

and the location of the operation. Existing laws and regulations provide protection against adverse impacts and this protection must be included in the operating plan. Recreational mining activities can cause temporary and generally insignificant suspended sediment problems.

The effect of roads on water resources is complicated by soil type, rainfall, road location, and side slope percent. Erosion is generally the second most important factor affecting water quality (Fredricksen 1970). Whether that erosion reaches the streams is largely a factor of road location and riparian condition. Healthy riparian areas act like a filter, keeping surface erosion from entering streams.

Since many Forest roads were built in riparian areas, not only do they reduce the filtering ability of the riparian zone, they also reduce the amount of riparian habitat available.

6. Recreation

The high desert country, canyons, rolling uplands, and rugged mountain peaks of the Forest provide landscape variety that is not only scenic, but offers many settings for recreational activities.

Recreationists enjoy 25 developed Forest sites for camping and picnicking, each serves from 2 to 20 families per site. Visitors enjoy picnicking among the wildflowers or viewing scenery along the Forest roads. Hikers and horseback riders have more than 240 miles of trails to enjoy. Trout fishing in Forest lakes and streams is also popular. Fall brings huckleberries and hunters, a period when campgrounds receive heavy use. Dispersed sites are popular for large and small hunting camps, some of which have been used by the same parties for a quarter of a century or more. Snowmobiling, cross-country skiing, ice-fishing, and sledding are all popular winter activities.

Strawberry Mountain Wilderness, Monument Rock Wilderness, and other unroaded areas provide settings for solitude and backcountry recreation experiences. These unroaded areas were identified during the Roadless Area Review and Evaluation conducted in the 1970's (see discussion of these areas in Appendix C).

a. Lakes

The Forest has nine lakes or reservoirs that are considered fishable. Several small ponds exist on the Forest, but their contribution to the fishery resource is minor. A listing of Forest lakes and selected physical and biological parameters is presented in Table III-14.

High, Slide, Little Slide, Strawberry, and Little Strawberry Lakes are within the Strawberry Mountain Wilderness.



TABLE III-14: Some Physical and Biological Characteristics of Lakes and Reservoirs

Name	Elevation (feet)	Area (acres)	Depth (feet)	Species	Comments
Canyon Meadow Reservoir	5,036	25	40	rainbow cutthroat brook	Stocked annually, subject to extensive drawdowns
High Lake	7,448	5	12	brook	Naturally reproducing
Little Slide Lake	7,280	3	12	brook	Naturally reproducing
Little Strawberry Lake	6,960	4	10	brook	Naturally reproducing
Magone Lake	5,000	50	100	rainbow brook	Stocked annually
Slide Lake	7,200	13	8	brook	Naturally reproducing
Strawberry Lake	6,320	31	17	rainbow brook	Naturally reproducing
Trout Farm Pond	4,890	1	5	brook	Stocked every 4 years
Yellowjacket Reservoir	5,000	25	18	rainbow	Naturally reproducing Stocked annually

b *Wild, Scenic, and Recreation Rivers*

On October 7, 1968, Congress enacted the Wild and Scenic Rivers Act, P L 90-542, which placed 8 rivers in the nation under a National Wild and Scenic River System

This Act designated the initial rivers for the national system, suggested additional rivers for further study, and defined a process for future inclusion of rivers. Federal protection, as per this Act, preserves certain of the nations' outstandingly remarkable, free flowing rivers for present and future generations

The Act designated 27 other rivers for detailed study as potential additions. The Act was amended on January 3, 1975, and added 29 more rivers for study. None of the rivers involved in the above legislation are on the Malheur National Forest. The Heritage Conservation and Recreation Service (HCRS) conducted a national inventory of rivers having potential for inclusion in the Wild and Scenic System in the late 1970's. This function has transferred to the National Park Service. The Malheur National Forest had no rivers included in the national inventory.

The process for adding rivers to the national system is comprised of three steps. Initially, the river must be determined eligible. Eligibility is based on two conditions: free flow, and possession of one or more outstandingly remarkable value. The context for this judgement is regional, with the 1980 "Nationwide Rivers Inventory" conducted by the HCRS as a preliminary guide.

Fifteen waterways were reviewed as potential candidates for eligibility on the Malheur National Forest, in response to public comments on the Draft EIS and Proposed Forest Plan. The John Day, Malheur and Silvies rivers were mentioned most frequently. Responses often included only a river's name, without specific rationale for eligibility. Comments received are included in the list below.

John Day River

Malheur River. hiking, rainbow and redband trout fishing, roadless, big-game range, camping, hunting.

North Fork Malheur River. hiking, trails, redband trout fishing, roadless, big-game winter range

Little Malheur River

Silvies River: scenic river canyon, rafting, fishing and old-growth pine, big-game winter range, camping, hunting.

South Fork John Day River

Middle Fork John Day River

Murderers Creek

Deer Creek

Myrtle Creek

Bear Creek: hiking tied into North Fork Malheur River

East Fork Canyon Creek

Crooked Creek

Pine Creek vegetation diversity, scenic, low-elevation ecosystems with significantly-different recreational opportunities than those found on other streams of the Malheur National Forest

Calamity Creek

A Forest committee was established to evaluate the list of candidate streams and determine which ones might qualify for further consideration. This committee recommended specific segments of the following waters for further consideration:

Middle Fork John Day River: This river has part of the largest wild run of anadromous fish (spring and summer steelhead) in the Columbia River basin. These species have a viable, unique, and wild gene pool.

Murderers Creek: California bighorn sheep are present due to reestablishment of historic range. This species is considered unique for the Malheur National Forest. A five-mile segment upstream from the National Forest boundary flows through a very deep rimrock canyon, which is a roadless area with geologic values.

Malheur River. The unique presence of Bull trout is an indicator of high-quality, cold and clear water. Upper tributaries of the Malheur system are still considered pristine waterways with scenic value.

North Fork Malheur River: The unique presence of Bull trout is an indicator of high-quality, cold and clear water. The prominent canyon and rugged topography provide scenic vistas and high geologic value.

Little Malheur River: The unique presence of Bull trout is an indicator of high-quality, cold and clear water. The canyon extending 4.6 miles above Forest Road 1674.457 provides outstanding scenic values.

The final step in the process is the determination of suitability. This provides the basis for the decision to recommend designation or non-designation of a river or river segment. The suitability analysis is an evaluation of the effects of reasonable alternatives for management on a particular river segment. The Forest's leadership team analyzed the river eligibility recommendations and deemed that the North Fork Malheur River and Malheur River were suitable for potential designation as Wild and Scenic Rivers.

In 1988 the Oregon Omnibus Wild and Scenic Rivers Act was drafted. Legislative negotiations resulted in addition of segments of the Malheur and North Fork Malheur rivers to the National Wild and Scenic Rivers system. They were included because of their free-flowing character, presence of at least one outstanding or remarkable value, adjacent lands were predominantly under National Forest ownership, and the segments were

not already addressed by existing legislation or management direction. The North Fork Malheur River has 25.5 miles designated as "scenic" from its headwaters to the Forest boundary. The Malheur River has 13.7 miles designated, with the section from Bosenberg to Malheur Ford as "scenic," and Malheur Ford to the Forest boundary as "wild." As required by the Wild and Scenic Rivers Act, management plans are being prepared for each of these rivers.

c. Developed Recreation

Forest visitors enjoy 25 campgrounds and 10 picnic sites on the Malheur National Forest. All but one of the picnic sites is adjacent to a campground. The developed sites are quite limited in size and provide a truly rustic experience. All developed facilities are free-use because of their size, limited facilities, and normally low numbers of users.

Demand for developed sites is heaviest during the summer holidays (Memorial Day, 4th of July, and Labor Day) and during big-game hunting seasons. Developed sites associated with other attractions like lakes or Wilderness receive the most use. Three of the campgrounds are located adjacent to lakes – Magone, Yellowjacket, and Canyon Meadows. Magone Lake campground and day-use area is the most highly-developed facility on the Forest.

The Forest has the capability to supply 273,170 persons-at-one-time days if every potential site was developed to capacity. Although there is plenty of developed capacity (273,170 persons-at-one-time days) to meet demand in five decades (105,972 persons-at-one-time days), all facilities are not used equally. Water-oriented facilities like those at Magone Lake are being used near capacity, while other sites are used mostly during hunting seasons. In order to respond better to demand, some high-use sites could be expanded, while some low-use sites could be eliminated. Some demands are not being met because of the kinds of facilities available at the developed sites. Additional facilities could be provided to provide RV hookups and showers for bicyclists along the national bike route.

Due to its close proximity to the Wilderness and to local population centers, Strawberry Mountain campground is a major portal to Strawberry Mountain Wilderness. This facility's location is contributing to use levels near the limit of acceptable change for Strawberry Lake.

There is also one organization camp on the Forest, Lake Creek Camp. This facility is privately run under a Granger-Thye Special-Use Permit.

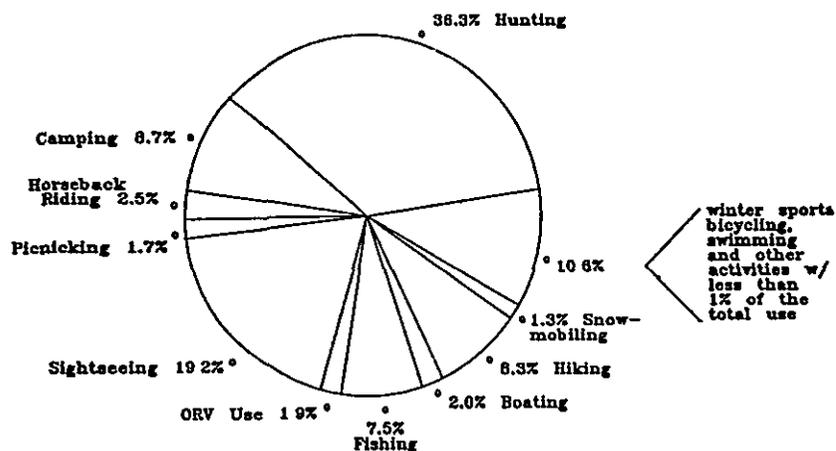
d. Dispersed Recreation

Dispersed recreation refers to recreation activities that occur outside developed sites. It includes such activities as hiking, off-road vehicle (ORV) use, fishing, and hunting.

To identify recreational environments, the Forest is classified into various categories using a system called the Recreation Opportunity Spectrum (ROS). The ROS is a categorization of land according to a range of recreation opportunities.

The range of recreation opportunities is divided into six spectrum categories ranging from primitive to urban. They describe the range of recreation settings a visitor can experience, from an undisturbed, natural environment with no human contact to a highly-modified environment with many and varied human contacts. The current array of recreation opportunities on the Forest, and the current use in these categories, is shown in Figures III-12 and III-13.

FIGURE III-12: Dispersed Recreation Use by Activity (Percents)



Forest use statistics were summarized according to categories used by the 1983 Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP). Increases in Forest demand, by activity, were calculated from projected statewide demands as contained in the SCORP document. These projected demands are summarized by Recreation Opportunity Spectrum class in Table III-15.

Demand for both dispersed and developed recreation will increase slowly over the next 50 years. If current trends continue, overall recreation use will remain below the Forest's capacity through the year 2000 and beyond. Current recreation demand is low on the Forest. Projections for 5 decades were made using anticipated growth statistics from the State Comprehensive Outdoor Recreation Plan (SCORP). These projections were then converted to required acres using capacity figures in the "Recreation Opportunity Spectrum Users Guide."

FIGURE III-13: Recreation Use by Recreation Opportunity Spectrum Class

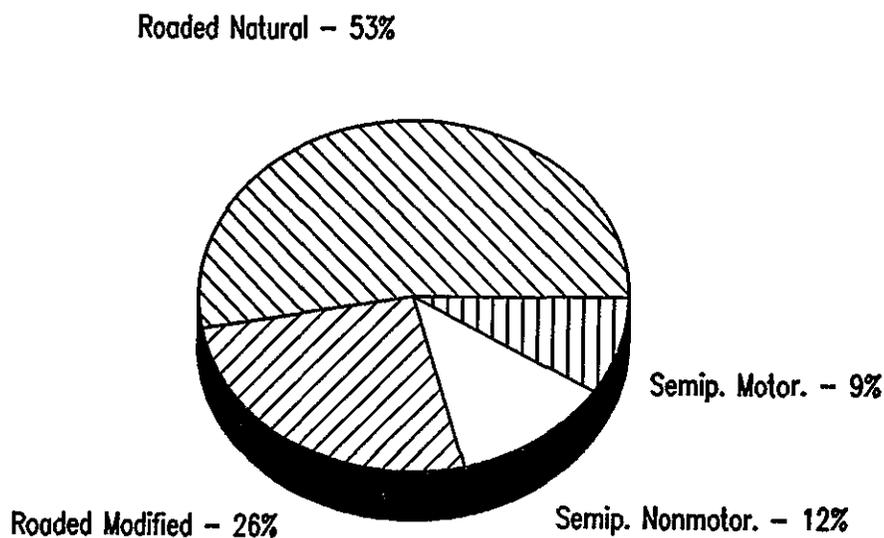


TABLE III-15: Anticipated Recreation Demand for Five Decades
(Thousands of Recreation Visitor Days)

	Present Use (1984)	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Wilderness	16.5	17.6	19.3	20.6	22.0	23.4
Semiprimitive, Nonmotorized	6.8	7.5	8.2	8.8	9.4	10.0
Semiprimitive, Motorized	18.4	20.4	22.3	23.8	25.4	27.1
Rooded Natural	101.0	113.6	124.3	132.7	141.5	151.0
Rooded Modified	49.1	55.2	60.5	64.6	68.9	73.6
TOTAL	191.8	214.3	234.6	250.5	267.2	285.1

NOTE: A recreation visitor day (RVD) is equivalent to one person enjoying recreation for 12 hours. These figures also include wildlife-related recreation, as reported in wildlife-and-fish-user-days (WFUDs).

Table III-16 shows that the Forest has recreation capacity that exceeds projected demand. The Forest currently has 180,948 acres of undeveloped land outside Wilderness that is suitable for unroaded recreation. These lands could provide an annual potential of 137,520 recreation visitor days of semiprimitive, nonmotorized recreation or 157,424 RVDs of semiprimitive, motorized recreation. If they were all designated as Wilderness, along with the two existing Wildernesses, they would provide an annual potential of 131,634 RVDs of primitive recreation. Figure III-12 indicates how use is dispersed by activity across the Forest.

TABLE III-16: Area Currently Available, and Area Needed in the Fifth Decade, by Recreation Opportunity Spectrum Class (Thousands of Acres)

Recreation Opportunity Spectrum Class	Area Currently Available	Area Needed in Fifth Decade
Wilderness	81.3	30.8
Semiprimitive, Nonmotorized	45.6	13.1
Semiprimitive, Motorized	140.1	31.1
Roaded Natural	748.1	42.8
Roaded Modified	444.4	30.8
TOTAL	1,459.5	148.6

e. Relationship Between Forest Management and Recreation

Timber harvest causes major changes in recreation settings and associated use. Existing trails may be rerouted or protected. Improved access provided by timber sale roads usually results in increased hunting, fishing, and other recreational use of an area. For recreationists desiring unroaded opportunities, building roads into areas reduces their appeal. On the other hand, roading provides opportunities for those who prefer an easily accessed setting.

Intensive livestock use and concentrated recreation use are often incompatible. Developed campgrounds are generally fenced to exclude livestock. This is not true of popular dispersed campsites, which often occur near stock water developments. Livestock droppings and odor detract from the recreational experience, affect water quality, and litter trails. Most livestock are removed before hunting season, when much of the Forest's recreation use occurs.

Management of fish habitat seldom detracts from recreation because habitat improvements usually don't disrupt natural-appearing settings. Improved fish habitat can enhance recreational fishing opportunities.

Cultural resource management seldom affects the recreation setting. There is potential for interpretation of the Sumpter Valley Railroad, Oregon and Northwestern Railroad, and other historic and prehistoric sites to increase recreational enjoyment of Forest visitors.

Visual resource management directly complements the recreational setting and facilitates recreation use on the Forest.

The Wildernesses provide the only opportunity for primitive recreation on the Forest, adding to recreational diversity. Recreational use of Strawberry Mountain Wilderness has remained fairly constant over the last several years.

Rights of a mining claimant may interfere with recreational pursuits. A recreationist removing minerals from someone else's mining claim may be in trespass. In addition, recreationists cannot materially interfere with mining operations on a valid mining claim, and a mining claimant has a right to use the surface and subsurface resources when necessary for mining purposes. Recreational mineral extraction and rockhounding are popular activities on the Forest.

Since reasonable access for valid mining claims is a statutory right, mineral activities may result in roading areas which are managed primarily for unroaded recreation. Areas withdrawn primarily for recreational values may be similarly affected if mineral rights exist, either in the form of valid mining claims, leases, or outstanding mineral rights. But such conflict has not been significant on the Forest.

Large fires can be distracting or dangerous to Forest visitors and they modify the recreation setting. Large fires could damage recreation facilities.

Roads provide access to both existing and potential developed recreation sites. The standard of road design and maintenance plays a definite role in determining the type of visitor, mode of transportation, and camping style. For instance, motor homes are limited by the type of access provided.

The existence of a road network greatly enhances some dispersed recreation opportunities, and the degree to which visitors can be dispersed in their pursuit of recreational activities.

The use of off-road vehicles (ORVs) is an issue that will be considered outside of the Forest planning process. The Malheur National Forest is currently developing a Travel Plan which will address this issue in detail. At this time, ORV use is prohibited in the Monument Rock and Strawberry Mountain Wilderness areas. Seasonal restrictions apply to Vinegar Hill scenic area, which is restricted to winter snowmobile use only. Other seasonal restrictions apply to specific areas during big-game hunting seasons, when a "green dot" system is used to designate open roads. Other site-specific vehicle closures may be implemented as deemed necessary for resource protection.

7 Roadless Areas

Under the Roadless Area Review and Evaluation (RARE) process completed in 1973, roadless areas were identified on the Malheur National Forest. A second evaluation of roadless areas (RARE II) was initiated in 1976 and completed in 1979. This process identified 20 roadless areas on the Malheur National Forest that are being considered for roadless area management in this planning process.

With the conclusion of RARE II in January 1979, one area within the Forest boundary did not receive full public review. This area, Pine Creek, was recommended for further evaluation.

The majority of two roadless areas were added to the wilderness system by the Oregon Wilderness Act (1984): Monument Rock (6240) and Strawberry Addition (6238).

The Oregon Wilderness Act of 1984 specified that the remaining 18 areas not be reviewed for wilderness designation during this planning process, except for Pine Creek. Roadless areas can be managed for semiprimitive recreation opportunities, which would maintain their suitability for future wilderness review.

Each of the 18 identified roadless areas is described in detail in Appendix C and listed in Table III-17. Figure III-14 shows the location of areas listed in Table III-17 (note that the numbers identifying each roadless area in fig. III-14 is the "RARE II Number" given in Table III-17).

a Relationship Between Forest Management and Roadless Areas

The relationship of these areas to other resources depends on the type of management they receive.

Currently, three of these areas are managed to provide semiprimitive, nonmotorized recreation. These areas are McClellan Mountain, North Fork of the Malheur River, and Greenhorn Mountain. Pine Creek is also being managed in this way while its wilderness suitability is being reviewed.