

## **Short-term Uses and Long-term Productivity** \_\_\_\_\_

NEPA requires consideration of “the relationship between short-term uses of man’s environment and the maintenance and enhancement of long-term productivity” (40 CFR 1502.16). As declared by the Congress, this includes using all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans (NEPA Section 101).

Maintenance and enhancement of long-term productivity is accomplished through restoration treatments that reduce basal area and number of stems (stand density) in over crowded stands. Stands that exist presently are no longer sustainable or resilient to changing environmental conditions that can and are occurring now and into the future. Drought induced stress, insect or disease attacks and wildfire all can have detrimental effects on the forest of today. Short-term activities described in the action alternatives are intended to lead to the enhancement of long-term productivity by beginning to restore forest conditions that resilient to disturbances.

Actions described in Chapter 1 lead to enhancement of long-term productivity, especially:

- The need to increase the proportion of large trees across a landscape,
- The need to increase the proportion of fire resistant species such as pines,
- The need to reduce wildfire intensity and spread across the landscape, and
- The need to reduce stand density.

## **Unavoidable Adverse Effects** \_\_\_\_\_

No unavoidable adverse effects would occur in the project area.

## **Irreversible and Irretrievable Commitments of Resources** \_\_\_\_\_

Irreversible commitments of resources are those that cannot be regained, such as the extinction of a species or the removal of mined ore. Irretrievable commitments are those that are lost for a period of time such as the temporary loss of timber productivity in forested areas that are kept clear for use as a power line rights-of-way or road.

Approximately 0.7 miles of new and temporary road construction is proposed for the Sugar Pine Project. Road construction results in removal of surface soils and subsoil and complete loss of soil productivity within the road prism.

The 0.7 miles of road is approximately 1.2 acres of ground with total loss of soil productivity. The direct effect of this new road construction is irreversible and irretrievable. Erosion on newly constructed roads is usually higher immediately after the road is constructed. There is potential that accelerated erosion could occur off the road prism and reduce soil productivity off site and after the road is constructed. Applicable soil and water conservation Best Management Practices (BMP) will be implemented, including erosion control measures, such as water bars, straw mulching of fills and fertilization of soils to re-vegetate the bare soils. Road reconstruction and road maintenance operate within the road prism and have little effect to the soil resource. However, there can be a positive effect to the soil resource out site of the road prism from road

reconstruction by restoring proper drainage features of the road. Restoration of drainage features will result in less surface erosion and soil loss that leads to loss in soil productivity.

## Legal and Regulatory Compliance

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NEPA at 40 CFR 1502.25(a) directs “to the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with ...other environmental review laws and executive orders.” The proposed action and alternatives must comply with the following regulation.

### Principle Environmental Laws

The following laws contain requirements for protection of the environment that apply to the proposed action and alternatives.

#### Endangered Species Act

The Forest Service is directed to comply with this Act and does so through Biological Assessments and Evaluations that are used to analyze the effects of the proposed alternatives. These assessments and evaluations make determinations on Federally-listed endangered, threatened, candidate and proposed species and their habitat. The analysis was conducted in part to determine whether formal consultation or conference is required with the United States Department of the Interior, Fish and Wildlife Service (USFWS), pursuant to this act.

The Sugar Pine Adaptive Management Project, through the inclusion of design criteria established for all action alternatives for species covered under this Act as well as the completion of Biological Assessments and Evaluations for Botanical, Aquatic and Terrestrial species, is in compliance with this act.

#### Clean Water Act

The Sugar Pine Adaptive Management Project would comply with this Act by adoption of Best Management Practices and other design criteria established for all action alternatives as detailed in Chapter 2.

#### Clean Air Act

The Sugar Pine Adaptive Management Project would comply with this Act by implementation of Best Available Control Measures (BACMs) for prescribed burning as required under section 190 of this Act, as amended in 1990.

#### National Historic Preservation Act (NHPA)

The USDA Forest Service is directed to identify, evaluate, treat, protect, and manage historic properties by several laws. However, the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.) (NHPA) provides comprehensive direction to Federal agencies about their historic preservation responsibilities.

Section 106 of the NHPA and the ACHP implementing regulations, *Protection of Historic Properties* (36 CFR Part 800), require that Federal agencies take into account the effect of their undertakings on historic properties, and that agencies provide the ACHP with an opportunity to comment on those undertakings. Programmatic agreements (36 CFR 800.14(b)) provide alternative procedures for complying with 36 CFR 800. Pacific Southwest Region 5, USDA Forest Service has such an agreement: *Programmatic Agreement among the U.S.D.A. Forest Service, Pacific Southwest Region, California State historic Preservation Officer, and Advisory*

*Council on Historic Preservation Regarding The Identification, Evaluation and Treatment of Historic Properties Managed by the National Forest of the Sierra Nevada, California* (Sierran PA). This agreement provides specific standards for conducting cultural resources inventory, evaluation, and management, including Forest Heritage Program requirements, identification standards, standard procedures for protecting cultural resources, reporting and public participation.

Cultural resource design criteria are established for all action alternatives and are based on stipulations within the Sierran PA. All alternatives would be in compliance with historic preservation law, policy and regulation, as this project meets the stipulations of the Sierran PA.

## **National Forest Management Act**

The National Forest Management Act (16 U.S.C. 1604) and the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528–531) gives direction to National Forests to develop National Forest Land and Resource Management Plans that (A) insure consideration of the economic and environmental aspects of various systems of renewable resource management, including the related systems of silviculture and protection of forest resources, to provide for outdoor recreation (including wilderness), range, timber, watershed, wildlife, and fish; (B) 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-use objectives, and for steps to be taken to preserve the diversity of tree species. As set forth by these Acts, the Sierra National Forest Land and Resource Management Plan, as amended by the Sierra Nevada Forest Plan Amendment (SNFPA) in 2004, set specific standards and guidelines which are to be followed during project level planning and implementation.

By the inclusion of design criteria as part of all action alternatives to minimize or eliminate significant environmental effects from proposed management actions as well as the inclusion of standards and guidelines from the Sierra National Forest LRMP and SNFPA ROD 2004 used to design this project, this project would comply with this act.

## **Soil Productivity**

Soil resource management is achieved by maintaining soil productivity using Regional Soil Quality Standard and Guidelines and management direction provided in the LRMP (UDA-FS 1991). The Geology/Soils section, starting on page 39 in Chapter 3, analyzes the existing soil productivity and effects of alternatives on soil productivity.

## **Management Indicator Species (MIS)**

The bioregional scale monitoring strategy for the Sierra NF MIS is found in the Sierra Nevada Forests Management Indicator Species Amendment (SNF MIS Amendment) Record of Decision (ROD) of 2007. Bioregional scale habitat monitoring is identified for all twelve of the terrestrial MIS. In addition, bioregional scale population monitoring, in the form of distribution population monitoring, is identified for all of the terrestrial MIS except for the greater sage-grouse. For aquatic macroinvertebrates, the bioregional scale monitoring identified is Index of Biological Integrity and Habitat. The current bioregional status and trend of populations and/or habitat for each of the MIS is discussed in the Sierra Nevada Forests Bioregional Management Indicator Species (SNF Bioregional MIS) Report (USDA Forest Service 2008).

## **Other Standards and Guidelines, especially those dealing with Water Quality**

**Best Management Practices** will be applied to all action alternatives and are listed in Appendix B of this document. Design criteria listed in Chapter 2 incorporate additional protection measures to minimize and/or eliminate impacts to water quality.

## **Executive Orders**

The following executive orders provide direction to Federal agencies that apply to the proposed action and alternatives:

**Indian Sacred Sites, Executive Order 13007 of May 24, 1996**, applies to the proposed action alternatives because of historic and prehistoric uses known in the area. This is specifically addressed in Chapter 3 under Heritage Resources and Tribal Relations. All project alternatives comply with this order.

**Protection and Enhancement of the Cultural Environment, Executive Order 11593 of May 13, 1971**, directs Federal agencies to inventory cultural resources under their jurisdiction, to nominate to the National Register of Historic Places all Federally owned properties that meet the criteria, to use due caution until the inventory and nomination processes are completed, and to assure that Federal plans and programs contribute to preservation and enhancement of non-Federally owned properties.

Cultural resource design criteria are established for all action alternatives and are based on stipulations within the Sierran PA. All alternatives would be in compliance with historic preservation law, policy and regulation, as this project meets the stipulations of the Sierran PA.

**Invasive Species, Executive Order 13112 of February 3, 1999**, applies to the proposed action alternatives. A risk of introducing invasive species does exist. Measures need to be in place to prevent the spread of these species. The proposed action alternatives comply by providing measures to prevent the introduction and spread of invasive species.

**Recreational Fisheries, Executive Order 12962 of June 6, 1995**, applies to the proposed action alternatives. Action alternatives comply with this order by implementing Best Management Practices and other design criteria and correcting existing resource problems. These design criteria are detailed in Chapter 2 and the list of specific Best Management Practices associated with this project are included in Appendix B of this document.

**Migratory Birds, Executive Order 13186 of January 10, 2001**. Under the National Forest Management Act (NFMA), the Forest Service is directed to “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-use objectives (P.L. 94-588, Sec 6 (g) (3) (B)).” The January 2000 USDA Forest Service (FS) Landbird Conservation Strategic Plan, followed by Executive Order 13186 in 2001, in addition to the Partners in Flight (PIF) specific habitat Conservation Plans for birds and the January 2004 PIF North American Landbird Conservation Plan all reference goals and objectives for integrating bird conservation into forest management and planning.

In late 2008, a Memorandum of Understanding (MOU) between the USDA Forest Service and the U.S. Fish and Wildlife Service to Promote the Conservation of Migratory Birds was signed. The intent of the MOU is to strengthen migratory bird conservation through enhanced collaboration and cooperation between the Forest Service and the Fish and Wildlife Service as well as other Federal, State, tribal and local governments. Within the National Forests, conservation of migratory birds focuses on providing a diversity of habitat conditions at

multiple spatial scales and ensuring that bird conservation is addressed when planning for land management activities.

The Sierra National Forest is proposing to manage lands on the Bass Lake Ranger District that are located in the Fresno River and South Fork Merced fifth field watersheds. Proposed management is intended to implement direction contained within the Sierra National Forest Land and Resource Management Plan (LRMP, USFS 1991) as amended by the 2004 SNFPA ROD. Opportunities to promote conservation of migratory birds and their habitats in the project area were considered during development and design of the Sugar Pine Adaptive Management project (MOU Section C: items 1 and 11 and Section D: items 1 and 3).

Within this project area special considerations have been given to maintaining higher levels of biodiversity through actions such as delineating Old Forest Linkages (OFLs) surrounding perennial streams (see EIS and BE/BA for a description of OFLs). Higher levels of biodiversity have also been planned for by marking retention groups of large diameter trees. Two-hundred and eighty (280) such tree groups were identified in the main project area, and an additional 74 were identified in the hydrology study area. These tree groups are composed of a cluster of 3 or more trees, 30-inch dbh or greater, with touching crowns, and will benefit those species which utilize dense groupings of large trees. Another project design measure which will maintain biodiversity is the identification of retention areas around large oaks within treatment units. Two to three large oaks per acre were identified and marked with paint. These oaks will retain a zone of no activity measuring 35 feet, or dripline circumference around the oak (whichever is greater). The delineation of OFLs, retention of large tree groups, and oak no treatment zones will ensure a heterogeneous post treatment landscape resulting in the continued accessibility of both hiding cover and prey availability within these areas of biodiversity.

Likely impacts to habitats and select migratory bird populations resulting from the Sugar Pine Adaptive Management project have been assessed in detail within the project MIS report and impacts to select TES birds and their habitats have been analyzed in the project BA and/or BE.

The project will not adversely impact migratory landbird species or their associated habitats. Potential impacts to migratory species would be minimized through the adherence of LRMP Standards and Guidelines for snags/down woody debris, riparian reserve buffers, limited ground disturbance, and maintenance of canopy closure. The project is designed to improve habitat conditions through the acceleration of late-successional habitat characteristics, while still maintaining current functional habitat. Specific project design criteria include: canopy closure will be maintained at 60 to 70% or greater where available; ground disturbance will be limited to those guidelines with the LRMP as amended; vegetation species diversity and composition will be maintained; no management will occur in designated riparian reserves; and retention of snags and downed logs would be retained at 80 to 100% of the average numbers found within mature and old growth stands within the Forest. Any snag felled for safety reasons will be left on site as downed woody debris. Additional cull logs will be left on site from the logging operation as well. All riparian reserves within the project have been identified and buffers established. In addition, no operations will occur during the wet weather season.

**Floodplain Management, Executive Order 11988 of May 24, 1977**, does not apply because of exclusions and buffers that are in place through design criteria for the action alternatives and are found in detail in Chapter 2.

**Protection of Wetlands, Executive Order 11990 of May 24, 1977**, does not apply because of exclusions and buffers that are in place through design criteria for the action alternatives and are found in detail in Chapter 2.

**Environmental Justice, Executive Order 12898 of February 11, 1994**, applies to the proposed action alternatives. Compliance has been attempted by making this document understandable and accessible.

**Use of Off-Road Vehicles, Executive Order 11644, February 8, 1972**, does not apply to this proposal. No off road use is being proposed nor existing use changed in this document.

## **Special Area Designations**

The selected alternative will need to comply with laws, regulations and policies that pertain to the following special areas.

### **Research Natural Areas**

No research natural areas are located in the project area. This project would comply with applicable laws, regulations and policies for research natural areas.

### **Inventoried Roadless Areas**

No Inventoried Roadless Areas are located in the project area. This project would comply with applicable laws, regulations and policies for Inventoried Roadless Areas.

### **Wilderness Areas**

No Congressionally-designated wilderness areas are located in the project area. This project would comply with applicable laws, regulations and policies for wilderness areas.

### **Wild and Scenic Rivers**

No Congressionally-designated wild and scenic rivers occur in the project planning area.

### **Municipal Watersheds (FSM 2540)**

No municipal watersheds occur in the project planning area.

## **Other Required Disclosures**

NEPA at 40 CFR 1502.25(a) directs “to the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with...other environmental review laws and executive orders.”

Species surveys, review of recent literature, and professional judgment have been incorporated into determinations of possible effects on species. Surveys provide information on species presence and habitat on a local scale. An element of uncertainty exists for effects on species with distributions beyond the project or Sierra NF boundaries. The Pacific fisher and Yosemite toad are Forest Service sensitive species that have also been designated by the U.S. Fish and Wildlife Service as candidate species for listing under the Endangered Species Act. A candidate species is determined by the U.S. Fish and Wildlife Service through a 12-month finding as warranted for listing. The listing process is precluded by other priorities. The Sierra NF requested and received technical advice from the U.S. Fish and Wildlife Service to address uncertainty related to these candidate species. Their advice is integrated extensively throughout the Terrestrial and Aquatic Species sections of Chapter 3 as well as in the design criteria for all action alternatives.

## **Forest Plan (LRMP) Amendment**

The significance of change to a forest plan is different than the significance of environmental impacts of the proposed action, as defined by Council on Environmental Quality regulations found at 40 CFR 1500 to 1508.

The following discussion is strictly about the significance of a change to a forest plan. The 1982 Planning Rule at 36 CFR 219.10 (f) states, “Based on an analysis of the objectives, guidelines, and other contents of the forest plan, the Forest Supervisor shall determine whether a proposed amendment would result in a significant change in the plan.” According to FSM 1920, the following changes are used to determine whether the proposed amendment is significant or not significant.

### **Multiple-use Goals and Objectives**

None of the alternatives change multiple-use goals and objectives for long-term land and resource management found in the original LRMP (Forest Plan), as amended by the SNFPA ROD 2004.

### **Standards and Guidelines**

Alternative 2 (Proposed Action) for this specific project would change SNFPA ROD 2004 Standard and Guideline #86 to allow stand density treatments as well as treatment of ladder and surface fuels for the one time of this decision. This would apply to only Alternative 2 (Proposed Action) in treatment areas proposed.

Changes that have an important effect on an entire forest plan or affect land and resources throughout a large portion of a planning area are considered for forest plan amendments. This amendment applies only to the estimated 5,416 acres of this decision.

According to FSH 1909.12, the following factors are used to determine whether the proposed amendment is significant or not significant.

### **Timing**

This amendment would only be effective if Alternative 2 (Proposed Action) were selected by the deciding official. If Alternative 2 was selected in the record of decision (ROD), the amendment would only be effective through the life of the decision, expected to be about 10 years.

### **Location and Size**

The amendment applies only to the 5,416 acres within the Sugar Pine Adaptive Management Project boundary and more specifically to the treatment areas where there are currently known Pacific Fisher den sites.

### **Goals, Objectives and Outputs**

This amendment would not alter long-term relationships between levels of goods and services projected by the forest plan, as amended by the SNFPA ROD 2004. This amendment would not involve a demand for new goods and services not discussed in or contemplated by the forest plan as amended. The amendment would not alter the output because it does not adjust the capable, available and suitable land base.

### **Management Prescriptions**

This amendment does not change any management prescriptions in the LRMP (Forest Plan), as amended.

## **Conclusion**

This amendment is not significant because it does not change any multiple-use goals or objectives, any management area boundaries, or management prescriptions. This amendment only affects a very small portion of the forest plan.