose and need.

I did not choose this alternative because it would not enhance the ability of fire management to suppress, control and contain fires impacting or starting along Grizzly Ridge or in the Lake Davis Recreation Area under 90th-percentile weather conditions. This alternative would rely on disturbance such as density dependent mortality and fire occurrence, or lack thereof, to shape forest structure. This alternative would leave more than 5-7 tons/acre of surface fuels and the rate of fire spread (990-1,584 ft/hr) under 90th percentile weather would preclude a direct attack with hand crews, exponentially increasing fire suppression costs. This alternative would similarly do nothing to raise canopy base heights, which are less than 5 feet tall, causing fire types to be active or passive crown fires as opposed to surface fires. This alternative would have no PM 2.5 emissions from pile and underburning; until there is a wildfire which would potentially consume far more acreage than in the action alternatives.

This alternative would not improve forest health. It would leave 4,115 acres not meeting the desired canopy cover. It would leave 2,002 acres in overstocked condition. This alternative would not create more openings. Only 36 acres would be in CWHR size class 1 as opposed to 210 in Alternative 4.

This alternative would contribute nothing to the economic stability of the communities because it would not generate any full-time jobs or employee-related income due to a lack of sawlog or biomass volume.

The opportunity to improve watershed function is foregone with Alternative 2. In the event of a future severe wildfire, affected areas may be highly susceptible to erosion and generate large pulses of sediment to stream channels. A severe wildfire would consume the organic material, leaving bare soil, thus making the soil more susceptible to erosion. Large runoff events often follow severe wildfires, resulting in increased peak flows. Sediment may be stored in channels for many years until peak flows mobilize the materials and move them downstream.

This alternative would comply with the OHV route designation process.

Based on the analysis in the FEIS and for the aforementioned reasons, I did not choose Alternative 2.

Alternative 3

Alternative 3 would implement 3,009 acres of fuel treatments by reducing the amount of surface, ladder and canopy fuels. Fuel treatments would retain 40 percent canopy cover (whenever possible) and all trees greater than 30 inches diameter at breast height (dbh) with the only exception being for operability. Group selection harvest would occur on 175 acres and area thinning would occur on 2,570 acres within the project area. Alternative 3 would implement improvements to the transportation system and provide the necessary access for the treatments. These improvements include approximately: 7.9-miles of decommissioning; 0.3-miles road relocation; 2-miles of temporary road construction and subsequent decommissioning; 15-miles of road re-construction/maintenance. Alternative 3 would have provided a timber supply of 8.9 million board feet, generate an estimated \$78,200 of timber sale value, directly and indirectly created 240 full-time jobs.

I did not choose this alternative because it did not treat the biomass in the stands as effectively as Alternative 4. This alternative had approximately 1,000 acres more grapple pile, mastication and hand-piles to burn than Alternative 4. The post-burning of these treatment acres would increase the level of smoke (PM 2.5, 11-65 tons) in the atmosphere, which correspondingly would have impacted the Lake Davis Recreation Area and surrounding communities of Portola. There is already a back log of burn acres and piles that need to be burned on the Plumas National Forest and burn windows are short.

Similarly, I did not choose this alternative because it did not meet the desired DFPZ (40%) and area thinning (50%) canopy cover on over 800 treatment acres; this was due to the change to mechanical treatment of over 1,000 acres. The number of acres that were left overstocked was the same as Alternative 1 (209 acres), just slightly more than Alternative 4 which leaves only 209 acres. The number of acres falling outside the regulated stand condition for CWHR size class 0-2 (0-6" dbh) were essentially the same as Alternative 4.

Bald eagle habitat improvement is similarly not as effective in this alternative as Alternative 4. This alternative releases approximately 140 acres less CWHR size class 4 than Alternative 4 and has slightly more CWHR 4 lost to group selection and aspen openings.

This alternative was not as economically feasible as Alternative 4. Alternative 4 effectively changed treatments, to create a more economic alternative that treats the biomass and removes it in the form of a product, providing for greater economic stability and the ability to reuse the biomass product in the form of electricity generation. There is more biomass volume and sawlog volume in Alternative 4 than in this alternative. The total project value is similarly higher and it provides fewer full-time jobs than Alternative 4.

Environmentally Preferable Alternative

I find Alternative 3 to be the environmentally preferable alternative. The effects to wildlife, watershed and soils are slightly decreased over the preferred alternative. For example, the number of soil compaction acres is slightly lower (210 acres) than Alternative 4 (226 acres). The percent of the project area outside of Standard for fine organic matter is slightly lower (15%) than Alternative 4 (17%).

As far as wildlife species are concerned the numbers are slightly lower than the preferred alternative as well. This action alternative maintains a slightly higher percentage of foraging and nesting habitat for the California spotted owl, 89% and 96% respectively than Alternative 4, which leaves 84% and 94% respectively. It also creates slightly less acreage of California spotted owl edge habitat (136 acres) than Alternative 4 (147 acres). It maintains a slightly higher percentage of northern goshawk and great gray owl nesting habitat, 89% and 80% respectively as opposed to 86% and 78% respectively in Alternative 4. It leaves slightly more fisher and marten denning habitat than Alternative 4, approximately 87% of the potential habitat as opposed to 83%.

The two most distinguishing differences between this alternative and Alternative 4 are the percent of the area that is considered to have a high threshold of concern and the acres that are out of Standard for ground cover. In Alternative 3 none of the watersheds are considered to have a high threshold of concern, as opposed to the preferred alternative which has one watershed approaching threshold, comprising 26% of the project area. The number of acres outside of Standard for ground cover in Alternative 3 are (766 acres), as opposed to 870 acres in Alternative 4. This is due primarily to the increased use of mechanical treatment in Alternative 4.

Implementation Date

If no appeals are filed within the 45-day appeal period, implementation of the decision may occur on, but not before, 5 business days from the close of the appeal filing period. When appeals are filed, implementation may occur on, but not before, the 15th business day following the date of the last appeal disposition.

Administrative Review or Appeal Opportunities

This decision is subject to appeal pursuant to the regulation at 36 CFR 215. Appeals, including attachments, must be filed within 45-days of the publication date of the legal notice of decision in the Feather River Bulletin, the newspaper of record. Attachments received after the 45-day period will not be considered. The publication date in the Feather River Bulletin is the exclusive means for calculating the time to file an appeal. Those wishing to appeal this decision should not rely upon dates or timeframe information provided by any other source. Individuals or organizations who submitted comments during the comment period specified at 36 CFR 215.6 may appeal this decision. The notice of appeal must meet the appeal content requirements at 36 CFR 215.14.

The appeal must be submitted (regular mail, fax, email, hand-delivery, or express delivery) to the Appeal Deciding Officer: Bernard Weingardt, Regional Forester, USDA Forest Service, Regional Office R5, 1323 Club Drive, Vallejo, CA 94592. Appeals may be submitted by FAX (707) 562-9229 or by hand delivery to the Regional Office at the address shown above. The office business hours for those submitting hand-delivered appeals are: 8:00 am to 4:00 pm Monday through Friday, excluding holidays. Electronic appeals must be submitted in a format such as an email message, plain text (.txt), rich text format (.rtf), or Word (.doc) to appeals-pacificsouthwest-regional-office@fs.fed.us [Subject: Freeman Project FEIS]. In cases where no identifiable name is attached to an electronic message, a verification of identity will be required. A scanned signature is one way to provide verification.

Contact Person

The FEIS and supporting documents are available for public review at the Plumas National Forest, Beckwourth Ranger District, 23 Mohawk Dr., PO Box 7, Blairsden, CA 96103, 530-836-2575. For further information on this decision, contact Sabrina Stadler (ssadler@fs.fed.us), Freeman Project Interdisciplinary Team Leader at 530-836-7141.

James M. Peña
Forest Supervisor, Plumas National Forest
Quincy, CA

Date