

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.

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PROJECTED OUTPUTS

TABLE IV-1
PROJECTED OUTPUTS

OUTPUT OR ACTIVITY	ACTIVITY CODE ^{1/}	UNIT ^{2/}	AVERAGE ANNUAL UNITS					
			1ST DECADE	2ND DECADE	3RD DECADE	4TH DECADE	5TH DECADE	
RECREATION								
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	
CULTURAL RESOURCES								
Survey	AC111	M Acres	89	32	10	7	5	
Evaluation	AC112-1	M Acres	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	
FISH AND WILDLIFE IMPROVEMENTS								
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	
RANGE								
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	
SOIL AND WATER								
Watershed Improvements	FW22	Acres	172	100	100	100	100	
MINERALS								
Mineral Proposals, Leases, and Applications	GM114-2	Cases	92	105	110	125	130	
TIMBER								
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	
LANDS								
Landline Location	JL24	Miles	50	0	0	0	0	
Land Ownership Adjustments	JL26	MAcres	2	2	2	2	2	
PROTECTION								
Activity Fuels Treatment	PF2	MAcres	10	10	11	11	13	
Natural Fuels Treatment	P2	MAcres	2	2	2	2	2	
FACILITIES								
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	

^{1/} All activity codes are from Forest Service Handbook 1309 16 / National Activity Structure Handbook

^{2/} 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.

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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.

Species	Required Habitat/Objectives
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.

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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.

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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/mi² on summer range and 1.0 mi/mi² 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/mi² in winter range (MA 4A) and 1.5 mi/mi² 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.