

# Chapter VI

## GLOSSARY



## CHAPTER VI GLOSSARY, ACRONYMS, AND ABBREVIATIONS

## ABBREVIATIONS AND ACRONYMS

A	Acre
AMP	Allotment Management Plan *
AMS	Analysis of the Management Situation •
ASQ	Allowable Sale Quantity *
AUM	Animal Unit Month *
BLM	Bureau of Land Management
BMP	Best Management Practice *
BTU	British Thermal Unit
CF	Cubic Feet •
CFR	Code of Federal Regulations
CMAI	Culmination of Mean Annual Increment *
DBH	Diameter at Breast Height *
DEIS	Draft Environmental Impact Statement *
EA	Environmental Assessment *
EIS	Environmental Impact Statement *
FEIS	Final Environmental Impact Statement *
FORPLAN	Forest Planning Model *
FSH	Forest Service Handbook •
FSM	Forest Service Manual *
FUD	Fishing User Days
FY	Fiscal Year (Oct 1 to Sept. 30, unless otherwise noted)
GNP	Gross National Product
HEI	Habitat Effectiveness Index *
ICO	Issues, Concerns, and Opportunities
IDT	Interdisciplinary Team *
IMPLAN	Forest Service Input-Output Model
K-V	Knutson-Vandenberg Act of 1924 *
LAC	Limits of Acceptable Change *
LRMP	Land Resource Management Planning
LTSYC	Long-Term Sustained Yield Capacity *
M	Roman Numeral for 1,000
MA	Management Area (also M A) *
MBF	Thousand Board Feet
MCF	Thousand Cubic Feet
MIS	Management Indicator Species *

## ACRONYMS

MM	Roman Number for 1,000,000
MMBF	Million Board Feet
MMCF	Million Cubic Feet
MR	Management Requirement *
NEPA	National Environmental Policy Act *
NFMA	National Forest Management Act *
NFS	National Forest System *
NPB	Net Public Benefits *
ORV	Off-Road Vehicle *
PAOT	People at One Time
PCT	Precommercial Thinning *
PNV	Present Net Value *
PP	Ponderosa Pine
RARE II	Roadless Area Review and Evaluation II *
RIM	Recreation Information Management *
RNA	Research Natural Area *
ROG	Recreation Opportunity Guide *
ROS	Recreation Opportunity Spectrum *
RPA	Resources Planning Act *
RVD	Recreation Visitor Day *
SAI	Sale Area Improvement
T&E	Threatened and Endangered Species *
TRI	Total Resource Information System *
TSI	Timber Stand Improvement *
TSL	Traffic Service Levels *
USC	United States Code (also U.S.C.)
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
VQO	Visual Quality Objectives *
WFUD	Wildlife-and-Fish-User-Days *
WIN	Watershed Improvement Needs Inventory *
WROS	Wilderness Recreation Opportunity Spectrum *

\*Term defined in Glossary

## OBJECTIVES

- Range** By 2039, management of most of the 1,351,275 acres of available suitable livestock range on the Forest will include full utilization of forage available for livestock during the growing season. All allotments will have exterior boundary fences in place and more subdivisions (pastures). Adequately designed water developments will have been installed and functioning to obtain relatively uniform cattle distribution, use of forage, and maintenance of plant vigor.
- Timber** By 2039, over 800,000 acres will be under some level of intensive timber management. Average stand growth rates will have increased from 21 cubic feet to roughly 39 cubic feet per acre per year (see Appendices D and F). By the year 2039, most acres of the total suitable land base will have received some type of silvicultural treatment at least once, and some twice. Uneven-aged management methods will have been applied to approximately 200,000 acres. Approximately 75,000 acres will have been reverted from predominately mixed conifer stands back to ponderosa pine stands. These management activities will cause more acres to be stocked by younger vigorous trees which should reduce and/or limit the impacts of most insect pests on the Forest.
- Lands** The current changes in the ownership and use of intermingled private lands will be far advanced and ongoing. There will be few parcels of non-Federal land intermingled with Federal lands; private lands within wilderness will be substantially reduced.
- Fire** Prescribed fire will have played a role in converting 75,000 acres of mixed conifer stands back to ponderosa pine stands. Most all of the subclimax ponderosa pine timber type will have been underburned. Ground fuels will be reduced significantly, resulting in increased range and wildlife forage. Total smoke production on an annual basis will be reduced substantially as a result of fewer and lower intensity wildfires.
- The use of prescribed fire as a management tool will be extensive. Underburning (the use of low intensity ground fire), will be common for managing mixed ponderosa pine and associated fir stands to reduce fir encroachment and perpetuate ponderosa pine. By the end of this period, 1,000 acres will be burned as rangeland improvement and another 2,000 to 4,000 acres as wildlife habitat improvement. Smoke from these projects will be visible during spring, early summer, and fall.
- Roads** The principal road systems will be complete with improved or paved surfaces. Other roads will be closed or available for use by forest travelers with high clearance type vehicles.
- Approximately 1,159 miles of road will have been constructed. Virtually all available and suitable commercial forest land will be accessed. New road construction will be limited to small amounts of local road construction for timber sales, recreation uses, and special projects. Road and bridge reconstruction will continue.

### D. OBJECTIVES

Table IV-1 displays the outputs and activities which can be anticipated if this Forest Plan is fully implemented. Actual achievement of the levels of outputs and activities is dependent, to a large extent, on the level of funding received for implementation. If the funding is significantly different from that called for in this Plan, the output levels are likely to vary accordingly. Projected outputs could also change as new information is acquired.

A narrative description of the various resource objectives follows Table IV-1.

1. Projected Outputs

Projections of average annual outputs that will be used for programming, budgeting, and attainment reporting are displayed in Table IV-1. The projected budget required to implement the Forest Plan is shown in Appendix H.

2



PROJECTED OUTPUTS

TABLE IV-1  
PROJECTED OUTPUTS

OUTPUT OR ACTIVITY	ACTIVITY CODE <sup>1/</sup>	UNIT <sup>2/</sup>	AVERAGE ANNUAL UNITS				
			1ST DECADE	2ND DECADE	3RD DECADE	4TH DECADE	5TH DECADE
<b>RECREATION</b>							
Recreation Resource Administration	AN12	MPAOT	371	400	400	400	400
Trail Construction/Reconstruction	AT22	Miles	46/4	4/9	0/9	0/9	0/9
Trail Maintenance	AT23	Miles	1,116	1,155	1,155	1,155	1,155
<b>CULTURAL RESOURCES</b>							
Survey	AC111	M Acres	89	32	10	7	5
Evaluation	AC112-1	Sites	252	150	76	48	36
Monitoring	AC121	Sites	206	237	259	265	265
Mitigation	AC123	Sites	295	263	234	200	174
Management Plans	AC112	Sites or Dist.	2	2	2	2	2
National Register Nominations	AC122	Sites or Dist.	2	2	2	2	2
Enhancement	AC124	Sites	2	2	2	2	2
<b>FISH AND WILDLIFE IMPROVEMENTS</b>							
Wildlife Habitat Structural	CW221	Structures	300	300	300	300	300
Wildlife Habitat Non-Structural	CW222	Acres	750	750	750	750	750
Resident Fish Structural	CI221	Structures	50	10	10	10	10
Resident Fish Non-Structural	CI222	Acres	30	20	10	10	10
Anadromous Fish Structural	CA221	Structures	30	20	5	5	5
Anadromous Fish Non-Structural	CA222	Acres	20	20	10	5	5
TE&S Structural	CT221	Structures	2	2	2	2	2
TE&S Non-Structural	CT222	Acres	4	4	4	4	4
<b>RANGE</b>							
Range Resource Operations	DN1	MAUMs	110	116	114	111	112
Allotment Management Plans	DN112	Plans	90	105	105	105	105
Range Structural Improvements	DN221	Structures	250	300	100	100	100
Range Non-Structural Improvements	DN222	Acres	4,800	6,000	6,000	6,000	6,000
Noxious Weed Control	DN24	Acres	200	200	200	200	200
<b>SOIL AND WATER</b>							
Watershed Improvements	FW22	Acres	172	100	100	100	100
<b>MINERALS</b>							
Mineral Proposals, Leases, and Applications	GM114-2	Cases	92	105	110	125	130
<b>TIMBER</b>							
Timber Sale Program Quantity	ET114	MMBF	211				
	ET114	MMCF	38.4	38.4	38.4	38.4	38.4
Allowable Sale Quantity	ET114	MMBF	200				
	ET114	MMCF	34.8	34.8	34.8	34.8	34.8
Reforestation (Planting)	ET24	MAcres	5.5	3.6	2.9	4.4	5.5
Timber Stand Improvement	ET25	MAcres	10.8	16.2	13.3	11.6	16.4
<b>LANDS</b>							
Landline Location	JL24	Miles	50	0	0	0	0
Land Ownership Adjustments	JL26	MAcres	2	2	2	2	2
<b>PROTECTION</b>							
Activity Fuels Treatment	PF2	MAcres	10	10	11	11	13
Natural Fuels Treatment	P2	MAcres	2	2	2	2	2
<b>FACILITIES</b>							
Facility Construction	LF22	Structures	26	2	2	2	2
Road Construction/Reconstruction	LT22	Miles	26	26	29	32	35
Timber Purchaser Road Construction	LT214-12	Miles	62	30	12	4	9
Timber Purchaser Road Reconstruction	LT214-22	Miles	132	120	110	105	117
Road Maintenance	LT23	Miles	8,879	9,337	9,544	9,621	9,684

<sup>1/</sup> All activity codes are from Forest Service Handbook 1309 16 / National Activity Structure Handbook

<sup>2/</sup> See Glossary for definitions of acronyms.

## 2. Resource Summaries

Following are brief summaries of how the various resources will be managed under this Forest Plan. The narratives describe activities necessary to produce the outputs displayed in Table IV-1. These planned activities will be the foundation for developing the Forest's annual budget proposal and program of work.

Many of the resources described below will be monitored to determine if projected outputs are realized and if standards and objectives are being met. For monitoring details, see Chapter V.

### Dispersed Recreation

Provide unroaded recreation opportunities on about 5% of the Forest outside wilderness. Of this, 14,578 acres will provide semiprimitive motorized opportunities and 48,888 acres will provide semiprimitive nonmotorized opportunities. The Vinegar Hill-Indian Rock Scenic Area and the Wild and Scenic Rivers will also provide 23,578 acres of semiprimitive recreation opportunities. The Scenic Area will be managed for semiprimitive nonmotorized recreation outside of the winter and semiprimitive motorized recreation in the winter. There are three areas on the Forest that will be managed for wildlife emphasis (45,750 acres), but will provide a range of semiprimitive recreation opportunities.

Provide roaded recreation opportunities on 51% of the Forest (743,775 acres). These figures represent the larger blocks of land managed for roaded natural and roaded modified recreation opportunity spectrum (ROS) classes combined.

The remaining 474,700 acres on the Forest will be managed for a variety of recreation opportunities ranging from semiprimitive to roaded modified.

Evaluate requests for commercial outfitter and guide permits for hunting and packing on the basis of public demand, the effect on the environment, and the financial impact to other outfitters and guides.

Construct, reconstruct, and manage trails to protect the resources and meet the objectives of each ROS class. During the Plan period (1990-1999) construct 272 additional miles of nonwinter trails and 189 miles of winter trails and reconstruct 43 miles of the existing trail system. Conduct road planning to have the least possible impact on trails. Replace deteriorated trails, where feasible.

The North Fork (6,722 acres) and the Malheur (3,534 acres) river corridors will be managed to preserve their scenic and wild character in conformance with the Omnibus Oregon Wild and Scenic Rivers Act of 1988. Site specific analysis to determine management prescriptions for each of the rivers must be completed by 1991 and documented in a river management plan. The guiding direction for the two rivers will be to protect, enhance, and maintain the outstandingly remarkable values and natural beauty for the use and enjoyment of present and future generations.

## OBJECTIVES

### Developed Recreation

Manage the following 20 campgrounds as developed facilities: Magone Lake, Yellowjacket, Canyon Meadows, Starr, Wickiup, Parish Cabin, Idlewild, Strawberry, Trout Farm, North Fork Malheur, Big Creek, Dixie, Crescent, Elk Creek, Little Crane, McNaughton, Murray, Slide Creek, Middlefork and Beech Creek. All of these sites will be cleaned and maintained at frequencies necessary to meet the standards outlined in the March 1988 update of "Cleaning Recreation Sites" special report 8023-1801.

*Where the need is identified, upgrade, replace, and add facilities. Consider expansion or addition of new facilities where recreation demand and environmental concerns warrant. Consider conversion of any sites from nonfee to fee status where identified as being economically feasible.*

Convert 5 small, minimum-development sites receiving low use to dispersed occupancy sites. Remove the facilities from these sites as they are needed for use in the developed sites. Retain facilities needed for sanitation reasons.

Vegetative management plans will be completed outlining the necessary management practices that will need to be completed to maintain healthy vigorous growing trees and shrubs in all campgrounds, level 3 and above.

Continue management of Lake Creek Organization Camp as in the past. Do not issue new recreation residence permits. Handle other activities or new development proposals on a case-by-case basis.

### Roadless Areas

No new wilderness is recommended. Approximately 79,854 acres (44% of the current roadless area inventory) will be managed with no scheduled timber harvest and no additional roads (through semiprimitive motorized or nonmotorized and the wild portion of the wild and scenic river allocations). These acres consist of two roadless areas in their entirety and parts of six others. These include: Aldrich (8,609 acres); Shaketable (8,997 acres); and parts of McClellan Mountain (18,717 acres); Bear Creek (former North Fork Malheur River) (2,710 acres); Malheur River (3,066 acres); Glacier Mountain (14,578 acres); Myrtle-Silvies (9,855 acres); and Greenhorn Mountain (13,322 acres). Greenhorn Mountain is also known as the Vinegar Hill-Indian Rock Scenic Area, Management Area 7.

Approximately 23,674 acres in, or adjacent to, two other roadless areas will be managed with a "wildlife emphasis - with scheduled timber harvest" prescription. These include 14,629 acres in the Dry Cabin Wildlife Emphasis Area (Management Area 20A), and 9,045 acres in the Utley Butte Wildlife Emphasis Area (Management Area 20B).

Also, 22,076 acres in, or portions of, four roadless areas will be managed with a "wildlife emphasis - no scheduled timber harvest" prescription (Management Area 21). These areas include the Jump-Off Joe area (4,006 acres); Baldy Mountain (5,380 acres); Dixie Butte (6,895 acres); and Nipple Butte (5,795 acres). In these areas timber harvest will be allowed only if it is needed to meet wildlife objectives.

While roads in the wildlife emphasis areas, with and without scheduled timber harvest (Management Areas 20A, 20B, and 21) will be allowed, additional road construction will be minimized. In these areas all roads will be obliterated or closed to vehicle traffic once project activities are completed.

Before timber harvesting and road building takes place in any former RARE II roadless area an area transportation analysis will be completed for it and the surrounding area (see Appendix J, Allocation of RARE II Lands).

Approximately 2,646 acres of the Dixie roadless area will be allocated to the General Forest Management Area (Management Area 1). However, these acres will be managed to emphasize their winter recreation potential (see Appendix K, Unroaded Area Boundaries).

#### Cultural Resources

Conduct cultural resource survey and evaluation on all Forest Service lands. Appropriate historic preservation laws, regulations, and policies--plus the Forest-wide Standards--will direct future management decisions regarding significant cultural resources.

Coordinate the cultural resource program with other resource management activities on the Forest. Cultural resource surveys under the direction of a cultural resource professional will precede all resource projects. During the first decade, it is expected that most of the Forest will be inventoried.

Take action to enhance and interpret cultural resources such as the Sumpter Valley Railroad, Wickiup Historic Campground, Logan Valley and Middle Fork John Day River.

Identify contemporary Native American use of traditional cultural sites, and consider these needs in the early stages of project planning.

Consolidate previous surveys and establish context and research directions in an updated overview. Initiate data recovery projects on selected resources.

Develop management plans for the most significant cultural resources on the Forest. Monitor sites to identify causes of deterioration and take corrective actions. Analyze and document the effectiveness of various mitigation measures, such as over-snow logging.

Utilize public education and law enforcement efforts to protect sites from vandalism and illegal collecting. Involve the public more fully in cultural resource management through the use of co-operative agreements, volunteers, etc.

#### Visuals

Emphasize visual quality along all of the State and Federal highway corridor viewsheds (sensitivity level I). Manage as major corridor viewsheds the road to Strawberry Campground, County Road 62, the 15 and 16 roads as they loop around the Strawberry Mountain Wilderness and portions of the Federal Wild and Scenic River corridors. Manage lands within view of these scenic routes under foreground retention and middleground partial retention visual quality objectives (see Appendix L)

Manage other specified forest and county roads with a lower emphasis on maintaining visual quality (sensitivity level II). Meet the visual quality objectives of foreground partial retention and middleground modification in these corridor viewsheds. The effects of management activities will be obvious in these middle-grounds.

## OBJECTIVES

Emphasize horizontal diversity in the visual corridors (both sensitivity levels I & II). This will be experienced as one moves through the corridor, not as vertical diversity on every acre. Create this by developing a sequence of visual experiences utilizing group selection harvest techniques applied to small treatment units (1/4 - 5 acres) *in foregrounds, applying even-aged management in treatment units up to 10 acres in partial retention middlegrounds, and applying uneven-aged management to 15,089 acres in the first decade.* The effect is to have a multi-aged appearance in the corridor utilizing group selection and even-aged management.

A total of 140,811 acres is assigned to retention and partial retention in the more-sensitive corridor viewsheds and 63,404 acres to partial retention in the less-sensitive corridor viewsheds.

Manage unroaded areas and wilderness with sensitivity for the visual resource. The visual quality objective for wilderness is preservation. Manage semiprimitive nonmotorized areas to meet the retention visual quality objective, and semiprimitive motorized areas to meet the partial retention visual quality objective.

Manage 1,104,564 acres under modification and maximum modification visual quality objectives. The appearance of these lands as viewed from forest roads will be altered to heavily altered. Even though management activities may dominate the landscape, they are still to be designed to borrow from the natural character of the land utilizing the principles contained in *National Forest Landscape Management*, volumes 1 and 2, and the *Visual Management System* handbooks.

Develop 19 corridor viewshed plans by 1999 (see Appendix A, Activity Schedule A-4). With the proper application of visual management direction in the Forest-wide and management area standards and the visual management handbooks, the predicted visual appearance of inventoried viewsheds will be as indicated in Appendix L.

### Wilderness

Manage the Strawberry Mountain (68,700 acres) and Monument Rock (12,620 acres) wildernesses to preserve their wilderness character in conformance with the Wilderness Act of 1964 and the Oregon Wilderness Act of 1984. Overall management action will be aimed at reducing the evidence of human activities within the wilderness areas.

Project work conducted within either wilderness, either by Forest Service personnel or under contract, will be guided by the principles implied by the questions: "is it required for management of the area as wilderness?" and if so, "are the tools used the minimum necessary to accomplish the job?"

Coordinate implementation actions with other Forests and agencies. Coordinate activities in the Monument Rock Wilderness with the Wallowa-Whitman National Forest to assure consistent management direction for the entire wilderness. *Coordinate fish stocking of wilderness lakes with the Oregon Department of Fish and Wildlife. Assess the impact of improved fishing within the wilderness.*

### Fish and Wildlife

Manage big-game habitat to achieve a sustained habitat capability level over time which supports elk and mule deer population levels identified by Oregon Department of Fish and Wildlife. This will be achieved through the management of cover, forage quality, quantity and distribution as well as road use.

Plan and design all management activities to avoid actions which may cause a species to become threatened or endangered. Critical habitats and other habitats necessary for the conservation of these species will not be destroyed or suffer adverse modification. All actions will be coordinated with other agencies as appropriate.

Cooperate with future recovery efforts on behalf of the bald eagle, American peregrine falcon, and other threatened, endangered, or sensitive species. Consult with the U.S. Fish and Wildlife Service, the Oregon Department of Fish and Wildlife, the Oregon Department of Agriculture, and the Natural Heritage Foundation for technical assistance in developing management guides and in determining viable population levels.

<b>Species</b>	<b>Required Habitat/Objectives</b>
Bald eagle	Winter roost protection; summer nesting habitat inventory
American peregrine falcon	Inventory potential nest sites; reintroduction to suitable habitat
All others	Inventory, protect

Manage bald eagle winter roosts in accordance with the Pacific States Bald Eagle Recovery Plan and in a manner which encourages use by bald eagles. Monitor known roosts for use or potential use in March and April.

Manage habitat of candidate species for listing as threatened or endangered in cooperation with the U.S. Fish and Wildlife Service. Monitor known populations and survey for additional populations with the cooperation of the Nature Conservancy and the Oregon Natural Heritage Data Base

Cooperate with other resources such as timber, range, recreation, minerals, etc., to identify means of facilitating the achievement of fish and wildlife standards. Cooperate with other agencies and groups to promote mutual objectives including funding through the Challenge Cost-Share Program and program accomplishment through use of volunteer efforts.

Projects to improve wildlife habitat include prescribed burning, seeding, browse planting, pruning, mechanical disturbance and fertilizing to enhance forage production. In addition, aspen stands will be enhanced and riparian vegetation planted along streambanks.

Manage fish habitat and riparian areas to achieve increases in fish habitat capability. This habitat improvement will be accomplished by a combination of the following.

- (a) Implementation of livestock management strategies to achieve better distribution of livestock, and better control of forage utilization in riparian areas. This will help achieve a more diverse and abundant riparian vegetation condition and geomorphic recovery of the stream channel.
- (b) Implementation of the riparian timber management prescriptions, which will provide for improved stream shading and a better supply of large woody material to the stream channel.

## OBJECTIVES

- (c) Implementation of watershed and fish habitat improvement structures, to improve habitat conditions and accelerate geomorphic recovery of the stream channel.

Similar management activities will be applied to resident and anadromous streams and riparian areas, but emphasis for appropriated funds will go to anadromous streams until major structural improvements are completed in most of these streams.

Habitat for cavity excavators will be managed to provide continuous supplies of dead and down trees to maintain populations of dead tree dependent species. Dead tree habitat will be provided by subwatershed to maintain 40% of potential populations of cavity excavators in lands scheduled for timber harvest like the general forest, visual corridors, and the forested areas of elk winter ranges. In riparian areas dead tree habitat will be managed to provide 60% of cavity excavator population potential, 60-100% in wildlife emphasis areas, and at or near natural levels in areas not scheduled for timber harvest.

Provide old growth units on lands managed for timber production to sustain populations of dependent species at 30% above minimum viable levels. Maintain a total of 121,208 acres of old growth Forest-wide to provide habitat for at least 166 pairs of pileated woodpeckers, 120 pairs of pine marten, and other old growth dependent species.

### Range

- Manage uplands to utilize available forage while maintaining vegetation and site productivity. Coordinate management of these areas with adjacent riparian pastures.

It is estimated that permitted grazing use will decrease from an average of 117 thousand animal unit months (MAUMs) per year to an average of 110 MAUMs per year during the first decade; 116 MAUMs; 114, MAUMs; 111 MAUMs; and 112 MAUMs per year during decades 2-5, respectively. However, this Forest Plan does not establish an absolute level of livestock grazing. Annual forage utilization requirements will be established in each allotment management plan as a tool to achieve or maintain the desired condition.

The annual use of available forage on allotments in a satisfactory condition will be 45% on forested lands; 50% on grasslands; and 50% on shrublands. On allotments in an unsatisfactory condition the annual use of available forage will range from 0 to 35% on forested lands and grasslands; and 0 to 30% on shrublands. This corresponds to Strategy C, Extensive Management in Table IV-3.

All allotment management plans will be prepared or updated based on the goals, objectives, and standards in this Forest Plan. Ninety allotment management plans will be prepared in the first decade (see Appendix A, Activity Schedule, A-10).

Analyze allotments to determine proper stocking levels. Use specific management area goals and standards to resolve conflicts between wild horses, cattle, and big game.

### Wild Horse Habitat

Provide forage to maintain the Murderer's Creek wild horse herd at 100 animals and to meet big game population objectives agreed upon between the Forest, Oregon Department of Fish and Wildlife, and the Oregon Wildlife Commission.

## Riparian Areas

All riparian areas will be managed to protect or enhance their value for water quality, fish habitat and wildlife.

Uneven-aged timber management will be emphasized on all riparian areas. Scheduled harvest may occur on Class III streams outside a 66 foot interior corridor. Timber harvest (non-scheduled) may occur on all other riparian areas if needed to accomplish specific riparian resource objectives. All timber harvest in riparian areas will be subordinate to riparian-dependent resources.

All new or updated allotment management plans will include a strategy for managing riparian areas for a mix of resource uses. A measurable desired future riparian condition will be established based on existing and potential vegetative conditions. When the current riparian condition is less than that desired, objectives will include a schedule for improvement. Allotment management plans will identify management actions needed to meet riparian objectives within the specific time frame. The allotment management plan will address the monitoring needed to determine if the desired rate of improvement is occurring.

A riparian inventory will be completed by 2000 for the entire Forest based on the process described in "Managing Riparian Ecosystems (Zones) for Fish and Wildlife in Eastern Oregon and Eastern Washington" 1979. This inventory procedure will evaluate the present condition of riparian habitat, its potential for improvement, and provide a basis for establishment of riparian area habitat management objectives for all riparian dependent resources. The schedule for updating the allotment management plans may be amended based on this inventory (see Appendix A, Activity Schedule A-10). The riparian inventory that will be implemented on the Forest will accomplish the following:

- (a) Identify and prioritize riparian areas where high riparian resource value potential exists.
- (b) Evaluate riparian areas using parameters such as percent stream surface shaded, percent streambank stability, percent streambed sedimentation, and percent grass, shrub, and tree cover.
- (c) Determine the site potential of each stream reach for vegetative response, the time frame required to attain the desired response, and the management actions needed to meet the objectives.

Grazing allotments with riparian areas in less than desirable condition are identified in this Forest Plan. Appendix A, Activity Schedule A-10 establishes a schedule for updating all the allotment management plans on the Forest. This schedule has been prioritized to update the allotments in less than desirable condition first.

The annual use of available forage in riparian areas on allotments in a satisfactory condition will be 45% of grass and grasslikes; and 40% of shrubs. In riparian areas on allotments in unsatisfactory condition the annual use of available forage will range from 0 to 35% of grass and grasslikes; and 0 to 30% of shrubs. This corresponds to Strategy C, Extensive Management in Tables IV-4 and IV-5.

## OBJECTIVES

All available methods may be employed to achieve the desired levels of utilization by permitted livestock and big game. Design the methods selected for controlled livestock use to fit the site-specific requirements for improving the riparian area to satisfactory condition. Any one or a combination of methods may be used to treat less than desirable riparian areas such as: corridor fencing, herding, additional water developments, salting, nonuse for resource protection, early and late season use, shorter grazing season, reduced livestock numbers, control of degree of use, and/or creating additional pastures through fencing.

Approximately 1,715 acres of watershed improvement projects will be implemented during the first decade of the plan (see Appendix A, Activity Schedule A-7). These projects are identified on a map which is available for review in the Forest Supervisor's Office in John Day, Oregon.

Cavity excavator habitat levels will be managed to provide for 60% of potential populations in riparian areas.

### Timber

Of 1,039,868 acres tentatively suitable for timber management, manage 835,970 acres for timber production. Of this, manage 526,811 acres with a primary emphasis on timber production; 138,857 acres to emphasize visual quality objectives of retention or partial retention; 20,060 acres to protect or enhance riparian-dependent resources; 115,164 acres to maintain big-game habitat on winter ranges; 25,000 acres for old growth replacement; 12,054 acres to emphasize wildlife management; and 224 acres to protect the beneficial uses of the Long Creek Municipal Supply Watershed (see Appendix B).

From 835,970 suitable acres the first decade average annual allowable sale quantity of timber is 34.8 million cubic feet (200 million board feet), (see Appendix E). In addition, 3.6 million cubic feet (11 million board feet) per year of nonchargeable volume is expected to be harvested annually in the form of salvage cutting, cull logs, and miscellaneous products such as firewood and posts and poles.

Emphasize even-aged timber management which includes shelterwood, seed tree, and clearcut silvicultural systems. Apply uneven-aged timber management to 64,242 acres during the first decade. Of these acres, 37,801 will be in the General Forest Management Area (MA 1) 4,407 acres in riparian areas (MA 3A and 3B), 15,089 acres in visual areas (MA 14) and the remaining 6,945 acres in wildlife areas (MA 20A, 20B and 4A). Base the final determination of the silvicultural system to be used on a site-specific silvicultural prescription (see Appendix C).

Of the first decade average annual allowable sale quantity, harvest approximately 37.4% of the volume by overstory removal on existing stands; 14.6% by commercial thinnings; 15.2% by shelterwood and seed tree cuts; 18.4% by clearcuts; and 14.4% by selection cuts (see Table E-1).

Approximately 16.1 million cubic feet (92 million board feet) or 50% of the first decade average annual allowable sale quantity, is expected to be ponderosa pine. This is a decrease of approximately 59 million board feet over the average ponderosa pine volume sold annually during the fiscal years 1980 through 1989. By 2039 a further decrease in the amount of ponderosa pine being offered for sale will occur to an average of 13.3 million cubic feet per year, or 40% of the total harvest volume.

In the first decade there will be approximately 10,842 acres of precommercial thinnings occurring on an annual basis. Of this acreage, thin 6,700 acres per year following overstory removal treatment of an existing stand. The remaining precommercial thinning acres will be found in both uneven-aged and even-aged stands that are in need of this treatment. By the fifth decade precommercially thin approximately 16,400 acres annually.

Approximately 12,672 acres will be regenerated annually in the first decade; 7,211 acres through natural regeneration methods and 5,461 acres by artificial methods (planting). By the fifth decade the acres regenerated will average 19,320 acres annually; 13,810 acres by natural means and 5,510 acres through artificial methods. See Appendices C, D, E and F for additional timber management information.

Maintain opportunities to gather firewood by giving the public an opportunity to utilize logging residue.

Of 1,039,868 acres tentatively suitable for timber management, 203,898 acres were not selected for timber management. Of these, 29,090 acres were not selected because they were economically inefficient, or it would cost more to harvest than can be recovered in the short-term. Currently a portion of these lands are decadent, low value, mixed conifer species which have the potential of being productive in the next stand rotation. Under this Plan, these acres may be brought into timber management, based on site-specific analysis, as market conditions change, new technology is developed or the budget allows. The remaining acres are low-site lands of scattered ponderosa pine which have low benefit values and low volume per acre (see Appendix C).

#### Soil and Water

Manage soil and water resources to maintain or enhance the long-term productivity of the Forest. All management activities will be subject to the Forest-wide Standards requiring a minimum of 80% of an activity area be left in a condition of acceptable productivity. For acres exceeding this standard, corrective action will be taken.

Problem areas will be included on the Watershed Improvement Needs inventory and prioritized for improvement. Projects will be completed at the rate of about 172 acres per year (see Appendix A, Activity Schedule A-7).

Much of the management activity under this Plan will be directed toward improving those riparian areas which are in undesirable condition. A combination of watershed improvements in or adjacent to riparian areas and improved management of livestock in riparian areas will be the major soil and water improvement activities on the Forest. Any one method or a combination of methods may be incorporated to treat a less than desirable riparian area. Examples of such methods include corridor fencing, range riders, extra water developments, extra salting, nonuse of pasture, early or late season grazing, shorter grazing seasons, reduced livestock numbers, control of grass and shrub utilization, or fencing to create additional pastures.

Integrate mitigation into management activities. Examples of mitigation for soil and water protection include waterbarring skid trails, seeding disturbed soil along riparian areas and size and distribution of harvest units.

## OBJECTIVES

In addition to these types of activities, complete approximately 100 acres of watershed improvement projects annually. The types of projects which may occur include streambank erosion restoration, gullied meadow restoration, and check damming to raise water tables.

### Minerals

Prompt responses will be given to all proposals for mineral exploration, development and extraction and will meet NEPA compliance. Of the 80,400 acres of mineralized land open under mining laws, 66,125 acres will be managed under standard resource protection and reclamation stipulations. More stringent stipulations will be applied to 8,405 acres to protect special values of the impacted area. The remaining 5,870 acres are withdrawn from mineral entry.

Lands with potential for oil and gas, and open under the mineral leasing laws total 558,240 acres. Of these lands, 537,780 acres will be managed under standard resource protection and reclamation stipulations. The remaining 20,460 acres will have more stringent stipulations to protect the special values of the impacted area.

All stipulations must pass a test of reasonableness to protect the surface resource values, and provide an opportunity to develop the mineral resource without undue hardship being placed upon the operator.

Forest rock resources will be inventoried to allow for orderly development and efficient use of resources. Each developed site will include a plan for surface reclamation upon termination of mining, once mineable resources have been exhausted. Withdrawals will be made when necessary to protect rock resources for forest needs.

### Roads

Access management planning will strive for 1.5 mi/mi<sup>2</sup> on summer range and 1.0 mi/mi<sup>2</sup> on winter range unless these densities do not allow for a healthy and productive forest as envisioned in the desired future condition, or interferes with access to private land. Open road densities will be no greater than 3.2 miles per square mile in summer range, 2.2 mi/mi<sup>2</sup> in winter range (MA 4A) and 1.5 mi/mi<sup>2</sup> in wildlife emphasis areas (MA 20A, 20B and 21) by 1999. These densities will be monitored on a watershed basis (see Appendix I).

Road density concerns will be addressed through the access management plan which will establish road management objectives for each road on the Forest. The existing road system will be reviewed to identify roads to be closed or obliterated because they no longer contribute to integrated land management objectives. The status of all roads will be determined by integrated land management analysis, incorporating objectives for big-game habitat needs (including security needs), high quality recreation opportunities, timber harvest and removal, and firewood cutting opportunities. This will be an open process with public involvement, meeting the full intent of NEPA.

The development, maintenance, and management of the Forest road system is to be continued as needed to respond to resource management objectives. Roads will be planned, designed, constructed and maintained to the minimum level necessary to meet integrated land management objectives (i.e., the needs of all the resources). Most road-related activities will occur in support of the timber management program, with additional activities undertaken to facilitate recreational use, forest administration, and resource protection.

The projected operational status of the Forest development road system is as follows:

	Passenger Car Mileage	High Clearance Vehicles		Total Forest Mileage
		Open Mileage	Year Round Closure Mileage	
1990	1,200	6,806	564	8,570
1999	1,200	5,300	2,688	9,188

By the end of the first decade, approximately 618 miles of new road will have been constructed for a total of 9,188 miles of road on the Forest. Approximately 30%, or 2,688 miles, will be closed to traffic or obliterated and removed from the transportation system.

Road reconstruction by timber purchasers will approximate 1,320 miles during the plan period. In addition to that work performed by timber purchasers, construct or reconstruct an average of 26 miles of roads annually for the next 10 years to meet recreation and other resource needs (see Appendix A, Table A-8).

Manage the transportation network to reduce the cost and impact of roads, to provide road access to developed sites to a service level comparable with their development level, to correct chronic sediment sources and prevent fish barriers, and to provide dispersed recreation and wilderness access.

**Research Natural Areas**

Manage research natural areas as part of a Federal system of tracts established for nonmanipulative research and educational purposes. Each research natural area is a site where features are preserved for scientific purposes and natural processes are allowed to dominate. Their main purposes are to provide: (1) baseline areas against which effects of human activities can be measured, (2) sites for study of natural processes in undisturbed ecosystems, and (3) gene pool preserves for all types of organisms, especially those classified as rare and endangered.

Complete a comprehensive formal report which contains direction for management of the area. Submit this report to the Chief of the Forest Service for approval and establishment of proposed research natural areas.

## FOREST-WIDE STANDARDS

There is one established research natural area on the Forest. Canyon Creek Research Natural Area on the Bear Valley District covers approximately 661 acres within the Strawberry Mountain Wilderness.

The Research Natural Area Committee for the Pacific Northwest Region determined that Baldy Mountain, Dixie Butte, Dugout Creek, and Shaketable candidate Research Natural Areas represent the best examples of particular kinds of natural ecosystems in the Region and are needed to meet present and future demands. The 2,850 acre Baldy Mountain area is located within the Strawberry Mountain Wilderness and represents forested communities on serpentine soils. The Shaketable area (approximately 375 acres) is located on the Bear Valley District and represents various sagebrush communities. Alpine sedge communities are found in the Dixie Butte area (approximately 100 acres) on the Long Creek District. Dugout Creek, on Prairie City Ranger District is approximately 270 acres, and includes mixed conifer/pinegrass communities or moderate slopes with ash soils.

Manage these areas to preserve their integrity until an establishment report is prepared and approved by the Chief of the Forest Service. Upon approval of this report, manage the area under the direction established in the report.

There may be some future research natural area needs that can best be satisfied on the Malheur National Forest. When suitable new areas are identified, consider them for addition to the research natural area inventory.

### E. FOREST-WIDE STANDARDS

The following standards apply to National Forest land administered by the Malheur National Forest. In some cases standards represent a minimum or maximum permissible level of an output or activity and under some circumstances more restrictive standards may be applied, provided changes in outputs or effects on other resources do not occur. They are intended to supplement, but in some cases may take the place of, national and Regional policies, standards, and guidelines found in Forest Service manuals and handbooks and the Pacific Northwest Regional Guide.

#### General

1. Subsequent activities affecting the Forest, including budget proposals, shall be based on this Forest Plan. Proposed activity schedules may be changed to reflect differences between proposed annual budgets and appropriated funds. Such scheduled changes shall be considered an amendment to the Forest Plan but shall not be considered a significant amendment or require the preparation of an Environmental Impact Statement, unless the changes significantly alter the long-term relationship between levels of multiple use goods and services projected under planned budget proposals as compared with those projected under actual appropriations.
2. Plan, design, and implement all projects in an interdisciplinary manner to achieve integrated land management objectives.

## GLOSSARY - E

<b>Effects</b>	Environmental changes resulting from a proposed action. Included are direct effects, which are caused by the action and occur at the same time and place, and indirect effects, which are caused by the action and are later in time or further removed in distance, but which are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.
<b>Elk Wallow</b>	A depression, pool of water, or wet area produced or utilized by elk.
<b>Endangered Species</b>	Any species, plant or animal, which is in danger of extinction throughout all or a significant portion of its range. Endangered species are identified by the Secretary of the Interior in accordance with the 1973 Endangered Species Act.
<b>Endemic Infestations</b>	Occurrence of insects or disease contained in population and location to a normal, balance level.
<b>Environmental Analysis</b>	An analysis of alternative actions and their predictable short- and long-term environmental effects, which include physical, biological, economic, and social effects and their interactions.
<b>Environmental Assessment (EA)</b>	The concise public document required by the regulations implementing the National Environmental Policy Act. (40 CFR 1508.9, 2)
<b>Environmental Impact Statement (EIS)</b>	A statement of the environmental effects of a proposed action and the alternatives to achieve it. It is required for major federal actions under Section 102 of the National Environmental Policy Act (NEPA), and released to the public and other agencies for comment and review. It is a formal document that must follow the requirements of NEPA, the Council on Environmental Quality (CEQ) guidelines, and directives of the agency responsible for the project proposal.
<b>Epidemic</b>	A widespread and unusually high incidence of an insect, disease or other pest. The pest organism often builds up rapidly to an epidemic population level.
<b>Erosion</b>	The group of processes whereby earthy or rocky material is worn away by natural sources such as wind, water, or ice, and removed from any part of the earth's surface.
<b>Ethnography</b>	The systematic recording of human cultures.
<b>Even-Aged Management</b>	Application of a combination of actions that results in creation of stands in which trees of essentially the same age grow together. Managed even-aged forests are characterized by a distribution of stands of varying ages (and, therefore, tree sizes) throughout the Forest area. The difference in age between trees forming the main canopy level of the stand usually does not exceed 20 percent of the age of the stand at harvest rotation age. Regeneration in a particular stand is obtained during a short period at or near the time that a stand has reached the desired age or size for regeneration and is harvested. Clearcut, shelterwood, or seed tree cutting methods produce even-aged stands.

## F

<b>Featured Species</b>	A species of high public interest and demand.
<b>Fee Site</b>	A Forest Service recreation area in which users must pay a fee. Fee sites must meet certain standards and provide certain facilities as specified in the Forest Service Manual
<b>Final Cut</b>	Removal of the last seed-bearers or shelter trees after regeneration is considered to be established under a shelterwood system
<b>Final Environmental Impact Statement (FEIS)</b>	The final version of the statement of environmental effects required for major federal actions under Section 102 of the National Environmental Policy Act. It is a revision of the draft Environmental Impact Statement to include public and agency responses to the draft.
<b>Fire Management Action Plan</b>	Standards, guidelines, and practices to be used in wildfire suppression on the Malheur National Forest based on management practices presented in the Forest Plan.
<b>Fire Management Analysis System</b>	The fire analysis process which provides input for Forest planning, fire program development, and budgeting.
<b>Floodplain</b>	The lowland and relatively flat area adjoining inland and coastal waters, including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year (100 year recurrence).
<b>Forage</b>	All browse and nonwoody plants that are available to livestock or wildlife and used for grazing or harvested for feed.
<b>Forb</b>	Any herbaceous plant other than true grass, sedges, or rushes
<b>Foreground</b>	A term used in visual management to describe the portions of a view between the observer and up to 1/4 to 1/2 mile distant. (See background, middleground.)
<b>Forest and Rangeland Renewable Resources Planning Act of 1974</b>	An Act of Congress requiring the preparation of a program for the management of the National Forests' renewable resources, and the preparation of land and resource management plans for units of the Nation Forest System. It also requires a continuing inventory of all National Forest System lands and renewable resources.
<b>Forest Land</b>	Land at least 10 percent occupied by forest trees or formerly having had such tree cover and not currently developed for nonforest use. Lands developed for nonforest use include areas for crops, improved pasture, residential, or administrative areas, improved roads of any width, and adjoining road clearing and powerline clearing of any width.
<b>Forest Residue Biomass Potential</b>	That material remaining after management activity that could be used for other uses; that is, fuelwood, particle board, fuel for cogeneration facilities, pulp, etc.
<b>Forest Residues</b>	The residual dead plant biomass remaining on site after a natural occurrence or an forest activity has occurred.

## GLOSSARY - F

<b>Forest Service Handbook (FSH)</b>	For Forest Service use, directives that provide detailed instructions on how to proceed with a specialized phase of a program or activity.
<b>Forest Service Manual (FSM)</b>	A system of manuals which provides direction for Forest Service Activities.
<b>Forest Supervisor</b>	The official responsible for administering the National Forest System lands in a Forest Service administrative unit, which may consist of one or more National Forests or all the Forests within a State.
<b>Forest System Road</b>	A road wholly or partly within or adjacent to and serving the National Forest System and which is necessary for the protection, administration, and utilization of the National Forest System and the use and developments of its resources.
<b>FORPLAN</b>	A linear programming system used for developing and analyzing Forest planning alternatives.
<b>Forest Travel Plan</b>	A map of the Forest showing area, road, and trail restrictions and closures, including a key listing dates and reasons for such restriction or closure.
<b>Forest-Wide Standards</b>	An indication or outline of policy or conduct dealing with the basic management of the Forest. Forest-wide management standards apply to all areas of the Forest except when superseded by management area prescriptions.
<b>Free-To-Grow</b>	A term used to indicate that trees are free of growth restraints, the most common of which is competing overtopping vegetation.
<b>Fuel Break</b>	A zone in which fuel quantity has been reduced or altered to provide a position for suppression forces to make a stand against wildfire. Fuel breaks are designated or constructed before the outbreak of a fire. Fuel breaks may consist of one or a combination of the following: Natural barriers, constructed fuel breaks, manmade barriers.
<b>Fuels</b>	Includes living plants; dead, woody vegetative materials; and other vegetative materials which are capable of burning.
<b>Fuels Analysis Process</b>	An analysis process developed by United States Forest Service, Region 6, to analyze the cost effectiveness of fuel treatment alternatives for the purpose of hazard reduction as it relates to wildfire protection.
<b>Fuel Management</b>	Manipulation or reduction of fuels to meet Forest protection and management objectives while preserving and enhancing environmental quality.
<b>Fuels Profile</b>	Synonymous with Residue Profile. Usually refers to activity created fuels, but may also relate to natural fuels.
<b>Fuel Treatment</b>	The rearrangement or disposal of natural or activity fuels (generated by management activity, such as slash left from logging) to reduce fire hazard or meet other management objectives. Fuels are defined as both living and dead vegetative materials consumable by fire.

**Full-Service Management** The administration, operation, and maintenance of developed recreation sites to established standards with the objective to provide a pleasant recreation experience for the visitor and exceed the minimum health and safety needs of the visitor.

## G

**Game Species** Any species of wildlife or fish for which seasons and bag limits have been prescribed, and which are normally harvested by hunters, trappers, and fishermen under State or Federal laws, codes, and regulations.

**Geological Area** An area which has been designated by the Forest Service as containing outstanding formations or unique geological features of the earth's development such as caves, fossils, dikes, cliffs, or faults.

**Geomorphology** A science that deals with the land and submarine relief features of the earth's surface or the comparable relief features of a celestial body (as the moon) and seeks a generic interpretation of them

**Goal** A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed

**Goods and Services** The various outputs, including on-site uses, produced by forest and rangeland resources.

**Grasslike** A plant of the Cyperaceae or Juncaceae families which vegetatively resembles a true grass of the Gramineae family

**Grazing Allotment** See Range Allotment.

**Grazing Permits** Official, written permission to graze a specific number, kind, and class of livestock for a specific period on a defined range allotment.

**Group Selection Cutting** Removal of tree groups ranging in size from a fraction of an acre up to about two acres. Area cut is smaller than the minimum feasible under even-aged management for a single stand.

**Growing Stock Level** A relative stand density measure used to guide a management objective, such as maximizing timber volume yields or optimizing big game thermal cover.

## H

**Habitat Effectiveness Index (HEI)** An index of a Rocky Mountain elk habitat model. Habitat Effectiveness Index is the relative value of habitat conditions based on the potential of the habitat type to provide cover, the quality of existing cover, and the miles of road open to vehicular traffic.

**Habitat Type** The aggregate of all areas that support or can support the same primary vegetation at climax.

## GLOSSARY - I

<b>Hard Snag</b>	A snag composed primarily of sound wood, particularly sound sapwood.
<b>Harvest Cutting Method</b>	A combination of interrelated actions whereby forests are tended, harvested, and replaced. The combination of management practices used to manipulate the vegetation results in forests of distinctive form and character. Harvest cutting methods are classified as even-aged and uneven-aged.
<b>Hiding Cover</b>	See Cover, hiding
<b>Horizontal Diversity</b>	The distribution and abundance of plant and animal communities or successional stages across an area of land; the greater the number of communities, the higher the degree of horizontal diversity. This concept is close to but not exactly the same as even-aged management, although each may influence the other. Application of even-aged management, for example, can be designed to accomplish horizontal diversity objectives. See also Vertical Diversity.
<b>Hunter-Days</b>	A measure of hunter use equal to 6 hours by one person.
I	
<b>ID Team</b>	See Interdisciplinary Team.
<b>Improvement Cutting</b>	Intermediate cutting made in stands past the sapling stage for the purpose of improving the composition and quality by removing trees of undesirable species, form, or condition from the main canopy
<b>Indicator of Response</b>	A facet of an issue that provides a measurable gauge to analyze the responsiveness of alternative management strategies towards resolution of the issue.
<b>Individual Tree Selection Cutting</b>	An uneven-aged cutting method in which selected trees from specified size or age classes are removed over the entire stand area to meet a predetermined goal of size or age distribution and species composition in the remaining stand.
<b>Instream Flows</b>	The minimum water volume (cubic feet per second) in each stream necessary to meet seasonal streamflow requirements for maintaining aquatic ecosystems, visual quality, recreational opportunities, and other uses.
<b>Instream Structures</b>	Boulders, logs, or other artificially placed materials which are used to enhance or improve existing fish habitat by altering stream velocity and depth or to provide physical cover.
<b>Integrated Pest Management</b>	A process for selecting strategies to regulate forest pests in which all aspects of a pest-host system are studied and weighed. The information considered in selecting appropriate strategies includes the impact of the unregulated pest population on various resources values, alternative regulatory tactics and strategies, and benefit/cost estimates for these alternative strategies. Regulatory strategies are based on sound silvicultural practices and ecology of the pest-host system and consist of a combination of tactics such as timber stand improvement plus selective use of pesticides. A basic principle in the choice of strategy is that it be ecologically compatible or acceptable.

<b>Intensive Forest Management</b>	A high investment level of timber management that envisions initial harvest, regeneration with genetically improved stock, control of competing vegetation, fill-in planting, precommercial thinning as needed for stocking control, one or more commercial thinnings, and final harvest.
<b>Interdisciplinary</b>	The integrated use of natural and social sciences and the environmental design arts in planning and decision making.
<b>Interdisciplinary Team (ID Team)</b>	A group of individuals with different training assembled to solve a problem or perform a task. The team is assembled out of recognition that no one scientific discipline is sufficiently broad to adequately solve the problem. Through interaction, participants bring different points of view to bear on the problem.
<b>Intermediate Harvest</b>	Any removal of trees from a stand between the time of its formation and the regeneration cut. Most commonly applied intermediate cuttings are release, thinning, improvement, and salvage
<b>Intermittent Stream</b>	A stream which flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow
<b>Issues</b>	A point, matter, or question of public discussion or interest to be addressed or decided through the planning process. (See also <i>Public issue</i> .)

## K

<b>Knutson-Vandenberg Act (K-V)</b>	(46 Stat. 527, 16 U.S.C 576-5766) An Act of Congress as amended by the National Forest Management Act of 1976 (P.L. 94-588) that is the authority for requiring purchasers of National Forest Timber to make deposits to finance the cost of reforestation, timber stand improvements, and other activities needed to protect and improve the future productivity of renewable resources of timber sale areas.
-------------------------------------	--

## L

<b>Landform</b>	An area of that is defined by its particular combination of bedrock and soils, erosion processes and climatic influences.
<b>Landing</b>	Any place where cut timber is gathered for further transport.
<b>Landline Location</b>	The legal identification, accurate location, and description of property boundaries.
<b>Landtype</b>	An inventory map unit with relatively uniform potential for a defined set of land uses Properties of soils, landform, natural vegetation and bedrock are commonly components of landtype delineation used to evaluate potentials and limitations for land use.
<b>Large Woody Debris</b>	Large trees, primarily conifers, that accumulate in streams or other water bodies. This material is important for fishery habitat and stream channel stability.
<b>Leasable Minerals</b>	See Minerals, Leasable.

## GLOSSARY - M

<b>Level I Fire Analysis</b>	General fire management analysis to provide historical information that assists the interdisciplinary team in the analysis of the management situation and formulation of alternatives for the Forest Plan.
<b>Level II Fire Analysis</b>	An analytical process which guides the implementation of fire management activities of the Forest Plan.
<b>Limits of Acceptable Change</b>	Statements of the maximum amount of change in social and environmental conditions considered to be appropriate to Forest management.
<b>Local Roads</b>	Roads constructed and maintained for, and frequented by, the activities of a given resource element. These roads connect terminal facilities with Forest collector or Forest arterial roads or public highways. The location and standard usually are determined by the requirement of a specific resource activity rather than by travel efficiency.
<b>Locatable Minerals</b>	See Minerals, Locatable.
<b>Long-Term Sustained Yield Capacity (LTSYC)</b>	The highest uniform wood yield from lands being managed for timber production that may be sustained under a specified intensity of management consistent with multiple-use objectives.

## M

<b>Management Area</b>	An area with similar management objectives and a common management prescription.
<b>Management Area Standards</b>	Management direction in narrative form in the Forest Plan specific to each management area.
<b>Management Direction</b>	A statement of multiple use and other goals and objectives, the associated management prescriptions, and standards for attaining them.
<b>Management Indicator Species (MIS)</b>	Species identified in a planning process that are used to monitor the effects of planned management activities on viable populations of wildlife and fish, including those that are socially or economically important.
<b>Management Prescription</b>	Management practices and intensities selected and scheduled for application on a specific area to attain multiple use and other goals and objectives.
<b>Management Requirement (MR)</b>	Standards for resource protection, vegetative manipulation, silvicultural practices, even-aged management, riparian areas, soil and water, and diversity, to be met in accomplishing National Forest System goals and objectives (See 36 CFR 219.27) and/or other legal requirements.
<b>Management Standard</b>	An indication or outline of policy or conduct dealing with the basic management of the Forest.
<b>Marginal Cover</b>	See Cover, marginal.

<b>Market Resources</b>	Resources exchanged in actual markets for a monetary price as opposed to nonmarket resources which have no established market. Typical market resources include timber, grazing and mining.
<b>Market Value</b>	The unit price of an output normally exchanged in a market after at least one stage of production, expressed in terms of what people are willing to pay as evidenced by market transactions.
<b>Mass Wasting</b>	A general term for any of the variety of processes by which large masses of earth material are moved downslope either slowly or quickly by gravitational forces.
<b>Mature Timber</b>	Individual trees or stands of trees that in general have passed their maximum rate in terms of the physiological processes, expressed as height, diameter, and volume growth.
<b>Maximum Modification</b>	See <i>Visual Quality Objective</i> .
<b>Mean Annual Increment</b>	The total increment in a tree or stand of trees up to a given age, divided by that age.
<b>Mechanical Treatment</b>	The treatment of forest fuels or residue using mechanized equipment to rearrange, dispose or remove unwanted fuels
<b>Metals, Precious</b>	Any of the less common and highly valuable metals such as gold, silver, and the platinum metals
<b>Metals, Strategic</b>	Those metals vital to the security of the nation which must be procured entirely or to a substantial degree from sources outside the continental limits of the United States because the available production will not be sufficient in quantity or quality to meet requirements in time of national emergency. Included are such metals as chromium, titanium, and platinum.
<b>Middleground</b>	The visible terrain beyond the foreground where individual trees are still visible, but do not stand out distinctly from the stand.
<b>Mineral Entry</b>	The filing of a mining claim on Federal land to obtain the right to mine any locatable minerals it may contain Also the filing for a millsite on Federal land for the purpose of processing off-site locatable minerals.
<b>Mineral Exploration</b>	The search for valuable minerals.
<b>Mineral Production</b>	The extraction of mineral deposits.
<b>Mineral Soil</b>	A soil consisting predominantly of and having its properties determined predominantly by inorganic matter.
<b>Mineral Withdrawal</b>	A formal designation by the Secretary of the Interior which precludes entry or disposal of mineral commodities under the mining and/or mineral leasing laws.

## GLOSSARY - M

<b>Minerals, Common Variety</b>	Deposits of sand, stone, gravel, etc. of widespread occurrence and not having distinct or special value. These deposits are used generally for construction and decorative purposes and are disposed of under the Materials Act of 1947.
<b>Minerals, Leasable</b>	Those minerals which are disposed of under authority of the various mineral leasing acts. Minerals include coal, oil, gas, phosphate, sodium, potassium, oil shale, sulfur (in Louisiana and New Mexico), and geothermal steam.
<b>Minerals, Locatable</b>	Those minerals which are disposed of under the general mining laws. Included are minerals such as gold, silver, lead, zinc, and copper, which are not classed as leasable or salable.
<b>Minimum Level Management</b>	A benchmark level used to develop alternatives. Also a management prescription in which the only actions taken are those to assure public safety and meet custodial needs.
<b>Minimum Streamflow</b>	A specified level of flow through a channel that must be maintained by the users of the stream for biological, physical, or other purposes.
<b>Mining Claims</b>	A geographic area of the public lands held under the general mining laws in which the right of exclusive possession is vested in the locator of a valuable mineral deposit. Includes lode claims, placer claims, millsites, and tunnel sites.
<b>Mitigate</b>	To lessen the severity
<b>Mitigation</b>	Avoiding or minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact by preservation and maintenance operations during the life of the action; compensating for the impact by replacing or providing substitute resources of environments. (40 CFR Part 1508.20)
<b>Mixed Conifer</b>	Stand containing a mixture of tree species including, but not limited to, ponderosa pine, western larch, western white pine, white fir, Douglas-fir, subalpine fir, Englemann spruce, and lodgepole pine.
<b>Modification</b>	See Visual Quality Objective (VQO).
<b>Monitoring and Evaluation</b>	The periodic evaluation on a sample basis of Forest Plan management practices to determine how well objectives have been met and how closely management standards have been applied.
<b>Motorized Access</b>	Open to all motorized vehicles.

**Multiple Use** The management of all the various renewable surface resources of the National Forest System so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some lands will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

## N

**National Environmental Policy Act (NEPA)** An act which encourages productive and enjoyable harmony between man and his environment, promotes efforts to prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; enriches the understanding of the ecological systems and natural resources important to the Nation; and establishes a Council on Environmental Quality.

**National Forest Landscape Management System** The planning and design of the visual aspects of multiple use land management in such ways that the visual effects maintain or upgrade man's psychological welfare.

**National Forest Management Act (NFMA)** A law passed in 1976 as amendments to the Forest and Rangeland Renewable Resources Planning Act that requires the preparation of Regional and Forest plans and the preparation of regulations to guide that development.

**National Forest System (NFS)** All National Forest lands reserved or withdrawn from the public domain of the United States, all National Forest lands acquired through purchase, exchange, donation, or other means, the National Grasslands and land utilization projects administered under Title III.

**National Register of Historic Places** A listing maintained by the National Park Service of areas which have been designated as being of historical significance. The Register includes places of local and State significance as well as those of value to the Nation as a whole.

**National Wilderness Preservation System** All lands covered by the Wilderness Act and subsequent wilderness designations, irrespective of the department or agency having jurisdiction.

**Natural Ignition** A wildfire started by lightning.

**Natural Regeneration** Reforestation of a site by natural seeding from the surrounding trees. Natural regeneration may or may not be preceded by site preparation.

**Net Public Benefits** An expression used to signify the overall long-term value to the Nation of all outputs and positive effects (benefits) less all associated inputs and negative effects (costs) whether they can be quantitatively valued or not. Net public benefits are measured by both quantitative and qualitative criteria rather than a single measure or index. The maximization of net public benefits to be derived from management of units of the National Forest System is consistent with the principles of multiple use and sustained yield.

## GLOSSARY - O

<b>Nonchargeable Volume</b>	All volume not included in the growth and yield projections for the selected management prescriptions used to arrive at the allowable sale quantity.
<b>Nonclassified Forest</b>	Any forest land not designated as wilderness.
<b>Nonconsumptive Use</b>	The use of a resource that does not reduce its supply. For example, nonconsumptive uses of water include hydroelectric power generation, boating, swimming, etc.
<b>Nondeclining Even Flow</b>	A policy governing the volume of timber removed from a National Forest, which states that the volume planned for removal in each succeeding decade will equal or exceed that volume planned for removal in the previous decade.
<b>Nonforested Land</b>	Lands that never have had or that are incapable of having 10 percent or more of the area occupied by forest trees; or lands previously having such cover and currently developed for nonforested use.
<b>Nongame Species</b>	Species of fish or animal which is not managed as a sport hunting or fishing resource; all mammals, birds, reptiles, amphibians and fish, not classified as game species by the Oregon Department of Fish and Wildlife.
<b>Nonmarket Resources</b>	<i>Products derived from National Forest resources that do not have a well-established market value, for example, recreation, wilderness, wildlife.</i>
<b>Nonmotorized Access</b>	Closed to all motorized vehicles.
<b>Nonstocked</b>	A stand of trees or aggregation of stands that have a stocking level below the minimum specified for meeting the prescribed management objectives.
<b>Nonsystem Road</b>	Single-purpose, temporary road built to service one resource such as mining, range, recreation, timber, or fire.
<b>No Surface Occupancy</b>	A mineral lease clause which, if attached to a mineral lease, prohibits the lessee from constructing roads, well pads, or otherwise occupying the land surface unless, upon site-specific review, it is determined by the authorized officer that the requirements of the stipulation can be modified if other less stringent mitigation is determined to be sufficient to protect the other resources.

## O

<b>Objective</b>	A concise, time-specific statement of measurable, planned results that respond to preestablished goals. An objective forms the basis for further planning, to define the precise steps to be taken and the resources to be used in achieving identified goals.
------------------	--

<b>Obliterated Road</b>	A road over which travel has been and will continue to be denied, the entrance obscured, and the wheel tracks or pathway is no longer continuous and suitable for travel. It includes roads obliterated by natural processes such as revegetation or other natural occurrences, and for which the drainage is not in need of further attention. An obliterated road has been returned to the resource management purposes established for that area. Obliteration by natural processes may have to be supplemented by artificial methods to get "vegetative cover within ten years" after the last activity as required by the National Forest Management Act. The obliterated road will be removed from the Forest Road Transportation System.
<b>Ocular Estimate</b>	An estimate based on a visual observation.
<b>Off-Road Vehicle (ORV)</b>	Any vehicle capable of being operated off an established road or trail, e.g., motorbike, four-wheel drive, or snowmobile.
<b>Old Growth Dependent Species</b>	The group of wildlife species that is associated with old growth forest plant communities
<b>Old Growth Indicator Species</b>	Those species of wildlife that are dependent on or that find optimum habitat in old growth stands for at least part of their life cycle. It is assumed that if the requirements of these species are met, the requirements of other old growth-associated species will be satisfied. For the Malheur National Forest, the primary indicator species are pileated woodpecker, pine marten, bald eagle, peregrine falcon, northern three-toed woodpecker, and primary cavity excavators.
<b>Old Growth Stand</b>	For all National Forests in the Pacific Northwest Region, an old growth stand is defined as any stand of trees 10 acres or greater generally containing the following characteristics: <ul style="list-style-type: none"> <li>(a) Stands contain mature and overmature trees in the overstory and are well into the mature growth stage (See Handbook of Terminology, Society of American Foresters )</li> <li>(b) Stands will usually contain a multilayered canopy and trees of several age classes.</li> <li>(c) Standing dead trees and down material are present.</li> <li>(d) Evidence of human activities may be present but may not significantly alter the other characteristics and would be a subordinate factor in a description of such a stand.</li> </ul>
<b>Old-Growth Timber</b>	See Overmature Timber.
<b>Opening</b>	See Created Openings.
<b>Oregon State Historic Preservation Officer</b>	The official who is responsible for administering the National Historic Preservation Act of 1966 within the State, or a designated representative authorized to act for the State Historic Preservation Officer.

## GLOSSARY - P

<b>Output</b>	A good, service, or on-site use that is produced from Forest and rangeland resources. Forest and rangeland output definitions, codes and unit measures are contained in the Management Information Handbook (FSH 1309.11). Examples are: X06-Softwood Sawtimber Production - MBF; X80-Increased Water Yield - Acre Feet; W01-Primitive Recreation Use - RVDs.
<b>Output, Market</b>	A good, service, or on-site use that can be purchased at a price.
<b>Output, Nonmarket</b>	A good, service, or on-site use not normally exchanged in a market.
<b>Outstandingly Remarkable</b>	Unusual and/or unique qualities which are associated with a stream which determine eligibility for potential designation as a wild and scenic river. These include features such as free flowing water, scenic, geologic, fisheries or wildlife values.
<b>Overmature Timber</b>	The stage at which a tree declines in vigor and soundness; for example, past the period of rapid height growth.
<b>Overstory</b>	That upper-most canopy of the forest when there is more than one level of vegetation.
<b>Overstory Removal</b>	A final removal of mature overstory to release established immature crop trees that were not a result of a prescribed regeneration cut.

## P

<b>Pacific States Bald Eagle Recovery Plan</b>	A plan prepared by the Pacific States Bald Eagle Recovery Team, appointed by the U.S. Department of the Interior under authority of the Endangered Species Act of 1973. The plan outlines the steps needed for recovery and maintenance of bald eagle populations in Idaho, Nevada, California, Oregon, Washington, Montana, and Nevada.
<b>Palatable Forage</b>	Forage that is favored for grazing animals.
<b>Partial Retention</b>	See Visual Quality Objectives.
<b>Payments In Lieu of Taxes</b>	Payments to local or state governments based on ownership of Federal land and not directly dependent on production of outputs or receipt sharing. Specifically, they include payments made under the Payments in Lieu of Taxes Act of 1976 by the U.S. Department of the Interior.
<b>Perennial Streams</b>	Streams that flow continuously throughout most years.
<b>Permitted Grazing</b>	Use of a National Forest range allotment under the terms of a grazing permit.
<b>Permittee</b>	One who holds a permit to graze livestock on State, Federal, or certain privately-owned lands
<b>Photo Point</b>	An identified point from which photographs are taken at periodic intervals.
<b>Planned Ignition</b>	A fire started by a scheduled, deliberate management action.
<b>Planning Area</b>	The area of the National Forest System covered by a Regional Guide or Forest Plan.

<b>Planning Horizon</b>	The overall time period considered in the planning process that spans all activities covered in the analysis or plan, and all future conditions and effects of proposed actions which would influence the planning decisions (In the National Forest planning process, this is 150 years )
<b>Planning Period</b>	One decade The time interval within the planning horizon that is used to show incremental changes in yields, costs, effects, and benefits.
<b>Planning Records</b>	Documents and files that contain detailed information and decisions made in developing the Forest Plan and other NEPA documents; available from the responsible official.
<b>Plan of Operations</b>	A document required from any person proposing to conduct mineral-related activities which utilize earth moving equipment and which will cause disturbance to surface resources or involve the cutting of trees. (CFR 228 4)
<b>Plantation</b>	A forest crop or stand established artificially, either by seeding or planting of young trees.
<b>PNV</b>	See Present Net Value.
<b>Poles</b>	Live trees of commercial species at least 6 inches in diameter at breast height but less than 9.0 inches DBH The term is used to describe the general size class of a timber stand and does not define commercial products as determined by timber utilization standards
<b>Policy</b>	A guiding principle upon which is based a specific decision or set of decisions (FSM 1905)
<b>Potentially (Tentatively) Suitable Land</b>	Forest land that is producing or is capable of producing crops of industrial wood and: (a) has not been withdrawn by Congress, the Secretary, or the Chief; (b) existing technology and knowledge are available to ensure timber production without irreversible damage to soil productivity or watershed conditions; (c) existing technology and knowledge, as reflected in current research and experience, provide reasonable assurance that it is possible to restock adequately within 5 years after final harvest, and (d) adequate information is available to project responses to timber management activities.
<b>Precommercial Thinning (PCT)</b>	The selective felling, killing, or removal of trees in a young stand primarily to accelerate diameter increment on the remaining stems, maintain a specific stocking or stand density range, and improve the vigor and quality of the trees that remain.
<b>Preferred Alternative</b>	The alternative recommended for implementation as the Forest Plan.
<b>Preparatory Cut</b>	Removal of trees near the end of a rotation so as to permanently open the canopy and enlarge the crowns of seed bearers, with a view to improving conditions for seed production and natural regeneration. A preparatory cut is typically used in the shelterwood silvicultural system

## GLOSSARY - P

<b>Prescribed Fire</b>	A wildland fire burning under specified conditions which will accomplish certain planned objectives. The fire may result from either planned or natural ignitions. Proposals for use of natural ignitions for this purpose must be approved by the Regional Forester.
<b>Present Net Value (PNV)</b>	The difference between the discounted value (benefits) of all outputs to which monetary values or established market prices are assigned and the total discounted costs of managing the planning area.
<b>Preservation</b>	See Visual Quality Objectives.
<b>Presuppression</b>	Activities organized in advance of fire occurrence to ensure effective suppression action.
<b>Priced Outputs</b>	<i>Priced outputs are those that are or can be exchanged in the market place. The dollar values for these outputs fall into two categories: market or nonmarket (assigned values).</i>
<b>Primary Transportation System</b>	Includes Arterial and Collector Roads. See Arterial and Collector Roads.
<b>Primitive Setting</b>	A large area (generally at least 5,000 acres) at least 3 miles from all roads, railroads, or trails with motorized use. The area is essentially a natural environment unmodified by man.
<b>Productivity</b>	See Site Productivity.
<b>Program Development and Budgeting</b>	The process by which activities for the Forest are proposed and funded.
<b>Proposed Action</b>	In terms of the National Environmental Policy Act, the project, activity, or action that a Federal agency intends to undertake or implement and which is the subject of an environmental analysis.
<b>Public Involvement</b>	A Forest Service process designed to broaden the information base upon which agency decisions are made by (1) informing the public about Forest Service activities, plans, and decisions, and (2) encouraging public understanding about and participation in the planning processes which lead to final decision making.
<b>Public Issue</b>	A subject or question of widespread public interest, identified through public participation relating to management of National Forest System lands.
<b>Puddling</b>	See Detrimental Soil Conditions.
<b>Pulpwood</b>	Wood not usable as logs and for species in small demand. Tolerance in size and quality of wood used for pulp permits salvaging the wood fiber in thinnings, tops left in logging, and sawmill leftovers.

## R

<b>Range Allotment</b>	A designated area of land available for livestock grazing upon which a specified number and kind of livestock may be grazed under a range allotment management plan. It is the basic land unit used to facilitate management of the range resource on National Forest System and associated lands administered by the Forest Service.
<b>Range Condition</b>	The current productivity of a range relative to what that range is naturally capable of producing. Condition is expressed in terms of satisfactory and unsatisfactory.
<b>Range Improvements, Nonstructural</b>	Enhanced range condition resulting in increased grazing capacity.
<b>Range Improvements, Structural</b>	Any structure or excavation to facilitate management of range or livestock.
<b>Rangeland</b>	Land on which the climax vegetation (potential natural plant community) is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing and browsing. It includes natural grasslands, savannas, many wetlands, some deserts, tundra, and certain forb and shrub communities. It also includes areas seeded to native or adapted introduced species that are managed like native vegetation.
<b>Ranger District</b>	Administrative subdivision of the Forest supervised by a District Ranger.
<b>Range, Transitory</b>	See Transitory Range.
<b>Raptors</b>	Predatory birds, such as falcons, hawks, eagles, or owls
<b>RARE II</b>	See Roadless Area Review and Evaluation II.
<b>Record of Decision</b>	A document separate from but associated with an Environmental Impact Statement which states the decision, identifies all alternatives, specifying which were environmentally preferable, and states whether all practicable means to avoid environmental harm from the alternative have been adopted, and if not, why not (40 CFR 1505.2)
<b>Recreation Capacity</b>	The number of people that can take advantage of the recreation opportunity at any one time without substantially diminishing the quality of the experience or the biophysical resources.
<b>Recreation Experience Level</b>	A concept used in recreation management to delineate the range of opportunities for satisfying basic recreation needs of people. A scale of five experience levels ranging from "primitive" to "highly developed" is planned for the National Forest System.
<b>Recreation Information Management (RIM)</b>	The Forest Service system for recording recreation facility condition and use.
<b>Recreation Opportunities</b>	The combination of recreation settings, activities, and experiences provided by the Forest.

## GLOSSARY - R

### Recreation Opportunity Guide (ROG)

A catalogue describing the recreation activities available on a particular Ranger District.

### Recreation Opportunity Spectrum (ROS)

A system for planning and managing recreation resources. Land delineations that identify a variety of recreation experience opportunities categorized into classes on a continuum from primitive to urban. Each class is defined in terms of the degree to which it satisfies certain recreation experience needs, based on the extent to which the natural environment has been modified, the type of facilities provided, the degree of outdoor skills needed to enjoy the area, and the relative density of recreation use.

The five classes are:

1. **Primitive:** Area is characterized by an essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.
2. **Semiprimitive Nonmotorized:** Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum onsite controls and restrictions may be present but would be subtle. Motorized recreation use is not permitted, but local roads used for other resource management activities may be present on a limited basis. Use of such roads is restricted to minimize impacts on recreational experience opportunities.
3. **Semiprimitive Motorized:** Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum onsite controls and restrictions may be present but would be subtle. Motorized recreation use of local primitive or collector roads with predominantly natural surfaces and trails suitable for motor bikes is permitted.
4. **Roaded Natural:** Area is characterized by predominantly natural-appearing environments with moderate evidence of the sights and sounds of humans. Such evidence usually harmonizes with the natural environment. Interaction between users may be moderate to high with evidence of other users prevalent. Resource modification and utilization practices are evident but harmonize with the natural environment. Conventional motorized use is allowed and incorporated into construction standards and design of facilities.
5. **Roaded Modified:** Area is characterized by a natural environment that has been substantially modified by development of structures and vegetative manipulation. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. Facilities are often provided for special activities. Moderate user densities are present away from developed sites. Facilities for intensified motorized use and parking are available.

### Recreation Residence

A house or cabin on National Forest land for seasonal recreational use that is not the primary residence of the owner.

<b>Recreation Visitor Day (RVD)</b>	One visitor day equals 12 hours (one person for 12 hours, or 12 people for 1 hour, or any combination thereof).
<b>Reduced Service Management</b>	Management of developed recreation facilities below optimum maintenance standards.
<b>Reforestation</b>	The natural or artificial restocking of an area with forest trees; most commonly used in reference to artificial restocking.
<b>Regeneration</b>	The renewal of a tree crop, whether by natural or artificial means. This term may also refer to the crop itself.
<b>Regeneration Cut</b>	The removal of trees intended for the purpose of assisting regeneration already present or to make a regeneration of the stand possible.
<b>Regional Forester</b>	The official responsible for administering a single Region of the Forest Service.
<b>Regional Guide</b>	A document developed to meet the requirements of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended, that guides all natural resource management activities and established management standards for National Forest System lands of a given Region to the Forests within a given Region. It also disaggregates the RPA objectives assigned to the Region to the Forests within that Region.
<b>Region</b>	For Regional planning purposes, the standard administrative Region of the Forest Service administered by the responsible official for preparing a Regional plan; the area to be covered by a Regional plan.
<b>Regulated Volume</b>	The commercial forest land that is organized for timber production under the principle of sustained yield. The harvest of timber from this land is regulated to achieve multiple long-range objectives, such as maintaining settings for recreational activities, rotating forage production areas and wildlife habitat, increasing water production yield, and increasing the growth and utilization of timber for the Nation's supply.
<b>Regulations</b>	Refers to the Code of Federal Regulations for implementing the National Forest Management Act, 36 CFR, Part 219.
<b>Release Treatment</b>	An intermediate treatment or cutting designed to free a young stand of desirable trees, not past the sapling stage, from competition of undesirable trees that threaten to suppress them. Cleaning and liberation cutting are types of release.
<b>Renewable Resources</b>	Resources that are possible to use indefinitely, when the use rate does not exceed the ability to renew the supply. However, in the RPA program, the term is used to describe those matters within the scope of responsibilities and authorities of the Forest Service as required by the Forest and Rangeland Renewable Resources Planning Act of 1974. Consequently, the renewable resources include: timber, range, minerals, wildlife and fish, water, recreation, and wilderness.

## GLOSSARY - R

<b>Renewable Resources Assessment</b>	An appraisal of the Nation's renewable resources that recognizes their vital importance and the necessity for long-term planning and associated program development. The Assessment meets the requirements of Section 3 of the Forest and Rangeland Renewable Resources Planning Act and includes analyses of present and anticipated uses, demands, and supplies of the renewable resources; a description of Forest Service programs and responsibilities; and a discussion of policy considerations, laws, and regulations.
<b>Renewable Resources Program</b>	The program for management and administration of the National Forest System for Research, for Cooperative State and Private Forest Service programs, and for conduct of other Forest Service activities in accordance with the Forest and Rangeland Renewable Resources Planning Act.
<b>Replacement Trees</b>	Live trees that are retained during harvest to provide future snags and logs for the site until they can be produced from the new crop of trees.
<b>Research Natural Area (RNA)</b>	An area which is as near a natural condition as possible, which exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features. The area is set aside to preserve a representative sample of an ecological community primarily for scientific and educational purposes.
<b>Reservation Principle</b>	The Forest Reserves, now known as National Forests, were reserved from the Public Domain to improve and protect the Forest within the boundaries for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States. This is often referred to as the reservation principle.
<b>Residue</b>	See Forest Residue.
<b>Residue Profile</b>	See Fuels Profile.
<b>Resident Fish</b>	Species of fish which spend their entire life cycle within a lake or river system. These may be native, or introduced species (compare anadromous fish).
<b>Resources Planning Act (RPA)</b>	See Forest and Rangeland Renewable Resources Planning Act of 1974.
<b>Retention</b>	See Visual Quality Objectives.
<b>Riparian Areas</b>	Areas with distinctive resource values and characteristics that are comprised of an aquatic ecosystem and adjacent upland areas that have direct relationships with the aquatic system. This includes floodplains, wetlands, and all areas within a horizontal distance of approximately 100 feet from the normal high water line of a stream channel, or from the shoreline of a standing body of water.
<b>Right-of-Way</b>	Land authorized to be used or occupied for the construction, operation, maintenance, and termination of a project facility passing over, upon, under, or through such land.

<b>Road</b>	<p>A general term denoting a way for purposes of travel by vehicles greater than 40 inches in width.</p> <p><i>Forest Arterial Road.</i> Provides services to large land areas and usually connects with public highways or other forest arterial roads to form an integrated network of primary travel routes. The location and standard are often determined by a demand for maximum mobility and travel efficiency rather than specific resource management service. It is usually developed and operated for long-term land and resource management purposes and constant service.</p> <p><i>Forest Collector Road.</i> Serves smaller land areas than a forest arterial road and is usually connected to a forest arterial or public highway. Collects traffic from forest local roads and/or terminal facilities. The location and standard are influenced by both long-term multiresource service needs as well as travel efficiency. May be operated from either constant or intermittent service, depending on land use and resource management objectives for the area served by the facility.</p> <p><i>Forest Local Road.</i> Connects terminal facilities with forest collector or forest arterial roads or public highways. The location and standard are usually controlled by specific resource activity requirements rather than travel efficiency needs.</p>
<b>Road Closure</b>	See Closed Road
<b>Road Construction</b>	Consists of clearing, excavation, drainage, and surfacing of roads in the Forest Transportation System.
<b>Road Maintenance Levels</b>	<p>Road maintenance levels are as follows:</p> <p>Level 1: Basic custodial care as required to protect the road investment and to see that damage to adjacent land and resources is held to a minimum. The road is not open to traffic.</p> <p>Level 2: Same basic maintenance as Level 1 plus logging out, brushing out, and restoring the road prism as necessary to provide passage for high clearance vehicles. Route markers and regulation signs are in place and usable. Road is open for limited passage of traffic, which is usually administrative use, permitted use, and/or specialized traffic.</p> <p>Level 3: Road is maintained for safe and moderately convenient travel suitable for passenger cars. Road is open for public travel, but has low traffic volumes except during short periods of time (e.g., hunting season)</p> <p>Level 4: At this level, more consideration is given to the comfort of the user. Road is usually surfaced with aggregate or is paved and is open for public travel.</p> <p>Level 5: Safety and comfort are important considerations for these roads which are open to public traffic and generally receive fairly heavy use (100 Average Daily Traffic or more). Roads have an aggregate surface or are paved</p>

## GLOSSARY - S

<b>Road Management Plan</b>	The document which provides information to determine the proper mix of development, traffic management, and maintenance of the existing road system to best serve resource objectives.
<b>Road Sign Plan</b>	A plan that displays the type and location of all Forest signs.
<b>Roaded Natural</b>	A classification on the Recreation Opportunity Spectrum where timber harvest or other surface use practices are evident. Motorized vehicles are permitted on all or parts of the road system.
<b>Roadless Area</b>	A National Forest area which (1) is larger than 5,000 acres or, if smaller than 5,000 acres, contiguous to a designated wilderness or primitive area; (2) contains no roads; and (3) has been inventoried by the Forest Service for possible inclusion in the Wilderness Preservation System.
<b>Roadless Area Review and Evaluation (RARE) II</b>	A comprehensive process, instituted in June 1977, to identify roadless and undeveloped land areas in the National Forest System and to develop alternatives for both wilderness and other resource management.
<b>Rotation</b>	The planned number of years between establishment of a tree stand which is free to grow, and its final harvest at a specified stage of maturity.
<b>RPA</b>	See Forest and Rangeland Renewable Resources Planning Act of 1974.
<b>Rural Recreation Setting</b>	A classification on the recreation opportunity spectrum that is characterized by substantially modified natural environment. Resource modification and utilization practices are to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high.
<b>S</b>	
<b>Sale Area Improvement Plan</b>	The document which records post-sale resource activities, for protection, mitigation and improvements. The plan shall display all authorized K-V treatments needed within the timber sale area.
<b>Sale Schedule</b>	The quantity of timber planned for sale by time period from an area of suitable land covered by a Forest Plan. The first period, usually a decade, of the selected sale schedule provides the Allowable Sale Quantity. Future periods are shown to establish that long-term sustained yield will be achieved and maintained.
<b>Salvage Cutting</b>	Intermediate cutting made to remove trees that are dead or in imminent danger of being killed by injurious agents.
<b>Sanitation Harvest (Salvage)</b>	The removal of dead, damaged, or susceptible trees, essentially to prevent the spread of pests or pathogens and so promote forest health.
<b>Sapling</b>	See Seedling/Sapling.
<b>Satisfactory Cover</b>	See Cover, satisfactory.

<b>Satisfactory Range Condition</b>	On suitable range, forage condition is at least fair, with stable trend, and allotment is not classified PC (basic resource damage) or PD (other resource damage).
<b>Sawtimber</b>	Trees suitable in size and quality for producing logs that can be processed into lumber.
<b>Scenic Area</b>	An area which has been designated by the Forest Service as containing outstanding natural beauty that requires special management to preserve this beauty.
<b>Scenic River</b>	See Wild and Scenic Rivers.
<b>Scoping Process</b>	An early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action. Identifying the significant environmental issues deserving of study and de-emphasizing insignificant issues, narrowing the scope of the environmental impact statement accordingly (CEQ regulations, 40 CFR 1501.7).
<b>Secondary Transportation System</b>	Consists of local roads.
<b>Sedimentation</b>	The action or process of forming or depositing sediments.
<b>Seed Tree Cutting</b>	The removal of most of the mature trees from an area in one cut, except for a small number of desirable trees left singly or in small groups to provide seed for natural regeneration
<b>Seedling/Sapling</b>	A size category for forest stands in which trees less than 5 inches in diameter are the predominant vegetation.
<b>Selection Cutting</b>	The annual or periodic removal of trees as part of an uneven-aged silvicultural system. Cutting will remove individual trees or small groups of trees to meet predetermined goals regarding size and species composition in the remaining stand.
<b>Semiprimitive Motorized</b>	See Recreation Opportunity Spectrum, Semiprimitive Motorized.
<b>Semiprimitive Nonmotorized</b>	See Recreation Opportunity Spectrum, Semiprimitive Nonmotorized.
<b>Seral</b>	A biotic community which is developmental; a transitory stage in an ecologic succession.
<b>Serpentine</b>	A mineral group which, when present, usually results in low soil fertility and reduced plant growth capacity.
<b>Service Levels</b>	See Traffic Service Levels (TSL).
<b>Severely Burned</b>	See Detrimental Soil Conditions.

## GLOSSARY - S

<b>Shelterwood Cutting</b>	<i>A mature stand is partially cut, leaving some of the better trees of desired species to grow, cast seed, and provide shade and perhaps other shelter for the new stand. These shelter trees will be harvested after seedlings have become established and no longer need protection.</i>
<b>Shrubland</b>	Any land on which shrubs dominate the vegetation.
<b>Silvicultural Examination</b>	<i>The process used to gather detailed, in-place field data used in part to determine the management opportunities and direction for the resources within a small subdivision of a forest area, such as a stand.</i>
<b>Silvicultural System</b>	A management process whereby forests are tended, harvested, and replaced. It includes all cultural practices performed during the life of the stand such as regeneration cutting, fertilization, thinning, improvement cutting, and use of genetically improved sources of tree seeds and seedlings to achieve multiple resource benefits. Systems are classified according to the method of carrying out the harvests that remove the mature stand and provide for regeneration.
<b>Single Story Stand</b>	A stand of trees that has one canopy layer.
<b>Site Index</b>	An estimate of forest site quality (productivity) based on the height at a specified age, of dominant and co-dominant trees in a stand.
<b>Site Preparation</b>	A general term for a variety of activities that remove competing vegetation, slash, and other debris that may inhibit the reforestation effort.
<b>Site Productivity</b>	Production capability of specific areas of land
<b>Skidding</b>	A loosely used term for the transportation of logs from stumps to a collection point for later removal from the Forest.
<b>Skyline</b>	A cableway stretched tautly between two spars and used as a track for log carriers.
<b>Slash</b>	The residue left on the ground after timber harvest and other silvicultural operations and/or accumulating there as a result of storm, fire, girdling, or poisoning of trees.
<b>Small Game</b>	Birds and small mammals typically hunted or trapped.
<b>Snag</b>	A standing dead tree at least 12 inches DBH and 40 feet in height.
<b>Soft Snag</b>	A snag in advanced state of decay, generally not merchantable. An axe would sink easily into a soft snag.
<b>Soil Bulk Density</b>	The weight of oven-dry soil per unit volume. Commonly expressed in terms of grams per cubic centimeters (g/cc).
<b>Soil Compaction</b>	See Detrimental Soil Condition.
<b>Soil Erosion</b>	See Erosion.

<b>Soil Productivity</b>	The capacity of a soil to produce a specific crop such as fiber and forage, under defined levels of management. It is generally dependent on available soil moisture, nutrients, length of growing season, and the presence or absence of detrimental soil conditions
<b>Special Interest Area</b>	An area managed to make recreation opportunities available for the understanding of the earth and its geological, historical, archaeological, botanical, and memorable features.
<b>Special-Use Permit</b>	A permit issued under established laws and regulations to an individual, organization, or company for occupancy or use of National Forest land for some special purpose
<b>Stand</b>	A community of trees occupying a specific area and sufficiently uniform in composition (species), age, spatial arrangement, and conditions as to be distinguishable from the other growth on adjoining lands, so forming a silvicultural or management entity.
<b>Standard Stipulations</b>	An indication or outline of policy or conduct. Requirements that are part of the terms of a mineral lease. Some stipulations are standard in all Federal leases. Other stipulations may be applied to the lease at the discretion of the surface management agency to protect valuable surface resources and uses.
<b>Stocking</b>	The degree of occupancy of land by trees as measured by basal area or number of trees and as compared to a stocking standard, that is, the basal area or number of trees required to fully use the growth potential of the land.
<b>Stream Class</b>	<p>Classification of streams based on the present and foreseeable uses made of the water, and the potential effects of on-site changes on downstream uses. Four classes are defined:</p> <p>Class I - Perennial streams that: provide a source of water for domestic use; are used by large numbers of fish for spawning, rearing or migration; and/or are major tributaries to other Class I streams.</p> <p>Class II - Perennial streams that: are used by moderate though significant numbers of fish for spawning, rearing or migration; and/or may be tributaries to Class I streams or other Class II streams.</p> <p>Class III - All other perennial streams not meeting higher class criteria.</p> <p>Class IV - All other intermittent streams not meeting higher class criteria.</p>
<b>Streambank Erosion Restoration</b>	A project that stabilizes actively cutting and/or eroding streambanks.
<b>Subclimax</b>	A stage in succession short of the climax community in which further development is inhibited by the influence of one or more factors other than climate.
<b>Suitable</b>	See Timber Classification.

GLOSSARY - T

<b>Suitable Forest Land</b>	Forested lands that are available for timber management because they have not been withdrawn because of Law or Regulation, where irreversible damage would not occur, and where regeneration can be assured.
<b>Suitability</b>	The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone. A unit of land may be suitable for a variety of individual or combined management practices. (FSM 1905)
<b>Summer Range</b>	A range, usually at higher elevation, used by deer and elk during the summer. Summer ranges are usually much more extensive than winter ranges.
<b>Supply</b>	The amount of an output that producers are willing to provide at the specified price, time period, and condition of sale.
<b>Suppression (Fire Suppression)</b>	<p>Any act taken to slow, stop, or extinguish a fire. Examples of suppression activities include fireline construction, backfiring, and application of water or chemical fire retardants.</p> <p>Appropriate suppression response will meet management direction and may range from direct control, minimizing acreage burned, to more indirect methods of containment and confinement. Surveillance can be appropriate when the fire is expected to be self confined within a defined area.</p>
<b>Surface Erosion</b>	The detachment and transport of individual soil particles by wind, water, or gravity.
<b>Surface Rights</b>	The rights of the operator or responsible agency to use or manage renewable surface resources. On National Forest System lands the Forest Service manages surface resources without having jurisdiction over subsurface development.
<b>Sustained Yield</b>	The achievement and maintenance in perpetuity of a specified annual or regular periodic output of the various renewable resources of the National Forest without impairing the productivity of the land.

T

<b>Talus</b>	Coarse-textured colluvial deposits, or talus slopes, are formed by fragments of rocks detached from the precipitous outcrops and carried down the slope by gravity. Cliff debris, rock falls, and avalanches are typical examples of rough and droughty talus soils.
<b>Target</b>	A quantifiable output assigned to the Forest.
<b>Temporary Road</b>	Those roads needed only for the purchaser's or permittee's use. The Forest Service and the purchaser or permittee must agree to the location and clearing widths. Temporary roads are used for a single, short-term use, e.g., to haul timber from landings to Forest development roads, access to build water developments, etc.

<b>Tentatively Suitable Forest Land</b>	Forest land that is producing or is capable of producing crops of industrial wood and. (1) has not been withdrawn by Congress, the Secretary, or the Chief; (2) existing technology and knowledge is available to ensure timber production without irreversible damage to soils productivity, or watershed conditions, (3) existing technology and knowledge, as reflected in current research and experience, provides reasonable assurance that it is possible to restock adequately within 5 years after final harvest; and (4) adequate information is available to project responses to timber management activities.
<b>Thermal Cover</b>	See Cover, thermal.
<b>Thinning</b>	Cutting made in an immature crop or stand, primarily to accelerate the diameter increment (annual growth) of the residual trees, also by suitable selection to improve the average form of the trees that remain.
<b>Threatened and Endangered Species (T&amp;E)</b>	A species or subspecies of animal or plant whose prospects of survival and reproduction are in immediate jeopardy or likely to become so within the foreseeable future. <i>Threatened species are identified by the Secretary of Interior in accordance with the 1973 Endangered Species Act</i>
<b>Threatened Species</b>	Any species, plant or animal, which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Threatened species are identified by the Secretary of the Interior in accordance with the 1973 Endangered Species Act
<b>Through Road</b>	A road that begins at one road and ends at another road.
<b>Tie-Through Road</b>	See Through Road.
<b>Tiering</b>	Refers to the elimination of repetitive discussions of the same issue by incorporating by reference the general discussion in an environmental impact statement of broader scope. For example, a project environmental assessment could be tiered to the Forest Plan EIS.
<b>Timber</b>	A general term for the major woody growth of trees in a forest area.
<b>Timber Base</b>	The lands within the Forest that are suitable for timber production.
<b>Timber Classification</b>	<p>Forested land is classified under each of the land management alternatives according to how it relates to the management of the timber resource. The following are definitions of timber classifications used for this purpose.</p> <p><i>Nonforest</i> - Land that has never supported forests and land formerly forested where use for timber production is precluded by development or other uses.</p> <p><i>Forest</i> - Land at least 10 percent stocked (based on crown cover) by forest trees of any size, or formerly having had such tree cover and not currently developed for nonforest use.</p>

## GLOSSARY - T

**Suitable** - Land to be managed for timber production on a regulated basis.

**Unsuitable** - Forest land withdrawn from timber utilization by statute or administrative regulation (for example, wilderness), or identified as not appropriate for timber production in the Forest planning process.

**Commercial Forest** - Forest land tentatively suitable for the production of continuous crops of timber and that has not been withdrawn.

<b>Timber Production</b>	The purposeful growing, tending, harvesting, and regeneration of regulated crops of trees to be cut into logs, bolts, or other round sections for industrial or consumer use other than for fuelwood.
<b>Timber Sale Program Quantity</b>	The timber sale program quantity includes the allowable sale quantity (ASQ) for the first decade and any additional volume planned for sale during the first decade. Volume in addition to the ASQ is nonchargeable and may be harvested from suitable and/or unsuitable land, for example, salvage, firewood and miscellaneous products.
<b>Timber Stand Improvement (TSI)</b>	Measures such as thinning, pruning, release cutting, prescribed fire, girdling, weeding, or poisoning of unwanted trees aimed at improving growing conditions of the remaining trees.
<b>Total Resource Information System (TRI)</b>	Integrated resource data base management system used in the Pacific Northwest Region.
<b>Tractor</b>	A track-laying or rubber-tired vehicle used to drag logs to a landing.
<b>Traffic Service Levels (TSL)</b>	Traffic Service Levels describe a roads significant traffic characteristics and operating conditions. They are identified thru transportation planning activities. The levels (A-D) reflect such factors as speed, travel time, traffic interruptions, safety and others.
<b>Trallhead</b>	The parking, signing, and other facilities available at the terminus of a trail.
<b>Transitory Range</b>	Land that is suitable for grazing use for a period of time. For example, on particular disturbed lands, grass may cover the area for a period of time before being replaced by trees or shrubs not suitable for forage.
<b>Transportation Corridor</b>	See Corridor.
<b>Transportation Network</b>	In USDA Forest Service usage, the transportation network includes all existing and planned roads, trails, bridges, airfields, and other transport facilities wholly or partly within or adjacent to and serving the planning area.
<b>Tree Opening</b>	See Created Openings.
<b>Two-Step Shelterwood</b>	An even-aged silvicultural system in which the old stand (shelter-wood) is removed in two successive cuttings in order to provide a source of seed and/or protection for regeneration.

## U

<b>Understory</b>	The trees and other woody species which grow under a more or less continuous cover of branches and foliage formed collectively by the upper portion of adjacent trees and other woody growth.
<b>Uneven-aged Management</b>	<p>The combination of actions needed to simultaneously maintain continuous high-forest cover, recurring regeneration of desirable species and the orderly growth and development of trees through a range of diameter or age classes to provide a sustained yield of forest products. Cutting is usually regulated by specifying the number or proportion of trees of particular sizes to retain within each area, thereby maintaining a planned distribution of size classes. Cutting methods that develop and maintain uneven-aged stands are individual tree selection and group selection.</p> <p>Individual Tree Selection Cutting - Involves the removal of selected trees of all size classes on an individual basis</p> <p>Group Selection Cutting - Involves the removal of selected trees of all size classes in groups of a fraction of an acre up to 2 acres in size.</p>
<b>Ungulate</b>	Hoofed, herbivorous mammals.
<b>Unplanned Ignition</b>	A fire started at random by either natural or human causes, or a deliberate incendiary fire.
<b>Unregulated Volume</b>	This volume is not charged against the allowable sale quantity. It includes occasional volumes removed that were not recognized in calculations of the allowable sale quantity, such as cull or dead material and noncommercial species and products. It also includes all volume removed from unsuitable areas. Harvests from unsuitable areas will be programmed as needed to meet multiple use objectives other than timber production and for improvement of administrative sites.
<b>Unsatisfactory Range Condition</b>	Allotment does not meet criteria for satisfactory condition
<b>Unsuitable</b>	See Timber Classification.
<b>Unsuitable Forest Land (Not Sited)</b>	Forest land not managed for timber production because: (a) Congress, the Secretary, or the Chief has withdrawn it; (b) it is not producing or capable of producing crops of industrial wood; (c) technology is not available to prevent irreversible damage to soils productivity, or watershed conditions, (d) there is no reasonable assurance based on existing technology and knowledge, that it is possible to restock lands within 5 years after final harvest, as reflected in current research and experience; (e) there is, at present, a lack of adequate information about responses to timber management activities; or (f) timber management is inconsistent with or not cost efficient in meeting the management requirements and multiple use objectives specified in the forest plan.

## GLOSSARY - V

<b>Uplands</b>	Ground elevated above the lowlands along rivers or between hills.
<b>Utility Corridor</b>	See Corridor.
<b>Utilization Standards (Timber)</b>	Standards guiding the use and removal of timber. They are measured in terms of diameter at breast height (d.b.h.), top of the tree inside the bark (top d.i.b.), and the percentages of "soundness" of the wood.
<b>Utilization Standards (Range)</b>	See Range Condition.

## V

<b>Value, Market</b>	The unit price of an output normally exchanged in a market after at least one stage of production, expressed in terms of what people are willing to pay as evidenced by market transactions.
<b>Value, Nonmarket</b>	The unit price of an output not normally exchanged in a market after at least one stage before consumption, and thus must be imputed from other economic information.
<b>Vegetation Treatment</b>	Any activities undertaken to modify the existing condition of the vegetation.
<b>Vegetative Manipulation</b>	Management of plants and shrubs to ensure production of the species desired.
<b>Vertical Diversity</b>	The diversity in a stand that results from the complexity of the above-ground structure of the vegetation; the more tiers of vegetation or the more diverse the species makeup (or both), the higher the degree of vertical diversity. This concept is close to but not exactly the same as "uneven-aged management," although each may influence the other. Application of even-aged management, for example can be designed to accomplish vertical diversity objectives.
<b>Viable Population</b>	The number of individuals of a species required to ensure the long-term existence of the species in natural, self-sustaining populations adequately distributed throughout their region.
<b>Viewshed</b>	The total landscape seen or potentially seen from all or a logical part of a travel route, use area, or water body.
<b>Visual Quality Objective (VQO)</b>	<p>A desired level of management based on physical and sociological characteristics of an area. Refers to the degree of acceptable alteration of the characteristic landscape.</p> <p><b>Preservation</b> - Allows only ecological changes. Management activities, except for very low visual impact recreation facilities, are prohibited. This objective applies to specially classified areas, including wilderness.</p> <p><b>Retention</b> - Provides for management activities that are not visually evident. Management activities are permitted, but the results of those activities on the natural landscape must not be evident to the average viewer.</p>

**Partial Retention** - Management activities may be evident to the viewer but must remain visually subordinate to the surrounding landscape.

**Modification** - Management activities may visually dominate the natural surrounding landscape but must borrow from naturally established form, line, color, and texture.

**Maximum Modification** - Land management activities can dominate the natural landscape to greater extent than in the modification objective, except as viewed from background when visual characteristics must be those of natural occurrences within the surrounding area.

**Visual Resource** The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.

## W

**Wallow** A depression, pool of water, or wet area produced by large mammals and utilized by many forms of wildlife.

**Waterbar** A structure constructed across roads and skid trails to divert the surface runoff of water.

**Watershed** The total area above a given point on a stream that contributes water to the flow at that point.

**Watershed Condition** A description of the health of a watershed or portion thereof, in terms of the factors which affect hydrologic function and soil productivity.

**Watershed Improvement Needs (WIN) Inventory** An inventory of degraded soil and water sites. These include old burns, depleted ranges, closed timber sales, abandoned stock driveways, abandoned mines, localized erosion problems, natural landslides and unstable streambeds and channels.

**Wet Areas** Sites, often occurring at the heads of drainages, such as wet sedge meadows, bogs, or seeps. They are often referred to as "moist sites" and are very important components of elk summer range. Sites near water are important because the forage they produce is highly nutritious and heavily utilized by elk.

**Wetlands** Those areas that are inundated by surface or ground water with a frequency sufficient, under normal circumstances, to support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction (Executive Order 11990). Wetlands include marshes, bogs, sloughs, potholes, river overflows, mud flats, wet meadows, seeps, and springs.

**Wild and Scenic Rivers**

Those rivers or sections of rivers designated as such by congressional actions under the 1968 Wild and Scenic Rivers Act, as wild, scenic, or recreational by an act of the Legislature of the State or States through which they flow. Wild and scenic rivers may be classified and administered under one or more of the following categories:

**1. Wild River Areas** - Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

**2. Scenic River Areas** - Those rivers or sections of rivers that are free of impoundments, with watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

**3. Recreational River Areas** - Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

**Wilderness**

Federal land retaining its primeval character and influence without permanent improvements or human habitation as defined under the 1964 Wilderness Act. It is protected and managed so as to preserve its natural conditions which (1) generally appear to have been affected primarily by forces of nature with the imprint human activity substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and confined type of recreation; (3) has at least 5,000 acres or is of sufficient size to make practical its preservation, enjoyment, and use in an unimpaired condition, and (4) may contain features of scientific, educational, scenic, or historical value as well as ecologic and geologic interest.

**Wilderness Recreation Opportunity Spectrum (WROS)**

A further refinement of the primitive portion of the ROS. The following terms deal only with officially designated wilderness:

**Primitive:** Area is characterized by essentially unmodified natural environment. Concentration of users is low and evidence of human use is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Only essential facilities for resource protection and safety are used and are constructed of native or natural appearing materials. No facilities for comfort or convenience of the user are provided. Visitors are encouraged to disperse to desirable existing sites to minimize contacts with other groups.

**Pristine:** Area is characterized by an extensive unmodified natural environment. Natural processes and conditions have not and will not be measurably affected by the actions of users. The area is managed to be as free as possible from the influence of human activities. People are only brief visitors. Essentially no facilities are required to protect the Wilderness resource. Terrain and vegetation allow extensive and challenging cross-country travel.

**Wilderness Study**

An analysis to determine an area's appropriateness, cost, and benefits for addition to the National Wilderness Preservation System.

<b>Wildlife-and-Fish-User-Days (WFUD)</b>	Twelve visitor hours of recreation use oriented to wildlife and fish
<b>Wildlife Habitat Improvements, Nonstructural</b>	Vegetative management for wildlife food, cover, and habitat diversity.
<b>Wildlife Habitat Improvements, Structural</b>	Includes such structures as nesting boxes and platforms, fences, gates, and water catchments
<b>WIN Inventory</b>	See Watershed Improvement Needs (WIN) Inventory.
<b>Winter Range</b>	An area, usually at lower elevation, used by big game such as elk and deer during the winter months; usually better defined and small than summer ranges.
<b>Withdrawal Working Group</b>	An order removing specific land areas from availability for certain uses.

Y

<b>Yarding</b>	The moving of logs from the stump where cut to a central concentration area or landing.
----------------	---

Z

<b>Zone of Influence</b>	A delineated geographic area within which the present and proposed actions exert an important influence on residents and visitors.
--------------------------	--



