

# Chapter 2 - Response to Issues

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## Chapter 2 - Response to Issues

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### Introduction

Scoping is the process used to identify issues and to determine the significant issues to be addressed.

Issues are points of discussion, debate or dispute about the environmental effects (consequences).

The importance, or significance, of each issue is based on its context and intensity.

In this document, the general term "issues" includes public issues, management concerns and resource opportunities. As all the public issues are also of concern to Forest Service Managers, they have not been separated by the above categories. The context and intensity of public feeling regarding each issue is identified below. The issues span local, Regional and National levels.

The issues are as complex and interrelated as the ecosystems themselves. The organization of the issues intends to reflect the interactions between the ecosystem and social system. The first group of issues relates to the physical environment. The second group of issues relates to the biological environment. The third group includes issues that relate to resource management programs, conditions imposed by humans on the natural environment. The last group of issues relates to the social and economic environment.

### Physical Environment Issues

#### Geology

**Capable, Available and Suitable (CAS) Lands**  
Refer to *Slope Stability* and the *Timber Management* sections below.

**Slope Stability** - *Some lands on the Forest are unstable and prone to landsliding. The risk of road construction and timber harvest activities generating landslides is of high concern to many public groups. Landslides can adversely affect watershed and visual resource values as well as increase road maintenance costs. This issue is National in scope.*

Lands deemed unsuitable for sustained timber production will be managed as Riparian Reserves (RRs) to maintain slope stability and soil productivity and meet Aquatic Conservation Strategy objectives. These areas include active landslides, toe zones of rotational slumps and earthflow deposits, all inner gorges and severely dissected and weathered granitic terrain.

Other geologically sensitive lands will be managed according to the management area in which they occur unless ecosystem analysis at the landscape/watershed level or project analysis at the site level determines otherwise. Any lands determined to meet the criteria for unstable and potentially unstable through those analyses would be included in RRs. Best Management Practices (BMPS) and other guidelines to maintain stability will be applied to any of these areas not included in RRs. The aggressive fuels management program is expected to reduce the number of acres burned at high intensity in future wildfires which should help maintain soil productivity.

As a result of the emphasis placed on soil stability, the level of total sediment produced from landslides is estimated to decline 3% from the current levels over the next decade and to decline 12% in the fifth decade.

**Hazardous Materials** - *Asbestos and radon are naturally-occurring substances, identified Nationally as health risks. Similarly, abandoned mines and landfills are sites which may contain hazardous materials that can adversely affect health. The potential effects on health of these natural and man-made materials is an intense concern to some groups.*

Relocation, closure, paving or dust abatement measures are options for mitigating health risks when roads or trails are located in or surfaced with asbestos-bearing material. Locating quarries within ultrabasic rock will be avoided when possible; dust abatement will be used when avoidance is infeasible. Asbestos-bearing aggregate may be used as road surface materials if asbestos levels fall within the standards established by the State. Radon will be mitigated by proper ventilation of buildings. The Forest Plan emphasizes the completion of the hazardous materials inventory which identifies the location of hazards.

**Geologic Hazards** - *Seismic, volcanic, snow avalanche, land subsidence and collapse hazards exist on the Forest. This issue is of minor, local concern. Management activities cannot control the occurrence of these events, but may influence or be affected by them.*

Seismic and snow avalanche hazards will be avoided when constructing facilities. If avoidance of seismic hazards is not possible, structures will be designed to withstand the effects of earthquakes. Volcanic hazards have such a low probability of occurrence that they would not likely affect facility

location. The emphasis on completing the hazardous material inventory will allow hazards such as caves and tunnels to be identified sooner.

**Groundwater** - *The Forest is the recharge area for several groundwater basins. During dry years, there may be more demands for water than is available. This can impact agricultural uses and the maintenance of stream flow in anadromous streams, for example. This issue is National in scope and is of moderate, but increasing local concern.*

Management activities will not withdraw a measurable amount of groundwater.

## Soils

**Soil Resources** - *The maintenance of soil productivity, permeability and fertility is a National issue of high intensity. Another facet of this issue is the invasion of non-desirable brush species and the impact of wildfires on soil productivity.*

Soil cover guidelines, BMPS, coarse woody debris (CWD) requirements, the requirement to minimize intensive burns during site treatment and the fuels management program are expected to maintain soil productivity, permeability and fertility. The aggressive fuels management program is expected to reduce the amount of high intensity fires, thus protecting soil productivity.

**Suitability** - *Deciding which lands are suitable for regulated and sustained yields of timber is an issue of great Regional concern. Concern focuses on the following situations. sites prone to erosion, areas not reforested within 5 years after planting, areas occupied by noncommercial species and areas of low productivity.*

Unsuitable lands are discussed under Geology - Slope Stability. Marginal lands will be managed according to the management area in which they lie. At the project level, all sites must be able to be regenerated within 5 years if a regeneration prescription is used. Activities which would cause an irreversible loss of soil productivity would not be allowed. Many harsh sites and all sites incapable of producing commercial timber will be withdrawn from the timber land base.

**Coarse Woody Debris** - *Treatment of CWD to reduce fuel loading and prepare the site for planting can be detrimental to long-term nutrient cycling and soil productivity. This issue is a Regional issue of high intensity.*

To provide for soil productivity, ecological and wildlife needs, from 5 to 20 logs per acre will be left in areas receiving vegetative manipulation. The specific amounts will be determined at the project level.

## Water

**Cumulative Watershed Effects** - *The cumulative (combined) effects of management activities on public and private lands within watersheds on the Forest is an intense Regional and a moderate National concern. These cumulative effects can lead to adverse impacts to stream channels and domestic water use downstream from management activities.*

The aquatic conservation strategy provides direction for maintaining watershed health. Standards and guidelines for NFS lands relating to geology, soils, water, biological diversity, riparian areas and fisheries as well as to management activities such as timber harvesting, fuels management and mining will mitigate the effects on watersheds. The watershed, riparian and instream restoration programs will also mitigate effects. The levels of disturbance and sediment production are predicted to be within tolerable levels at the Forest level. Projected ERAs for the first and fifth decades of the Forest Plan are similar to those projected for the continuation of current management practices. Based on potential effects at the watershed level as identified by a disaggregation model, a cautious approach will be taken in watersheds with concerns, particularly with regard to timber harvest and road construction activities.

**Water Quality** – *Water quality protection and the effectiveness of BMPs for control of erosion and sedimentation is of high concern Region-wide. Forest management practices can affect the quality of water that is valued by its many beneficial users.*

The aquatic conservation strategy as well as land allocations, management practices, standards and guidelines and restoration programs provide for water quality maintenance. Refer to *Geology, Soils, Riparian Areas and Fish*. More than 99.5% of the water is projected to meet water quality objectives in the first decade and more than 98.7% in the fifth decade.

**Water Yield** - *There may be an opportunity to increase the amount of water produced by manipulating vegetation. This is a Regional concern of low intensity.*

Vegetative manipulation is estimated to increase flows by less than 2% Forest-wide above the current total water yield.

**Watershed Restoration-** *Watershed improvements provide an opportunity to enhance watershed and channel conditions. Watershed restoration is a Regional issue of high concern locally.*

The watershed restoration program will use watershed analysis and planning to identify areas with the greatest benefit-to-cost ratios and the greatest likelihood of success. Nearly 7 times as many acres will be treated as in the current situation. While the program will be diverse, including planting, fencing, landslide stabilization and road stabilization, R will focus on removing and upgrading roads.

## **Air**

**Air Quality/Smoke Management** - *Clean air, relatively free of chemical pollutants and particulate matter, is greatly valued by the Forest's rural communities. Air quality is diminished from smoke generated by prescribed fires and wildfires. This issue is Regional in scope and ranges from low to moderate in intensity.*

All prescribed burning activities would be coordinated with the appropriate State regulating agencies. Burning would occur only on allowed days. All projects would adhere to State standards for air quality. Dust abatement measures such as watering or paving roads would be considered for all projects.

## **Biological Environment Issues**

### **Biological Diversity**

**Biological Diversity** - *Maintenance of a naturally functioning, healthy ecosystem with a variety of species and structural parts is an intense issue Nationwide. Ecologists believe that greater diversity allows for greater stability in the ecosystem.*

The land allocations and management direction associated with the Forest Plan would maintain species, community and genetic diversity. Diversity would be provided through a mixture of vegetative types and seral stages which are expected to maintain the diversity of existing wildlife and aquatic species. Large blocks of land with few permitted activities would provide for later seral stage species. These areas would be connected through land allocations with similar management direction, such as RRs. GTR prescriptions would provide connective habitat in the matrix. The earlier seral stages would be provided by management activities on regulated land and by wildfires.

Maintenance of ecological health will be emphasized. In addition to the large watershed restoration program, thinning and salvage will be used in many management areas to reduce fuel loading and restore stand vigor. An estimated average of 20 million board feet (MMBF) per year is projected from unregulated land.

**"Old Growth"** - *Intense controversy exists Nationwide over the continued viability of "old growth" forests. The amount and distribution of "old growth" being maintained is at issue.*

The majority of existing 'old growth' stands would be maintained through land allocations and management direction that permit few management activities. Approximately 49% of the forested land is projected to meet the criteria for 'old growth' in the fifth decade compared to 16% in the current situation. An aggressive fuels management program is expected to reduce the number of acres burned in stand replacing high intensity wildfire in the future, thus providing more protection for these stands than in the current situation.

**Vegetative Diversity** - *NFMA and Region 5 require each Forest to provide for vegetative diversity. Controversy exists over how much land in each seral stage is adequate. This is a National issue of high intensity. T17e introduction of non-native plant species as a part of management activities is also of high concern to a segment of the public and is State-wide in scope.*

The combination of land allocations and associated management direction in the Forest Plan is projected to maintain a mixture of seral stages for all forest types throughout the planning period. The Forest is in the process of collecting information on rangeland types.

The use of native plant species would be emphasized. Non-native species would be used only when native species were not available or when non-native species better met management objectives. The use of allelopathic, highly invasive and highly competitive nonnative species would be avoided.

### **Riparian**

**Riparian Management** - *Management activities near streams may have an adverse effect on riparian vegetation, channel stability, stream sediment levels and fish habitat conditions. The management of riparian areas to maintain and enhance water quality is an intense issue Nationwide.*

The aquatic conservation strategy provides for the establishment of RRs. Boundaries for RRs will be

established during implementation of site-specific projects. Interim widths for RRs are at least 300 feet wide on either side of fish-bearing streams, lakes and ponds; at least 150 feet wide on wetlands larger than 1 acre and permanent, nonfish-bearing streams; at least 100 feet wide on intermittent streams; and the extent of wetlands less than an acre, unstable and potentially unstable areas. These areas will be unregulated.

Standards and guidelines provide protection for riparian dependent resources. Criteria for stream characteristics will be established by standards and guidelines for the purpose of maintaining productive riparian ecosystems. Special standards will provide for the management of Key Watersheds.

### **Sensitive Plant Species**

**Sensitive Plant Species** - A National concern exists for the maintenance of healthy populations of Sensitive plant species. Locally, portions of the public want protection and monitoring of Sensitive species. These precautions may prevent these plants from becoming listed as Threatened and Endangered (T&E) in the future.

Standards provide for maintaining reproducing, self-sustaining populations of Sensitive plant species. Siskiyou Mariposa Lily (*Calochortus persistens*) populations will be protected by the allocation of habitat to a special management area; ground disturbing activities that would adversely affect the habitat are not permitted.

### **Wildlife**

**Threatened and Endangered Species** - Recovery goals are set by the United States Fish and Wildlife Service (USFWS) for T&E species under the Endangered Species Act. (ESA) Management of a habitat to meet or exceed these recovery goals and the trade-offs involved for management of other resources are of intense concern Nation-wide.

Critical habitat for bald eagles, peregrine falcons and northern spotted owls will be allocated to a Special Habitat Management Area. The majority of this management area will be Late Successional Reserves (LSRS) which are designed to provide for all late-successional species to avoid the listing of additional species as T&E. Management direction is consistent with existing recovery plans for the listed species. These areas will be unregulated. Suitable habitat is expected to be adequate to meet the recovery goals for eagles and falcons. The recovery plans for the northern spotted owl and the marbled murrelets will be incorporated once they are complete.

**Sensitive Animal Species** - Protecting and managing the habitat of Sensitive animal species to

*be sure they are well-distributed and have viable populations is an intense concern Nation-wide. The need for monitoring and managing candidate populations to prevent them from becoming Federally listed as T&E is also an intense National issue.*

Interim direction for goshawks include the establishment of a Primary Nest Zone and a Foraging Habitat Zone around occupied territories as well as Network Goshawk Management Areas until surveys provide sufficient data to determine if the species is being provided for by large unmanaged reserves. Standards and guidelines provide direction for managing these areas.

LSRs plus a Managed Wildlife Area on the eastside of Indian Creek and other compatible land allocations will provide for furbearers. Vegetative manipulation to improve habitat in the Managed Wildlife Area will be allowed; minimal timber yields will be scheduled. Moderate or better connective habitat between these areas is provided on the westside of the Forest. Connectivity on the eastside will not be adequate; improvement of connective habitat will be addressed in the AMA Plan. Furbearer habitat is expected to improve over time.

**Management Indicator Species (MIS)** - NFMA requires the National Forests to select MIS as indicators of the potential impacts to a larger group of species. Managing for the needs of representative species or for an assemblage of species, representative of a given habitat situation allows for the management of all species using the same habitat. The selection of MIS also considers the special habitat requirements of T&E and Sensitive species. This is a National issue of high intensity.

MIS for Species Associations have been identified and will be used to monitor implementation of the Forest Plan. TE&S species and Forest Emphasis species are also used as MIS. Some MIS species are covered above under TE&S and under Riparian. Others are covered below under Management Direction. The land allocation pattern is expected to provide adequate habitat for black bear. Land allocations on the eastside of the Forest will provide for big game, including deer. Habitat improvement projects will be emphasized.

**Management Direction** - Current management direction for wildlife habitats such as riparian areas, snags, dead and down materials and hardwoods may not be adequate to maintain existing wildlife populations. This issue is of moderate concern and Regional in nature.

Management direction for riparian areas is covered above under Riparian. Management direction for CWD is covered above under Soils. An average of 5 snags per acre will be maintained in a variety of size and decay classes within each landscape. This is expected to provide good quality habitat for cavity-dependent species. From 10 to 35 square feet of basal area per acre of hardwoods will be retained during vegetative manipulation. The Green Tree Retention (GTR) requirement covered below under the Silviculture Systems will provide for structural needs on regulated land.

**Species Introduction** - *NFMA directs National Forests to coordinate with State agencies when re-introducing species such as elk and large predators. The only large predators eliminated from this geographic area are the grizzly bear and timber wolf. Species introduction is a National issue of moderate concern.*

A comprehensive management strategy will be developed in consultation with the CDFG for Roosevelt Elk. Wildlife transplants, introductions and re-introductions will also be coordinated with other agencies and the public. There are no plans to introduce large predators at this time and no policy has been established.

## **Fisheries**

**Management Effects on Fisheries** - *The short- and long-term effects of Forest management activities on anadromous and resident fish resources are of intense concern to the public. This issue is National in scope.*

Land allocations, management direction, the Aquatic Conservation Strategy, restoration projects and treatment of activity and natural fuels will greatly improve fish habitat. High levels of watershed protection and high levels of watershed restoration will be provided. Key Watersheds will receive special attention. No new roads will be constructed within roadless areas in Key Watersheds and there will be no net increase in road miles within Key Watersheds. Few site disturbing activities will be permitted within the RRs. The Forest Plan provides for significant sediment reduction below current levels.

**Habitat Restoration** - *Opportunities exist for improving anadromous and resident instream and riparian habitat This issue is National in scope and of high concern.*

Watershed restoration is an integral part of recovering aquatic habitat. It will focus on removing and upgrading roads, restoring large conifers in RRs and restoring channel complexity. In-stream

structures will only be used in the short-term. Watershed analysis will be used to determine which areas have the greatest benefit-cost ratios and the greatest likelihood of success.

## **Resource Management Program Issues**

### **Visual Resource Management**

**Natural Landscape Conservation** - *The public's recreational use of National Forests has increased over the years. With increased recreational use comes an associated concern for the preservation of natural appearing landscapes. The preservation of landscapes is a National issue of significant Regional and local concern.*

The Visual Quality Objectives (VQOS) currently in use, with some changes, will be used to manage visual quality. The Forest Plan is estimated to manage 23% of the Forest for a Preservation VQO and 8% of the Forest for a Retention VQO. Created openings will mimic the size and shape of vegetative patterns found in the landscape.

**Overall Visual Quality** - *The amount, location and quality of scenic resources is important to the public, whether they frequent the Forest or not The public's perception of how well the Forest's scenic resources are managed is an indicator of how they will view the overall management of the Forest.*

The Forest Plan will maintain visual quality Forest-wide at a level slightly lower than what currently exists.

### **Recreation Management**

**Recreational Experiences** - *The public's demand for a variety of high quality recreational experiences has increased in recent years. Many people believe the Forest has the potential to provide a broad spectrum of both developed and primitive recreational opportunities. Certain management practices have the potential to influence recreational opportunities. This issue is National in scope and ranges from moderate to high in intensity.*

The number of acres which provide semi-primitive motorized and rural recreational opportunities will increase from the current situation, while the number of acres providing semi-primitive nonmotorized and roaded natural opportunities will decrease with the Forest Plan. The number of acres providing primitive recreational opportunities will remain the same.

Facilities will be managed at the standard level. During reconstruction, facilities will be redesigned to provide for the handicapped and for a multi-cultural society. New facilities within RRs will be designed to achieve Aquatic Conservation Strategy objectives. Staging areas for facilities and river access will be provided. Approximately 2% of the Forest will be allocated to a management area which provides semi-primitive non-motorized recreational opportunities.

**Trail Management** - *Before motorized travel, local transportation primarily used trails designed for park stock and humans. Recreationists use many of these historical trails for access to wilderness. The public wants the Forest to improve the quality of this recreational experience. By re-evaluating the trail system and determining which segments could be abandoned, re-routed or otherwise improved, the quality of this recreational experience could be enhanced.*

Trail system additions, improvements and closures will be determined on a case by case basis. Trail management objectives will be developed for all trails. Trails will be managed to serve the needs of recreationists in a condition that protects the resources and meets health and safety standards. Additional trailheads for wilderness will be constructed.

### **Wilderness Management**

**Wilderness Management** - *Some management activities, such as fuel treatment, provide opportunities for meeting wilderness management objectives. Others activities, such as grazing, may conflict with these objectives. Determining the appropriate level of coordination is a local issue of moderate concern.*

An ambitious program targeting 8,000 acres of fuel treatment per year, using both prescribed fire and prescribed natural fire within wilderness will be used to allow fire to play its role in the ecosystem. Current grazing practices will be continued in wilderness; guidelines for utilization levels have been established and will be revised as better information is collected.

### **Released Roadless Area Management**

Roadless Areas - *Determining the appropriate land use for each area released for multiple use management by the California Wilderness Act of 1984 is a National issue of high to intense concern. These determinations need to consider biological, physical, social and economic factors.*

Approximately 89% of the released roadless areas will be within unregulated management areas. The

Condrey Mountain and part of the Kangaroo Roadless

Areas will be allocated to Backcountry Management to provide semi-primitive nonmotorized recreational opportunities.

### **Wild and Scenic Rivers Management**

**River Management** - *In 1981, certain rivers were designated as part of the National Wild and Scenic River (WSR) System. They include segments of the Klamath, Scoff and Salmon Rivers, including Wooley Creek. Direction set in the Forest Plan will guide the development of a River Management Plan for these designated segments. The River Management Plan will define corridor boundaries and outline strategies for managing resources, use and development within the river corridors. This management direction is of high National concern,*

Appendix J of the EIS describes the boundaries for the designated WSR corridors. Each designated WSR segment is allocated to a management area according to its classification. Standards and guidelines for each classification are consistent with the WSR Act.

**Additional Designation** - *Public groups believe that other portions of the Forest drainage system have exceptional values and should be protected. The public believes these values may allow certain segments of rivers to qualify for inclusion in the WSR System. Additional designations to the WSR System is a National issue of high concern.*

The Forest Plan recommends 171.3 miles of river for inclusion into the WSR System including 101.1 miles classified as Wild, 10.6 miles classified as Scenic and 59.6 miles classified as Recreational. Appendix E of the EIS contains the WSR Study for the proposed additions and discusses the individual segments recommended.

### **Specially Designated Area Management**

**Research Natural Areas** - *A Research Natural Area (RNA) is a protected study area set aside for non-manipulative research of natural communities in their pristine condition. They are not designated for recreational use. Target elements for vegetative communities in Region 5 were determined by the Regional RNA committee, although other elements for RNA establishment may be evaluated. Several RNA candidates are now in various stages in the establishment process. Setting up RNAs to represent a wide variety of elements is of high concern Nation-wide.*

The RNA establishment process will be continued for the 9 areas currently in the process. These areas achieve the Regional targets for vegetation

types and for 2 geological elements for the Forest. The RNA Management Area includes approximately 12,500 acres. The standards and guidelines permit few activities.

**Special Interest Areas** - *A Special Interest Area (SIA) is a recreational designation that protects unique natural features of an area. SIAs also have appropriate access and interpretation for public appreciation and enjoyment. Evaluating and establishing SIAs are a Regional issue of moderate intensity.*

Approximately 22,000 acres are recommended as SIAs including 6 Botanical and Geological S[As], 18 Botanical SIAs and 24 Geological SIAs. The SIA Management Area is a land allocation. The standards and guidelines protect the unique features of each area.

**National Natural Landmarks** - *The Forest planning process provides an opportunity to evaluate NFS lands for National significance. Appropriate areas can be recommended to the National Park Service for nomination to the National Registry of Natural Landmarks. National Natural Landmark status places no restrictions on Forest Service multiple use management of the site provided the significant ecological or geological features are protected. This National issue is of minor concern.*

National Natural Landmarks were not evaluated. There is a legal moratorium on designation until the National Park Service revises its evaluation and recommendation process.

### **Butte Valley National Grassland (BVNG)**

*The BMG, designated on February 28, 1991, is 18,425 acres of land originally purchased under the authority of the Bankhead-Jones Farm Tenant Act of 1937. The BVNG is administered by the Goosenest Ranger District. How the BVNG will be administered is a moderate concern at the local level.*

The BVNG will be managed to promote the grassland, agriculture and a sustained yield management of soil, water, forage, fish and wildlife resources.

### **Lands Program Management**

**Innocent Encroachment** - *Due to faulty or nonexistent land lines, landowners have unknowingly placed improvements on public land. Resolving innocent encroachments is a significant concern for the Forest and the affected public.*

The Small Tracts Act will be the primary means of resolution.

**Community Expansion** - *Certain communities within the Forest surrounded by NFS land would like to expand. This is an issue of moderate concern at the local level*

Community expansion will be encouraged when it is in the common interest of the federal government and the local community. The Small Tracts Act, the Townsite Act and land exchange are options. Land exchange options are facilitated by having WSR corridors of varying widths.

**Utility Corridors** - *The need to plan for utility corridors that are compatible with land use allocations was identified. Utility corridors are linear strips of land that can contain one or more utility or transportation facilities. This is an issue of moderate concern at the local and Regional level.*

Specific-specific project analyses will determine whether existing utility corridors will be expanded or new ones approved for construction.

### **Law Enforcement**

**Vandalism of Cultural Sites** - *Preventing the destruction of prehistoric, historic and contemporary use cultural sites is an important National issue mandated by law*

Public information programs will emphasize the importance of cultural sites and provide information on appropriate laws. Employees and the public will be trained to recognize vandalized sites and report them to law enforcement officers. When these methods fail, violators will be prosecuted in the courts.

**Unauthorized Use** - *Unauthorized use of public land and resources is a significant issue at the local and Regional level. Occupancy trespass, forest products trespass, production of illegal drugs and illegal disposal of hazardous wastes are the predominant Forest law enforcement concerns. Unauthorized improvements and residency occur mainly on mining claims and can conflict with recreational use by the public.*

Land exchange, authorization of special use permits and the use of regulations and laws will be used to resolve occupancy trespass. The use of standard clauses in sale contracts that impose penalties, spot checking loads of logs at mill yards and periodic checking of third party scalers will be used to discourage Forest product trespass. Employees will be encouraged to report suspicious activities to law enforcement officials.



A law enforcement presence and an increased emphasis on cooperation with other Federal and State agencies will be used to reduce drug production and illegal disposal of hazardous wastes. When other methods fail, violators will be prosecuted in the courts for any type of unauthorized use.

## **Minerals Management**

**Mineral and Energy Development** - *The development of mineral and energy resources on NFS land is a National issue of moderate concern. Locatable minerals (such as gold and chromium), leasable energy resources (such as oil, gas and geothermal energy) and mineral materials (such as rock, cinder and gravel) provide opportunities for developing mineral and energy resources on the Forest.*

Some facilitation of mineral and energy development proposals and some monitoring of Plans of Operation will be provided. Exploration and development will be allowed in most management areas, except those withdrawn from mineral entry or restricted by management practices. Surface occupancy will be prohibited in RRs for oil, gas and geothermal exploration and development activities where leases do not already exist.

**Surface-Use-Related Activities** - *The regulation and reclamation of mining activities and related surface use is a National issue of intense concern.*

Surface use activities will be approved if they are both necessary and reasonable for the level of mineral activity proposed and environmental effects can be adequately mitigated. Authorization of surface occupancy will occur through an approved Forest Service permit or Plan of Operations. Reclamation plans and reclamation bonds are required for mineral activities. Mineral-related surface use not essential to the mineral operation will be placed outside RRs.

## **Transportation & Facilities Management**

**Road Management** - *Forest roads are designed to varying specifications, depending on the planned use and amount of traffic expected. Historically, most roads on the Forest were constructed to standards that support timber access. As the use of other Forest resources increases, the composition of the traffic mix changes. This creates conflicts among road users. These conflicts fall into two groups. First, conflicts generated by the amount and mix of traffic. Second, road use causing resource damage, even with a small amount of traffic. This is an issue of high concern at the local level.*

All roads will be built, operated and maintained according to the road management objectives established for each road. These objectives will be consistent with the management area objectives and will be coordinated with private landowners. Road closures may be used to meet wildlife, water quality, soil protection, fire protection and other resources needs; to reduce road damage and maintenance costs; or to eliminate or reduce conflicts between user groups.

**Other Facilities** - *Many Forest-owned administrative facilities are old and need repair or replacement. The Facilities Master Plan, completed in 1989, set priorities for repairing or replacing these facilities. Future revisions to this plan will be guided by direction in the Forest Plan. The future priorities and direction for the management of these facilities is a local concern of moderate intensity.*

Site development planning will occur to determine site facility needs. No construction, reconstruction or building removal will occur without an approved site plan. Site selections will be based on maximizing net public benefits with the least adverse impact to the environment.

## **Timber Management**

**Capable, Available and Suitable (CAS) Lands** *Lands classified as CAS are suitable for sustained timber production. The type, location and amount of CAS lands is a National issue.*

Approximately 354,000 acres are capable, available and suitable for timber management in the Forest Plan. This consists of lands which are sufficiently stable and productive to produce timber on a sustainable basis. Refer to *Geology-Slope Stability* for a discussion of the treatment of lands considered unsuitable for timber production.

**Silvicultural Systems** - *Controversy exists over current silvicultural practices. The type of silvicultural systems, practices and policies implemented concerns many segments of the public. The issue is National in scale. Clearcutting, the removal of all merchantable trees, has been a prevalent method of even-aged management on the Forest.*

Both even-aged and uneven-aged silvicultural systems are available for use. GTR, group selection and stand maintenance are the silvicultural prescriptions that would likely be used most often. GTR involves leaving both individual and clumped live trees on at least 15% of the area in regeneration units.

Clearcutting will be permitted only where essential to meet management objectives and only on unregulated land. Examples include providing habitat for TE&S species; providing for recreation sites, scenic vistas, utility corridors, roads, facilities; rehabilitating lands affected by catastrophic occurrences; improving forest health and providing for research needs.

**Allowable Sale Quantity** - *Public opinion is sharply divided about what the ASO should be for the Forest Controversy exists over how much should be harvested. This issue is Regional in scale and of an intense nature.*

The ASQ will be 51.0 MMBF per year in the first decade and will increase to 89.2 MMBF per year by the fifth decade.

**Fire Effects** - *The wildfires of 1987 burned about 258,000 acres of identified CAS timberland on the Forest The issues related to timber salvage after wildfires and natural disturbances are significant on both local and Regional levels.*

Salvage and sanitation will be a high priority in management areas where timber harvesting is compatible with the area's management objectives. Salvage opportunities will be pursued aggressively. Priorities should be directed towards Regulation Class 2 lands, Regulation Class 3 lands and unregulated lands in that order. All salvage and sanitation operations will maintain the required amounts of CWD if available.

**Pest Management** - *The controversy over pesticide use on National Forests is a significant Regional and National issue.*

Very limited use of herbicides will occur. Herbicides may be used to obtain an objective that could otherwise not be met. Examples include reforestation efforts after extreme fire, insect or disease occurrences that would be cost-prohibitive or where plantations would fail without the use of herbicides.

A full range of pest management treatments are available to control insects and diseases, including chemical treatments.

**Other Products** - *Great amounts of woody material are left on the ground after a timber harvest This woody material is suitable for use as fuel wood for both heat and power generation. This is a significant issue at local and Regional levels. The management of existing hardwood stands is also an issue.*

Utilization of various products will vary by management area. Policies will be determined on a site by site basis. The use of wood products

(biomass and firewood), non-traditional forest products and products used traditionally by Native Americans will be encouraged and made available consistent with management area objectives. Hardwoods and snags will be available for marketing and personal use when they are in excess of hardwood and snag retention guidelines as listed in Wildlife - Management Direction.

## Fire Management

**Air Quality/Smoke Management** - *Refer to Air section.*

**Fire Suppression** - *The fire suppression program should be compatible with resource management objectives while being cost effective. The resources involved are essentially local in nature and concerns are low to moderate in intensity. The fire suppression budget is Regional in scale and of high concern.*

The fire suppression organization will be larger and more expensive than it is today. This organization combined with the aggressive fuel treatment program is projected to reduce the average number of acres burned per year.

**Prescribed Fire** - *The use of prescribed fire to control fuel loading from forest management activities is a Regional concern of high intensity.*

The Forest Plan will have an ambitious fuel reduction program. Over 27, 000 acres are planned for treatment each year using various methods. Prescribed fire and prescribed natural fire will probably be used to treat the most acres. The use of fuel treatment and the methods permitted will vary by management area.

**Fire Risk and Plantation Survival** - *Forest management practices must consider not only the effects of past fires but the potential for future wildfires as well. Forest managers and the public alike are concerned about the effects and relationship between forest management and wildfire. This issue is Regional in scope.*

The aggressive fuel treatment program is expected to significantly reduce the number of acres that burn in high intensity wildfires. This should mitigate the adverse effects of wildfire on resources such as soil, water, wildlife, fish and timber. Projections for plantation loss are estimated at 22%.

**Effects on Future Fires** - *Preventing wildfires in the future is of great concern to the local communities. These wildfires are often detrimental in the short-term, although they may be beneficial in the long-term. This is a National issue of moderate intensity.*

The aggressive fuels management program is expected to reduce the accumulation of forest fuels. The larger suppression organization will enable the Forest to better respond to fires. The proportion of acres that burn at high intensity is expected to decrease from the current situation, increasing the likelihood of protecting resource values and private property.

### **Range Management**

**Resource Management** - *Conflict exists between livestock and other range resource uses. This local issue has the potential of extending to a Regional level as interactions between environmental and social concerns increase.*

Utilization guidelines will be used to maintain the health of rangeland ecosystems. They will be revised as more data is collected. Ecosystem analysis, Annual Operating Instructions and Rangeland Project Decision documents will be used to determine appropriate stocking and distribution of livestock to achieve optimum utilization and prevent deterioration of the range and other resources. Range use will be consistent with management area goals. Sensitive areas will be fenced and water developments will be used to redistribute livestock. Livestock management will be used as a tool to achieve desired vegetative conditions when consistent with management area goals.

### **Wild Horse Management**

**Wild horses** - *Two wild horse herds are now maintained on the Goosenest District. The competition for grazing between these herds and herds of livestock and wildlife are local public issues and Forest concerns. Although the present level of concern appears low, the issue could expand in scope.*

A single wild horse herd of approximately 15 head in the Three Sisters Area of the Goosenest Ranger District will be managed. The herd size is expected to be within the carrying capacity of the area and range condition is expected to remain in an upward trend.

### **Cultural Resources Management**

**Program Management** - *Some public groups feel the Heritage Resource Program (previously the Cultural Resource Management Program) should be an independent program rather than project-linked. Public Law (PL) 100-588 of 1988 directs the Forest Service to develop plans to survey all NFS land for cultural values. This gives the independent program National significance. The project-linked program is of local importance. Some public groups are highly concerned over this issue.*

The Forest Plan will fund a small amount of Forestwide cultural surveys in addition to the project-linked surveys. These surveys are expected to adequately meet legal mandates.

**Site Management** - *The protection and inventory of cultural sites is a moderate concern on both local and National levels.*

Surveys are expected to be adequate to identify cultural sites. All identified cultural sites will be avoided until a determination of significance can be made. Additional money will be requested to speed up this determination. This process is expected to provide adequate protection of cultural sites.

**Karuk Territory** - *The Karuk Tribe of California has identified 3 specific traditional territorial and ceremonial areas to be recognized in the Forest Plan. This local issue is of great significance to the Karuk Tribe.*

Inam, Cottimein and Helkau areas will be allocated to a special management area. This management area will be unregulated. A Memorandum of Understanding with the Karuk Tribe will be developed to identify which management activities are consistent with protecting the sacred values of the areas.

### **Social and Economic Environment Issues**

#### **Social**

**Quality of Life** - *Many local residents live in this area because they value the way of life found here. Changes to that lifestyle are of intense concern to them.*

The timber program will be well below historical levels. This will cause hardship to local communities, especially residents whose livelihood is directly or indirectly dependent on timber production. Residents, especially those whose livelihood is not dependent on timber production, will probably value the water quality, scenic quality and diversity of plant and animal species provided by the Forest Plan. New restrictions, especially in RRs and Species Habitat Management Areas, may require changes in where or when traditional forest activities such as woodcutting can occur.

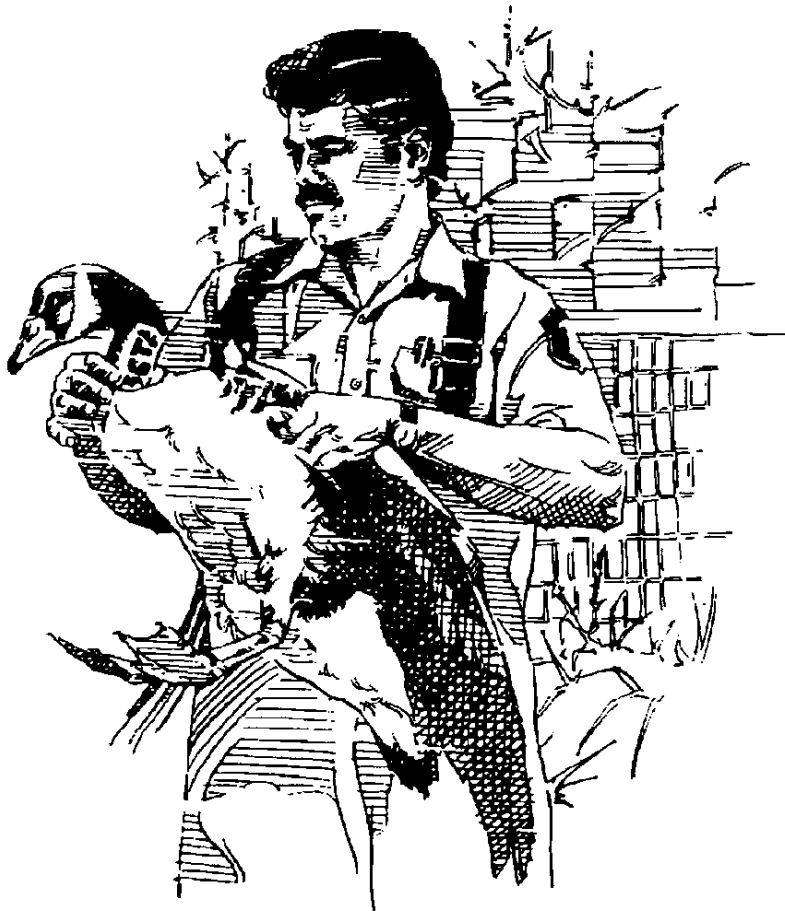
The Rural Development and Human Resource Programs will be emphasized. Opportunities for providing training and employment, particularly in nontraditional areas, will be actively sought to mitigate the social and economic effects on local communities.

## **Economic**

**Economic Opportunities** - *Some public groups believe the local economy needs to be more diversified and less dependent on timber to increase job opportunities and wages. Others believe that county receipts from timber should be maintained in a nondeclining flow. While the Forest resources are consumed in Regional and National markets, local economic issues are of major significance.*

The overall Forest goals and objectives are to provide sustainable outputs of all resources through integrated ecosystem management. The Rural Development Program is designed to assist rural forest-dependent communities with efforts to enhance their economic stability. The Forest will use partnerships to work with cooperating organizations and agencies.

The Forest will work to identify and remove barriers that impede the flow of financial and technical assistance and the transfer of technology to rural communities. Opportunities for non-traditional forest-based commodity production and for increasing local employment in Forest project implementation will be identified.



*Klamath National Forest - Plan*