IV. FOREST MANAGEMENT DIRECTION

A. FOREST MANAGEMENT GOALS

The following goals are broad statements of direction that describe how Salmon National Forest lands will be administered to assure long term protection and utilization of resources for the people of the United States. These goal statements are the principal basis for the objectives developed in Part C of this chapter.

Vegetative Diversity

Maintain adequate structural diversity of vegetation on Forest lands to ensure habitat for minimum viable or target populations of all wildlife species and to provide representations of the various ecological stages of endemic plant communities.

Recreation and Visual Quality

Improve the quality of recreation experience and increase the PAOT (Person At One Time) capacity of developed recreation sites in heavy use areas.

Increase emphasis on managing dispersed recreation use in areas providing Semi-primitive and Roaded Natural recreation opportunities and maintain the generally high quality of these settings.

Improve the condition of priority trails in designated wilderness, management areas featuring semi-primitive recreation opportunities and nationally designated trails and maintain other high use system trails in a usable condition.

Provide for pleasing visual landscapes in areas viewed from major travel routes crossing the Salmon National Forest.

Wilderness

Provide for a quality wilderness experience in the Salmon National Forest portion of the Frank Church--River of No Return Wilderness consistent with Frank Church--River of No Return Wilderness Management Plan objectives.

Wildlife and Fisheries

Provide wildlife habitat of sufficient quantity and quality to sustain target populations of economically important management indicator species.

Provide wildlife habitat of sufficient quantity and quality to at least maintain minimum viable populations for all other management indicator species.

Improve elk habitat on the Forest to achieve a moderate increase over current population levels.

Manage classified threatened and endangered species habitat to maintain or enhance their current status.

Maintain aquatic habitat capability at a level sufficient to meet State water quality and species production goals for both resident and anadromous fisheries.

Explore opportunities to cooperate with Idaho Department of Fish and Game in reintroductions of bighorn sheep in areas of suitable, vacant historic habitat.

Range

Provide for the grazing of livestock at slightly increased levels on selected allotments.

Manage all allotments to maintain suitable rangelands that are presently in satisfactory condition, and improve suitable rangelands that are in poor or fair condition.

Control noxious weeds as needed to protect the value of other resources and comply with State law.

Maintain an effective predator control program in cooperation with the U.S. Fish and Wildlife Service and State agencies.

Timber

Provide a continuous flow of raw material available to dependent manufacturing communities.

Provide a personal use and commercial firewood program to meet the demands of local Forest communities.

Improve growth, health, and vigor of timber stands through silvicultural treatments while maintaining or improving other resource values.

Soil and Water

Maintain watershed conditions and water quality such that downstream beneficial uses are protected and compliance with State standards is achieved. Water rights issued by the State of Idaho will be recognized by the Salmon National Forest.

Consumptive and nonconsumptive water rights will be quantified and water rights claims for nonreserved water will continue as new uses are developed.

Continue the ongoing Forest Soil Resource Inventory in conjunction with the Soil Conservation Service and the University of Idaho.

Conduct management and resource development within riparian zones in a manner compatible with protection of water quality and fish habitat.

Minerals

Encourage the legitimate exploration and extraction of leasable and locatable minerals from National Forest lands while maintaining or improving other resource values.

Cultural Resources

Locate, determine the significance of, and where appropriate preserve, protect and interpret historical and archeological sites.

Research Natural Areas

Protect the Gunbarrel Research Natural Area and other potential Research Natural Area sites from encroachment so they remain in an unmodified condition.

Air Quality

Management of Salmon National Forest lands will be within State air quality standards.

Fire Protection

Provide a cost effective level of fire protection to minimize the combined costs of protection and damages, and prevent loss of human life.

Use prescribed fire to treat hazardous fuel conditions, accomplish range improvement, wildlife habitat improvement, and to create a diversified Forest condition when it is cost efficient.

Lands

Achieve the optimum land ownership pattern to provide for resource uses to meet the needs of the public now and in the future.

Acquire rights-of-way, easements, or other agreements needed to provide for the optimum protection and use of National Forest resources.

Be responsive to public and private needs for use of National Forest lands and authorize occupancy by special use permit when it is determined to be in the public's interest.

Human and Community Development

Provide the opportunity for human resource programs that assist the disadvantaged with employment opportunities.

Provide for Forest Service preparedness to assist local communities coping with natural disasters, defense emergencies, and rural community fires.

Facilities

Develop and maintain a Forest transportation system that provides safe, economical, functional, and environmentally sound access for managing and protecting the Forest resources.

General Administration

Maintain an effective organizational workforce that contains the necessary resource management skills to implement Forest programs and administrative support skills in contracting, fiscal services, radio communications, computer science, personnel management, and law enforcement.

Conduct effective public involvement programs to ensure public participation in National Forest decision making and maintain productive working relationships with other governmental agencies.

Implement a facilities management plan for the operation and maintenance of administrative sites, buildings, and work centers needed for the economical and efficient administration of the Forest.

B. FORESTWIDE DIRECTION

The management requirements in this section set the baseline conditions that must be maintained throughout the Forest in carrying out this Plan. They establish the environmental quality requirements, renewable and depletable resource requirements, and mitigating measures that apply to the Forest. Any necessary additions to them are included in the management requirements for the individual management areas. The management requirements listed in the specific Management Area Direction Section (Chapter IV E) supplement those in this section. Substantive changes which alter the intent of these management requirements may not be made without amending or revising the Forest Plan. Editorial and other minor modifications to these management requirements which do not alter their intent may be made without amending or revising the Forest Plan.

Management requirements are presented in three columns: Management Activities, General Direction Statements, and Standards and Guidelines.

Management Activities are work processes that are conducted to produce, enhance, or maintain output levels, or to achieve administrative and environmental quality objectives. Management Activities are identified by a code number and title defined in the Management Information Handbook (FSH 1309.11) dated September 1983. In some cases, management activities were grouped under one activity when it was not appropriate to develop separate requirements.

National Forest System land will be managed to comply with laws, regulations, Executive Orders, direction in the Forest Service Manual, and Regional Acceptable Work Standards.

General Direction Statements specify the actions, measures, or treatments (management practices) to be done when implementing the management activity, or the condition expected to exist after the general direction is implemented.

Standards and Guidelines are quantifications of the acceptable limits within which the general direction is implemented. These Forest standards and guidelines adhere to the Regional Guide Standards and Guidelines unless otherwise determined through the planning process that changes are necessary and practical for the situation on the Salmon National Forest.

Management requirements included in overall Forest direction are displayed on the following pages.

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Cultural Resource Management (A01, 02, 03, 04)	1. Protect, maintain, find an adaptive use for, or interpret all cultural resources on National Forest System (NFS) lands which are listed on the National Register of Historic Places, the National Register of Historic Landmarks, or have been determined to be eligible for the National Registers. 2. Develop management plans for sites nominated to the National Register to include mechanisms to prevent damage and techniques for maintenance. 3. Nominate or recommend cultural resource sites to the National Register of Historic Places in the the following priority: A. Sites representing multiple themes; B. Sites representing themes which are not currently on the National Register within the State; C. Sites representing themes which are currently represented by single sites; D. Other eligible sites. 4. Protect and foster public use and enjoyment of cultural resources: A. Complete cultural resource surveys prior to any undertaking which may affect significant cultural values. B. Avoid disturbance of known cultural resources until evaluated and determined not significant; C. Collect and record information from sites where there is no other way to protect the properties; D. Issue antiquities permits to qualifying academic institutions or other organizations for the study and research of sites.	a. Specified roads and timber sale unit boundaries will, at a minimum, be flagged in order to facilitate cultural resource survey. If the results of the survey of specified roads or units determines the presence of significant cultural resources, then temporary timber sale roads and skid trails will also be flagged and surveyed by a cultural resource specialist. If the timber sale is in an area or landtype known to have high potential for cultural resources, then all specified and temporary roads, as well as all skid trails, will likewise

E. Maintain confidentially of site locations except those managed for public interpretation.

F. Develop by 1/89 a list of sites that exhibit vandalism problems or natural destruction and schedule monitoring on an as needed basis. Where repeated vandalism occurs, institute procedures coordinated with law enforcement directed at apprehension of vandals and termination of destruction.

G. Develop by 1/89 a list of opportunities for the interpretation of cultural resource properties for the education and enjoyment of the public.

be flagged and surveyed by a cultural resource specialist prior to ground disturbing activities.

b. Consultation with the cultural resource specialist is required prior to implementation of on-the-ground changes of road or harvest unit locations to determine the need for additional field review.

5. Consult with the State Historic Preservation Officer on project effect and site significance.

6. Work toward a complete inventory of all cultural resources on the Salmon National Forest.

a. Priority for survey of areas not directly related to projects will be those areas suspected to contain high cultural resource values as identified in Appendix E.

b. Unless accelerated by project needs, completion of the Forest inventory is projected for 2020.

7. Review and update, if necessary, the existing Forest Cultural Resources Overview every five years.

a. The Cultural Resource Overview for the Salmon National Forest (Rossillon, October 1982) is incorporated herein by reference.

8. Maintain identified National Register eligible sites according to direction provided in the River of No Return Wilderness Historic Building Survey Report (2/3/82) which is a part of the Historic Structures Inventory, River of No Return Wilderness, which is a part of the Management Plan for the Frank Church--River of No Return Wilderness which is incorporated into the Forest Plan by reference.

9. Coordinate cultural resource planning with the State Historic Preservation Plan.

Visual Resource Management (A01, A02, A13, A14)

1. Apply the Visual Management System to all national Forest System (NFS) lands.

Travel routes, use areas and water bodies determined to be of primary importance are sensitivity Level 1 and appropriate Visual Quality Objectives (VQO's) are established according to the visual management system.

2. Rehabilitate all existing projects and areas which do not meet the adopted Visual Quality Objective(s) (VQO) specified for each management area. Set priorities for rehabilitation, considering the following:

A. Relative importance of the area and the amount of deviation from the adopted VQO. Foreground areas have highest priority;
B. Length of time it will take natural processes to reduce the visual impacts so that they meet the adopted VQO;
C. Length of time it will take rehabilitation measures to meet the adopted VQO; and
D. Benefits to other resource management objectives to accomplish rehabilitation.

3. Achieve enhancement of landscapes through addition, subtraction or alteration of elements of the landscape such as vegetation, rockform, water features or structures. Examples of these include:

A. Addition of vegetation species to introduce unique form, color or texture to existing vegetation;
B. Vegetation manipulation to open up vistas or screen out undesirable views.

4. Plan, design and locate vegetation manipulation in a scale which retains the color and texture of the characteristic landscape, borrowing directional emphasis of form and line from natural features.	a. Meet the Visual Quality Objectives of retention and partial retention one full growing season after completion of a project. Meet modification and maximum modification objectives three full growing seasons after completion of a project. b. For purposes of visual analysis, in areas with a VQO of retention or partial retention, an opening is considered no longer an opening when the trees have reached an average height of 22-25 feet. c. The requirement to borrow line from natural features may be relaxed when harvesting cable logging units in sensitivity Level 3 areas (unseen or seldom seen from visually sensitive viewpoints).
5. Blend soil disturbance into natural topography to achieve a natural appearance, reduce erosion and rehabilitate ground cover.	
6. Revegetate disturbed soils. In large projects this may have to be done in stages.	a. Revegetate disturbed soils, except when project objectives require minimum ground cover such as reforestation.
7. Choose facility and structure design, color of materials, location and orientation to meet the adopted Visual Quality Objective(s) for the management area.	
8. The Standards and Guidelines as described here assume situations of low visual absorption capability. These Standards and Guidelines (e.g., unit size, rotation age) may be relaxed at project level planning depending on site specific considerations such as existing vegetative screening, duration of view, etc.	a. When the Visual Quality Objective is retention the following Standards and Guidelines will apply: <u>Foreground</u> Average Minimum Rotation Age: PP 300 DF 200 LP 120

Unit Size: CC 1/2-2 Acres
SW 1/2-4 Acres
LP Stems/Ac 40-45
PP Stems/Ac 15-25
DF Stems/Ac 20-30

The regenerated stand shall meet or exceed all of the following characteristics before a cutover area is no longer considered an opening:

Minimum Stocking Level: 150-190 Trees/Acre
Tree Stand Height: 22-25 Feet
Crown Closure: 30% on 75% of the stocked plots (regen. stand character same for Mg and Bg).

Middleground

Average Minimum
Rotation Age: PP 170
DF 170
LP 100
Unit Size: CC 1-4 Acres
SW 1-6 Acres
LP Stems/Ac 35
PP Stems/Ac 15-25
DF Stems/Ac 15-25

Background

Average Minimum
Rotation Age: Standard
Unit Size: CC 2-7 Acres
SW 5-10 Acres
LP Stems/Ac 15-25
PP Stems/Ac 10-20
DF Stems/Ac 10-20

b. When the Visual Quality Objective is partial retention the following S&G may apply:

Foreground

Average Minimum
Rotation Age: PP 50% 300,
50% 170
DF 150
LP 120

Unit Size: CC 1-5 Acres
SW 2-7 Acres
LP Stems/Ac 35-40
PP Stems/Ac 15-25
DF Stems/Ac 15-25

The regenerated stand characteristics are the same for partial retention as retention.

Middleground

Average Minimum
Rotation Age: PP 150
DF 130
LP 100
Unit Size: CC 5-10 Acres
SW 7-15 Acres
LP Stems/Ac 30-35
PP Stems/Ac 15-20
DF Stems/Ac 15-20

Background

Average Minimum
Rotation Age: Standard
Unit Size: CC 7-15 Acres
SW 10-25 Acres
LP Stems/Ac 10-25
PP Stems/Ac 10-20
DF Stems/Ac 10-20

c. When the Visual Quality Objective is modification or maximum modification the following S&G will apply:
Rotation Age: Standard
Unit Size: Standard
The regenerated stand shall meet or exceed all of the following characteristics before a cutover area is no longer considered an opening:
Minimum Stocking Level: 150-190 Trees/Acre
Tree Stand Height: 8 Feet

Recreation Site Construction and Rehabilitation (A05 AND 06)

1. Provide appropriate development facilities where the private sector is not meeting the demand.

2. Maintain cost-effective developed recreation facilities which complement non-Forest Service developments.

3. Opportunities will be made available for handicapped persons.

4. Facilities proposed for construction or reconstruction which lie within identified 100-year floodplains will be evaluated as to the specific flood hazards and values at the site and downstream. Practicable alternatives will be thoroughly evaluated.

5. Construct no new recreation facilities immediately adjacent to the shoreline of lakes, rivers, or streams unless the facilities are directly related to water activities or access.

6. Limit manmade improvements to those necessary to meet the management objectives and designated development scale of the site.

Management of Developed Recreation Sites (A07)

1. Encourage development of private sector recreation oriented support services.

2. Design, construct, and operate developed sites which are adjacent to or provide an access point into a wilderness to complement wilderness management objectives.

3. Construct, reconstruct and maintain developed sites in accordance with the established Recreation Opportunity Spectrum (ROS) classification for the management area.

a. Standards and Guidelines

ROS Class*	Site Development Scale**
P	Not to Exceed 1
SPNM	Not to Exceed 2
SPM	Not to Exceed 2
RN	Class 3 or 4

* P = Primitive
SPNM = Semi-Primitive Non-Motorized
SPM = Semi-Primitive Motorized
RN = Roaded Natural
**FSM 2331.47

4. Construct fences and cattleguards as necessary to keep livestock out of developed sites.

5. Encourage use during weekdays and other slack periods and on sites that receive low use (e.g., weekly recreation report).

6. Allow no motorized use on Meadow Lake, Iron Lake, Wallace Lake, or Yellowjacket Lake.

7. Removal of trees in and immediately adjacent to developed and potential sites will only be permitted under one of the following circumstances:

A. Safety Hazard
B. As needed to clear for facilities
C. To open desirable vistas
D. When silviculturally desirable to maintain the recreation values of the stand
E. Fire suppression

8. Manage development scale 3 and 4 sites to standard when at least one of the following are met:

A. A campground is designated as a fee site;
B. More than 20 percent of theoretical capacity is being utilized;
C. A group campground or picnic ground has a reservation system and/or user fee; or
D. The site is a boating site with a constructed ramp, or a staffed visitor information center.

Dispersed Recreation Management (A08)

1. Provide a broad spectrum of dispersed recreation opportunities in accordance with the established Recreation Opportunity Spectrum (ROS) classifications for the management area.

2. Close or rehabilitate dispersed sites where unacceptable environmental damage is occurring or where required by other management objectives.

a. Restricted camping areas may be established by special order. Overnight camping would be permitted in designated areas only.

b. Where unrestricted camping is permitted:

- Permit continued use of sites in Frissell condition Classes 1 through 3.
- Permit continued use or close and restore Frissell condition Class 4 sites on a case by case basis.
- Close and restore Frissell condition Class 5 sites.

3. Manage dispersed recreation activities to not exceed the established ROS PAOT/Acre capacity.

Manage use of trails in dispersed areas to not exceed the established PAOT/Mile of trail guidelines.

a. Standards and Guidelines

Recreation use and capacity range during the snow-free period (PAOT/Acre):

Trail use and capacity range (PAOT/Mile of trail):

Use Level	Capacity Range Very Low	Low	Moderate	High
ROS Class - Primitive				
On Trails PAOT/Mile	0.5	1.0	2.0	3.0
Area Wide PAOT/Acre	.002	.006	.014	.025
ROS Class - Semi-Primitive Non-Motorized				
On Trails PAOT/Mile	2.0	3.0	9.0	11.0
Area Wide PAOT/Acre	.008	.027	.058	.083

ROS Class - Semi-Primitive Motorized				
On trails PAOT/Mile	2.0	3.0	9.0	11.0
Area Wide PAOT/Acre	.008	.027	.058	.083
ROS Class - Roaded Natural				
On Trails PAOT/Mile	-	-	-	-
Area Wide PAOT/Acre	.083	.89	1.7	2.5

Reduce the above use levels where unacceptable changes to the biophysical resources will occur.

* Very low applies to nonforested (60 Class)
  Low applies to nonproductive (40 Class); PP mature and immature sawtimber.
  Moderate applies to PP poles and seed/sap; DF mature and immature sawtimber, poles, and seed/saps; LP mature and immature sawtimber.
  High applies to LP poles and seed/sap.

4. Management emphasis for hot springs and their immediate environs will be for noncommercial public recreation use.

	5. Additional special use permits for Big Game Outfitting will be considered if demand shows more of these services are needed and if adequate resources are available to accommodate the increased use. Presently, there is no apparent need to increase this service. Other types of Outfitter/Guide permits will be handled when proposed in accordance with manual direction.	
	6. Manage off-road vehicle use to prevent unacceptable resource impacts or damage.	a. Display off-road vehicle restrictions in the Forest Travel Plan. b. Update the Forest Travel Plan as needed.
Wilderness Area Management (B03)	1. Manage the Frank Church--River of No Return Wilderness in accordance with the February 1985 Frank Church--River of No Return Wilderness Management Plan incorporated herewith by reference.	
Vegetative Diversity (C01)	1. Maintain adequate structural diversity (horizontal and vertical) of vegetation on Forest lands to ensure habitat for minimum viable or target populations of all wildlife species.	a. In forested areas 10% or more should be in old growth and 5% or more should be in grass/forb stages. b. Provide at a minimum, an average of 20-30 hard snags per 10 acres of the following minimum diameters (where feasible). - Ponderosa pine, Douglas-fir and spruce fir: 10 inches DBH. - Aspen and lodgepole pine: 8 inches DBH. c. Where feasible, retain an average length per acre of down-dead logs of the following minimum diameters:

- Ponderosa pine, Douglas-fir and spruce fir - 12-inch diameter
  50 linear feet/acre
- Aspen and lodgepole pine - 10-inch diameter
  33 linear feet/acre

2. Retain integrity of the natural forest, non-forest ecotones for at least 75% of the linear distance during any time period.

3. Manage aspen for perpetuation wherever it occurs.

a. If determinate aspen stands are managed for regeneration, treat entire clones.

Wildlife and Fish Resource Management (C01)

1. Where present, the following species are management indicator species (habitat requirements for each are listed):

Elk - High elevation. Sub-alpine fir and Douglas-fir habitats. Many openings in canopy.
Mule Deer - Mid-elevation. Douglas-fir habitats. Many openings in canopy.
Bighorn Sheep - Open to partially timbered. Rock outcrops.
Mountain Goat - Open to partially timbered. Cliffs.
Pine Marten - Old growth sub-alpine fir and lodgepole pine.
Vesper Sparrow - Sagebrush.
Yellow Warbler - Riparian zones (willows).
Ruby-Crowned Kinglet - Mature/immature Douglas-fir.
Goshawk - Mature/old growth Douglas-fir.
Great Grey Owl - Mature sub-alpine fir and Douglas-fir.
Yellow-Bellied Sapsucker - Cavity nester. Quaking aspen.
Pygmy Nuthatch - Cavity nester. Old growth ponderosa pine.

Brown Creeper - Cavity nester. Mature sub-alpine fir and lodgepole pine.
Mountain Bluebird - Cavity nester. Ecotones.
Anadromous Fish (Salmon and Steelhead) - Stream habitats with adequate sediment free spawning gravels, and channels free of migration blocks, ample instream flow and streamside cover.
Trout (all species combined) - Cool, clean sediment-free stream and lake habitats, ample instream flow and streamside cover.
Aquatic, Aquatic Macroinvertebrates - Cool, clean stream and lake environments.

2. Provide National Forest portion of the habitat needed to meet Regional Wildlife and Fish Management objectives.

a. Habitat for each vertebrate wildlife species on the Forest will be managed to insure viable or target populations.

b. A minimum of 10 percent of applicable forested ecosystems dispersed across the forest, will be managed and maintained (by timber class) as old growth.

c. Contribute to the local and State economics by providing favorable habitat for socially and economically important fish and wildlife species.

d. Place emphasis on improving key ecosystems including but not limited to: riparian, aspen, aquatic, snag, and old growth.

e. Manage and provide habitat for recovery of endangered and threatened species as specified in the Species Management Plan for the Salmon National Forest.

		f. Manage waters capable of supporting self-sustaining trout populations to provide for those populations. g. Manage anadromous fish habitat to supply and maintain 90 percent or more of its inherent smolt production capability. h. Restrict timber harvesting and other human disturbance in a buffer zone around raptor nests to times when the nests are not being used. Size of "No Disturbance" zone will be 1/2 mile radius adjacent to Great Grey Owl, Goshawk, Cooper's Hawk, and Sharp-shinned Hawk nests; 1/8 mile around all other raptor (except Kestrel) nests.
Wildlife Habitat Improvement and Maintenance (CO2, 03, 04)	1. Place priority in expenditure of wildlife and fish element dollars for habitat improvement and maintenance on those sites where habitat objectives cannot be realized within a reasonable time through coordination with other resource activities and/or uses.	a. In forested areas, maintain adequate deer or elk hiding cover on the perimeter of all natural openings, and along the edge of arterial and collector roads and along streams and rivers. Not more than one-half of the hiding cover can be contiguous to another portion of the hiding cover. b. Alter age classes of browse stands no more than 50% within a 10-year period.
	2. Identify and place into production through cooperation with State and Federal wildlife management agencies unoccupied or underutilized wildlife and fish habitat.	
	3. Use both commercial and noncommercial silvicultural practices to accomplish wildlife habitat objectives.	

	4. Provide habitat diversity through vegetation treatments, in conjunction with other resource activities, designed to maintain or improve wildlife or fisheries habitat.	
	5. Provide habitat for populations of all native vertebrate species of fish and wildlife.	
	6. Plan lake and stream habitat improvement projects with the assistance of State wildlife agencies, where aquatic habitats are below productive potential. Plan those improvements that harmonize with the visual setting.	
	7. Maintain a current fish habitat inventory in cooperation with State wildlife agencies.	a. Use R-4 General Aquatic Wildlife System methodology.
	8. Maintain instream flows in cooperation with State wildlife agencies to support a sustained yield of natural fisheries resources.	
Wildlife and Fish Cooperation With Other Agencies (C01)	1. Manage animal damage in cooperation with the State wildlife agency, Animal and Plant Health Inspection Service, other appropriate agencies, and cooperators to prevent or reduce damage to other resources and direct control toward preventing damage or removing only the offending animal.	
	2. Continue current aerial stocking of fish species that are indigenous to the area or those already established by prior stocking.	
	3. Indigenous wildlife reintroductions will be considered only where a vacant niche has been identified and conflicts with other resources are minimal.	
Range Resource Management (D01, 02, 03, 04 05, 06, 07, 08)	1. Produce National Forest portion of needed range forage by effectively developing National Forest System ranges to their reasonably attainable potential.	

2. Improve and maintain environmental quality of NFS ranges by managing the grazing in harmony with the needs of other resources and their uses.

3. Contribute to the maintenance of viable rural economics by promoting stability of family ranches and farms.

4. Optimize the production and use of forage on all suitable range to the extent it is cost-effective.

5. Make maximum use of a coordinated planning approach in developing all allotment management plans to better integrate improved management of National Forests, associated public lands, and privately owned lands.

6. Search out and apply techniques to resolve livestock grazing problems or conflicts with other resource uses within riparian areas.

7. Coordinate range improvement and management activities with wildlife habitat needs, especially on key habitat areas such as winter ranges, calving areas, riparian areas, and sagegrouse leks.

8. Shift livestock grazing from lands in deteriorated condition where neither management nor treatment will result in improvement.

a. Certain standards and guidelines apply to all National Forest System lands which are grazed by domestic livestock. Existing laws, regulations, and Forest Service policy will apply to all grazing management activities on the Salmon National Forest.

In addition, the following standards and guidelines will be applied on the Salmon National Forest.

1. Revegetation and cultural treatments.

a) Protect treated areas from grazing for a minimum of two growing seasons following treatments.
b) Perform Order 2 soil surveys on all revegetation projects involving mechanical site preparation which substantially alters the A-horizon soil profile.
c) Sites in less than satisfactory condition with high production potential will receive priority consideration in scheduling cultural treatments.

2. Where practical, stock driveways and trailing routes will be located outside of riparian zones.

3. Salt and mineral supplements will be used as a tool to improve livestock distribution. As such, they will be located outside of riparian zones and away from water sources.

4. Developed springs will be fenced when needed to avoid trampling damage, maintain or improve water flow, maintain or enhance water quality and maintain or enhance vegetative cover around the spring source.

5. Livestock water developments will be designed to provide for wildlife access and safety.

6. Conduct production/utilization studies on a minimum of 10% of grazed allotments annually.

7. Complete condition/trend studies at least once every 10 years on all grazed allotments.

8. Conduct range inspections on all stocked allotments at least once every three years.

9. Range readiness evaluations will be made prior to livestock entry if vegetation development for a particular year indicates that opening dates may be to early.

10. Riparian zones with low to moderate stream gradients (0-6%) and having woody species (willow included) as dominant plant community, and having small bank rock materials; forage utilization should be controlled to levels that will maintain woody vegetation in a productive stage and allow this vegetation to provide positive influences on streambank stability and stream cover.

11. Riparian zones supporting a fishery having moderate to high gradients (6%) with a variety of vegetative species and bank material of moderate to large size, forage utilization levels commensurate with preserving vegetation vigor and reproduction should provide adequate protection of aquatic values.

12. Treat noxious farm weeds in the following priority:

a) Leafy spurge and Russian and spotted knapweed, yellow star thistle, and musk thistle;
b) Invasion of new plant species classified as noxious farm weeds;
c) Infestation in new areas;
d) Expansion of existing infestations of Canada thistle and other noxious farm weeds;
e) Reduce acreage of current infestation.

9. Range management prescriptions strategies one through seven, may be used to facilitate the maintenance or improvement of ecological range condition. When recovery to at least the fair condition class cannot be accomplished, or if fair or better condition cannot be maintained by the implementation of one of those management strategies, livestock grazing will be discontinued.

The prescription strategy being applied to each specific allotment can be found on the range map in the appendix.

a. Prescription 1 - No livestock

b. Prescription 2 - ME/MI range livestock production/low intensity

Explanation - Allow grazing but no attempt is made to optimize forage use over the available range. Existing boundary fences would be maintained, but unit fences would be allowed to degrade and/or be removed. Existing water developments could also be allowed to degrade and be removed when no longer serviceable.

Grazing capacities could be expected to significantly decline over time with the loss of the ability to achieve proper livestock distribution and uniform forage use. The level of investment would be restrained to that necessary for permit administration and compliance.

Since carrying capacity would be determined by proper use of key areas and protection and maintenance of the soil and water resources, some wildlife conflicts could be expected. For example, there would be no managed system to exclude or limit livestock use on a key elk calving area or big game winter range site.

c. Prescription 3 - ME/MI range livestock production - wildlife mitigation/low intensity

Explanation - Management seeks to fully utilize the forage available to livestock grazing by distributing use over the suitable range through construction of water developments and fenced grazing units. No attempts are made to increase range forage production by vegetative manipulation. Cost effective management systems are designed and applied. Normally, a rest-rotation or deferred rotation system is used; however, a season-long grazing system could also be used. The level of investment is commensurate with the system design and economic analysis. Grazing capacities could be expected to increase gradually.

d. Prescription 4 - ME/MI range livestock production - wildlife mitigation/high intensity.

Explanation - Management seeks to optimize production and utilization of forage for not only livestock but also wildlife. From all existing range and

wildlife management technology, practices may be selected and used to develop cost effective methods for achieving improved forage supplies and uniform livestock distribution and forage use. Cultural practices such as sagebrush management, undesirable plant control and site preparation and seeding of improved forage species may be used to improve quality and quantity of forage for both livestock and wildlife. The cultural practices may be combined with fencing and water developments to implement complex grazing systems.

The level of investment is commensurate with the system design and economic analysis. Grazing capacities could be expected to increase within management and site capabilities. The prescription has the capability and flexibility to resolve wildlife conflict as well as enhancing habitat values.

e. Prescription 5 - ME/MI range livestock production/high intensity.

Explanation - Management seeks to maximize livestock production while maintaining basic soil and water resource values. Cost effective management systems and techniques are used to achieve this goal. May involve type conversion to introduced grass monocultures. Includes administrative pastures or other specially seeded areas under intensive management, including fertilization and irrigation. Grazing capacities could be expected to

increase significantly; constrained only by maintaining viable populations of vertebrate wildlife and site potential. Level of investment would be high. Conflicts with other resources could be expected to be high; however, only livestock production would be considered.

f. Prescription 6 - ME/MI wildlife - range livestock production/low intensity.

Explanation - Management seeks to fully utilize the forage available to livestock grazing by distributing use over the suitable range through construction of water developments and fenced grazing units. No attempts are made to increase range forage production by vegetative manipulation. Cost effective management systems are designed and applied. Normally, a rest-rotation or deferred rotation system is used; however, a season-long grazing system could also be used. The level of investment is commensurate with the system design and economic analysis. Grazing capacities could be expected to increase gradually.

The prescription has the capability and flexibility to resolve wildlife conflicts. For example, grazing units and use schedules can be designed to exclude or limit forage use on key big game winter ranges, riparian areas, etc. There should also be sufficient flexibility in the system to defer grazing use on elk calving areas until elk move from the area naturally.

However, if livestock grazing/wildlife conflicts cannot be resolved to the mutual benefit of both resources then resolution would favor wildlife.

g. Prescription 7 - ME/MI wildlife - range livestock production/high intensity.

Explanation - Management seeks to optimize production and utilization of forage and habitat for not only wildlife but also livestock. From all existing range and wildlife management technology, practices may be selected and used to develop cost effective methods for achieving improved forage supplies and uniform livestock distribution and forage use. Cultural practices such as sagebrush management, undesirable plant control and site preparation and seeding of improved forage species may be used to improve quality and quantity of forage for both livestock and wildlife. The cultural practices may be combined with fencing and water developments to implement complex grazing systems.

The level of treatment is commensurate with the system design and economic analysis. Grazing capacities could be expected to increase within management and site capabilities. The prescription has The capability and flexibility to resolve wildlife conflict as well as enhancing habitat values. However, if wildlife habitat/livestock grazing conflicts cannot be resolved to the mutual

benefit of both resources, then resolution would favor enhancement of wildlife.

10. Invest in a cost-effective allotment management and associated range improvements.

11. Invest in cost-effective grazing management and rangeland productivity improvements. Where improvements include water developments, a water right in the name of the United States must be obtained.

a. Structural improvements will not adversely affect big game movement.

12. Maintain proper stocking and livestock distribution to protect riparian ecosystems.

a. Continue to apply grazing treatments to riparian zones with associated aquatic habitats supporting fish populations as follows. Use the following standards to achieve long-range riparian ecosystem objectives.

Stream/Riparian Description	Grazing Guideline
1. Low Gradient - (0-3%); Moderate to small size (1-30'); grasses, sedges and forbs as dominant vegetation; small bank materials.	Forage removal should not exceed 50% of overhanging cover.
2. Moderate to high gradients (4-8%); small to moderate size; willow, alder or birch as dominant vegetation; medium to large bark materials.	Forage use commensurate with maintaining vegetation vigor and reproduction.

		3. Low to moderate gradient; large river or stream; grasses, sedge and forbs dominant vegetation; bank materials small to large.	Forage use commensurate with maintaining grasses in high production to maximum bank protection; encourage presence and expression of woody vegetation.

b. Structural improvements and a high level of administration may be necessary to achieve the riparian objectives.

13. Prohibit trailing of livestock along the length of riparian areas except where existing stock driveways occur. Rehabilitate existing stock driveways where damage is occurring in riparian areas. Relocate them outside riparian areas if possible, and if necessary to achieve riparian area goals.

14. Mineral and other dietary supplements will not be located in riparian zones.

15. Water developments located outside of riparian zones will be preferred over water gaps.

Silvicultural Prescriptions (E03, 06 & 07)

1. Provide for wildlife habitat improvement and enhancement of other renewable resources in sale area improvement plans.

2. Commercial sale of forest products will be made in a variety of sizes and species mix in order to provide a wide range of timber purchaser opportunities.

a. Normally, the logical sale area combined with other resource objectives will limit the sale volume to a reasonable level.

However, sales as large as 5MMBF will be considered when the large offering s necessary because of at least one of the following:

- The volume is necessary to develop a logical transportation system.
- There is a need to control logging activities over a large area, as is the case when subdivision control is necessary to minimize negative impacts on wildlife.
- Transportation conflicts between purchasers are anticipated if the sale were split into two or more smaller sales.

b. Consider offering relatively pure, one-species sales only when doing so does not jeopardize the management of some portion of the total area under consideration.

3. Design timber sales to encourage greater utilization and enhance the availability of firewood.

4. Treatments in dwarf mistletoe infected stands will generally use adequate natural or manmade barriers to prevent re-invasion.

5. Plantations which are susceptible to significant livestock damage will be protected.

6. Apply a variety of silvicultural systems and harvest methods which best meet resource management objectives, in accordance with management direction in the Regional Guide for the Intermountain Region.

Clearcutting, as well as any other silvicultural system, will be used only when it is determined to be the optimum method of harvest.

a. Both even aged and uneven aged systems are used with even aged being the predominant system. A variety of cutting methods and treatments are used depending on biotic and abiotic stand conditions, economic factors, and specific management direction that may apply

in particular areas. All silvicultural practices for timber sales, reforestation, and timber stand improvement projects are supported by a written prescription approved by a certified Silviculturist. The primary treatments generally applied by species are:

Douglas-fir and north aspect ponderosa pine (MESIC)

Primarily even aged systems are used, either shelterwood or clearcut. Most clearcuts are planted except small patch cuts. Pre-commercial and commercial thinning is done where applicable. The percentage of clearcutting is less in the ponderosa pine than Douglas-fir due to lack of dwarf mistletoe in the pine.

South aspect ponderosa pine (XERIC)

The predominant harvest method is characterized as even aged silvicultural and unevenaged management. Small groups of trees are treated, primarily by the shelterwood method, within large stands. Stands typically have several age classes. Clearcuts, other than very small patch cuts, are not feasible due to regeneration problems. Natural regeneration is usually planned. Pre-commercial thinning has limited applicability.

Lodgepole pine and associated species

Clearcutting is the system of choice in lodgepole and natural regeneration can be assured in most situations. Pre-commercial thinning is necessary in most regenerated lodgepole stands to avoid insect disease and stagnation problems. Modification of the general silvicultural system is necessary when subalpine fir, Engelmann spruce, or Douglas-fir is present in order to respond to the particular biological needs of those species.

b. Logging systems for timber sales will normally be specified in the following priority where they are compatible with silvicultural prescriptions and other resource considerations.

1. Tractor - Jammer - Low ground pressure skidder.
2. Cable (high lead - Skyline - multispan).
3. Helicopter.

c. Tractor skidding will be limited to the following percent slopes to minimize soil erosion.

Quartzite landtypes - 60% Slopes

Volcanic, granitic and sedimentary landtypes - 45% Slopes unless site specific analysis shows otherwise.

d. Recommend spacing distances for water bars on tractor skid trails will be:

Skid Trail Water Bar Spacing (Feet)

Gradient Percent	Quartzite	Sediments & Volcanics	Granitics
0 - 10	200 Ft	80 Feet	75 Feet
10 - 20	160 Ft	70 Feet	65 Feet
20 - 30	110 Ft	55 Feet	50 Feet
30 - 40	80 Ft	40 Feet	35 Feet
40 - 50	60 Ft	35 Feet	20 Feet
50 - 60	45 Ft	-	-

e. Ephemeral draws should have minimal disturbance from timber harvest equipment. Crossings and skid trails should be at right angles to draws.

7. Manage forest cover types in riparian areas to perpetuate tree cover and provide healthy stands, high water quality and wildlife and fish habitats.

8. Regularly scheduled timber harvest is not planned in riparian areas but limited harvest may be appropriate. First entries may occur as adjacent areas are accessed.

9. Manage forest cover types in riparian areas using the following harvest methods

a. Apply harvest treatments to forest cover types as specified below. Exceptions may occur on a case by case basis. Actual treatment is dependant upon individual stand and site conditions.

- Selection (group or single tree) in all cover types.

- Irregular shelterwood may be approved when appropriate subject to the following: A) A commercial thin or precut may be needed to develop shelterwood leave stand; B) riparian goals will often require a light seed cut; C) first removal cut delayed until regeneration has reached 8'. Precommercial thin may be appropriate; D) final removal would be delayed until the regeneration has reached a size to provide for protection of riparian values.

b. For selection or group selection: objective diameters would range from 18-24" (LP 10-12"). Resultant rotation age of individual trees would be 80-200 years. Current stand conditions will often require leaving larger and older trees. Trees could be harvested from all merchantable

- Small wet areas surrounded by lodgepole pine may be managed as part of the larger stand.

size classes to improve stand structure and condition.

c. Group selection size of openings are less than one acre.

d. Planting would normally not be planned even if regeneration is delayed. Re-entry would be delayed or postponed within individual groups of trees until regeneration is well established. The cutting cycle would be extremely variable.

e. Approximate sizes and timing for irregular shelterwood in riparian areas. 1/ 2/

	SHELTERWOOD				REGENERATION				COMBINED	
TREATMENT 3/	DBH	EST AGE	LEAVE T/A	APPROX. SQUARE SPACING	AVE. HEIGHT	APPROX AGE	LEAVE T/A	TOTAL T/A	EST BA/A	TWO STORIES EST STAND DENS INDEX
Prep cut or comm thin	10+	70-100	110	20 Feet	Some existing advance regen is expected.			110	65	115
Seed cut	14	100-130	55	28 Feet	Some regen has been established as a result of prep cut.			55+	60	95
Regen is fully established	16	110-140	55-	28 Feet	0+	0+	300+	350+	80	120
First removal; thin regen	20	140-170	27	40 Feet	10-20'	30	220	250	65	100
Final removal: Shelterwood 4/	24	170-200	0+	--	20-50'	60	220-	220-	100	190
Commercial thin-regen 4/	--	---	--		50+	70-100	110	110	65	115

1/ The primary difference between this and a "normal" shelterwood is that the removal of the overstory is delayed until the regeneration is quite large. Growth of regeneration usually suffers due to overtopping and insect damage (especially western budworm).

2/ This method is similar to unevenaged management in that a continuous cover of large trees is maintained. However, this method is preferable in many stands that are primarily even aged or two storied.

3/ Thinnings and multiple removal cuts offset the effects of the long rotation age.

4/ If necessary to meet other objectives, some of the larger overstory trees can be left into the next cycle. This would require removing a higher percentage of the understory in the prep cut or commercial thin.

10. Reduce debris jam potential by cutting stumps to near ground level in 100 year floodplain, utilizing directional falling away from stream channel, and full tree yarding when slash would enter stream course.

11. When it is not possible to make openings large enough to control dwarf mistletoe (DM) in riparian areas, barriers to DM spread should be considered in adjacent areas.

12. As markets develop, multi-product sales will be encouraged in the lodgepole type.

13. The suitability of lands for timber production will be determined in accordance with 36 CFR 219.14 and the Regional Guide.

a. Lands classed as unsuitable for timber production identified in the analysis of the management situation.

1. Land (and water) 1/ classed as "nonforest land" in the timber inventory (suitability Class 200-299).
2. Lands classed as "inadequate information in the timber inventory.2/
3. Lands withdrawn from timber production (suitability Class 300-399).
   a) The Frank Church--River of No Return Wilderness.
4. Lands withdrawn pending final action (suitability Class 400-499). (Currently no lands are in this class.)
5. Lands identified where regeneration cannot be assured (suitability Class 710-719). 3/
   a) Harsh south slopes and ridges that show no evidence that they can be regenerated.
   b) Areas of little or no soil development.

c) Unplantable areas where clearcutting is the only silvicultural alternative (primarily due to dwarf mistletoe) where there is no assurance of natural regeneration within 5 years.

6. Lands identified where irreversible resource damage is likely to occur (suitability Class 720-739).3/

a) Major areas of recent mass soil movement.

1/ Water is negligible and has been lumped with nonforest lands, SNF timber Class 60.

2/ These lands will be reanalyzed in the next plan for suitability classification. They are mapped as SNF timber Class 40.

3/ These lands were identified by foresters, soil scientists, and hydrologists; and are mapped as timber Class 800-837.

b. Lands determined to be not appropriate for timber production and therefore classed as unsuitable.

1. Critical wildlife habitat (suitability Class 800-809).
   a) Identified stands of timber retained to meet the needs of old growth dependent species.
2. Other areas selected for minimum management level (suitability Class 820-849).

c. Lands suitable for timber production.

1. Recreation emphasis (suitability Class 630-639).
2. Visual emphasis (suitability Class 640-649).
3. Wildlife emphasis (suitability Class 650-659).
4. Water emphasis (suitability Class 660-669).
   a) Identified riparian areas where regularly scheduled timber harvest is not planned.
5. Timber emphasis (suitability Class 500-599).

d. Lands classed as suitable that may be found to meet the criteria for unsuitable.

1. Lands that meet the criteria in a.5. and a.6. may be reclassified upon examination by a certified Silviculturist (and Soil Scientist or Hydrologist for a.6.) and completion of an approved silvicultural prescription. Additional rocky areas meeting a.5.b. are expected to be identified.
2. Stands that more effectively meet the needs of old growth dependant species may be substituted for stands currently identified in b.1.a., upon examination by a certified Silviculturist and Wildlife Biologist and approved silvicultural prescription for both stands.

3. The prescriptions for stands reclassified as unsuitable must be reviewed by the District Ranger and the Forest Supervisor should be informed. The criteria for reclassification should be clearly stated and if different than listed above it must be in accordance with 36 CFR 219.14. Stands must be mapped and information included in the Forest stand data base.
4. Some land that is actually suitable may be misclassified as unsuitable in a.2. and a.5. through mapping error. Small stand sized adjustments may be made using the same standards as in 1-3.
5. These adjustments in the suitable land base will not require that the allowable sale quantity be redetermined until the next Forest Plan revision.

14. Permit unscheduled timber harvesting on lands classified as not biologically capable or technically suitable, only to meet other land management objectives except where specifically reserved by law such as wilderness.

Other land management objectives may include the following:

a. Enhancement or protection of other multiple use values (wildlife, insect and disease, fire management, etc.).

b. Facility construction (roads, buildings, etc.).

c. Other activities that meet Forest objectives.

15. The maximum size limit for openings created in one harvest operation by evenaged management is 40 acres. exceptions are covered in the Regional Guide for the Intermountain Region. Where this limit is exceeded, Regional Forester approval will be required.

a. Under evenaged management, openings in forest stands are created by clearcutting, seed tree harvest and by the removal cut of the shelterwood unless regeneration has reached a density and height to no longer be considered an opening.

16. Created openings will be separated by stands of timber of varying sizes, but no less than that which would comprise logical stand size. Dispersal of openings is defined in the Regional Guide.

17. Created openings will no longer be considered openings when the prescribed tree stocking reaches a height which varies with the management emphasis for the area.

a. A created opening will no longer be considered an opening for timber management purposes when stocking surveys carried out in accordance with Regional instructions indicate prescribed tree stocking at or above 2-1/2 feet in height. Where watershed, wildlife, range or visual resources are the primary emphasis this definition may change to meet the stocking and height requirements of that resource.

b. Unless timber management is the primary emphasis or exceptions are stated in management area direction, created openings will no longer be considered openings when prescribed tree stocking reaches an average of eight feet in height.

c. Prescribed tree stocking varies with the species, site quality and management emphasis and whether a precommercial thinning has been conducted. This stocking is normally 200-300 trees/acre prior to thinning. On harsh rocky sites this may be lowered to a minimum of 100 trees per acre.

18. Full suspension yarding will be required to convey logs across all perennial streams, except where skidding would not seriously and adversely affect water condition or fish habitat.

19. Use directional felling away from perennial and intermittent stream channels, except in cases where serious and adverse influences are not anticipated.

20. When slash disposal is within riparian zones, it will be hand or grapple piled in areas above the high water mark.

21. Broadcast burning and mechanical site preparation will not be done within perennial riparian zones.

Reforestation (E04)

1. Establish a satisfactory stand on cutover areas, emphasizing regeneration within five years after final harvest except:

A. For permanent openings that serve specific management objectives;
B. When other resource objectives dictate a different period;
C. In those lodgepole pine clearcuts where the potential for natural regeneration is high and there is a reasonable expectation that a significant planting investment can be avoided if the regeneration period is extended;
D. When provided for otherwise in specific management prescriptions; and
E. In the PP-XERIC type where planting is usually not appropriate due to harsh conditions and a short fire cycle.

2. Prescribed tree stocking and regeneration certification is based on fifth year stocking standards in the Intermountain Region Reforestation Handbook, adjusted for specific local conditions.

a. Maximize the opportunity for natural regeneration in lodgepole pine clearcuts and small patch cuts where natural regeneration potential is high, by using a combination of natural regeneration and interplanting as necessary to establish full stocking within 10 years of final harvest.

b. Immediate planting of lodgepole clearcuts will normally be planned in areas that meet the following:
1) Grass is heavy and machine scarification is not possible, or
2) an adequate "seedwall" or suitable seed trees are not present and closed cones are not available.

Water Resource Improvement and Maintenance (F03)	1. Maintain favorable instream flows and protect public property and resources.	
	2. Improve and maintain water quality to meet State water quality standards. However, where the natural background water pollutants cause degradation, it is not necessary to implement improvement actions.	a. Provide mitigation measures necessary to prevent increased sediment yields from exceeding "threshold limits" (as determined by the "state of the art" modeling [SALSED] or actual measurements) identified for each (Fourth Order) watershed.
	3. Conduct nonpoint source activities in accordance with applicable Best Management Practices as referenced in "Idaho Water Quality Standards and Wastewater Treatment Requirements" and in accordance with the Forest Service's soil and water conservation practices.	b. Develop monitoring programs on select sites within the forest to determine the effectiveness of the Best Management Practices.
	4. Timber harvest, road construction, mining, range revegetation and similar activities which have a significant soil disturbing impact will not be permitted on lands identified in soil resource inventories as exhibiting high mass stability hazard. These activities will be permitted on lands identified in soil resource inventories exhibiting moderate mass stability hazard only if it can be shown that a design can satisfactorily mitigate or prevent potential soil movement.	
	5. The "Technical Guide to Erosion Control on Timber Sale Areas" developed by R-4 Soil and Water Management, will be the guide used on timber sales and road construction projects, and all other ground disturbing projects where appropriate.	
	6. Long term water quality will be maintained or improved in all municipal watersheds.	a. "Watershed management on municipal watersheds will be aimed at providing water at a level of quality and quantity which, with adequate treatment by the purveyor, will result in a satisfactory and safe water supply. Water resource

management objectives will be established by the Forest Supervisor, in consultation with the purveyor, with recognition that watershed protection can supplement, but not be a substitute for adequate water treatment."

b. "The following definition is given as a guide only in determining which watersheds might qualify as municipal supply watersheds where no specific designation has been made: A municipal supply watershed refers to a unit of land which provides the principle source of water that is being piped to a public water system for human consumption. The system should have at least 15 service connections or regularly serve an average of at least 25 individuals at least 60 days out of the year. The facility for water withdrawal should be within or in close proximity to a National Forest boundary and the watershed must contain some National Forest land."

c. The Salmon City municipal watersheds will be managed according to the Municipal Watershed Plan approved by the Salmon District Ranger on June 16, 1975, and the "Cooperative Agreement for the Purpose of Conserving and Protecting the Water Supply for the City of Salmon, Idaho" Dated June 8, 1939.

7. Soil disturbing projects with moderate or higher erosion potential will be seeded with protective vegetation unless the following conditions exist:

A. Natural revegetation is expected to provide ground cover within one year of project completion; or
B. Project objectives require minimum ground cover (reforestation), in which case other erosion control procedures will be applied. Other procedures include spot scalping, leaving slash as barriers to water movement and avoiding activities on steep slopes.

8. Rehabilitate disturbed areas that are contributing sediment directly to perennial streams as a result of management activities.

9. Limit use of herbicides, insecticides, rodenticides, or other chemical agents as part of management activities to times and places where possible transport to or by surface water has a low probability of occurrence.

10. Prevent or remove debris accumulations that reduce stream channel stability and capacity.

11. Proposed new land-use facilities (roads, campgrounds, buildings) will not normally be located within floodplain boundaries for the 100-year flood. Protect present and all necessary future facilities that cannot be located out of the 100-year floodplain by structural mitigation (deflection structures, riprap, etc.).

a. Implement mitigation measures when present or unavoidable future facilities are located in the active floodplain to ensure that State water quality standards, sediment threshold limits, bank stability criteria, flood hazard reduction and instream flow standards are met during and immediately after construction.

12. Prevent stream channel instability, loss of channel cross-sectional areas, and loss of water quality resulting from activities that alter vegetative cover.

13. Maintain sediment yield within threshold limits. the effects on water and sediment yields from vegetation manipulation and road construction projects will be determined through the use of appropriate

a. Limit changes in channel rating or classification scores to an increase of 10% or less. Use channel stability criteria established by

	modeling and/or quantification procedures to determine sediment yield threshold limits and water yield increase potentials.	Cooper, 1978 and Pfankuch, 1975. use channel classification criteria established by Rosgen, 1980. b. Prescription-induced water yield increases should not exceed prescribed thresholds of allowable increase nor should the total yield of water and sediment exceed maximum allowable amounts as stated in the above references. c. Maintain at least 60% of potential ground cover on the edges of all perennial streams, lakes, and other waterbodies to the other margin of the riparian ecosystems.
	14. Avoid channelization of natural streams. Where channelization is necessary for flood control or other purposes, use stream geometry relationships to re-establish meanders, width/depth ratios, etc., consistent with each major stream type.	
	15. Treat disturbed areas resulting from management activities in the shortest possible time to meet water quality objectives.	
	16. Riparian zones will be managed in a manner compatible with protection of water quality and fish habitat.	
	17. Presently occurring conflicts within riparian areas will be corrected at a rate of 2 to 5% of the acres annually.	
Water Use/ Rights Management (F07)	1. Water needed for National Forest System management but not available under State law and not meeting the Supreme Court criteria for a reserved right under the Organic Administration Act, will be secured by citing the applicable Federal law and conditioning occupancy permits, or licenses as appropriate.	

2. Whenever water rights are authorized by Federal or State law, these will be quantified, documented, and recorded in the Salmon National Forest Water Rights Inventory. The State of Idaho will be notified of the quantification of these water rights. Applicable fees will be paid by the benefiting function.

3. A Federal reserved water right will be asserted for water needed for programs of timber management and watershed management including fire protection. A reserved right will also be used to acquire water needed in the form of instream flow sufficient to maintain stability of the stream channel for the purposes of securing favorable conditions of water flow and protecting against the loss of productive timber lands adjacent to the stream channels.

4. Quantification of instream flows required to accomplish the programs in the Organic Administration Act, Multiple-Use Sustained Yield Act, and other legislation and executive orders will be completed using the following criteria:

A. Streams which have been recognized for development will be quantified for flows fulfilling the purposes of the Organic Administration Act, Multiple-Use Sustained Yield Act and other legislation and executive orders. Immediately following publication of any water rights application, submission of special use permits, or any other preliminary activity by a potential developer, flows will be quantified to assure the accomplishment of these programs.
B. Streams which are located in areas under adjudication by the State of Idaho will be quantified at the Forest boundary, for determination of Federal Reserved instream flows. Currently, streams within National Forest lands in the Lemhi River watershed would be included in this category.

C. Next, streams which have highly valued resource qualities, such as anadromous fisheries, major resident fisheries, recreational values, and other recognized uses as described in the Multiple-Use Sustained Yield Act will be quantified to fully describe the flows required to meet the intent of this Act as well as the Organic Administration Act. These streams are:

Anadromous Fisheries

Horse	Corn	Wilson	Sheep	Camas
WF Camas	Yellowjacket	Silver	Colson	Hull
Hughes	Twin	Dahlonega	NF Salmon	Anderson
Sheep	Hayden	Bear Valley	Iron	NF Iron
SF Iron	WF Iron	Squaw	Indian	Pine
Owl				

Resident Fisheries

Deep	Moyer	Musgrove	Clear	Upper Panther
Beaver	Reservoir	Big Bear	Hawley	Canyon
Big Timber	Mill	Haynes	Withington	Big Eightmile
Hat	Lake	Perreau	Williams	Twelvemile
Moose	Carmen	4th of July		

D. Following the quantification of the streams which have significant flow requirements to meet the intent of more than one Act such as those described above, streams with minimal fisheries, riparian values and other resources described in the Multiple-Use Sustained Act will be quantified next. Primary resource consideration of these streams would be the maintenance of favorable condition of flow and the loss of productive timber lands adjacent to stream channels.

E. Last, streams with natural inherent stability, such as bedrock lined channels, and minimal or nonexistent associated riparian vegetation, and

insignificant additional resource values will be quantified in order to describe those flows which are required to maintain favorable conditions of flow.

5. All water rights issued by the State of Idaho will be recognized by the Salmon National Forest.

Minerals Management (G00)

1. Integrate mineral and energy needs into Forest resource planning and management, especially in areas with current production or known geologic potential.

2. Avoid or minimize public investment where conflicts with existing or foreseeable mineral or energy activities could threaten those investments.

3. Operations in designated wilderness will be conducted to preserve the wilderness character of the lands involved to the maximum extent possible compatible with legal rights of claimants and lessees.

4. Lands managed under special order (such as power site withdrawals, National Historic sites, etc.) will be managed to protect those values for which they were designated or withdrawn compatible with the legal rights of mining claimants and lessees.

5. On unclassified lands, mineral and energy activities will be managed to prevent unreasonable and unnecessary surface disturbance during operations, and to provide for reclamation of disturbed lands after operations cease.

6. Minimize detrimental disturbance to the riparian area by mineral activities. Initiate timely and effective rehabilitation of disturbed areas and restore riparian areas to a state of productivity commensurate with fish production objectives.

Require approved operating and reclamation plan to be in effect prior to development on placer claims.

a. Prohibit the depositing of soil material from drilling, processing, or site preparation in natural drainageways.

b. Locate the lower edge of disturbed or deposited soil banks outside the active floodplain.

Require performance bond commensurate with the resources involved and work described in reclamation plan.	c. Prohibit stockpiling of topsoil or any other disturbed soil in the active floodplain. d. Prohibit mineral processing (milling) activities within the active floodplain. e. Discourage heavy equipment use when soil compaction, rutting, and puddling is present. f. Prohibit construction of oil and gas wells within 100 year floodplain. g. Prohibit storage or disposal of hazardous materials within active floodplain.
7. Locate nonplacer mineral removal activities away from the water's edge or outside the riparian area.	a. Locate drilling mud pits outside the active floodplain unless alternate locations are more environmentally damaging. If location is unavoidable, seal and dike all pits to prevent leakage. b. Drain and restore roads, pads, and drill sites immediately after use is discontinued. Revegetate to 80% of ground cover in the first year. Provide surface protection during stormflow and snowmelt run-off events.
8. Design and locate placer mine settling ponds to prevent washout during high water. Locate settling ponds outside of the active channel. Restore any channel changes to hydraulic geometry standards for each stream type or to fish habitat standards commensurate with Fishery value.	a. Permit diversion activities within the riparian zone where technology is available to maintain water quality standards, sediment threshold limits, and instream flow standards.

		9. Confine heavy equipment use to areas necessary for mineral extraction.	
		10. Locate mining camps outside the active floodplain.	
		11. Monitor operations to ensure that mitigative measures are effective and in compliance with State water quality standards.	
		12. To the extent possible, avoid locating sources for common variety minerals within riparian zones.	
		13. Minimize man-caused soil erosion.	a. The "Technical Guide to Erosion Control on Timber Sale Areas" developed by R-4 Soil and Water Management, will be the guide used at project level for: transportation system, erosion prevention and control measures, unless more site specific requirements are developed during project design.
	Mining Law Compliance and Administration (Locatables)	1. Operating plans will be evaluated and approved within the time frames specified in 36 CFR 228. Evaluation will use an interdisciplinary team process to ensure; unnecessary and unreasonable resource damage does not occur; that exploration and development activities are integrated with other resource management; and that disturbed areas are reclaimed to a productive condition.	a. 36 CFR 228.8 (Forest Service Regulations) contains minimum requirements for environmental protection for all locatable mining activities. In addition to these measures, Appendix C contains site specific Standards and Guidelines for the Salmon National Forest. Additional stipulations may also be determined necessary when site specific analysis is done for each proposed operating plan.
		2. Evaluation and approval of operating plans and reclamation plans and bonding will be coordinated with the State of Idaho, Department of Lands as detailed in the Memorandum of Understanding.	

3. Ongoing operations will be monitored to assure compliance with operating plan requirements. Frequency of monitoring will depend on the size and kind of operation and the resource values involved. Operations using mechanized earth moving equipment, toxic materials, or which could adversely affect water quality will have a high monitoring priority.

4. Compliance plans will be coordinated with appropriate State agencies and Federal agencies where State laws and other agencies are involved (water quality, dredge and placer mining, surface mining).

5. Reclamation plans will be developed using interdisciplinary process to ensure all resources are restored to a productive condition and that opportunities to enhance other resources are not overlooked. Concurrent reclamation will be stressed to minimize the amount of disturbed land lost to production and subject to erosion. Reclamation bonds will be based on actual cost and formulated using engineering and other resource input.

Minerals Management Leasables

1. Leasing, permitting, or licensing of National Forest System lands will generally be allowed with appropriate stipulations to minimize adverse effects on other resources. Specific stipulations and the situations where they will be considered are found in Appendix B.

2. Stipulations, in addition to those found in Appendix B, may be found necessary based on site specific analyses of proposed activity. These additional stipulations will be developed and used when and where necessary.

3. Recommend against issuance of mineral leases, permits or licensing when site specific analysis shows that adverse environmental effects are significant and cannot be adequately mitigated.

Minerals Management Saleables (G05, 06, 07, 08)	1. Forest Service authorizes common variety exploration and disposal under terms and conditions to prevent, minimize, or mitigate adverse impacts on surface resources and uses. The objective of reclamation requirements will be to return disturbed land to the planned uses.	a. Manage common variety mineral materials. 1. Provide for common variety mineral materials (including gravel pit sources) by lease, sale or free use in accordance with the following criteria: a) Grant permits on lands covered by other mineral leases or permits only when removal will not unduly interfere with the prior authorization. b) Do not grant permits in the following areas except where conditionally provided: 1) Lands withdrawn from mineral entry or under study for withdrawal such as developed recreation sites. 2) Riparian zones. 3) Within 1/4 mile of or in view of high recreation use areas such as campgrounds (developed or undeveloped), travel routes (including trails), and water bodies. Where screened adequately from view by natural topographic features, mineral material sources may be developed closer than 1/4 mile on a site specific basis.

4) Areas with high mass stability problems.

5) Areas with moderate to high mass stability problems will be dependent on a site specific review.

6) Primary bald eagle and osprey nest zones, elk wallows and special wildlife areas.

7) Special use sites such as corrals, wells, etc.

8) On a valid mining claim which has retained surface rights, except with owner's consent.

2. Continue utilization of existing aggregate sources.

3. Proposed sites will be utilized as the need arises if the following criteria are met:

   a) No existing site that could provide suitable aggregate is located within one road mile of the proposed site.

   b) Decision supported by a favorable environmental assessment.

   c) Site complies with the criteria for designating common variety mineral material sources given in Item #1.

Withdrawals Modifications and Revocations	1. Withdrawals must be for the purpose of protecting specific existing or proposed uses. Initiate action for withdrawal from entry when other applicable laws require protection of the surface resources and uses.	a. Withdrawals from entry under the general mining laws will be in conformance with Section 204 Management Act of 1976 (P.L. 94-579). b. Withdrawals under the Minerals Leasing Act will be in exceptional situations because of the discretion allowed in each case for disposal. c. Common variety minerals withdrawals are unnecessary since full authority for disposal is held by the Forest Service.
Special Use Management (Non-Recreation) (JO1)	1. Act on special use applications according to the following priorities: A. Land and land use activity requests relating to public safety, health and welfare, e.g., highways, powerlines and public service improvements. B. Land and land use activities contributing to increased economic activity associated with National Forest resources, e.g., oil and gas, and energy minerals. C. Land and land use activities that benefit only private users, e.g., road permits, rights-of-way for powerlines, telephones, waterlines, etc. 2. Do not approve any special use applications that can be reasonably met on private or other Federal lands unless it is clearly in the public interest. 3. Bury electrical utility lines of 34.5 KV or less and telephone lines except when: A. Visual quality objectives of the area can be met using an overhead line. B. Burial is not feasible due to geologic hazard or unfavorable geologic conditions.	

C. Greater long-term site disturbance would result.
D. It is not technically feasible or economically feasible.
E. When an overhead line causes less environmental impact.

4. Do not approve special use applications for areas adjacent to developed sites unless the proposed use is compatible with the purpose and use of the developed site.

Rights-of-Way and Land Adjustments (J02,13, 15, 16, 17, 18)

1. Acquire rights-of-way on existing and proposed Forest System roads and trails that cross lands other than National Forest System lands.

2. Classify lands or interest in lands for acquisition where lands are valuable for NFS purposes according to the following priorities:

A. In designated wilderness areas and other Congressionally classified areas.
B. Where lands or rights-of-way are needed to meet resource management goals and objectives.
C. Lands which provide habitat for threatened and endangered species of animals and plants.
D. Lands which include floodplain or wetlands.

3. In accordance with guidelines in the approved Frank Church--River of No Return Wilderness Management Plan, and the approved Management Plan for the Salmon Wild and Scenic River, the Forest will encourage the County to develop and implement zoning of private riverside lands that is compatible with the Forest Management Guidelines. Where the County does not implement compatible zoning requirements, the Forest will schedule and acquire scenic easements to meet the objectives of the Plan.

4. Classify lands for disposal according to the following priorities:

A. To States, counties, cities, or other Federal agencies when disposal will serve a greater public interest.

B. Small parcels intermingled with mineral or homesteads patents.
C. When suitable for development by the private sector, if development (residential, agricultural, industrial, recreational, etc.) is in the public interest.

5. Consider jurisdictional transfers which achieve the following objectives:

A. Reduce duplication of efforts by users and agencies in terms of time, cost, and coordination.
B. Improve or maintain user access to the administering agency.
C. Decrease travel and enhance management.
D. Improve public understanding of applicable laws, regulations, policies, and procedures.
E. Develop more effective and efficient work units.
F. Reduce administrative cost.

Property Boundary Location (J06)

1. Locate, mark, and post landlines according to the following priorities:

A. Lines needed to meet planned activities;
B. Lines needed to protect National Forest System lands from encroachment; and,
C. All other lines.

Soil Resource Management (KA1)

1. Maintain soil productivity, minimize man-caused soil erosion, and maintain the integrity of associated ecosystems.

a. Use the "R-4 Technical Guide to Erosion Control on Timber Sales" as a guide unless more site specific requirements are developed during project design.

2. Identify at the project level, filter strip requirements immediately adjacent to streams, in order to reduce sediment delivery from roads or other major surface disturbance.

a. The following is a guide to identify the approximate filter strip requirements.

FILTER STRIP WIDTHS 1/
Quartzite Parent Material

% Ground Cover 2/	% Slope									
	0	10	20	30	40	50	60	70	80	90
100	20	25	30	35	45	60	80	110	165	205
90	25	40	55	60	70	85	105	135	190	230
80	30	55	60	65	75	90	110	140	195	235
70	35	60	65	70	80	95	115	145	200	240
60	40	65	70	75	85	100	120	150	205	245
50	45	70	75	80	90	105	125	155	210	250
40	55	80	85	90	100	115	135	165	220	260
30	70	95	100	105	115	130	150	180	235	275
20	100	125	130	135	145	160	180	210	265	305

GRANITIC, VOLCANIC AND SEDIMENTARY PARENT MATERIAL

% Ground Cover	% Slope 0	10	20	30	40	50	60	70	80	90
100	30	45	50	55	75	90	110	150	205	245
90	45	60	75	90	100	125	145	175	230	270
80	50	75	90	95	105	130	150	180	235	275
70	55	90	95	100	120	135	155	185	240	280
60	70	95	100	115	125	140	160	190	245	285
50	75	100	115	120	130	145	165	195	250	290
40	85	120	125	130	140	155	175	205	260	300
30	110	135	140	145	155	170	190	220	275	315
20	140	165	170	175	185	200	220	250	305	345

1/ From lower edge of disturbed area, road, or toe of fill slope to stream.

2/ Ground cover estimate includes live plants and litter that can effectively dissipate the energy of raindrops before they hit the soil. Surface rock is not included in this estimate.

b. Total site productivity will be protected and/or maintained at a level equal to or greater than 90% of natural.

1. A minimum of 80% of an activity 1/ area should remain in a nondetrimentally disturbed 2/ condition.

1/ Activity Area - The total area for which a ground impacting activity is planned. It may be a unit of a timber sale, a slash disposal or site preparation project, grazing allotment, etc., including the transportation facilities in and adjacent to the project area. This definition excludes site intensive developments such as campgrounds, mines, drill sites, aggregate source areas, and water developments.

2/ Detrimental Disturbance - The alternation of the natural soil characteristics (physical characteristics) which results in immediate and/or prolonged violations of off-site resources quality standards or a reduction in timber volume growth (timber sites) or biomass production (nontimbered sites) of more than 25%.

- Soil Puddling - Where the soil has been manipulated in a saturated or nearly saturated condition to the point that natural structural identity is lost. The soil appears sloppy at the time puddling occurs.

- Soil Compaction - Where one or more of the following conditions occur in relation to natural: A 50% reduction in macropore space; less than 15% macropore space,

total; 15% increase in soil bulk density; or a 40% reduction in hydraulic conductivity. (All measurements at the 6" depth.)

- Displacement - Where, through erosion or mechanical means, more than 50% of the natural A1 and/or AC horizons (dark colored surface horizons) is removed from more than 20% of an activity area, excluding system roads and permanent facilities. Displacement of specific sites smaller than 100 square feet (continuous) or where soil has moved less than 10 feet from its predisturbance position will not normally be considered significant.

c. Total or essentially total soil resource commitment 1/ should not exceed 5% of an activity area.

1/ Soil Resource Commitment (Total and/or Essentially Total) - A conversion of a productive site to an essentially nonproductive site for a period of more than 50 years. Inadequately restored haul roads, truck roads, landing areas, as well as higher standard roads (system or nonsystem), and some stock driveways generally represent an essentially total commitment of the soil resource.

Transportation System Management (L01 & 20)	1. Classify areas as to whether off-road vehicle use is permitted.	a. Specify off-road vehicle restrictions based on ORV use Management and display in the Forest Travel Plan.
	2. Close all newly constructed roads to public motorized use unless documented analysis shows: A. Use is compatible with resource management objectives established for the area; B. They are located in areas open to motorized use; C. They provide use safety; D. They serve an identified public need; and, E. Financing is available for maintenance or coop-maintenance can be arranged.	
	3. Manage road use by seasonal closure if: A. Use causes unacceptable damage to soil and water resources due to weather or seasonal conditions; B. Use conflicts with the ROS class established for the area; C. Use causes unacceptable wildlife conflict or habitat degradation; D. Use results in unsafe conditions due to weather conditions; E. They serve a seasonal public or administration need; or, F. Area accessed has seasonal need for protection or nonuse.	a. Use the "R-4 Technical Guide to Erosion Control on Timber Sales" as a guide for transportation systems, erosion prevention and control measures.
	4. Keep existing roads open to public motorized use unless: A. Financing is not available to maintain the facility or manage the associated use of adjacent lands;	a. Same as "a" above.

B. Use causes unacceptable damage to soil and water resources;
C. Use conflicts with other resource objectives for the area;
D. They are located in areas closed to motorized use and are not "designated routes" in the Forest Travel Management Direction.
E. Use results in unsafe conditions unrelated to weather conditions; or,
F. There is little or no public need for them.

5. When a "closed" road is "opened" to facilitate a specific management activity, it will be Forest policy to open the road to the general public if doing so is compatible with resource objectives. However, when opening the road to the general public is not desirable the procedures outlined in Standards and Guidelines a. and b. will be followed.

a. If a road closure gate exists, and if it poses no unusual traffic problems, the gate will be kept locked, except when authorized traffic is passing through. If it is not feasible to use a gate, the road will be signed as open for permitted traffic only.

b. A permit to use the road will be issued by the District Ranger, subject to the following conditions:

- The user will furnish the Ranger with a list of people and equipment which will be working on the "closed" road.
- The Ranger will issue a permit for the listed individuals and equipment to use the "closed" road for management activities only.
- The permit will specifically prohibit:

- using vehicles to transport firearms and/or game animals during big game hunting season.
- using vehicles to transport people, equipment and/or supplies for the purposes of hunting and/or transporting game animals.

6. Closed or restricted roads may be used to accomplish administrative purposes or in case of emergency.

7. Create artificial sediment traps with barriers where the natural vegetation is inadequate to protect any waterway or lake from significant accelerated sedimentation.

8. Minimize detrimental disturbance to the riparian area by construction activities. Initiate timely and effective rehabilitation of disturbed areas and restore riparian areas so that a vegetation ground cover or suitable substitute protects the soil from erosion and prevents increased sediment yield.

a. Same as "a" above.

Arterial and Collector Road Construction and Reconstruction (L02 thru L09, L16 thru L18)

1. Construct and reconstruct arterial and collector roads to meet multiple resource needs.

2. Roads and/or road sections will be surfaced when serious and adverse effects from erosion and sedimentation are anticipated.

3. Excavated material from road building should be end hauled if there is any potential of a significant amount of sidecast material entering a stream.

4. Stream crossing structures will be designed and constructed in a manner avoiding serious and adverse affects on fish habitat and passage.

5. Bridge and culvert projects which are expected to result in detrimental stream channel modifications (i.e., gradient, width, and bank or bed stability) beyond the immediate project area will not be permitted.

a. Construction and reconstruction standards for arterial and collector roads are:

STANDARD	ARTERIAL	COLLECTOR
Travel Speed	Average 30-55 MPH	Average 10-30 MPH
Lanes	Generally 2 Lanes	Generally 1 Lane
Surface	All weather, generally asphalt or gravel	Generally gravel or native surface, sometimes asphalt

	Width	Typically 20 to 24 feet, but some single lane with inter-visible 10-foot turnouts	Typically 12 to 16 feet, with inter-visible 10-foot turnouts
	Drainage	Permanent, not to impede traffic	Permanent but may impede traffic

Local Road Construction and Reconstruction (L11, 12, & 13)

1. Construct and reconstruct local roads to provide access for specific resource activities such as campgrounds, trailheads, timber sales, range allotments, mineral leases, etc., with the minimum amount of earthwork.

a. Construction and reconstruction standards for local roads are:

Travel Speed	Average less than 20 MPH
Lanes	Usually single lane except for developed recreation sites.
Surface	Varies from asphalt to native surface; majority native surface.
Width	Typically 10 thru 14 feet. Turnouts optional depending upon traffic management. Usually not intervisible.
Drainage	Dips and culverts.

2. Roads and/or road sections will be surfaced when serious and adverse effects from erosion and sedimentation are anticipated.

3. Excavated material from road building should be end hauled if there is any potential of a significant amount of side cast material entering a stream.

4. Stream crossing structures will be designed and constructed in a manner avoiding serious and adverse affects on fish habitat and passage.

5. Bridge and culvert projects which are expected to result in detrimental stream channel modifications (i.e., gradient, width, and bank or bed stability) beyond the immediate project area will not be permitted.

Road Maintenance (L19)

1. Maintain all roads to the following minimum requirements:

A. All arterial and open collectors - Level 3;
B. All open local roads - Level 2; and,
C. All closed roads - Level 1.

a. Level 1 maintenance includes upkeep of drainage structures and vegetation cover necessary to prevent erosion.

2. Maintain structures, bridges, cattleguards, etc., to be structurally sound and safe for use.

Trail System Maintenance and Operation (A12)

1. Provide a full range of trail opportunities in coordination with other Federal, State, and Municipal jurisdiction and private industries both on and off NFS lands.

2. Encourage cooperative maintenance and construction projects with individuals, user groups and other agencies.

3. Maintain an inventory of historic (nonsystem) trails.

4. Maintain identified trailless areas in their trailless condition with the exception of those trail segments necessary for completion of the Continental Divide National Scenic Trail and winter travel routes.

5. Priority for trail maintenance will be public safety, resource damage, protection of the facility, and user convenience.

6. Maintain all trails for foot and horse travel unless specifically closed to either or both class of user.

7. Maintain all trails to the following minimum requirements:

A. Structures (bridges, corduroy, etc.) are structurally sound and safe for specified class of user;
B. Maintain drainage structures to prevent unacceptable resource damage; and,
C. Remove hazards from trails to allow safe passage for specified class of users. A safety hazard is a physical condition of a trail which may cause injury, is unusual or unexpected, and not readily identifiable by the trail user. It is not a condition which is easily identifiable and normally encountered for the type or location of the trail involved. The following examples illustrate this distinction:

A hazard is a rotten bridge decking or handrail. A stream crossing where no bridge is provided and the user would expect this on the type and location of the trail is not a hazard.

A hazard is a stable-appearing loose rock in a constructed treadway where all other rocks are stable. A trail treadway made up of rocks in a near-natural position, many of which are loose, is not a hazard.

A hazard is a perennial boghole on a horse trail. An intermittent boghole which will dry up by early summer or within a few days following a rain storm is not a hazard.

A hazard is a section of trail treadway supported by rotten cribbing. A section of trail where the treadway is obviously slippery is not a hazard.

A hazard is a marked ford with holes deeper than the normal channel. A deep ford with a consistent streambed is not a hazard.

8. Manage the Continental Divide National Scenic Trail in accordance with the November 6, 1985 Continental Divide National Scenic Trail Comprehensive Plan incorporated herewith by reference. See Appendix F for proposed route location.

9. Manage the Lewis and Clark National Historic Trail in accordance with the January 1982 Comprehensive Plan for management and use incorporated herewith by reference.

10. Manage the Nez Perce National Historic Trail in accordance with the Management Plan to be developed by 1988 as directed by the 1986 legislation establishing the trail.

Trail Construction and Reconstruction (A12)	1. Construct or reconstruct trails when needed as part of the transportation system.	a. Cross drains and structures are planned according to Forest design standards.
Fire Planning and Suppression (P01 & P08)	1. Provide a level of protection from wildfire that is cost efficient and that will meet management objectives for the area considering the following: A. The values of the resources that are threatened by fire; B. The probability of fire occurrence; C. The fuelbed that fires will probably occur in; D. The weather conditions that will probably influence fires that occur; E. The costs of fire protection programs (FFP and FFF);	

F. The social, economic, political, cultural, environmental, life and property concerns; and,
G. Management objectives for the area.

H. Use the fire management analysis process (FSH 5109.19) for this analysis.

Fire Prevention (P02)

1. Maintain a fire prevention program through use of annually prepared Forest and District Prevention Plan with emphasis on public contacts, industrial inspection, and appropriate signing.

Fire Detection (P03)

1. Maintain resources necessary to detect wildfires at a reasonable size.

2. Assist in supporting the total Forest communication network.

Escaped Fire Suppression (P09)

1. Take suppression action on all escaped fires considering the following:

A. The values of the resources threatened by the fire (both positive and negative);
B. Management objectives for the threatened areas;
C. The fuelbeds the fire may burn in;
D. The current and projected weather conditions that will influence fire behavior;
E. Natural barriers and fuel breaks;
F. Social, economic, political, cultural, and environmental concerns;
G. Public safety;
H. Firefighter safety; and,
I. Costs of alternative suppression strategies. Use the escaped fire situation analysis to make this determination (FSM 5130.31).
J. Private property values.

a. Control will be the suppression strategy during fire season on all fires that occur below 8000 feet. outside the FC-RONR Wilderness.

b. Containment or confinement strategies may be chosen for pre and post season fires and those above 7000 feet. The general fire season is May 10 through October 20 with the primary fire season from June 15 through September 30.

c. The Wilderness Fire Management Plan for the FC-RONRW will be used for fire management strategies in wilderness.

2. Although tractor line construction is often prudent for cost, speed, and safety reasons, suppression actions can sometimes pose a greater threat to resource values than does the fire itself. The use of tractors for fireline construction may significantly affect watershed, fisheries, wildlife, visual, and recreational values.

3. The incident commander is responsible for consulting the resource advisor whenever tractor line construction is being considered and/or planned. The resource advisor will keep the Forest Supervisor and the incident commander informed of all tactical proposals which have a potential for significant resource impacts.

a. Tractor line width must be commensurate with the situation at hand. Lines in excess of one blade wide are rarely needed and will not be permitted without prior approval of the Forest Supervisor, expect in emergency situations. Safety Zones up to 300 feet wide and vehicle turnouts may be constructed as necessary.

b. Every effort will be made to perform rehabilitation work concurrently with line construction. Wildlife openings, at intervals no greater than 200 feet, will be built into slash windrows during construction. Water bars will be constructed as soon as possible after construction, based on intended use of the line, equipment availability, and safety considerations.

FIRELINE WATER BAR SPACING GUIDELINES

GRADIENT(%)	QUARTZITES	SEDIMENTS& VOLCANICS	GRANITICS
0-10	200 FT.	80 FT.	75 FT.
10-20	160	70	65
20-30	110	55	50
30-40	80	40	35
40-50	60	35	20
50-60	45	20	10

Fuel Treatment (P11 thru 14)	1. Modify activity fuels to permit fire suppression forces to meet fire protection objectives for the area.	a. Where duration of risk and ignition probability warrants, treat activity fuels so the potential fireline intensity of an area will not exceed 400 BTU'S/Sec/Ft (B.I.-46) on 90% of the days during the regular fire season; or, break up continuous fuel concentrations exceeding the above standard into manageable units with fuel breaks or fire lanes.
Vegetation Treated by Burning (P15)	1. Use prescribed fire to accomplish resource management objectives, such as reducing fuel load buildup, wildlife habitat improvement, etc. Resource objectives and burning prescriptions will be developed at the project level. 2. Limit use of prescribed fires on areas adjacent to riparian areas to protect riparian and aquatic values. 3. Use unplanned ignition on areas within wilderness identified in this plan to achieve management objectives.	
Air Resource Management (P16)	1. Comply with State and Federal Air Quality Standards. (See FSM 2120)	
Insect and Disease Management/ Suppression (P35)	1. Prevent or suppress epidemic insect and disease populations that threaten forest tree stands with an Integrated Pest Management (IPM) approach consistent with resource management objectives.	a. <u>Mountain Pine Beetle Standards and Guidelines</u> 1. The lodgepole type and mature lodgepole stands should be given a very high priority for logging. The goal is to break up the forest into different age and size classes. This goal will be difficult to achieve because much of the lodgepole type is not now operable due to small size and low

volumes per acre. Old stands with large diameter lodgepole pines should be given cutting priority.

2. Timber emphasis prescriptions for lodgepole should be based on the shortest rotation that meets market requirements. This will minimize the time that lodgepole stands are in a high hazard condition. Harvesting should not be delayed much beyond the culmination of mean annual increment.

3. Pre-commercial thinning in young lodgepole stands should be given very high priority to shorten the rotation. Pre-commercial thinning is also needed because lodgepole pine has a tendency to stagnate and never develop to merchantable sizes. From a timber management planning standpoint, the decision not to thin dense regenerated lodgepole pine should be treated almost the same as the decision not to regenerate.

4. Harvesting of lodgepole, primarily by clearcut, will be planned once operable volumes per acre are produced. The goal will be an average stand diameter of about 10 to 12 inches DBH where other factors minimize the beetle hazard.

5. Where possible, maximize stand species diversity.

6. Large scale preventative chemical control is not economically feasible and is not planned. Preventative control may be used for high value trees in a campground.

7. Dense stands of second growth ponderosa pine should be minimized to prevent a mountain pine beetle epidemic in that species.

b. Western Spruce Budworm

1. Treatments in Douglas-fir stands should be carried out to encourage species diversity selecting against susceptible hosts and favoring the seral species.

2. Specific treatments will depend on individual stand conditions but the primary emphasis for Douglas-fir management will be to encourage evenaged conditions.

3. Whenever possible, host tree overstory should be removed before regeneration reaches three feet tall.

4. Some subalpine fir should be retained to maintain species diversity. However, this highly susceptible species should not be encouraged.

5. Clearcutting and planting will often be the optimum method in low vigor, overmature Douglas-fir

stands. A higher percentage of clearcutting will be planned in the DF type on more productive lands.

6. Pre-commercial thinning and commercial thinning should be planned where necessary to maintain tree vigor.

7. If defoliation is present, retain the least defoliated trees during partial cut, thereby selecting for resistant genotypes.

8. Spray projects have been conducted on the forest. The conditions necessary for a spray project cannot be predicted and no project is scheduled.

c. Dwarf Mistletoe

1. Timber emphasis prescriptions are based on the premise that clearcutting is usually the optimum regeneration cutting method for stands where much over 30% of the trees are infected with dwarf mistletoe.

2. Clearcuts and other dwarf mistletoe treatment units should incorporate natural and manmade barriers to slow DM re-invasion.

3. Where feasible, clearcuts for DM control will use a low perimeter to area ration. This may be tempered by specific management direction for wildlife, visuals, or regeneration needs.

4. A DM-infected overstory should be removed before understory regeneration reaches 3 feet tall or 10 years old, whichever comes first. Existing stands with an infected overstory will be given very high priority for treatment.

5. Young stands lightly infected with DM will be given high priority for sanitation thinning.

d. Douglas-fir Beetle

1. Preventative management is the most effective and economical method of reducing damage. Most outbreaks can be prevented by (1) thinning young stands and maintaining desirable spacing until harvest, and (2) removing susceptible trees such as those that are windthrown, snow broken, or infected with root disease, (3) replacing root disease infected stands with alternate species.

2. Wherever possible rotations should not extend beyond the culmination of mean annual increment.

3. Where possible, logging priority should be given to overmature or decadent stands, especially those where Douglas-fir beetle is active.

4. Minimize slash and cull buildup more than 8" in diameter.

Research Natural Areas	1. Assess and develop opportunities to help complete the national network of Research Natural Areas.	a. Established research natural areas will be protected against inappropriate uses and activities. The following areas are proposed for Research Natural Areas status: - Kenney Creek - Dome Lake - Colson Creek - Frog Meadows - Mill Lake - Allan Mountain - Bear Valley Creek - Dry Gulch-Forge Creek - Davis Canyon - Deadwater (may be modified by Deadwater project)
Hydropower Development	1. <u>Preliminary Application</u> - Upon application by the proponent for a preliminary permit the Forest Service will recommend to FERC for or against issuance of the preliminary permit, the extent of involvement that is desired, and concerns relating to the project which need to be reflected in the project study plans. Contact with proponent should be made to prepare an MOU which will assure that special use permits for cultural resources investigation and any ground disturbing activities are obtained. Continuing consultation with the proponents is necessary to assure that the study plan, and the environmental report prepared by the proponent are sufficient in scope and depth to complete the NEPA process. The NEPA process should be initiated so that Forest Service issues and concerns are addressed in the f(e) report prepared by the proponents.	

	The Forest Service will formally comment on the draft environment report and on the final environmental report. The comments on the final report will include Forest Service recommendations for inclusion in terms and conditions of the license.	
	2. Maintain stream flows capable of supporting resident fish species habitat objectives.	
	3. Design diversion structures to allow upstream passage of adults (when appropriate) and downstream passage of adults and juveniles.	
	4. Maintain streamflow commensurate with Federal water rights.	a. Regional instream flow analysis. b. Water Rights Application - The water rights application will usually be protested and an instream flow determination made so that instream flow to insure "favorable conditions of flow" as established by the 1897 Organic Act can be established.
Utility Corridors	1. Design and construct utilities to harmonize with the landscape.	a. Use "National Forest Landscape Management," Volume 2 - Utilities for Principles and Concepts.
	2. Manage dispersed recreation opportunities consistent or compatible with designated management areas.	
	3. Manage wildlife and fish habitat consistent or compatible with designated management.	
	4. Manage the range resource consistent or compatible with designated management.	
	5. Manage forest cover types consistent or compatible with designated management area. Provide required electrical clearances and minimize the visual impact of the utility right-of-way.	

6. Utilize firewood material using both commercial and noncommercial methods.

7. Designate existing transportation and utility uses, if they originate on or cross National Forest System lands, as rights-of-way corridors, consistent with Forest Plan goals.

8. Identify areas where designation as transportation and utility corridors in the future are compatible with management area goals. Follow the process and definitions established in FSM 1922.51.

a. Future transportation and utility corridors are excluded from wilderness unless authorized by the President; Research Natural Areas and Wild Rivers.

b. Avoid the following areas unless studies indicate that the impact of the corridor can be mitigated:

1. Developed recreation sites and winter sports sites.
2. Riparian areas.
3. Special interest areas and municipal watersheds.
4. Recreation rivers.

9. Design, construct and maintain electrical transmission lines in accordance with the rules of the National Electrical Safety Code, ANSI. Unless otherwise indicated on the plan and profile drawings, all construction and clearances of the transmission line shall conform to the latest edition of the National Electrical Safety Code, ANSI, issued by the American National Standards Institute.

10. All design, materials and construction, operation, maintenance and termination practices employed in connection with oil pipeline shall be in accordance with the safe and proven engineering practices and shall meet or exceed the following:

A. USA standard code for pressure piping, ANSI B 31.4, "Liquid Petroleum Transportation System."

B. Department of Transportation Regulations, 49 CFR Part 195, "Transportation of Liquids by Pipeline."

11. All design, materials and construction, operation, maintenance and termination practices employed in connection with gas pipelines shall be in accordance with safe and proven engineering practices and shall meet or exceed the following:

A. Department of Transportation Regulations, ASME Gas Piping Standards committee, "Guide for Gas Transmission and Distributing Piping System" (3rd Edition, April 1976).

B. 49 CFR, Part 192, "Transportation of Natural and other Gas by Pipelines; Minimum Federal Safety Standards."

C. FOREST MANAGEMENT OBJECTIVES

The following objectives are statements of specific program accomplishments that are possible to be achieved during the implementation of this plan if budgeting and other factors permit. These objectives were developed to accomplish the goals for the Salmon National Forest as described in Section A of this chapter. The outputs displayed in TABLE IV-1 RESOURCE OUTPUTS are the projected annual level of goods and services which are expected from the Salmon National Forest as the objectives below are implemented. The implementation of this program of work will occur within the Forestwide Standards and Guidelines described in Section B of this chapter and according to the Management Area Direction described in Section E of this chapter.

TABLE IV-2 BENEFITS displays the values of the projected annual outputs from the implementation of this plan. These values were determined using a "willingness to pay" price assigned to each unit of output for the present net value analysis of the environmental impact statement. TABLE II-3 of Chapter 2 of the Environmental Impact Statement shows the price assigned to each unit of output by decade.

TABLE IV-3 PROJECTED BUDGET REQUIREMENTS displays the budget needed to produce the outputs projected in TABLE IV-1.

Vegetative Diversity

- Maintain at least 10 percent (71,879 acres) of the forested lands outside of wilderness as old growth for dependent species.

Recreation and Visual Quality

- Reconstruct Meadow Lake Campground to expand its present capacity from 40 PAOT to 110 PAOT.

- Construct new campgrounds at Spring Creek Bar (200 PAOT) and Ebenezer Bar (50 PAOT).

- Construct a new picnic ground at the Newland Ranch (50 PAOT).

- Reconstruct the boating site at Spring Creek Bar.

- Construct new boating sites at Owl Creek and the Newland Ranch.

- Construct new trailhead facilities at Saddle Creek, Bannock Pass, Big Hole Pass, Middle Fork of Little Timber Creek, Twin Creek, Camas Creek, North Fork of Hat Creek, Big Timber Creek, Lost Trail Pass, and Spring Creek.

- Cooperate with users and other agencies to provide a system of managed cross country ski trails.