

# Forest-wide Standard and Guidelines

The following are management practices that are applicable to all lands within the Forest whenever and wherever they are relevant. If interpretation is needed, it should be consistent with the Forest Goals and Policies. General direction statements are keyed to issues and concerns shown in Chapter 2, and to Forest Goals and Policies starting on page 4-3, by the numbers which follow each direction statement.

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### Recreation

#### Recreation Opportunity Spectrum (ROS)

Provide a variety of Forest-related recreation (1a).

Manage all Forest lands according to Recreation Opportunity Spectrum ROS designations (see Appendix R) as shown on the Recreation Opportunity Spectrum map and as follows:

Primitive (P) - Applies only to the Bucks Lake Wilderness.

Roaded Natural (RN): Meet applicable RN objectives. Design and maintain all facilities for conventional motorized use. Allow Development Scale (see Appendix I) 2, 3, or 4 facilities with 2-5 sites per acre. Keep use below capacity.

Manage for a visitor capacity of 1.57 PAOT/usable acre outside of developed sites to maintain the quality of RN experience.

Roaded Modified (RM): Meet applicable RM objectives. Allow Development Scale 2 or 3 facilities.

Manage for a visitor capacity of 0.2 PAOT/usable acre to maintain the quality of the RM experience.

Rural (R): Meet applicable R objectives. Design facilities according to FSM 2330. Allow Development scale 3 or 4 facilities with 3-10 sites per acre.

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Manage for a visitor capacity of 4.7 PAOT/usable acre outside of developed sites to maintain the quality of the R experience.

#### Developed Recreation

Improve and expand developed recreation facilities to meet demand where they will not exceed resource-carrying capacity or decrease the quality of the intended recreation experience.

Apply Prescriptions Rx-5 and Rx-6 at mapped locations.

#### Private Sector

Encourage private operation of PNF facilities (1a).

Based on appropriate future use determinations authorize private operation of PNF facilities by Special Use Permit if more economically advantageous to the government, a comparable recreation experience is provided, and Management Area direction is not impeded.

#### Trails

Provide a variety of trail use opportunities (1a).

Restrict trail use according to Appendix O, PNF Trails by Allowable Use. Maintain these trails.

Construct new trails according to management area direction.

Operate trails at the minimum standards providing utility and resource protection (16a).

Based on allowable use, stabilize trail prisms, provide drainage, and otherwise design trails for maximum stability and minimum soil loss.

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Improve the PCT to meet demand providing utility and resource protection (1a).

Open trails for public, outfitter/guide, and administrative uses. If planned and publicized, allow temporary closures of less than one year.

Provide sanitation facilities at trailheads where needed to protect water quality.

Erect signs and/or provide brochures that explain timber management activities along the trail and note historic or interesting sites.

Restrict trailhead facilities to small parking areas, trail directional signs, and bulletin boards, unless otherwise stated in Management Area direction.

Show springs and streams on brochure maps but do not develop potable water sources along the trail.

Maintain directional signs at each road and trail intersection.

Maintain the trail to Maintenance Level III in its present location and confine stabilization to the existing prism, if possible. Where relocation is appropriate for timber management purposes, reconstruct to the original PCT standards. Maintain the PCT symbols and blazes.

Manage vegetation where it interferes with trail use. Suppress poison oak to permit normal passage without contact.

Prohibit ORV use.

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#### Off-Road Vehicles

Allow ORV use wherever user conflict and resource damage are unlikely (1b).

Allow ORV use except where:

1. use is prohibited by law or regulation,
2. use is incompatible with the management of other resources,
3. resource damage is likely,
4. rights-of-way are insufficient,
5. lands are designated administrative or developed recreation sites.

Restricted acreages are summarized in Table 4-5 and shown on the accompanying Off Road Vehicle Closure map.

Cooperate with the State, other agencies, and user groups to identify, and where compatible with Forest Plan management objectives, develop segments of trail that supports the concept of a statewide trail system connecting use areas and providing the opportunity for long distance trail touring.



#### **Visual Resources**

Vary visual quality objectives according to land-use (2a).

Manage all Forest land in accordance with the adopted Visual Quality Objectives (V.Q.O.'s) as mapped in detail in the Planning Records and depicted on the accompanying Visual Quality Objectives map and as defined below.

Meet V.Q.O.'s by applying techniques described in publications listed in Appendix K.

#### Preservation (P)

Allow for ecological changes only. Preclude management activity except use for recreation facilities, with very low visual impact.

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#### Retention (R)

Provide a natural-appearing landscape where management activities are not visually evident.

#### Partial Retention (PR)

Provide a natural-appearing landscape where management activities remain visually subordinate.

#### Modification (M)

Allow management activities to dominate the landscape; however, keep visual elements comparable to those of natural occurrences.

#### Maximum Modification (MM)

Allow management activities to dominate the landscape; however, keep background visual elements comparable to those of natural occurrences.

Restore high visual quality to lands apparent from high-use areas (2a).

When future resource use activity or wildfire degrades visual quality below the adopted V.Q.O.'s, restore visual quality by planting trees and/or other vegetation where regeneration is feasible.

Maintain visual quality along the PCT. (2a).

Employ a V.Q.O. of "Partial Retention" in those areas viewed as foreground from the PCT, and allow a V.Q.O. of "Modification" in the middle and background.

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### Cultural Resources

Inventory cultural resources within and adjacent to potentially-disturbing resource use projects and special recreation areas (3a).

Identify potential locations of non-inventoried cultural resources (cultural, historic, and prehistoric) via documents, literature, and oral interviews, and inventory through archaeological survey or reconnaissance prior to potentially-disturbing project activities on non-inventoried lands. Consult with Native Americans and interested parties regarding cultural resources within these areas.

Evaluate significance/eligibility of cultural resources and determine probable project effects (3a).

Apply National Register (N.R.) criteria to determine whether a cultural resource is a Class I, II, or III property.

Determine probable project effects on Class I and II properties.

Apply a test of archaeological interest to Class III cultural resources (according to ARPA criteria). Release properties of non archaeological interest. Determine if each cultural resource is eligible for listing on a local, State, or Federal register of significant properties.

Consult with Native American and other interested parties regarding eligible cultural properties.

Manage or protect significant/eligible cultural properties (3a).

Protect and preserve N.R. and N.R. eligible cultural resources and those on State or local listings of significant properties, or recover the values that result in their eligibility (in accordance with NRHP or MOU with SHPO) and in

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Locate and protect important areas of religious use (3a).

consultation with local Native Americans and interested parties.

Protect or recover those materials of archaeological interest.

Allow scientific study of cultural resources for public education and enjoyment.

Develop and implement agreements with the Advisory Council on historic Preservation for the management of identified Class I and II resources.

Identify and determine contemporary value of areas and resources used for traditional cultural or religious practices by Native Americans or other ethnic groups. Do not restrict or deter continued use of important areas.

## Wildlife, Fish, and Sensitive Plants

### Diversity

Provide a diversity of vegetation types and habitat to support viable populations of all fish, wildlife, and plant species (5a).

Within each vegetation association (see EIS Chapter 3, DIVERSITY), provide at least 5% in each seral stage (see Appendix E) on a Forest-wide basis. Allocate these required acreages to each management area. Use wildlife and silvicultural skills to determine specific configurations needed.

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By 1994, on a Ranger District basis, designate and maintain 5% of each forested vegetation type for old growth management. Use stands having overstory trees greater than 24" DBH and 200 years of age, exhibiting Dunning tree form class 5, and having at least a 40% crown closure (where site and vegetation type allow). Crown closure of 70% or greater is desired. Priority for old growth management locations will be Wilderness, Wild and Scenic River Zones, Spotted Owl territories, SMZ's, and Semi-primitive Areas.

In formulating project alternatives for habitat modification projects, analyze existing and needed stand structure diversity, both vertical and horizontal, and tree species diversity.

To the extent possible obtain the cooperation and concurrence of DFG and other Forests in setting priorities, schedules, sampling standards, and agency tasks and responsibilities for management of selected wildlife, fish, and plant species and habitats. This will be accomplished on a priority basis. Establish strategies to: 1) document the vegetative and other characteristics of suitable habitat for the selected species; 2) yield estimates of population(s) density and/or habitat capability; 3) measure the change in population(s) or habitat capability due to management practices.

### Snags

Maintain viability of snag-dependent wildlife (5a).

Provide and/or maintain an average of at least 1.5 snags/acre. The de-

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sired number of snags should be distributed within each timber compartment. Provide and/or maintain an average of: a) 1.2 snags/acre between 15-24" dbh at least 20' high. b) 0.3 snags/acre greater than 24" dbh at least 20' high.

Give preference to soft snags, cull trees, and hard snags with evidence of wildlife uses.

During project level analysis, determine the impact of the proposed project on snags, and implement mitigation measures to meet the snag retention standard.

#### Dead and Down Wood

Maintain viability of species dependent upon dead and down material (5a).

Maintain a Management Area average of 320 cubic feet/acre of slash and/or down logs. Of this, approximately 50% of the volume should be in pieces longer than 8' with diameters of 20" or larger. The remainder may be met through the implementation of ground cover standards and guidelines for Soil and Water.

#### Meadow Ecotones

Maintain viability of species dependent on meadow-conifer ecotones (5a).

Retain strips or patches of existing vegetation along meadow edges. During project analysis, determine the need for and kinds and amounts of vegetation to be retained.

#### Oaks And Other Hardwoods

Maintain viability of wildlife species dependent on hardwoods.

On CAS timberlands, where hardwoods occur in conifer stands, retain an average oak and other hardwoods basal area of at least five sq.ft./acre or a minimum 200 sq.ft./40 acres.

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Give retention preference to black oaks 12" DBH or larger, and to groups rather than single trees. If implementation is unreasonable, designate hardwood retention areas within the same management area so that the overall basal area required above is maintained. Retain additional hardwoods if needed to meet Forestwide and management area wildlife objectives. Where desirable and feasible, undertake direct habitat improvement projects to produce mast, cover, or sprouts.

On non-CAS lands, retain oaks for wildlife and vegetation diversity needs, except where reductions result in improved hardwood stand characteristics. (See also oak retention standards under Deer.)

When conversion of hardwood-conifer stands to conifers is proposed, determine wildlife needs for hardwoods within the timber compartment or management area as a part of the project planning process. Designate stands to meet wildlife needs for hardwoods and/or hardwood vegetation diversity requirements. Where hardwood concerns or opportunities have been identified, document project objectives for hardwood species composition, size classes, basal area, and acreage.

#### Peregrine Falcon

Promote species viability (5a).

Provide two nest sites within suitable peregrine falcon habitat for species re-establishment.

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#### Prairie Falcon, Osprey, Golden Eagles

Maintain species viability (5a).

Maintain suitability of occupied prairie falcon, osprey, and golden eagle nesting territories.

#### Bald Eagle

Provide habitat for species recovery (5a).

Maintain and enhance the suitability of currently-occupied nesting territories, and provide sufficient potential nesting, foraging, and winter habitat to meet recovery goals of the Pacific States Bald Eagle Recovery Plan. Apply Rx-11 Bald Eagle Habitat Prescription.

#### Spotted Owl

Maintain species viability and diversity of Forest stands (5a).

Within the existing range of spotted owls, establish a network of 54 habitat areas containing suitable breeding, roosting, and foraging habitat. Apply Rx-12, Spotted Owl Habitat Prescription.

#### Goshawk

Maintain species viability and diversity of Forest stands (5a).

Provide a network of 60 nest stands containing suitable breeding habitat. Apply Rx-13, Goshawk Habitat Prescription.

#### Sierra Red Fox, Wolverine, Marten, Greater Sandhill Crane, Great Gray Owl, and Willow Flycatcher

Maintain viability of State-listed species (5a).

In cooperation with the DFG, conduct surveys for State-listed species. At minimum, provide habitat sufficient to maintain existing populations.

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#### Sensitive and Special Interest Plants

Maintain viable populations of sensitive plant species (5a).

Protect sensitive and special interest plant species as needed to maintain viability. Inventory and monitor sensitive plant populations on a project-by-project basis.

Develop species management guides to identify population goals and compatible management activities/prescriptions that will maintain viability. By 1992, complete species management guides for Penstemon personatus. Continue working on the Botanical Investigations for Lupinus dalesiae and Vaccinium coccinium and assess the need for a guide for these species. Develop a priority schedule for completion of other guides based upon funding, botanical expertise, and potential for adverse impact from other resource management activities.

#### Deer

Protect and improve habitat for emphasis/harvest species (5a).

Implement cooperative FS/DFG deer herd plans. Establish habitat manipulation priority based on the habitat capacity targets and most-limiting range components. Conduct habitat manipulation projects that modify openings and species composition to benefit deer. Modify site preparation and release practices accordingly.

Provide additional black oak in addition to the "Oak and Other Hardwoods" standards where needed to achieve habitat objectives of deer-herd plans: up to 35 sq. ft. basal area on summer range, intermediate range, and fall holding areas, and up to 30% canopy on winter range.

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#### Trout

Improve and protect habitat for trout (5a).

Ensure that trout habitat quality and quantity are not reduced by streamflow-altering activities such as hydroelectric projects. Use Instream Flow Incremental Methodology (IFIM) or a comparable methodology to determine streamflow needs for Class I, II, and III streams.

Provide for fish passage on any drainage or stream where spawning activity occurs, except with concurrence by DFG.

#### Wild Trout Streams

Continue present management of Wild Trout Streams (5a).

Continue to manage portions of Yellow Creek, Nelson Creek, and the Middle Fork Feather River as Wild Trout Streams. See Management Area Direction for areas 4,8,9,10,12,14,18,19, 24,25, and 33, and Prescription Rx-2.

#### **Range**

Allocate sufficient forage to wildlife and recreational livestock (6b).

Permit forage use shown in the Range Analysis Handbook, unless height/weight curves are developed in the particular allotment management plan.

Maintain or increase grazing and range productivity on a sustained-yield basis as demand and economy warrant (6c).

Assure allotment management plan consistency with the grazing strategies specified in the Management Area Direction.

Annually update permittee operating plans. Review and appropriately revise allotment management plans every 10 years, when permits expire, when grazing capacity changes, or when resource conflicts occur.

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Suspend use on vacant allotments valued for other uses (6a).

Implement systems to protect riparian areas (6c).

Use transitory range (6a).

Perform condition and trend studies at least once every ten years on all grazed allotments. When trends are static on unsatisfactory condition range, or are downward on range in any condition, revise allotment management plans to promote upward trend.

Conduct range inspections on all allotments annually, when possible, but at least every other year. Allotments with resource degradation or a history of unauthorized-use problems will be inspected at least once annually.

Grass/forb seed sid trails and closed roads in suitable range areas when compatible with the Allotment Management Plan, or overall management objectives for the area.

Keep vacant allotments available for use, unless otherwise specified in the Management Area Direction. Base initial stocking rates on capacity of the primary range.

See Riparian Area Prescription (Rx-9).

Graze timber plantations in active allotments unless regeneration is jeopardized; then adjust livestock management.



### Timber

Manage timber on a regulated basis on lands classified as suitable (CAS) for scheduled timber production (7b&c).

Compatible with prescription standards and guidelines, schedule timber harvest on lands allocated to the following prescriptions:

Rx-5. Recreation Area (except Lakes Basin)

Rx-10. Visual Retention

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Use special cutting methods compatible with other resource goals without forest regulation on lands not classified as suitable for scheduled timber production (7b&c).

- Rx-11. Bald Eagle Habitat
- Rx-12. Spotted Owl Habitat
- Rx-13. Goshawk Habitat
- Rx-14. Visual Partial Retention
- Rx-15. Timber Emphasis

Except in response to pest epidemic threatening significant resources outside of the area, harvest no (timber from the Bucks Lake Wilderness Area (Rx-1) and the Lakes Basin Recreation Area (portion of Rx-5)). Except when unique values are threatened by non-native pests, harvest no timber from RNA's (Rx-17).

Obtain unscheduled yields compatible with prescription standards and guidelines on lands allocated to the following prescriptions:

- Rx-2. Wild and Scenic River
- Rx-3. Feather Falls Scenic Area
- Rx-4. Challenge Experimental Forest
- Rx-6. Developed Recreation Site
- Rx-7. Minimal Management
- Rx-8. Semi-Primitive Area
- Rx-9. Riparian
- Rx-16. Intensive Range Management

Select silvicultural practices from the full range available on an individual stand basis (7b&c).

Determine all silvicultural prescriptions on an individual timber stand basis, and document through a Stand Record System. Require approval of all prescriptions by a certified silviculturist.

On four timber compartments, Indian Falls (Greenville), Bald Mt. (La-Porte), Saddle (Oroville), and Deans (Quincy), obtain regulated timber

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Regenerate the more productive sites using even-aged or group selection cutting methods (7b&c).

yields using single-tree and group selection silvicultural methods.

Permit clearcuts over 40 acres in size only after 60 days public notice and Regional Forester review. (But do not apply the 40 acre limit to harvests resulting from natural catastrophes such as fire, insect, or disease attack, and wind storm.)

Disperse harvest openings (7b&c).

Plan regeneration harvest only when the technology and knowledge exists to adequately restock harvested lands within five years.

Leave stands at least five acres in size adjacent to harvest openings. Allow openings to have no more than 15% of the periphery in common with other openings. (An opening is no longer considered as such when adequately stocked with trees 4.5 feet high.)

Control competing vegetation thru a site-specific approach (7e).

Select vegetation treatment methods based on project-level analyses of the relative effectiveness, environmental effects, and costs of the feasible alternatives.

For each project, monitor to evaluate predicted project effects and adherence to planned treatment methods.



### Christmas Trees

Harvest Christmas trees only where timber productivity is enhanced or maintained (8a).

Allow harvest of Christmas trees on a commercial basis where cutting will improve a stand of commercial timber species, in areas where normal tree growth cannot be permitted (such as powerline

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corridors), or in areas to be cleared for roads or other uses.

Christmas tree permits for individuals may be provided by the Beckwourth, Greenville, Milford, and Quincy Districts, if this activity does not adversely effect local private Christmas tree entrepreneurs.



### Riparian Areas

Favor riparian dependent resources and limit disturbance in all riparian areas including riparian and aquatic ecosystems, wetlands, streambanks, and floodplains (9a,10b).

Favor riparian resources over other resources, except cultural resources in cases of conflict. Apply Rx-9, Riparian Area Prescription. Also see standards and guidelines for "Water".



### Water

#### Water Quality

Maintain or, where necessary, improve water quality using BMP's (10a, 11a).

Implement FS Best Management Practices (BMP's) to meet water quality objectives and maintain and improve the quality of surface water on the Forest. Identify methods and techniques for applying the BMP's during project level planning and incorporate them into the associated project plan and implementation documents (see Plan Appendix Q).

Coordinate with the counties, CALTRANS, and the Union Pacific Railroad to eliminate the sidecasting of waste material along travel ways, except in designated locations.

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#### Municipal-Supply Watersheds

Apply Forest-wide water quality objectives (i.e., State objectives) to municipal-supply watersheds (10a).

Through the use of BMP's, keep water quality at a level that will allow a safe and satisfactory supply when given reasonable treatment by the purveyor.

When planning projects within these watersheds, perform hydrologic surveys and analyses, and thereafter monitor for compliance with BMP's.

#### Water Uses and Needs

Assure an adequate water supply for PNF and instream needs (10a).

Conduct a Water Use; Needs, and Availability Survey where stream diversions or flow changes are proposed, except for FERC-regulated projects for which intensive studies are required. Allow new consumptive use only of those waters surplus to current uses, future PNF needs, and need needed instream flows. Base conclusions for Class I, II, and III streams on Instream Flow Incremental Methodology (IFIM) or comparable method approved by the Forest Service.

Annually update the Water Uses and Needs Inventory.

Protest to the State Division of Water Rights all water developments that may decrease water supply or quality to the detriment of needed instream flows or existing or anticipated PNF needs.

Secure water rights for existing and foreseeable PNF consumptive uses.

Improve water yield (increase volume and delay snowmelt) from

Where silvicultural and logging system needs are met and planning and

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the Red Fir zone by timber harvest adjustment (10a).

implementation costs are minimal, or financial assistance is available from State or local agencies, create shaded openings by limiting the dimension to 1-2 tree heights. Confine program to areas where induced runoff will not cause water quality degradation. Concentrate activities on north-facing slopes.

#### Watershed Protection

Preserve watershed conditions so that soil productivity and water quality are maintained (10a,11a,14a).

In areas of oversteepened slopes (over 60%), low effective ground cover density, and very high erosion potential or having a high risk of landslide, expose no more than 5% of the areas to bare mineral soil per decade. Modify these disturbance limits upon specialist recommendation on a case-by-case basis.

Complete the Watershed Improvement Needs Inventory (WIN) and update annually by identifying all lands contributing to watershed degradation thru analysis of NFS watersheds on a priority basis and by individual project assessment. Analyze and mitigate on a total watershed basis, not only on project areas.

Protect highly sensitive watersheds thru cumulative impact planning and rehabilitate highly disturbed watersheds (10b).

Cooperate with local, State, and Federal agencies as well as private land owners in long-range watershed planning. Use an interdisciplinary approach. Analyze no larger than 3rd order watersheds or land units of similar size.

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At the project planning level, assess cumulative watershed impacts within 3rd order or smaller watersheds. If the cumulative disturbance is at or near a threshold of causing disproportionate damage, limit additional disturbance by deferring activities and/or by rehabilitation.

#### Streamside Management Zones (SMZ)

Limit disturbance in Streamside Management Zones (9a).

Establish Streamside Management Zones (SMZ's) according to the guidelines shown in Appendix M, Guidelines for Widths of Streamside Management Zones.

Prepare and adhere to a Streamside Management Zone plan for any activity within an SMZ. This plan shall establish site specific resource objectives and include at least the following:

- objectives for vegetation management based upon the needs of riparian-dependent resources, and objectives to maintain or enhance water quality.
- manipulation practices and maximum amount of vegetation manipulation allowable to meet the stated objectives.
- maximum area of soil exposure allowable, and needed erosion control measures to meet the stated objectives, while maintaining at least 75% effective organic ground cover. This cover includes humus, duff, litter, and vegetation in contact with the ground and at least 2" thick (or the existing thickness if less than 2" in the area), interwoven

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#### Channel Maintenance and Flood Control

Protect life and property from flooding and stream channel degradation where threat is moderate to high (10b).

- with sticks, branches, limbs, and logs.
- an analysis of project areas within the SMZ having over-steepened slopes (over 60%) with a very high erosion potential or high instability, and procedures to limit soil disturbance to no more than 5% of these areas per decade.
- opportunities and procedures for restoration of any deteriorated area.
- prescription for roads, skid trails, landings, and other harvesting facilities.

Remove hazardous trees (trees leaning over the channel at angles over 30 degrees) only if the number of trees already down are adequate for habitat and channel stability maintenance or substantial channel degradation may otherwise occur.

As needed remove excavated material from the floodplain.

Revegetate disturbed areas within floodplains to stabilize soil, benefit fish and wildlife, and restore the natural flood control qualities.



#### Soil

Prevent significant or permanent impairment of soil productivity (11b).

During project activities, minimize excessive loss of organic matter and limit soil disturbance according to the Erosion Hazard Rating (EHR) as follows:

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- EHR 4-8: Conduct normal activities
- EHR 9-10: Minimize or modify use of soil-disturbing activities.
- EHR 11-13: Severely limit soil-disturbing activities.

Determine adequate ground cover for disturbed sites outside of streamside management zones during project planning on a case-by-case basis, based on specialist evaluation, using the following table as a guide:

EHR	Minimum Effective Ground Cover*
Low (4-5)	40%
Mod. (6-8)	50%
High (9-10)	60%
Very High (11-13)	70%

\* Material that impedes rain drop impact and overland flow of water, including organic residues 1/2" thick, exposed roots, stumps, surface gravels more than 3/4", and living vegetation.

To avoid land base productivity loss due to soil compaction, dedicate no more than 15% of timber stands to landings and permanent skid trails. Measurement will be along the travel way and shall not include width of cut and fill slopes.

Develop specific soil evaluation and mitigation measures for each project site as needed.

Incorporate measures for protection of long-term soil productivity in controlled burn prescriptions through an interdisciplinary pro-

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Enhance soil productivity on selected sites (11b).

cess. Specify objectives for organic material retention for maintenance of ground cover.

Identify areas suitable for production enhancement and fertilization.

- Where justified, fertilize regenerated stands that meet R-5 nutrient deficiency levels.
- Increase range forage by fertilization where potential exceeds current production.

Eliminate excessive soil loss (11a).

Develop and apply erosion control plans to road construction, mining, recreation development, and other site disturbance projects. Develop specific mitigation measures for each project site as needed.

Conduct Order II Soil Surveys by timber compartments to help predict the need for soil protection measures.

Document observations of slope failures, significant erosion of and from road surfaces, erosion of mine spoils, and any other sources of sediment that are affecting water quality or channel stability. Use for future erosion control planning.

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#### Air Quality

Adjust activities to prevent violation of air pollutant standards (12a).

Conduct prescribed burning only on designated "burn days" or secure a variance from the local APCD.

Use the most cost-efficient means of effective dust abatement during construction and logging activities.



#### Minerals and Materials

Encourage mineral and materials development that reasonably protects surface resources, and provides for land reclamation (13a).

Require a Plan of Operations if earth moving equipment is used (other than small dredges), or where occupancy is necessary.

Minimize disturbance and contamination of resources thru appropriate conditions in operating plans, permits, and leases; coordinate with applicable State and Federal agencies.

Before authorizing a Plan of Operations for a major land-altering operation, determine that the probability of sufficient mineral occurrence warrants the proposed land disturbance; obtain a mining engineer's opinion in questionable cases.

Require that Plans of Operation meet State requirements of Waste Discharge Permits and Streambed Alteration Permits and State Water quality objectives.

Require that tailing ponds and down-slope catchment basins will withstand no less than a 25 year, 6 hour storm. Require seepage control and winterization of all ponds and other structures.

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Maintain and update a materials source inventory for Forest uses (13a).

Require that tailings ponds and downslope catchments be constructed to withstand overflows without failures and should overflows occur prearranged contingency plans will be activated.

Require containment and neutralization of any toxic materials from mining operations. Prevent downstream degradation by requiring reuse of mine wastewater via settling ponds or clarifiers, confinement in evaporation ponds, or treatment to eliminate toxicity.

Allow rainwater ponds in mined areas if desirable, safe, and non-stagnant. Otherwise, require permanent drainage and reclamation.

Require preparation of a Spill Prevention, Control, and Countermeasure Plan in accordance with regulations if fuel, lubricant, or any other hazardous material is to be used.

Require reclamation of disturbed areas.

Require bonds sufficient to cover reclamation costs as a part of any Plan of Operations.

Conduct a materials source investigation if a sufficient quantity and quality of material is not readily available, or if better sources may be available.

Require preparation of a material source development and rehabilitation plan for each project involving more than 1,000 cubic yards.

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Recommend withdrawal from mineral entry areas valued for other purposes (13a).

Request withdrawal or continuation of withdrawal, subject to valid existing rights, of:

- Administrative sites.
- Recreation and Scenic Zones of the Wild and Scenic River (Rx-2).
- Special Interest Areas (Feather Falls Scenic Area, Soda Rock Geologic Area, Butterfly Valley Botanical Area).
- Challenge Experimental Forest (Rx-4).
- Recreation Areas (Rx-5).
- Developed Recreation Sites (Rx-6).
- Research Natural Areas (Rx-17).
- Wild Trout Streams portions of the Middle Fork of the Feather River, Yellow Creek, and Nelson Creek.
- Selected areas of unique botanic, geologic, or ecologic value (as identified in the Management Area direction).
- Selected gold panning and dredging streams (as identified in the Management Area direction).
- Selected National Register sites
- Traditional Native American religious properties (as shown in the Planning Records).
- Important materials sources (as identified in the Management Area Direction).
- Scenic roadside corridors along Highways 70 and 89 and the Gold Lake Highway.



### Geology

Protect public safety and Forest resources from slope failure (14a).

Avoid or provide special treatment of unstable areas to avoid triggering mass movement.

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Prevent loss of groundwater quality and quantity (14b).

Use the PNF Land Stability Risk Classification data for preliminary assessment of instability problems on all projects which disturb the land surface. Provide geotechnical evaluation of projects with a moderate or higher potential to initiate or accelerate landslides.

Allow no land-disturbing activities on extremely unstable land unless a geotechnical investigation determines certain activities are appropriate.

Avoid earthquake fault zones whenever possible when designing roads and other facilities.

Review geotechnical evaluations of private proposals such as hydroelectric developments.

Conduct a geotechnical assessment of all groundwater development projects or any other project which might adversely impact the groundwater table.



### Energy

Reserve firewood sufficient to meet increase in local demand (15b).

Examine all opportunities to provide fuelwood, encourage utilization where resource protection needs can be met.

Facilitate hydroelectric development that provides protection of all resources (15a).

Coordinate Forest protection requirements with those of DFG and the State Historic Preservation Officer, and the Regional Water Quality Control Board.

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Require applicants to furnish adequate plans and environmental studies.

Apply consistent environmental protection requirements through recommended conditions for water rights protest dismissal, "4 (e)" letter conditions for any FERC license, and any Special Use Permit issued by the Forest.



### Lands

#### Special Uses and Corridors

Allow for land uses by the private sector or other agencies thru permits, if compatible with Management Area direction, use of other lands is not feasible, environmental impacts are mitigated, and the public interest is protected (16b).

Issue permits for a maximum of 10 years, unless a longer period can be justified. Review fees every five years; adjust as needed.

Require applicants to furnish necessary environmental studies and encourage applicants to provide funds for construction liaison.

Limit electronic permits to existing sites unless an analysis justifies a new site.

Underground all new utility lines except those for power transmission in excess of 35 kv, unless an analysis shows that PNF resources and environmental values are better protected by aerial construction.

Designate transportation and utility corridors where needed to avoid proliferation of rights-of-way. Prohibit corridors through Wilderness and the Wild and Scenic Zones of the Wild and Scenic River. Where possible,

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locate new corridors along existing corridors. Avoid recreation areas, summerhome sites, Special Interest Areas, Semi-Primitive Areas, high site timberland, ridgetops, and canyon crossings.

#### Land Lines

Survey and mark property lines as needed to avoid management uncertainty (16a).

Survey, mark, and post to FS standards all needed property lines prior to management activity.

#### Occupancy Trespass

Resolve unauthorized occupancies (16a).

In a timely manner, resolve occupancy trespass by land exchange, issuance of Special Use Permit, title transfer by the Small Tracts Act, or removal, as best serves the public interest.

#### Landownership Adjustment

Accomplish ownership adjustment that maintains timber productivity and that consolidates lands, or results in acquisition of Wild and Scenic River lands, Threatened or Endangered Species habitat, critical deer range, critical rangeland watering sources, or areas crucial to recreation management (16a).

Consider applications on a case-by-case basis under the Sisk Act, or other authority.

Base the land adjustment program on a PNF Landownership Adjustment Plan developed to implement the Management Area direction herein.

Assure that lands scheduled for exchange are kept free of encumbrances such as permits or constraints that exceed two years, are not substantially reduced in timber value (>20%), and receive only minor investment in surveys, roads, and other resource management.

Limit interim timber sales to salvage and/or thinning so as to enhance stand health and value.

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#### Rights-of-Way

Acquire road rights-of-way needed to meet management goals (16a).

Use land purchase to acquire Wild and Scenic River properties, Threatened and Endangered species habitat, and lands critical to recreation purposes.

Inventory important deer habitats, and identify key or critical portions for retention or acquisition.

Acquire rights-of-way over lands in other ownership as needed to implement direction of this plan.



## Facilities

#### Roads

Construct/reconstruct roads to minimum standards achieving maximum economy and resource protection (17a).

If a road cannot be maintained at the level needed for its purpose, reconstruct it to the appropriate higher or lower standard.

Reconstruct to a lower standard those higher standard roads needing only Level I maintenance (temporarily closed) where the discounted costs of higher level maintenance exceeds the reconstruction cost.

Where year-round, full-time use is needed, construct roads to the minimum all-weather standard that will suffice.

Maximize new road economy by providing needed utility and resource protection at the lowest standard and cost.

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Reduce the impact of roads on soils and water quality (17a).

Construct/reconstruct roads to the specifications shown in Appendix J, according to intended use.

Avoid or minimize road locations on steep slopes (>60%), potentially unstable areas, wet areas, meadows, ground flatter than 10%, and across streams.

Restrict construction in streams to low flow periods.

Design cuts and fills for maximum stability and minimum soil loss.

Stabilize road prisms as needed to prevent sediment yield to watercourses. Revegetate cut and fill slopes where needed.

Provide roadway drainage as needed, especially along stream crossing approaches where sedimentation may occur.

Identify areas of instability and avoid where possible. Proceed through areas of instability only upon recommendation by geotechnical personnel.

Reduce the impact of roads on air quality (17a).

Stabilize roadways and abate dust to avoid unacceptable resource damage or to allow use of otherwise impassable or unsafe roads.

Reduce the impact of roads on wildlife (17a).

Adjust road design and location, or use permanent/seasonal closures, to avoid or reduce impacts on migration routes, streamside management zones, raptor nesting areas, sensitive plant populations, and other key wildlife areas.

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Operate roads at the minimum standards providing utility and resource protection (17a).

Seed or water bar closed roads, intermittently-used roads, or obliterated roads to improve wildlife/fish habitat.

In cooperation with the State DFG, selectively close roads to protect wildlife, if analyses justify closure.

During the planning period, establish road management objectives for each PNF road according to the following:

#### Maximum and Moderate Access

Open roads for public, commercial, and/or administrative uses. If planned and publicized, allow temporary closures of less than one year.

#### Maximum Access

Maintain for unrestricted use (safety and convenience) at levels III, IV, or V, commensurate with volume of use.

#### Moderate Access

Maintain at a level appropriate for sedan travel but do not invite that type of use. Leave primitive appearance within sight distance of the entrance. Maintain at level III.

#### Limited Access

Regulate road use to protect the roadway, limit maintenance expenditures, and reduce user conflicts.

Maintain for PNF administrative use, dispersed recreation, or for traffic regulated by special permit. Maintain at level II.

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Use advisory signs such as "Limited Maintenance - Not Suitable for Low Clearance Vehicles."

### Closed Roads

Close roads between resource management activities for resource or investment protection.

Deactivate roads by ditching or barricading with native material, or obscure road entrances so that they are not noticeable to the casual observer.

Remove major drainage structures and reshape for natural drainage. Maintain at level 1 during deactivation.

Show road as "Inactivated" on administrative work maps.

Fund reopening and subsequent closure from ensuing projects.

### Abandoned Roads

Obliterate roads no longer needed.

Deactivate by scarifying and revegetating the road surface within sight distance of the entrance. Scarify entire surface to promote percolation and natural revegetation.

Maintain at Level I until obliterated.

Remove major drainage structures and reshape for natural drainage.

Fund obliteration from project monies or rely on natural overgrowth.

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Provide road signing for information and other purposes (17a).

#### Facilities Other Than Roads

Provide cost-efficient support facilities (17a).

Show roads as "deactivated for obliteration" on administrative work maps; after obliterated, remove from map. Show no road number.

#### Temporary Roads

Construct a temporary road when there is only a one-time need for road access.

Obliterate the road and return to resource production at project completion. Fund with project monies.

Install signs in accordance with the "Manual of Uniform Traffic Control Devices", FSH 7109.11, or supplemental direction, with priority given to the higher level roads and to purpose in the following order: hazard, regulation, direction, information.

Continue to use facilities if management objectives can be met, but reduce reliance upon leased facilities when such opportunities arise.

Reconstruct facilities not meeting regulations.

If no facility exists that can meet Forest needs, acquire by trade or construct the minimum facility needed. Lease facilities only if other alternatives are not as cost-efficient.

Meet building code requirements in effect at the time of construction or modification.

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Maintain cost-efficient support facilities (17a).

Comply with requirements of the Federal Water Pollution Control Act, as amended by the Clean Water Act, and all requirements of Federal, State and local agencies governing public water systems and the disposal of wastewater.

Maintain safe facilities for employees and the public.

Inspect existing facilities periodically to identify deficiencies.

### Fire and Fuels

Manage fuels to reduce high risk hazard and/or to facilitate cost-efficient resource protection (18a).

Give preference to fuel utilization. Where utilization will not be effective, employ broadcast burning or underburning, pile and burn treatment, and/or fuelbreak system construction.

Meet effective organic ground cover for streamside management zones, minimize erosion, and minimize deposition of ash, sediment, nutrients, and debris into streams and water bodies.

Unless otherwise determined during a project interdisciplinary process, assure that the resulting Suppression Difficulty Index (see Appendix P) meets these requirements:

a) Harvest fuels:

<u>Type of Entry</u>	<u>Index</u>
Pre-Commercial Thinning	8
Commercial Thinning	10
Overstory Removal and Sanitation	10
Regeneration	5

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Make appropriate suppression response to all wildfires (18b).

Provide a timely suppression response to wildfire with appropriate forces (18b).

Use Prescribed fire in the Lakes Basin area to maintain the natural character of the area.



### Law Enforcement

Protect resources and provide for safety of the public and employees.

b) Natural fuels: as determined in a project analysis.

Clearly define water quality objectives in Burn Plans. Develop, as part of these Plans, mitigation measures to be used in cases where riparian and water quality standards and guidelines cannot be met.

Implement a strategy of "Control" on all wildfires. Any strategy other than "Control" must be approved by the Regional Forester.

Implement the Fire Management Protection Program described in Appendix N.

Consider the immediate Forest and Regional wildfire situation in determining the appropriate response to each wildfire.

Use a strategy of "Control" for wildfire on private lands protected under agreement with the Calif. Dept. of Forestry.

Implement a PNF Fire Management Action Plan upon adoption.

Develop guides for the use of unplanned ignitions, implementation subject to Regional Forester approval.

Prevent violations of the law by making NF restrictions clear and reasonable, informing the public, and pursuing aggressive enforcement.

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### Forest Pests

Control forest pests thru a site-specific approach (19a).

Maintain a Forest Law Enforcement Plan that prescribes actions to eliminate or acceptably reduce law enforcement problems, especially illegal occupancy, timber theft, and incendiary fire.

Select pest management methods based on project-level analyses of the relative effectiveness, environmental effects, and costs of the feasible alternatives.

For each project, develop and implement a monitoring plan to evaluate predicted project effects and adherence to planned treatment methods.



### Special Interest Areas

Protect unique botanic values for research purposes (20a).

Consider additional areas for RNA status as need and opportunity arise. Protect established, recommended, and candidate RNA's to preserve their research values.

Protect areas of unique scenic, botanic, or geologic value (18b).

As new areas are identified, or new information about areas already considered is received:

- evaluate qualifications for Special Interest Area status, and determine values that would be foregone by preservation.
- recommend unique areas for formal classification, and define a management prescription and boundary for each.
- determine those areas that should be nominated as National Natural Landmarks or RNA's and so recommend.

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- manage to protect the unique scenic, geologic, botanic, zoologic, or other special values. Where compatible, encourage public use and/or use of other resources.
- where special values exist, but the area does not qualify for official SIA designation, manage to reasonably protect those values.

Preserve existing and potential "champion" trees or groves. Develop a clear, signed boundary for each.