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U.S. Department of the Interior

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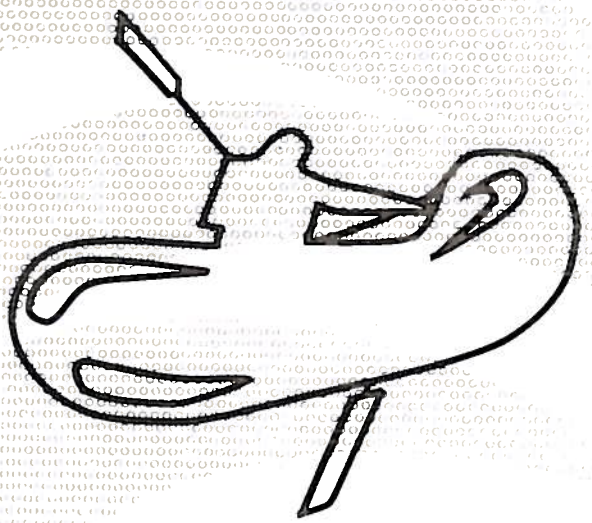
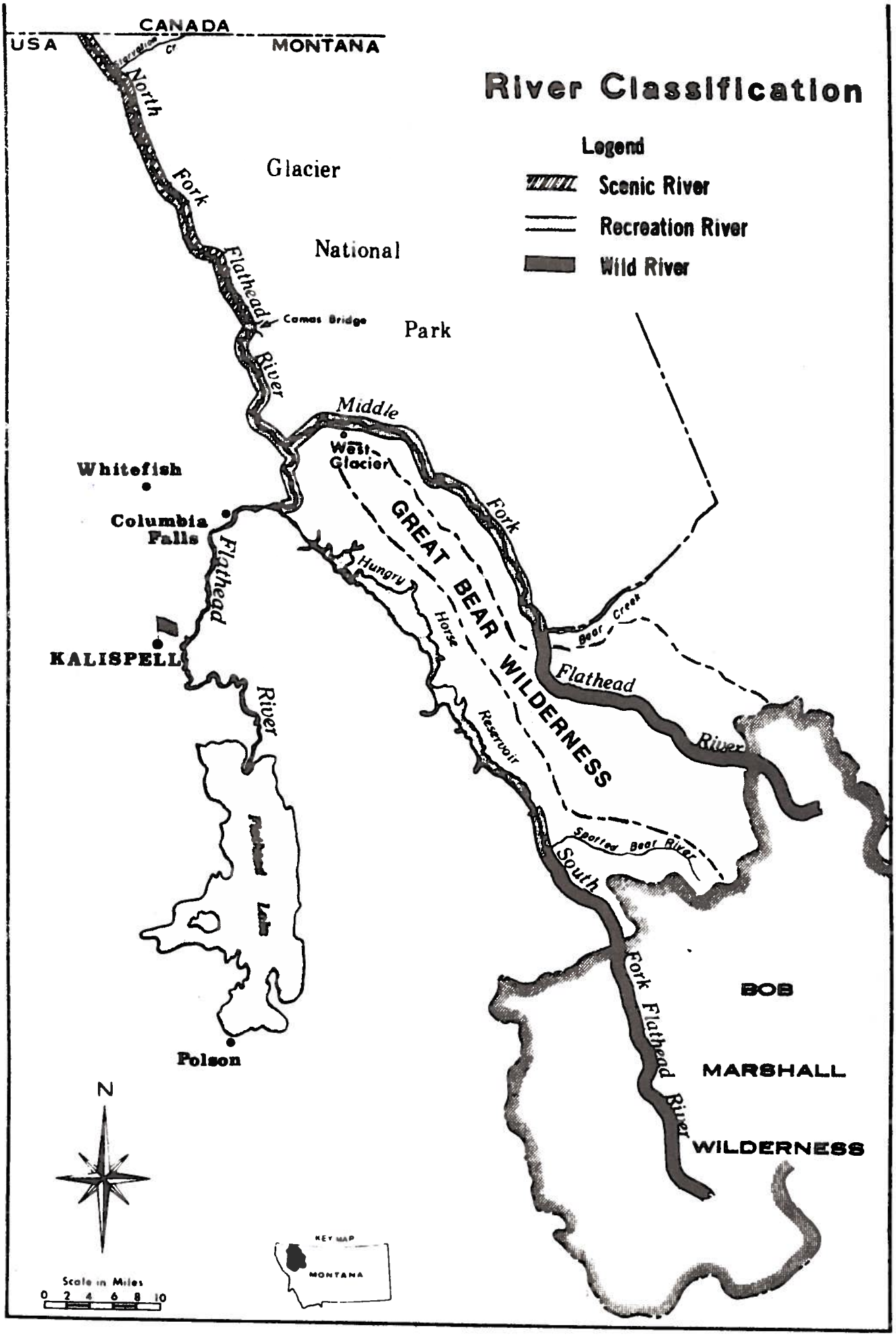
Forest Service

Flathead National Forest



Wild and Scenic Flathead River management plan


River Classification
Legend
Scenic River
Recreation River
Wild River
CANADA
USA
MONTANA
North Fork Flathead River
Glacier National Park
Camas Bridge
Middle Fork Flathead River
West Glacier
Whitefish
Columbia Falls
Flathead River
KALISPELL
Hungry Horse Reservoir
GREAT BEAR WILDERNESS
Bear Creek
Flathead River
Spotted Bear River
South Fork Flathead River
BOB MARSHALL WILDERNESS
Flathead Lake
Polson
N
Scale in Miles
0 2 4 6 8 10
KEY MAP
MONTANA

CHAPTER I

INTRODUCTION

GENERAL GEOGRAPHIC LOCATION

The Flathead Wild and Scenic River, a component of the National Wild and Scenic Rivers System, is located in Flathead and Powell Counties in Northwestern Montana. Included are the North Fork of the Flathead from the Canadian Border to its confluence with the Middle Fork, the entire Middle Fork, and the South Fork from its headwaters to the Hungry Horse Reservoir. The North Fork and the lower Middle Fork form the boundaries between Flathead National Forest and Glacier National Park. The upper Middle Fork originates in the Bob Marshall Wilderness and flows through the Great Bear Wilderness. This reach is contained entirely within the Flathead National Forest. The South Fork flows out of the Bob Marshall Wilderness to form Hungry Horse Reservoir.

LEGAL DESCRIPTION

The official boundary descriptions for each fork of the Flathead Wild and Scenic River are on file and available in the office of the Forest Supervisor, Flathead National Forest, Kalispell, Montana, and the Regional Forester, Northern Region, Missoula, Montana. The descriptions are referenced as "Boundary Map" of:

> North Fork of the Flathead Scenic and Recreational River and aerial photography of said area dated 30 June, 1977, 1:15840 Scale, Roll 5 and photos 59 through 115.
>
> South Fork of Flathead Wild and Recreational River, and aerial photography of said area dated 30 June, 1977, 1:15840 Scale, Roll 5 and photos 239 through 265 and photos 277 through 319.
>
> Middle Fork of the Flathead Wild and Recreational River, and aerial photography of said area dated 30 June, 1977, 1:15840 Scale, Roll 5 and photos 121 through 238, and photos 115 and 116 and photos 320 through 333.

All subdivisions and plats referred to in this description are on file at the Flathead County Courthouse, Kalispell, Montana. A listing of areas (Township, Range and Section location) in and through which the boundaries are located may be obtained upon request to the Forest Supervisor, Flathead National Forest. This information is contained in "Flathead Wild and Scenic River Federal Register Notice" dated June 16, 1978.

The principal consideration for the boundary determination was the area visible from the river. Other considerations, such as special features, location of property lines, location of roads, potential problem areas, and the likelihood of the river shifting, also influenced the location of the classified river corridor area.

The reasons for establishing a boundary varied with different segments of river, depending on: (1) whether or not the adjacent land was surveyed, (2) the classification of the land, and (3) the presence or absence of private land.

ESTABLISHMENT HISTORY

The Flathead River was one of 27 rivers designated for study under Section 5(a) of the Wild and Scenic Rivers Act of 1968 (P.L. 90-542) for inclusion in the National Wild and Scenic Rivers System.

The study of the river began in July 1970. Under a provision of the Act, the Governor of Montana was given the right to jointly lead in the study. The Governor chose to cooperate with the Forest Service rather than provide co-leadership.

In addition to State and Federal agencies, interested individuals and a 10-member public advisory committee cooperated in the Flathead River study.

Rivers must meet certain criteria established by the Wild and Scenic Rivers Act in order to be considered for inclusion in the Wild and Scenic Rivers System. Criteria include a determination of (1) free-flowing status, (2) the presence of high quality water, and (3) the fact that the river, with its immediate environment, possesses outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values.

On the basis of study findings, it was concluded that the 219.0 miles of the river designated for study met these criteria and, therefore, qualified for inclusion in the National Wild and Scenic Rivers System.

Public Law 94-486 (An Act to Amend the Wild and Scenic Rivers Act) was signed into law October 12, 1976. This law added the three forks of the Flathead River to the National Wild and Scenic Rivers System. Passage of this law preceded the final reviews and filing of the final environmental statement. Therefore, both the final environmental statement and final Study Report for the Flathead Wild and Scenic River were complete as of the date they were submitted to the Office of Management and Budget.

ORVs Comment?

UNIT CHARACTERISTICS

There is a wide variation among different sections of the river regarding existing development, access, and resource potential. For this reason the Flathead Wild and Scenic River includes sections classified in the three categories provided for in the Wild and Scenic Rivers Act - Wild, Scenic, and Recreational. The classification of each river segment was dependent on the historical and current land use along the river, and on the potential quality and type of recreational opportunity offered to the public. Wild river classification emphasizes naturalness and opportunities for solitude in a primitive, unregulated setting with attention to free-flowing unpolluted waters, remoteness from mechanized transportation corridors, undeveloped shorelines and watersheds, outstanding scenery, and free-ranging wildlife. Scenic river classification emphasizes naturalness and opportunities for semi-private recreational opportunities with attention to free-flowing unpolluted waters, limited road access, a shoreline and river corridor with limited development, free-ranging wildlife, and outstanding scenery. Recreational river classification emphasizes diversity of river qualities and recreational opportunities including, basically, free-flowing and unpolluted waters, ready public recreational access, potential for accomodating large numbers of recreationists with a wide variety of recreational experiences provided, and high scenic values. (See Table 1 - Attributes and Management Objectives of the Flathead Wild and Scenic River, page 4)

Table I

Attributes and Management Objectives of the Flathead Wild and Scenic River

	Wild	Scenic	Recreation
Attributes	1. Free-flowing. Future construction restricted.	1. Free-flowing. Future construction restricted.	1. May have undergone some some impoundment or diversion in the past. Water should not have characteristics of an impoundment for any significant distance. Future construction restricted.
	2. Generally inaccessible by road. One or two inconspicuous roads to the area may be permissible.	2. Accessible by roads which may occasionally bridge the river area. Short stretches of conspicuous or longer stretches of inconspicuous and well-screened roads or railroads parallelling river area may be permitted.	2. Readily accessible with likelihood of parallelling roads or railroads along river banks and bridge crossings.
	3. Shorelines essentially primitive. One or two inconspicuous dwellings and land devoted to production of hay may be permitted. Watershed natural-like in appearance.	3. Shoreline largely primitive. Small communities limited to short reaches of total area. Agricultural practices which do not adversely affect river area may be permitted.	3. Shoreline may be extensively developed.
	4. Water quality meets minimum criteria for primary contact recreation except where such criteria would be exceeded by natural background conditions and aesthetics2/ and capable of supporting propagation of aquatic life normally adapted to habitat of the stream.	4. Water quality should meet minimum criteria for desired types of recreation except where such criteria would be exceeded by natural background conditions and aesthetics2/ and capable of supporting propagation of aquatic life normally adapted to habitat of the stream, or is capable of & is being restored to that quality.	4. Water quality should meet minimum criteria for desired types of recreation except where such criteria would be exceeded by natural background conditions & aesthetics2/ & capable of supporting propagation of aquatic life normally adapted to habitat of the stream or & is being restored to that quality.
Management Objectives	1. Limited motorized land and water travel in area.	1. Motorized vehicles allowed on land area.	1. Optimum accessibility by motorized vehicle.
	2. No unharmonious or new habitations or improvements permitted.	2. No unharmonious improvements and few habitations permitted.	2. May be densely settled in places.
	3. Only primitive-type public use provided.	3. Limited modern screened public use facilities permitted, i.e. campgrounds, visitor centers, etc.	3. Public use areas may be in close proximity to river.
	4. Improvement of old structures prohibited if not in keeping with overall objectives.	4. Some new facilities allowed, such as unobtrusive marinas.	4. New structures allowed for both habitation and for intensive recreation use.
	5. Unobtrusive fences, gauging stations & other management facilities may be permitted if no significant adverse effect on natural character of area.	5. Unobtrusive fences, gauging stations & other management facilities may be permitted if no significant adverse effect on natural character of area.	5. Management practice facilities such as fences permitted.
	6. Limited range of agriculture & other resource uses permitted.	6. Wide range of agriculture & other resource uses may be permitted	6. Full range of agriculture & other resource uses may be permitted.
	7. Water quality Protection and/or improvement.	7. Water quality protection and/or improvement.	7. Water quality protection and/or improvement.

The following depicts the classification of the Flathead unit by segments.

TABLE 2

	Wild	Scenic	Recreational	Total
		(miles of river)		
North Fork	0	40.7	17.6	58.3
Middle Fork	46.6	0	54.0	100.6
South Fork	51.3	0	8.8	60.1
Total	97.9	40.7	80.4	219.0

TABLE 3

Miles of River Frontage by Ownership

River Segment	National Forest	National Park	State of Montana	Private	Total Frontage Miles in Unit	% of Total Unit
North Fork	19	58	7	32	116	27%
South Fork						
Inside Bob Marshall Wilderness	102	--	--	--	102	23%
Outside Wilderness	18	--	--	--	18	4%
Middle Fork						
Inside Bob Marshall Wilderness	28	--	--	--	28	7%
Inside Great Bear Wilderness	63	--	--	--	63	14%
Outside Wilderness	38	45	1	27	111	25%
Total Frontage Miles	268	103	8	59	438	
%	61%	24%	2%	13%		100%

The area within the Congressionally designated Wild and Scenic River boundary; i.e., the River Management Zone, contains approximately 57,400 acres (35,000 acres Flathead National Forest, 11,800 acres Glacier National Park, 9,700 private, and 900 acres State land).

The designating legislation assigns the United States Department of Agriculture, Forest Service primary administrative responsibility for the Flathead Wild and Scenic River. However, Glacier National Park and the State of Montana retain management responsibility for lands under their administration. Thus, all lands outside National Park Service and State administration are administered by the Forest Service.

The preceding table is a summary of the miles of river frontage in various ownership. (Mileage figures are based on bank miles; that is, the total mileage given is double the river mileage.)

Fifty-four percent, or 238 miles, of classified shoreline is in the Great Bear and Bob Marshall Wilderness Areas and Glacier National Park. With inclusion of the National Forest outside of the wilderness, 85 percent of the shoreline is within Federal ownership. Another 2 percent is in State ownership. National Park land is confined to one side of the North Fork and the Middle Fork with scattered National Forest, State, and private lands on the opposite bank. While only 13 percent of the shoreline is within private ownership, the land is situated so it has potential for significant impact on the river system.

ANALYSIS OF THE PRESENT OVERALL RESOURCE SITUATION, OPPORTUNITIES AND PROBLEMS

ACQUISITION AND LAND USE

One of the primary goals of Congressional designation of a Wild and Scenic River is to insure the river's natural beauty is protected for future generations to enjoy. The Wild and Scenic Rivers Act provides for this protection through the acquisition of scenic easements on private lands to insure they are not over-developed in the future and that scenic and ecological values are maintained. Lands under scenic easement remain in private ownership. Of the over 700 privately owned parcels within the Wild and Scenic River corridor approximately 80 percent will be protected by scenic easements. Lands may also be purchased outright i.e., fee simple acquisition. Fee acquisition will generally be limited to stream access sites; key tracts needed to protect Wild and Scenic River values; tracts where scenic easement exceeds 75 percent of fee value when landowners insist upon fee purchase rather than scenic easement purchase and it is in the public interest to do so; and fee purchase required by P.L. 91-646, Uniform Relocation Assistance and Real Property Acquisition Policy Act. All fee purchases will be on a willing seller basis. However, scenic easements may be condemned by use of the power of eminent domain if a landowner is unwilling to grant an easement and resource protection needs require such action. The Flathead Wild and Scenic River acquisition program will

take 5 - 10 years, depending upon funding and staffing. Detailed information regarding the acquisition program may be obtained from the Flathead Wild and Scenic River Land Acquisition Plan available in the Supervisor's Office, Flathead National Forest.

Present land uses within each segment of the river corridor are generally compatible with the classification assigned it under the designation act. Timber cutting has resulted primarily from harvest of mountain pine beetle killed lodgepole pine; clearing for subdivisions and development of private land. Portions of the private land bordering the North and Middle Forks are used for agriculture and grazing.

RECREATION

The Flathead National Wild and Scenic River offers tremendous opportunity for recreation enjoyment and environmental appreciation by the American public. The Flathead unit constitutes 8.5 percent of the National Wild and Scenic Rivers System as it is presently constituted (as of signing into law of the National Parks and Recreation Act of 1978, P.L. 95-625, November 10, 1978).

This unit of the national system offers a mix of Wild, Scenic and Recreational segments and transition from designated wildernesses to more developed settings. This diversity adds to the national significance of the Flathead component. Thus, the Flathead Wild and Scenic River is an exceptionally valuable element of the nation's outdoor recreation estate. Because of this value, management of this unit as an amenity resource provides a singular opportunity to meet an important public need. However, along with this opportunity is the challenge of providing adequate public use while protecting resource integrity for the enjoyment of future generations. Except for the Wild segment of the South Fork the present level of public recreation use is not significantly impacting the esthetic or ecological integrity of this resource. It is essential that a management program adequately maintain resource integrity. In order to provide adequate resource protection ongoing monitoring will be necessary to establish resource degradation thresholds so that use can be positively managed within those thresholds. It is imperative that this monitoring system provide both social and biological data on which rational, defensible management decisions can be based. Observations by managers, actual use records of outfitters and counting devices indicate the recreational potential for floating presently exceeds use on the Recreational and Scenic segments. However, Wild River segments appear to be approaching carrying capacity.

A variety of float conditions exist throughout the Flathead Wild and Scenic River. The river ranges from fast-moving white water in deep canyons to more placid stretches of water in broad, timbered valley bottoms. Remote areas of the Bob Marshall and Great Bear Wildernesses provide opportunities for long trips in relative solitude. Other stretches of river offer opportunities for day-type use in a near-natural to developed environment. In addition to floating, the Wild and Scenic River offers many other recreation opportunities. Some of these

are hunting (outside Glacier National Park), fishing, hiking, bird watching, nature study, cross country skiing or just beholding the river's beauty.

Recreation facilities will only be developed along the Scenic and Recreational segments. These developments will generally provide river access and overnight facilities for river floaters on the North Fork and day use opportunity such as day floater access and picnicking on the Middle Fork. Existing campgrounds such as Big Creek on the North Fork and commercial campgrounds on the Middle Fork now meet the needs of the general camping public. Developments at river access sites will usually consist of camping space limited to floaters (only on North Fork), toilets, picnic tables, fire places, boat launch area and parking. Access sites, mouths of major creeks and points at which floaters are entering and leaving publicly owned shorelines will be signed along the Scenic and Recreational segments. Only relatively minimal development at each existing and proposed access site is anticipated during this five-year plan period. Development will begin on approximately seven access sites during the 1980 field season. Access site development will be accomplished with the benefit of a site analysis to determine suitability.

Additional capital construction funds will be needed to provide adequate public access to the river. Also, more funding support will be required if the Flathead National Forest is to redeem its responsibilities as lead agency in administering the Flathead Wild and Scenic River. An adequate level of administration will require more visitor contact by river managers to provide public information and education and protect resource values and private property rights.

Implementation of an effective river management program requires the following:

1. Acquisition program must be completed to provide for an adequate system of public recreation access to the resource as well as to protect the scenic integrity of the resource.

2. Facility development must proceed in a timely manner to enable optimum public use and enjoyment of the resource.

3. Base line use and ecological data must be collected and analyzed so that use and impact trends can be accurately assessed through an ongoing monitoring process.

4. Managers must be provided with the resources necessary to effect better on-the-ground administration.

Table 4, pages 10-12 presents the Recreation Opportunity Spectrum that will be used as a guidline for providing recreation experience on the Wild and Scenic River. Wild segments will be managed as Primitive (P),

the Scenic segment of the North Fork will provide Semi-Primitive Non-Motorized (SPNM) opportunity and the Recreational segments will be managed as Roaded Natural Appearing (RNA).

The following depicts the estimated cost of implementing the Flathead Wild and Scenic River Management Plan. Costs are based on 1980 dollars.

Acquisition	
Cost as of April 1980	$ 3,300,000
Remaining Cost	$17,700,000
	$21,000,000
Development of 16 access/floater camp areas	
Roads and Parking	$ 228,000
Facilities	$ 737,000
	$ 965,000
Administration Costs/year	$ 83,000

6,719,000 appropriated PL 94-4486

A major challenge that must be met as recreation use on the Flathead Wild and Scenic River increases is that of allocation and rationing of use, to protect resource values and provide the recreation experience opportunity for which each river segment is to be managed. Chapter IX, Research, discusses "Visitor Profiles and Recreation Use of the North, South and Middle Forks", a two year study presently being conducted by a research team from the Department of Wildland Recreation, University of Idaho. This study will provide base line data on recreation users and use areas, and will provide a system for monitoring change in use impacts over time. The study, which is to be completed in 1981 will provide a research foundation on which rational, equitable management decisions regarding use levels will be made. Pending completion of the study, no permit system for non-outfitted river users will be implemented on any fork of the Flathead River, and the outfitted public will continue to be served by the outfitter operations presently authorized under Forest Service special use permit. Number of outfitted floats will also remain the same as those presently authorized under permit. Upon completion of the results, recommended management direction based on these results will be made available to the public for comment. A summary of the findings and final management direction related to river use allocation and rationing will be published as a supplement to this plan.

TABLE 4

RECREATION OPPORTUNITY SPECTRUM

The Recreation Opportunity Spectrum, with associated activity opportunities, recreational setting requirements, and experience opportunities that are highly probable for each spectrum class. This is a table of general descriptors of the three components of the spectrum classes. There might be specific activity exceptions to these general characteristics.

Spectrum Class	Activity Opportunities engaged in	Recreational Setting to realize	Experience Opportunities
Primitive (P)	Viewing Outstanding Scenery Enjoying Unique and/or Unusual Environments Hiking Cross-country ski touring and snowshoeing Horseback Riding Canoeing Camping Other, nonmotorized watercraft use Swimming Fishing Photography	Area is characterized by essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other area users is minimal. The area is managed to be essentially free from evidence of man-induced restrictions and controls. Motorized use within the area is not permitted.	Extremely high probability of experiencing considerable isolation from the sights and sounds of man. Independence, closeness to nature, tranquility, and self-reliance through the application of woodsman skills in an environment that offers a high degree of challenge and risk.
Semi-primitive non-motorized (SPNM)	Snowplay Hunting (big, small game, upland birds and waterfowl) Nature Study Acquiring General Knowledge/Understanding Unguided Hiking General Information	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 on-site controls and restrictions may be present, but are subtle. Motorized use is not permitted.	High, but not extremely high, probability of experiencing the above listed natural environment elements.

Spectrum Class	Activity Opportunities engaged in	Recreational Setting to realize	Experience Opportunities
Semi-primitive motorized (SPM)	All of the activities mentioned in above Classes plus the following: Motor-driven ice and snowcraft ORV touring Power boating	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 area users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is permitted.	Moderate probability of experiencing the above listed natural environment elements, except that there is a high degree of interaction with the natural environment. Explicit opportunity is available to use motorized equipment while in the area
Roaded Natural Appearing (RNA)	All of the activities mentioned in above Classes plus the following: Picnicking Gathering Forest Products Auto Touring Trailer Camping Automobile Camping Viewing Interpretive Signs Organization Camping Lodges Power Boating (10 HP Max) Resort-Commercial Public Services Resort-Lodging	Area is characterized by predominantly natural appearing environments with moderate evidences of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities.	About equal probability to experience affiliation with other user groups and for isolation from sights and sounds of man. Opportunity to have a high degree of interaction with the natural environment. Challenge and risk opportunities associated with more primitive type of recreation are not very important. Practice and testing of outdoor skills might be important. Opportunities for both motorized and non-motorized forms of recreation are possible.

Spectrum Class	Activity Opportunities engaged in	Recreational Setting to realize	Experience Opportunities
Rural (R)	All of the activities mentioned in above Classes plus the following: Competitive Games Ice Skating Scooter-Motorcycle Use Bicycling Spectator Sports Jogging Passive use of developed parks and open space Picnicking Outdoor concerts	Area is characterized by substantially modified natural environment. Resource modification and utilization practices are primarily to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of man are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate densities are provided for away from developed sites. Facilities for intensified motorized use and parking are available.	Probability for experiencing affiliation with individuals and groups is prevalent as is the convenience of sites and opportunities. These factors are generally more important than the setting of the physical environment. Opportunities for wildland challenges, risk-taking, and testing of outdoor skills are generally unimportant except for specific activities like downhill skiing, for which challenge and risk-taking are important elements.
Modern-urban (MU)	All of the activities mentioned in above Classes.	Area is characterized by a substantially urbanized environment, although the background may have natural-appearing elements. Renewable resource modification and utilization practices are to enhance specific recreation activities. Vegetative cover is often exotic and manicured. Sights and sounds of man, on-site, are predominant. Large numbers of users can be expected, both on-site and in nearby areas. Facilities for highly intensified motor use and parking are available with forms of mass transit often available to carry people throughout the site.	Probability for experiencing affiliation with individuals and groups is prevalent, as is the convenience of sites and opportunities. Experiencing natural environments, having challenges and risks afforded by the natural environment, and the use of outdoor skills are relatively unimportant. Opportunities for competetive and spectator sports and for passive uses of highly man-influenced parks and open spaces are common.

FISH AND WILDLIFE

The variety of habitat types found in the Flathead drainage provides for an unusual complex of animal species. Those that are uncommon in other areas include fisher, marten, otter, wolverine, wolf, lynx, and mountain lion. Other mammals common to the Northern Rockies such as beaver, coyote, snowshoe hare, and pine squirrels are also found.

Eight species of big game native to the area include: mule deer, whitetailed deer, elk, moose, mountain goat, black bear, grizzly bear, and mountain lion. Two species, bighorn sheep and woodland caribou are reported occasionally.

Approximately 200 species of birds are found in the Flathead including common upland game birds, song birds, and the less common raptors--osprey, golden eagle, and bald eagle.

Based on hunter questionnaire data, over 57,000 hunters pursue the common game species, elk, deer, and grouse in the areas in the three forks of the Flathead. Average annual value of this recreation is $900,000, as derived from the 1970 National Survey of Fishing and Hunting.

Three "endangered" wildlife species, the peregrine falcon, the northern rocky mountain wolf, and the bald eagle are known to inhabit portions of the [redacted] areas. In addition, the grizzly bear, which was classified a threatened species on September 2, 1975, is also present.

The bald eagle is known to concentrate in large numbers near West Glacier on the Middle Fork, during the fall Kokanee salmon spawning season. Birds counted at one time exceeded 600. Recent studies indicate that a much larger number of total birds come and go during the salmon spawning season from September to December. This probably represents the greatest bald eagle concentration in the continental United States. The major water courses leading to West Glacier (North Fork, South Fork, Hungry Horse Reservoir, Middle Fork, Flathead River) are thought to be the primary migration routes to and from West Glacier. Through the Wild and Scenic River land acquisition program, land is being acquired along these routes and at West Glacier to help preserve this bald eagle habitat. Known bald eagle nesting occurs on the South Fork and Flathead Lake.

The peregrine falcon is known to nest in the South Fork of the Flathead. Occasionally these birds have been observed wintering in the North Fork and South Fork Drainages of the Flathead River. Persistent use of pesticides has helped cause the decline of the species. However, continual human disturbance may also cause the abandonment of nest sites. For this reason, no recreation facilities will be developed within one-quarter mile of the one known nest site. Any additional nesting sites discovered will require the same restriction.

Research has been done on the status of wolves in Glacier National Park, Waterton Lakes National Park, and the adjacent corner of southeastern British Columbia. The history of wolves was constructed from a review of historical records, and from personal checks of reported wolf sightings. Results suggest an area of 57 KM (35 miles) by 49 KM (30 miles) is used regularly by wolves. Six percent (63 square miles) of this area is on National Forest and private land along the North Fork of the Flathead River adjacent to Glacier National Park.
Reliable sightings indicate wolf activity in portions of the South Fork and Middle Fork drainages, although breeding activity is presently undetermined. Protection of den sites, reduction of wolf mortality to humans, and management of sufficient numbers of prey are essential to perpetuation of any possible breeding population.

The grizzly is a known inhabitant of the entire North Fork and South Fork drainages, and, outside of Glacier Park, is managed as a game species throughout those areas by the Montana Department of Fish, Wildlife and Parks. Little is known of the total grizzly bear numbers in the two drainages. Present estimates are six for the 128 km^2 (80 $mi.^2$) Big Creek drainage (13 $mi.^2$/bear), 36 for the 464 km^2 (290 $mi.^2$) area of Glacier National Park (8.1 $mi.^2$/bear), and grizzly sightings are common throughout both drainages. In fact, approximately half of the grizzlies taken legally by hunters during 1967-1973 in Montana came from those two drainages.

Grizzly bear habitat in the North and South Forks is currently being studied by the Border Grizzly Project, University of Montana, but complete results are not yet available. Preliminary data indicate that important grizzly foods occur at different elevations and on various aspects during spring, summer, and autumn. In general, these sites are either areas which "green-up" very early in the spring (at low elevations and on open, south-facing slopes); moist areas which contain abundant succulent forbs, sedges, and grasses (stream bottoms, avalanche areas, water courses, etc.); open or relatively open areas with abundant Vaccinium or tuber production (burns, timberline, alpine); and certain phases within habitat types which contain abundant bear foods. Small amounts of disturbance during critical periods could have important impacts on grizzlies, especially during May, June and early July (low-country).

Other areas offering above average food available no doubt exist, but have not yet been identified. No measure has yet been made of the type and quality of cover, consistently used travel routes, denning areas, the importance of big game winter kills, ground squirrel or marmot concentrations, or reaction of the bear to various logging or roading techniques.

The conservation of endangered and threatened species and their habitats will receive priority management with regard to facility development and recreation use. River management will be responsive to threatened and endangered species management direction to be established in the Integrated Forest Management Plan due for review in 1981.

The Flathead River System is characterized by self-sustaining populations of native fishes. The cutthroat trout, bull trout, and mountain whitefish are the dominant species. Native species of non-game fish include northern squawfish, peamouth, redside shiner, long-nose sucker, large-scale sucker, and sculpins.

Migratory populations of cutthroat and bull trout occur in all three forks of the Flathead River. These fish spawn mostly in the upper reaches of the drainages.

Introduced species include rainbow trout, brook trout, arctic grayling, and kokanee.

The fisherman use on the three forks of the Flathead River is summarized in the following table. The estimates are from the Montana Department of Fish, Wildlife and Parks postal card survey of anglers.

FISHERMAN USE

LOCATION	YEAR 1965	1968	1974
	NUMBER OF FISHERMEN		
*Flathead River		34,703	45,460
North Fork Flathead River	5,013	10,081	13,206
Middle Fork Flathead River	1,933	7,051	9,236
South Fork Flathead River	2,756	5,263	6,894
Flathead Lake		64,996	85,144

* (between mouth of South Fork and Flathead Lake)

The Flathead River below the South Fork and Flathead Lake is included in the table because this is an important part of the aquatic ecosystem. Flathead lake and the lower river are dependent on the North and Middle Forks as a spawning and nursery area for fish. In order to protect the spawning fish and allow for adequate recruitment to the lake, four tributaries to the North Fork, and four tributaries to the Middle Fork are closed to all fishing.

The Montana Department of Fish, Wildlife and Parks estimates 55 percent of the recruitment for Flathead Lake fisheries comes from the North Fork drainage and 45 percent comes from the Middle Fork. Hungry Horse Dam blocks all fish passage on the South Fork. However, the resident fish in Hungry Horse Reservoir do spawn in streams tributary to the reservoir.

Direction for fish and wildlife management activities of the Forest Service and Montana Department of Fish, Wildlife and Parks is provided in the memorandum of understanding between Forest Service, Region One and the Department. Reference Forest Service Manual 2611.1--1, R-1, Supplement 45. Glacier National Park will retain responsibility for

fish and wildlife management within Park boundaries. Montana Department of Fish, Wildlife and Parks will continue to regulate fishing, hunting and trapping outside Glacier National Park.

AIR QUALITY

Future air quality in the Flathead valley is a major concern that is presently being addressed in the Flathead River Basin Environmental Impact Study authorized by Congress in 1977. The objective of this study is to determine baseline environmental data against which to access the impacts of future development upon the basin. The potential impact of energy development north of the United States - Canadian border is of particular importance in the data that is being gathered. The diurnal wind patterns of the basin move from north to south during the summer and reverse during winter. Consequently the air quality on the North Fork of the Flathead River is more likely to be degraded by future developments than are the South Fork and Middle Fork. Continued population growth in the Flathead valley will probably result in an increase in small particulates being dispersed up the North Fork during the summer months and major energy developments north of the border are likely to increase these particulates along the designated portion of the North Fork in winter.

The basin is subject to serious and persistant air inversions throughout much of the winter. Extra-basin pollutants can adversely effect air quality in the Flathead valley.

Air quality data collection began in 1978 and is planned to continue through 1982. Three of the nine air quality sampling sites in the basin are located near the North Fork. These are at the Canadian border (Moose City), Polebridge and Columbia Falls. An airshed model will be developed from the collected data and will provide for wind blow and pollutant "carrying capacity" monitoring.

The Bob Marshall Wilderness and Glacier National Park have been given Class I airshed status by Congress. This establishes Congress' intent to preserve, protect, and enhance the air quality of these areas. The portions of the South Fork in the Bob Marshall Wilderness and portions of the corridor of the Middle Fork and North Forks within Glacier National Park are in the Class I category. All other river segments including the upper Middle Fork in the Great Bear Wilderness are Class II airsheds.

An objective of the Flathead Wild and Scenic River Management Plan will be to maintain the air quality related values and visibilities that presently exist along each fork of the river. This will require Prevention of Significant Deterioration (PSD) Permits in the event that air polluting industries plan developments that could impact the Wild and Scenic River airshed. Overall air quality management direction for Flathead National Forest including the Wild and Scenic River management zone will be addressed in the Integrated Forest Management Plan scheduled for public review in 1981.

WATER QUALITY

The intent of the Wild and Scenic Rivers Act is to maintain designated rivers in a free flowing condition and to protect and enhance the water quality in those rivers.

Average annual runoff from the three forks of the Flathead River is 7,123,000 acre feet as measured at Columbia Falls just downstream from their confluence. Of this, 719,400 acre feet enter from Canada via the North Fork as measured at the Canadian boundary. Net estimate for surface runoff from the portion of land draining into the three Wild and Scenic Rivers is 5,500,000 acre feet. Flow measurement of each fork (not including drainage into Hungry Horse Reservoir below Twin Creek.) are:

South Fork Station, 0.4 mile upstream from Twin Creek above Hungry Horse Reservoir.	1,756,000 acre feet
Middle Fork Station near West Glacier, 0.8 mile downstream from McDonald Creek.	2,160,000 acre feet
North Fork Station 1.5 miles downstream from confluence with Canyon Creek.	2,191,000 acre feet

About 65 percent of the surface runoff originates as snow which starts melting in March at low elevations and continues until July at high elevations. Peak flows occur in May and June.

The U.S. Geological Survey monitors flow at the four above mentioned stations. Survey personnel measure selected water quality characteristics at the Canadian border and at the South Fork of the Flathead near Twin Creek.

A number of other stations on tributaries to these three rivers have been monitored by different groups. The purpose of sampling has been to determine baseline data as well as effects of man's activities on the streams. This information is needed to comply with State water quality standards and possibly improve the environment of the streams. Presently water quality generally equals or exceeds State water quality standards.

The following assumptions are used in determining management direction selected to water quality:

Maintenance of existing water quality is directly dependent on management activities within the watershed.

Activities within the riparian zone will usually have a greater effect on water quality than activities outside this zone.

Water quality will always be an important resource management consideration. As population increases the water resource will be subjected to more pressures. Water quantity and quality will need to be monitored.

General Management Direction will be to:

Manage the river corridor to protect and enhance the water quality of the North Fork, Middle Fork and South Fork of the Flathead River.

Place special emphasis on protecting streamside vegetation.

Give priority to protection of water quality in cases of conflict between water quality and other resource uses. Prevent alteration of natural channels or streambanks that would significantly affect (1) the free-flow of water (2) the appearance of the stream, or (3) fish habitat (includes natural log jams) except those necessary to protect existing man-made improvements such as buildings, highways, and bridges.

Water quality standards must be consistent with the objectives of the Federal Water Pollution Control Acts--Amendments of 1972 (Public Law 92-500) and Amendments of 1977 (Public Law 95-217). The application of pesticides must be done in compliance with the Federal Environmental Pesticide Control Act of 1972 (Public Law 92-516).

Management activities on all river segments will be directed toward maintaining water quality levels high enough for primary contact recreation. The following briefly identifies management direction by river classification.

Wild River management direction is to:

Support use of hydrologic guides (including consideration of geology, theoretical water yield, stream channel stability) in watershed(s) above the Wild segments and (1) discourage any activities, such as livestock wandering freely on river banks, which would cause continuing degradation of water quality by sediment additions. (2) Strategically locate any sanitary facilities (specifically outhouses with or without sealed vaults) at a distance sufficiently removed from river that no leachate from the outhouse will reach river.

Direction for management of the Scenic River:

Support use of hydrologic guides (including consideration of geology, theoretical water yield, stream channel stability) in watershed(s) above the Scenic River segment and (1) control access of cattle, motorized vehicles, horses, and pedestrians on river banks and channels to prevent on-site erosion and downstream sedimentation. (2) Control sanitary facilities (from houses, campgrounds, and etc.) so that no pollution from them reaches the river. (3) Encourage environmentally conscientious use on the river to avoid chemical or biological pollution of the river.

~~Recreational River management direction will:~~

Support use of hydrologic guides (including consideration of geology, theoretical water yield, stream channel stability) in watershed(s) above the Recreational segments and (1) control access of cattle, motorized vehicles, horses, and pedestrians on river banks and channels to prevent on-site sediment erosion and downstream sedimentation. (2) Control sanitary facilities (from houses, campgrounds, and etc.) so no pollution from them reaches river. (3) Encourage environmentally conscientious use of boats on the river to prevent any chemical or biological pollutants from reaching the river. (4) Encourage efficient use of water volume for agriculture for both minimum quantities of water diverted for irrigation and preventing soil erosion and nutrient loss from agricultural lands.

MINERALS

The three forks lie on land which has experienced very little mining activity. A few small copper claims have been worked. Based on geology of the area, potential for high quality mineral deposits is low. Stratabound copper may become an economic material of the future. It is scattered throughout the area. There are three inactive patented placer mining claims on the North Fork. Rock (for crushing) and gravel of commercial value occur locally. Mineral fuels--oil and gas--are suspected of being present along the Continental Divide and in the Whitefish Range. Oil seeps have been found around Kintla Lake in Glacier National Park near the North Fork corridor. No mineral fuels in the area are presently in commercial production. However the possibility exists that commercial oil and gas deposits exist in the river management zone.

All river segments classified as Wild are permanently withdrawn by the Wild and Scenic Rivers Act from all mineral activity. The act does not withdraw segments classified as Scenic and Recreational. However, in response to a request from the Department of Agriculture, the Bureau of Land Management, U.S. Department of the Interior, withdrew the Scenic and Recreational segments from location and entry under the 1872 mining law on October 1, 1973. This action was necessary to extend the mineral activity withdrawal effected by designation of the Flathead River as a "study" river with passage of the Wild and Scenic Rivers Act of 1968.

A subsequent amendment to this act extended the withdrawal of the Flathead Scenic and Recreational segments until 1991. Management direction will be that on National Forest lands no surface-occupancy for oil and gas exploration, or locatable mineral exploration, extraction or other related activity will be permitted on surface areas within the Wild and Scenic River corridor boundary. Subsurface activity is permitted if there is no surface and vegetation disturbances, surface subsidence or adverse impact on water quality. On private lands, mineral development will be managed through Scenic easement restrictions that generally follow mineral development restrictions on National Forest lands.

CULTURAL RESOURCES

In conjunction with the Wild and Scenic Rivers Study of the three forks of the Flathead River, an archaeological study was conducted by the Montana Statewide Archaeological Survey, Department of Anthropology, University of Montana, in 1970. The survey was made by Dale and Lynn Fredlund and the results published in Archaeology in Montana, Volume 12, Number 2-3, April-September, 1971.

Twenty-five sites were identified, most were along the South Fork. The majority of the sites recorded related to late prehistoric Salish or Kootenai movements into, or through, the mountains on trips to the plains. The 1964 flood significantly influenced the findings of the study, especially along the Middle Fork. Any sites that might have existed on these low terraces were obliterated during the flood - either buried or washed away. The same is true for other portions of the river, but to a lesser degree.

The 1970 Archeological Survey was not a comprehensive study, but was designed to try and determine prehistoric occupational patterns.

Presently there are no historic sites on or nominated to the National Register of Historic Places within the classified Recreational River corridor.

River Management activities will comply with Executive Order 11593, Section 106 of the Historic Preservation Act and 36 CFR 800. Cultural resource inventories will be conducted prior to any management undertakings such as roads, trails, campgrounds, picnic areas and launch sites, which have the potential to adversely effect cultural river properties. Cultural resource inventories of all three river forks will be conducted in conjunction with a phased inventory of Flathead National Forest.

VISUAL RESOURCE

Recreational, Scenic and Wild Segments outside Wilderness

The scenic qualities of the Flathead Wild and Scenic River are one of its major attractions.

Numerous features combine to make the Flathead River an attractive scenic area of high variety. These features are as follows:

> Views and vistas of scenic Glacier National Park; Scenes of snow-capped mountain peaks; Cliffs and rocky landscape features; Foreground and background views of tree covered slopes interspersed with grass and brush field openings; Crystal clear water conditions in deep pools, cascades, rapids; and view opportunities for a variety of wildlife such as: deer, elk, bear, birds, and fur-bearing animals.

The landscape character along these segments of the river is highly varied. The river runs through steep rocky canyons, meanders around gravel benches, and spreads out in flat valley bottoms. Potential for wildlife viewing is high. In some areas, development is seen in the immediate foreground and in other areas a natural landscape character prevails. Views range from closed-in gorges to vistas of mountain peaks.

Assumptions are that: The varied and natural appearing characteristic landscape is a major attraction and one of the reasons for classification.

Maintenance and enhancement of the existing characteristic landscape is desirable.

Management direction will be to provide for a natural-appearing landscape within the classified river corridor, maintain variety in the landscape by having a mixture of openings, mature forest cover, and the various stages of forest succession, direct management activities such that characteristic landscapes are maintained over time.

Lands within the corridor of the South Fork Wild segment have a recommended visual quality objective of preservation. Preservation allows ecological changes only. Management activities are not permitted except for safety purposes and very low visual impact facilities.

National Forest lands and private lands under scenic easements seen from the river have recommended visual quality objectives of retention or partial retention. Retention management activities repeat form, line, color, and textures which are frequently found in the characteristic landscape. Vegetative clearings and management activities should not be evident to the casual forest visitor.

Reduction in form, line, color, and texture contrast in order to meet retention is to be accomplished during the operation or immediately after. Management activities for enhancement of wildlife habitat and timber harvest are to be planned to meet the retention objective within one year after completion of the project.

Under partial retention, management activities remain visually subordinate to the characteristic landscape.

Activities may introduce form, line, color, or texture that is found infrequently or not at all in the characteristic landscape, but they should remain subordinate to the visual strength of the characteristic landscape.

Reduction in form, line, color, and texture to meet partial retention are to be accomplished as soon after project completion or within the first year. Management activities for enhancement of wildlife habitat are to meet the visual quality objective of partial retention within one year after completion of the project.

The Visual Management System (Forest Service Manual, 2380) will be used as a guideline for management of the visual resource.

Final visual management direction for National Forest lands seen from river segments outside wilderness will be provided in the Flathead Integrated Forest Management Plan to be developed during 1980 and 1981.

Visual quality objectives on private lands under scenic easements will be determined by the terms of the easements.

Visual quality objectives for State Trust lands administered by the Montana Department of Natural Resources Division of Forestry that are seen from the North Fork will be determined in the inter-agency memorandum of understanding to be developed by the managing agencies.

Wild River Segments in Wilderness

The Wild segments that flow through wilderness are high quality, free flowing rivers. The Wild segment of the Middle Fork extends from its headwaters to Bear Creek, through the Bob Marshall and Great Bear Wildernesses. The South Fork Wild segment flows through the Bob Marshall Wilderness from its headwaters to just above Meadow Creek Gorge.

Assumptions are that: Visual characteristics will only be changed by natural processes and visual management is not applicable because this segment is inside wilderness.

The visual quality objective for wilderness is preservation. Preservation allows ecological changes only. Management activities are not permitted except for safety purposes and very low visual impact facilities.

OTHER RESOURCE INFORMATION

A more indepth discussion of the resources and the river environment can be reviewed in the "Flathead Wild and Scenic River Proposal Final Environmental Statement" dated March 2, 1977, which is available in the Supervisor's Office, Flathead National Forest, Kalispell, Montana. That document serves as the Environmental Impact Statement under which this plan is developed and implemented.

The resource situations, assumptions and management direction for each classified Wild and Scenic River segment are addressed in Chapters III through VIII.

GENERAL

This management plan is intended to be a comprehensive document for management of the Flathead National Wild and Scenic River for a five-year period beginning with the date of approval. It provides a framework for dynamic planning that identifies overall management objectives while allowing sufficient flexibility to accomodate changing circumstances, improvements in techniques of river management and to reflect more current information and experience. The plan will be reviewed yearly after the conclusion of the summer recreation season.

Elements such as those related to acquisition and development status, management policies and carrying capacity will be revised as needed.

CHAPTER II

MANAGEMENT OBJECTIVES AND POLICIES

GENERAL MANAGEMENT OBJECTIVES

1. Management of each stretch of the Flathead Wild and Scenic River Unit in a manner consistent with the classification assigned to it by Public Law 94-486, the designating Act.

2. Provision of optimum opportunity for public use and enjoyment through a positive management attitude regarding the public's resource.

3. Maintenance of the scenic, ecological and recreation integrity of the resource through responsible management that emphasizes visitor contact and education, careful monitoring of use to determine thresholds of adverse impacts and management of use levels within social and biological carrying capacity based on sound, planned research.

4. Protection of private land rights within the designated corridor.

GENERAL MANAGEMENT POLICIES

Policy--To achieve the above objectives, the following policies are established:

1. Manage the unit to provide for its use and enjoyment consistent with resource capability.

2. Manage the use with a minimum of regulation and a maximum of visitor contact and education.

3. Acquire lands and interests in lands only to the extent necessary to protect, maintain, and/or enhance the river corridor, and the recreation opportunity objectives established in the river management plan.

4. Manage the unit to provide activity opportunities commensurate with Outdoor Recreation Opportunity Classes Primitive (P), Semi-Primitive Non-Motorized (SPNM), and Roaded Natural Appearing (RNA), as shown on Table 4 . Opportunity class will be determined by the classification of each river segment as specified in the Act and each segment will be managed to provide the corresponding recreation activity opportunities.

5. Manage river segments which flow through components of the National Wilderness Preservation System in a manner which will feature the preservation of the wilderness resources including solitude, natural environments, and opportunities for primitive, unconfined activities offering challenge.

Review

6. Coordinate management of the unit with other Federal, State and local agencies having primary or concurrent jurisdiction, and where appropriate, enter into memoranda of understanding or cooperative agreements.

7. Review land management plans, projects, and contracts affecting lands within or adjacent to prescribed boundaries of the unit to assure that proposed and ongoing projects and activities are in conformance with the purposes of the Act. Particular attention will be given to such activities as timber harvesting, road construction, and other land and vegetative modification projects.

Done?

8. Through land management planning, identify specific water quality management objectives for each segment of the Flathead Wild and Scenic River necessary to, as a minimum, meet the legislatively established criteria of the Wild and Scenic Rivers Act.

Done?

9. Maintain and/or obtain legal rights to sufficient water to meet the management objectives of each segment of the Flathead Wild and Scenic River. Place high priority on identifying and securing adequate instream flow rights for those purposes where the potential for alteration of streamflows exist.

10. Emphasize user education and information. When necessary, direct management techniques will be prescribed that are sensitive to the values users seek. Only that level of regulation and development necessary to achieve management objectives will be imposed.

11. Coordinate visitor information programs with the private sector and other agencies.

How?

12. Establish a combination of use limits and other management procedures such as mandatory use permits, group size limits, designated launch and campsites which best achieve the objectives of the Wild and Scenic Rivers Act and provide substantial benefits to the public.

13. Exchange technical information among the cooperating agencies to establish resource capacity, and train managers and administrators to augment the protection, maintenance, and opportunities on Wild and Scenic Rivers.

Done?

14. Establish and sign boundaries to enhance public awareness regarding private property.

Responsibility: Each National Forest District Ranger has the following responsibilities:

1. Ensure that the river is managed consistently, in a manner which is legally and administratively just, and with the intent of retaining an enduring river resource.

2. Balance use of the river corridor according to objectives established in the river management plan.

AGENCY ROLES AND RESPONSIBILITIES

The following will be the responsibilities of the various agencies as provided for in the memoranda of understanding.

FOREST SERVICE

1. Designate a river manager for each fork of the river.

2. Monitor public use of the river and make yearly user counts.

3. Identify and coordinate research needs, collect and disseminate resource data.

4. Develop and initiate a schedule of river patrol activities.

5. Develop brochures and hand out maps of consistent standard throughout the river system in collaboration with the National Park Service.

6. Provide public information at developed river launch sites, District and Forest Supervisor's offices, and Glacier Park offices.

7. Issue all float permits as permit systems are instituted.

8. Develop a standard safety guide and check list as an educational tool.

9. Initiate a training program for river managers and river rangers aimed toward developing proficiency in river boating skills.

10. Educate the users to the need for and use of no trace camping techniques.

11. Enforce a pack it in--pack it out policy for all users.

12. Set river gauges at designated launch sites and provide information correlating river levels to degree of difficulty.

13. Conduct an annual interagency activity review meeting prior to the start of each floating season.

14. In cooperation with the other involved agencies develop an interagency memorandum of understanding by the 1981 field season to provide coordinated management of Flathead Wild and Scenic River resources.

NATIONAL PARK SERVICE

1. Compliment Forest Service leadership agency role in joint management of the Flathead Wild and Scenic River.

2. Designate river rangers and river managers to coordinate field and policy activities.

3. Collaborate with Forest Service in patrol, public information, and other visitor related activities.

4. Record wildlife sightings.

5. Collaborate in identifying research needs and in supporting research activities.

6. Record data concerning public use in connection with Forest Service efforts, and to share the data with the Forest Service.

7. Monitor impact on campsites and other stopping places on National Park shores, and to share monitoring efforts on islands or other sites where the agency boundary is indistinct.

8. Remove from the immediate river foreground and river view such expendable facilities as River Camp and unplanned access roads along the North Fork, Y.C.C. Camp parking on the Middle Fork, and all debris which is in National Park Service waters or shores.

9. In cooperation with the other involved agencies develop an interagency memorandum of understanding by the 1981 field season to provide coordinated management of Flathead Wild and Scenic River resources.

MONTANA DIVISION OF FORESTRY, DEPARTMENT OF NATURAL RESOURCES

1. Compliment Forest Service leadership agency role in joint management of the Flathead Wild and Scenic River System.

2. Retain administrative management jurisdiction over State lands within river segments but submit management plans and/or projects to the respective Forest Service Ranger District for review prior to inception of plan/project.

3. Incorporate into current State Forest Land Use Authorizations (SFLUA's) any additions or deletions necessary to comply with the management guidelines of the river segment involved that would not be in conflict with state laws governing SFLUA's.

4. Allow the public general use of the lands described in the Flathead Wild and Scenic River Environmental Impact Statement as herein described by this management plan.

5. Cooperate with Forest Service in solving any adverse impacts placed upon State lands by increased and/or restricted recreational use.

6. In cooperation with the other involved agencies develop an interagency memorandum of understanding by the 1981 field season to provide coordinated management of Flathead Wild and Scenic River resources.

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS

1. Establish seasons and bag limits on the fish and wildlife resource.

2. Collect research and management information on the fish and wildlife resource.

3. Enforce the laws of the State of Montana that pertain to fish, wildlife, and the recreational use of both public and private lands.

4. Cooperate with the Forest Service and other participating agencies in monitoring and managing the recreational use of the Flathead Wild and Scenic River System.

5. Cooperate with the Forest Service and other participating agencies in identifying and minimizing the negative impacts of Wild and Scenic Rivers designation and management.

6. In cooperation with the other involved agencies develop an interagency memorandum of understanding by the 1981 field season to provide coordinated management of Flathead Wild and Scenic River resources.

CHAPTER III

Issues
Schafer Meadows
Permits
Manpower

MIDDLE FORK WILD RIVER SEGMENT

RESOURCES

WILDERNESS

Situation

The Middle Fork Wild River segment flows through the Bob Marshall and Great Bear Wildernesses from its headwaters to Bear Creek. The river corridor receives moderate use from both wilderness and river visitors. The focus of use is in the vicinity of Schafer Meadows. There are 12 outfitters operating in the drainage, three of whom are permitted to conduct float operations. There are approximately 40,000 visitor days of use in the Great Bear Wilderness annually. A high percentage of these visitors and those visiting the Bob Marshall Wilderness use or pass through the river corridor.

The Schafer Meadows Airstrip is open to public use. The majority of river floaters arrive by plane and begin their floats at Schafer Meadows. There is relatively little floating done above this point. Other means of reaching the river corridor are over trails on foot or horseback. Overland mechanized travel is prohibited in the area.

Major land access routes are the Big River Trail, Morrison Creek Trail, and Granite Creek Trail. Lesser-used routes are the Gateway Creek, Strawberry Creek, and Cox Creek Trails.

River use has increased significantly since classification. Although specific river use data is not available, observations during 1978 and 1979 confirm this trend. Present use is probably in the vicinity of 150 river floaters per year. The most often-used launch point is Schafer Meadows. Some trips originate as far upriver as Gooseberry Park. The primary float season is June 1 to July 15.

Visitors come to seek the extremely challenging white water experience and high-quality fishing, as well as the opportunity for a primitive recreation experience in a natural environment.

Assumptions

The purpose of this plan is to manage the river and the river user only.

Wilderness and river use will continue to increase, as will impacts on the river corridor.

Visitors are attracted to the area by the opportunities for a challenging white water trip, solitude, and a primitive recreation experience and the natural environment.

Protection of the wilderness resource will receive first priority in managing the river resource.

There will be a continued demand for more float outfitter permits.

Management Direction

Direct management of river uses and activities toward maintaining the natural environment and opportunities for solitude and primitive recreation experiences.

Manage numbers of float outfitter permits and outfitter use at current levels until further data indicates these levels should be modified.

Stress low impact use of the river through visitor education programs and contacts.

Continue river research to refine carrying capacities and to assess visitor needs and preferences.

Consider log jams and individual "sweepers" as a natural hazard not to be removed.

Manage the Wild segment of the Middle Fork for a Primitive (P) Recreation Opportunity (See Table 4).

FOREST COVER

Situation

The river corridor supports a variety of tree species, depending on aspect, elevation, soil type, and fire history. Due to the fire history of the area, lodgepole pine is the major tree species. Douglas-fir, Engelmann spruce, and subalpine fir are present to a lesser degree.

There have been no commercial timber sales in the river corridor. One rehabilitated logging road running from Highway 2 into Dirty Face Creek exists in the river corridor. Some timber has been cut in the past for construction and maintenance of administrative facilities and outfitter camps, for firewood, and in the process of maintaining trails.

Assumptions

The unaltered forest cover is an integral part of the Wild River corridor.

Management Direction

Exclude timber cutting except as needed in association with primitive recreation experiences, such as trail maintenance, in the process of fire protection, or for administrative purposes.

RANGE

Situation

There are very few suitable grazing areas in the river corridor from Highway 2 to the mouth of Granite Creek. Above that point, conditions are only slightly better. These areas consist of scattered openings stocked with native grasses. Due to the popularity of the river corridor and the associated recreational stock use, most of the areas are fully utilized up to accepted wilderness standards. Increased stock-supported river use will place increased demands on a limited resource. There are no Grazing Permits in the area.

Due to a lack of funding, the Forest Service has not inventoried range conditions. As a result, there is no background information to use in assessing forage trends. A range study will begin in 1980 to gather this information. From the study, carrying capacities will be developed for each allotment describing acceptable levels of use. Allocation of the forage resource must consider wildlife, esthetics, outfitter, private and administrative categories.

Assumptions

Within the river corridor, forage resources are limited and, in many cases, fully utilized.

The demand for forage will increase somewhat as river and general wilderness use increase.

Management Direction

Place major emphasis on acquiring range resource data and developing carrying capacities.

Encourage or, if necessary, require the use of the methods that will reduce dependence on grazing.

Deny requests for stock grazing, other than recreational pack stock.

Give priority to wildlife and esthetics if conflicts develop between forage needs for wildlife and recreational pack stock.

FISH and WILDLIFE

Situation

The Middle Fork supports an excellent native fishery of westslope cutthroat trout, bull trout, and mountain whitefish. Past management efforts have been to maintain and improve this fishery without introducing non-native species. The high-quality fishing has drawn many visitors to the area.

A wide variety of wildlife species inhabit or frequent the river corridor. Big game species such as whitetail and mule deer, elk, moose, and black and grizzly bear are included. Game birds common to the river corridor are Franklin and ruffed grouse.

The open slopes above Spruce Park are critical winter range for elk. The river bottom, especially in the vicinity of Schafer Meadows, is critical winter range for moose; it is also critical spring range for grizzlies.

Big game hunting is a major use during the fall. Furbearers and coyotes are trapped in small numbers.

Management of wildlife species is the responsibility of the Montana Department of Fish, Wildlife, and Parks.

Assumptions

Wildlife is an essential part of the Wild River environment.

River use is at low levels and occurs at a time when it will have the least effect on wildlife.

Increased river use will place increased pressure on the fishery.

Management Direction

See pages 13 through 15 for additional discussion of fish and wildlife including threatened and endangered species and management direction.

VISUAL

Refer to page 20 for discussion of the visual resource.

LAND USES AND PROTECTION

LAND OWNERSHIP

Situation

All lands within the Wild River corridor are public lands under the administration of the Forest Service.

Assumption

Land ownership will not change.

Management Direction

Continue public ownership.

FIRE

Situation

In recent years in the Middle Fork, fire occurrances have been low, and the fires have been relatively small. Historically, however, large fires have occurred as evidenced by the vegetative patterns. Over 80% of the Middle Fork drainage has burned at least once in the past century. In recent years, man-caused fires have not been a significant problem.

Fire detection is by aerial patrol. Suppression is accomplished by smoke jumpers and ground crews. Mechanized equipment such as pumps, chainsaws, and helicopters have been used in the suppression efforts.

A study which will lead to a Fire Management Plan for the Bob Marshall Wilderness is currently underway in the South Fork. The first portion of the study will be completed in 1980. The study will then continue through other portions of the Bob Marshall. Given current management direction, the same type of study will be conducted on the Great Bear Wilderness at some point in time.

Assumptions

Current management policy is to develop plans which will allow fire to play a more natural role in wilderness. This will include the entire Wild River corridor.

Until the fire plan is implemented, all fires will be suppressed.

Management Direction

Continue with development of the Bob Marshall Fire Management Plan, and extend the work to include the Great Bear Wilderness.

Meet fire suppression objectives with methods that least alter the natural setting of the river corridor.

INSECTS AND DISEASE

Situation

Insects and diseases have not been a major problem in the Middle Fork. Endemic infestations of mountain pine beetle have been identified in and

adjacent to the river corridor. Wilderness and Wild River designations preclude the management option of harvesting infested stands.

Assumptions

Insects and disease are a natural part of wilderness and the Wild River corridor.

The potential exists for a mountain pine beetle epidemic in lodgepole pine stands in the river corridor.

Other insects and diseases are not a problem at this time.

Management Direction

Continue to monitor insect population changes.

Allow epidemics to run their natural course within the river corridor when they occur.

Exclude harvest of infested or diseased trees from the river corridor.

ADMINISTRATIVE ACTIVITIES AND IMPROVEMENTS

TRANSPORTATION

Situation

The main floater access to the river corridor is by flying to Schafer Meadows. Land routes follow the Big River, Morrison Creek, Granite Creek, Cox Creek, Strawberry Creek, and Schafer Creek Trails. These routes are opened annually. Major reconstruction will begin on the Morrison Creek Trail in 1980. Generally, trail conditions are deteriorating, due to a lack of funding priority needed to complete heavy maintenance. Trail signs are generally adequate and are limited to those necessary to identify trail junctions.

Assumptions

The demand for access sites, trail heads, and satisfactorily maintained trails will increase as use increases.

Funding for this type of work will continue to be in short supply.

Management Direction

Establish consistent funding levels that will allow completion of the necessary work.

Use Human Resources Programs to accomplish the work to the extent possible.

SIGNING AND BOUNDARY POSTING

Situation

The river corridor boundary is not signed; there is little need for such signing on the Middle Fork.

Assumption

There will be only a few areas where the boundary of the Wild River corridor will need to be marked on the ground.

Management Direction

Identify boundary segments that need signing, and complete work as funding becomes available.

COMMUNICATIONS SYSTEMS

Situation

Forest net radios provide the only communications into and out of the river corridor. A base station is located at Schafer Work Center.

Wilderness guards and trail crews normally carry portable radios that can reach the base station. When they are working in the river corridor they can provide emergency communications. The radio at the work center is capable of reaching both the Spotted Bear Ranger Station and the Flathead Supervisor's Office. The radio system is maintained for administrative use and is available to the public only in emergency situations.

Assumption

The existing communication system is necessary for administrative purposes and serves a vital public need in emergency situations.

Management Direction

Continue to maintain the existing communication system. As funds become available, seek to improve the radio net serving the area.

MOTORIZED AND MECHANIZED USE

Situation

The river corridor and surrounding area is closed to public use with motorized vehicles except for the Schafer Airstrip. Administrative use of such equipment is allowed by the Wilderness Act and the Wild and Scenic River Act, subject to approval by the Forest Supervisor, or the Regional Forester. In the past, approval has been granted for emergency situations such as fire and search and rescue and in cases where work cannot be accomplished by other than mechanized means.

The Schafer Meadows Airstrip, which is located just outside the river corridor, remains open for public use as directed by records of intent prepared by Congress when the Great Bear Wilderness was established. Direction is to maintain use levels that existed at the time the wilderness was designated. Since that time, use has increased considerably. A portion of the increase is due to expansion of river use.

Assumptions

There will be a continuing demand and need for motorized equipment in the river corridor.

At some time in the future, there will be requests to expand the Schafer Meadows Airstrip and to do maintenance work with mechanized equipment.

Use of the Schafer Meadows Airstrip will continue to increase.

Management Direction

Prohibit public use of motorized equipment in the river corridor.

Permit administrative use of motorized equipment in emergency situations, i.e., fire, and search and rescue.

Meet fire suppression objectives using methods that least alter the natural state of the river corridor when mechanized equipment is authorized.

Permit other administrative uses of mechanized equipment only when the work cannot be accomplished by primitive means. Within wilderness, requests for mechanized equipment use will be evaluated using wilderness standards; the most restrictive criteria will apply.

Determine appropriate use levels of Schafer Meadows Airstrip in the Bob Marshall/Great Bear Wilderness action plan to be developed at a later date.

VISITOR MANAGEMENT

Situation

At present, three float outfitters are permitted to operate on the Middle Fork. They are permitted to launch a total of three trips per week.

Currently there are no limits or restrictions on private trips.

Assumptions

Demand for all types of river experience will continue to grow.

Each river trip will cause additional impacts on the river corridor and the wilderness, where the two overlap.

~~The opportunity for solitude is the key social value on the Wild~~ River and in wilderness.

The carrying capacity of the Wild River is relatively low when compared with other river classifications.

The carrying capacity can be exceeded by a relatively small increase in total visitor use.

Estimated carrying capacities will be set at a conservative level until river studies show that higher use levels are acceptable.

Management Direction

Continue outfitter use and numbers at present levels.

Conduct river studies to further refine carrying capacity figures and to assess user preferences and needs. See Chapter IX, Research.

ADMINISTRATION ORGANIZATION, AND RESPONSIBILITIES

Situation

Administration of the Middle Fork Wild River is the joint responsibility of the Hungry Horse and Spotted Bear District Rangers. The Hungry Horse District has been designated the lead District for coordinating matters that affect the entire river. A river manager has been designated on each District to perform regular river administration duties.

The current river management organization on the Hungry Horse District consists of the river manager and one seasonal wilderness guard. On the Spotted Bear District it consists of the river manager, one wilderness ranger, and one wilderness guard. All of these individuals have other administrative responsibilities. Less than 20% of their time is spent on river administration.

Assumptions

The present organization is not adequate to administer the river.

A high-quality visitor information and education program is essential to maintain river values and to provide a satisfactory and safe river experience.

Management Direction

Place high priority on providing quality visitor information.

Continue to train those involved in the river Visitor Information Service (VIS) and good Host programs.

Provide an adequate work force to achieve the objectives of this plan.

Develop an effective visitor education program.

STRUCTURES AND IMPROVEMENTS

Situation

There are three administrative cabins located in the river corridor. They are located at Spruce Park, Granite, and Gooseberry Park. Each cabin has a corral, barn, and outhouse associated with it. Gooseberry Park and Spruce Park cabins also have a water system.

The Schafer Work Center and Airstrip is located immediately outside the river corridor.

In addition to these facilities, there is one public pit toilet located at the Schafer launch site. This toilet is essential for sanitary purposes.

There is one outfitter base camp within the river corridor.

Assumptions

Administrative facilities will continue to be essential for future management.

The outfitter camp will continue to serve a public need in the future.

Management Direction

Screen administrative facilities from view from the river or blend them into the river setting with design techniques and earth tone colors.

Modify the existing outfitter camp to achieve a more compatible blend with the river environment or encourage relocation.

Withhold approval of additional outfitter camps in the river corridor.

Re-evaluate the need for public toilet facilities on a case-by-case basis.

RESEARCH

Situation

Research studies have been conducted in the river corridor in the past. There is presently one active fishery study. Active research on river carrying capacity and users will begin in 1980. See Chapter IX, Research.

Assumptions

There will be a continuing demand to conduct a variety of studies in the river corridor.

There will be a continuing need for river studies to refine management techniques.

Management Direction

Evaluate requests for research studies to insure that study methods are compatible with river values and management direction.

Evaluation of requests for research studies will also consider the extent to which the study will benefit river management or, where applicable, wilderness management.

CHAPTER IV

MIDDLE FORK RECREATIONAL RIVER SEGMENT

RESOURCES

WILDERNESS

Situation

The classified Recreational segment of the Middle Fork is from Bear Creek to its confluence with the South Fork. It does not flow through a designated wilderness, but wilderness values are exhibited in some adjacent lands. Within Glacier National Park, along the north and east bank of the river from Walton Ranger Station for 33 miles to West Glacier, the lands within the river corridor and adjacent are administratively managed by the National Park Service as wilderness. On the south and west side of the river, along the main ridge separating the Middle from the South Forks, but not contiguous to the river corridor, is a long finger like portion of the designated Great Bear Wilderness.

Assumptions

The character of the National Park lands within and adjacent to the river on its north and east bank between Walton Ranger Station and West Glacier will retain their wilderness attributes, will continue to be managed as defacto wilderness, and in the future will receive official classification as a part of the National Wilderness Preservation System. The National attention and publicity given the classified river and Glacier Park will continue to draw people to the area in increasing numbers for recreational purposes. Commercial rafting services are allowing more people to appreciate the wilderness values of the park and the recreational values of the river's near natural setting. The ease of access was not available to everyone in the past. The nearby Great Bear Wilderness will continue to attract recreation visitors of all types to the upper Flathead valley in conjunction with the other varied recreational opportunities in the area.

Management Direction

Manage use of the river and public and State lands within the corridor to preserve or enhance the values for which the river corridor was classified.

Provide specific management direction which will, where possible, foster preservation of identified wilderness values of National Park lands between Walton Ranger Station and West Glacier.

Maintain commercial rafting services at or below present levels until management or research shows opportunities to expand without detriment to recreation experience quality or resource values.

Require a camping permit for all overnight use of the National Park side of the river for National Park backcountry management purposes.

Maintain Glacier National Park wilderness values by excluding significant improvements for the convenience or comfort of users on the National Park side of the river. This does not preclude developments necessary for resource protection.

RECREATION

Situation

The classified Recreational River segment of the Middle Fork affords opportunities for a variety of recreational pursuits and experiences in near natural to moderately developed settings. Portions of the river are seldom floated and some sections are generally inaccessible except by cross country foot traffic. Fishing, floating, picnicking, and hunting in the river corridor, and hiking are the primary recreation attractions. Driving Highway 2 and, in the winter, viewing deer and elk on the Belton winter range are also popular. The river forms one boundary of Glacier National Park which is a significant recreational attraction to many visitors each year.

Fishing, river floating, and viewing wildlife are probably the recreational attractions drawing the largest number of visitors to the corridor annually.

There are several privately owned and operated campgrounds adjacent to the corridor area and several motels and a resort complex at West Glacier are located nearby. During the summer months as many as four commercial river outfitters, based primarily in the West Glacier area, offer half to full day river float trips. The primary focus of river outfitters at this time is the white water canyon between Moccasin Creek and West Glacier.

In the fall months during salmon run and spawning in McDonald Creek, hundreds of fishermen in a given day line the river bank on the south shore near the mouth of the creek to snag salmon. Heavy fishing use and vehicle parking congestion on the adjacent county road are causing conflicts with private landowners in the immediate area. The Quarter Circle Bridge area along McDonald Creek, within Glacier National Park, is also within the classified corridor area. During fall salmon spawning season hundreds of bald eagles are drawn to the area daily to feed on the fish. Recreational and scientific viewing of this phenomenon draws large numbers of people to the river corridor area each year.

Assumptions

General public recreational use of the river and corridor area will continue to increase over the forseeable future in spite of the energy shortage. Though out of state or cross country vacation travel to and through the area may decrease, those making the trip will remain in the area longer. Use by local and regional populations of these nearby recreational attractions will increase as people try to reduce total vehicular travel to save energy.

Recreation demands on the river and corridor will increase as more people become aware of the river as a nationally recognized resource. Demands for river floating experiences will increase as recreationists acquire the equipment and skill levels necessary for a safe trip. The need for commercial river outfitters to meet public service needs will continue.

Management Direction

Provide recreation opportunities and a forest environment that is based on a natural or near natural setting throughout the river management zone. Use the Outdoor Recreation Opportunity Spectrum, as modified by this plan, as a guideline for recreation management and development within the river corridor.

Manage the Recreational segment of the Middle Fork for a Roaded Natural Appearing (RNA) Recreation Opportunity (See Table 4). This segment is characterized by ease of motorized access to a natural environment with outside influences present, but minimized or, where appropriate, mitigated.

Provide and develop selected suitable sites to offer general public access to the river and corridor area for all compatible recreation uses. A system of river access sites will be developed, as feasible, every six - eight miles along the river. A major parking and access facility will be needed at West Glacier to handle heavy fall fishing use and at the confluence of the South and Middle Forks at the Monegan Hole for summer and fall fishing use. Site development, except at West Glacier and at the Monegan Hole, will be composed of only those minimal developments to provide boat access, parking, sanitation, informational signing, fishing, and other day uses. At West Glacier and on the Monegan Hole, significantly larger parking facilities will be necessary to handle heavy season use. No overnight camping will be permitted at river access sites as campgrounds are provided currently by the private sector. River floater campsites may be designated between Essex and Nyack as warranted. Development will be minimal in nature and will consist of only those improvements necessary for sanitation.

Target river access sites and development priorities are as listed:

1. Moccasin/Nyack Area
2. West Glacier
3. Cascadilla Flats
4. Hungry Horse/Monegan Hole
5. Paola Creek
6. Essex Bridge
7. Bear Creek
8. Blankenship Bridge

Continue to allow a suitable number of commercial float outfitters to provide public services for river trips and fishing on the river.

Consider logjams as a natural hazard not to be moved. Individual "sweepers" may be removed if they present an immediate and extreme hazard to floaters.

FOREST COVER

Situation

The river corridor supports a variety of tree species depending on aspect, elevation, soil type, and fire history. Due to the fire history of the general area, lodgepole pine is the major tree species. Western larch, Douglas-fir, Engelmann spruce, subalpine fir, and cottonwood are present to a lesser degree. As a result of this fire history, only a small portion of the corridor supports merchantable timber.

Within the river corridor evidence of old logging, including low standard roads may be found. These activities do not predominate the landscape. More recently silvicultural activities, including thinning and site preparation have occurred in selected small areas. Two parcels of privately owned land in Glacier National Park within the river corridor above Nyack were clearcut. Evidence of National Forest timber harvest activities outside, but adjacent to the river corridor are visible from the river area. Firewood is removed from some sections of the corridor area by local residents.

On private lands within the corridor area some evidence of past harvest or clearing is evident but generally not obtrusive. Original homestead clearing, recent subdivision and development clearing and lesser amounts of more current timber harvest operations may be found on privately owned lands in or immediately adjacent to the classified corridor area.

Assumptions

Maintenance of Forest cover for aesthetic values has been and will continue to be a major management concern. Timber stand diversity and maintenance of open brush field or meadow areas will continue to be important for visual resource and, in places, wildlife management needs.

Timber harvest or clearing on private lands may be needed to provide for various reasons on private as well as National Forest and State lands.

No harvest or cutting of trees will occur in the river corridor within Glacier National Park except for trail clearing, individual hazard tree removal, or other minor administrative activities.

Management Direction

Allow vegetative manipulation in the river corridor (1) in connection with the construction and maintenance of appropriate developments, (2) to reduce a safety hazard, (3) when determined necessary to prevent deterioration of river values, (4) to improve wildlife habitat, and (5) to maintain a healthy, vigorous timber stand.

Design approved vegetative manipulation projects to protect the values for which the river was classified. Where possible, they will be screened from the river or designed to blend with natural lines, forms, textures and colors. Management activities outside the river corridor will be coordinated with river management objectives to minimize impacts on views from the river. Refer to page 20 for additional discussion of the visual resource and management direction.

RANGE

Situation

The range resource within the classified river corridor is very limited in nature. This is primarily due to steep topography of river canyon walls, encroaching residential and second home development, extensive pole and smaller sized timber stands, and the fact that one side of the river corridor is within Glacier National Park where grazing is generally prohibited.

Some grazing of cattle and recreational saddle stock occurs on private lands in the river corridor in the Nyack Flats and West Glacier areas. There are no range allotments or special use (grazing) pastures on National Forest lands within the corridor. Grazing use of Nyack Flats offers a potential conflict with wildlife use of the area.

Assumptions

Historical grazing use of private lands within the river corridor will continue as provided in scenic easements as they are acquired.

Demand for grazing and associated uses on limited National Forest lands supporting suitable forage materials will increase. In the river corridor area and in the Nyack Flats area in particular, grazing use of this severely limited resource would conflict with wildlife use.

Grazing will not be permitted in the portion of the river corridor area within Glacier National Park.

Management Direction

Withhold issuance of permits of grazing or associated agricultural uses of National Forest lands within the corridor in the Nyack Flats area or other areas identified as having special importance to wildlife.

FISH AND WILDLIFE

Situation

Large fires in the early 1900's resulted in conditions which produce browse for big game feed along this river segment. Fire is necessary in order to improve or maintain this feed, but the opportunity is limited.

Big game hunting and fishing and, to a lesser extent, trapping of coyotes and furbearers are all important recreational uses within the river corridor area.

The Nyack Flats area is of critical importance for spring use by grizzly and black bear. The area is also critical to elk in the spring and summer as a calving and feeding area.

The mineral lick between Walton Ranger Station and Java is heavily used by mountain goats. Other mineral licks along the river are of significant importance to wildlife.

Assumptions

Wildlife, birds, and fish are an essential part of the river corridor environment. Hunting, fishing, and wildlife viewing will continue to be important recreational pursuits in the corridor area.

The potential for conflict exists between wildlife and domestic stock grazing use of certain areas in the river corridor, especially in the Nyack Flats area.

Increased national attention focused on the river and growing commerical river float outfitting public services will put increasing pressure on the fishery and wildlife resources of the corridor area.

Management Direction

Resolve conflicts between wildlife and domestic stock grazing and agricultural use on public lands in favor of wildlife.

Exclude grazing or associated agricultural use on National Forest lands in the river corridor at Nyack Flats.

Discourage river floaters from stopping or beaching river craft within one-quarter mile of the Walton mineral lick.

Withhold issuance of permits for outfitted river float trips between West Glacier and Blankenship Bridge during the period September 20 to October 31, to reduce disturbance to bald eagles.

See pages 13 through 15 for additional discussion of fish and wildlife including threatened and endangered species and management direction.

VISUAL

Situation

The landscape character along this stretch of river is highly varied. The river runs through steep rocky canyons, meanders around gravel benches, and spreads out in flat valley bottoms. Potential for wildlife viewing is high. In some areas, development is seen in the immediate foreground and in other areas a natural landscape character prevails. Views range from closed-in gorges to vistas of mountain peaks.

Assumptions

The varied and natural appearing characteristic landscape is a major attraction and one of the reasons for the Recreational classification. Maintenance and enhancement of the existing characteristic landscape is desirable.

Management Direction

Refer to page 20 for additional discussion of the visual resource and direction.

LAND USES AND PROTECTION

LAND OWNERSHIP

Situation

Portions of the classified river corridor in the Essex, Pinnacle, Nyack, and West Glacier to Hungry Horse areas are in private ownership. The north and east bank of the river is in Glacier National Park. There are two parcels of State lands within the corridor and the balance of lands are National Forest.

Currently, scenic easement negotiations are continuing with private landowners within the river corridor. Acquisition priorities are as shown in the Flathead Wild and Scenic River Acquisition Plan.

Assumptions

Development of privately owned lands within the corridor will continue.

Some developments on lands not covered by the scenic easement will not be compatible with recognized river values.

Management Direction

Proceed with scenic easement acquisition on a priority basis.

Work closely with landowners to provide for adequate levels of easement administration and inspection.

Inspect (with the landowner present where possible) each scenic easement parcel a minimum of once a year.

Respond in a timely manner, (within 30 days) to landowner requests for construction or development authorization as required by the terms of a scenic easement.

LAND OCCUPANCY AND USE

Situation

There are a variety of special use permits and easements providing for use of National Forest lands, in or adjacent to the corridor by private individuals, other government or State agencies, companies, or public utilities.

Assumptions

Requests for use of National Forest lands for a variety of uses will continue.

Management Direction

Continue to accept and evaluate applications for all uses in the river corridor on a case by case basis. Only those uses that are of a public service, utility, or sanitation nature will be approved. Permits to authorize convenience type use will not be issued.

Modify items currently under permit which are readily visible from the river or main access roads, or do not blend or fit in with the natural environment of the corridor area or terminate them upon expiration of the current permit term.

Approve new permit applications only upon completion of an Environmental Assessment showing that:

1. The proposed use will be inconspicuous from the river, main access roads or trails where appropriate.

2. Any visible improvements will be designed and constructed to blend or fit with their natural surroundings.

3. Wildlife, fishery, and watershed values will be protected or enhanced.

4. Proposed uses will compliment Glacier National Park defacto wilderness policy, where applicable.

5. The proposed use will not detract from public recreation uses and experiences available.

FIRE

Situation

Fire occurence in the Lower Middle Fork in recent years has been low and fires have been relatively small. Historically, larger fires have occurred within and adjacent to the corridor as evidenced by vegetative patterns. The primary threat of fires in the corridor comes from man's activities. The railroad, recreationists, and residential users all offer a potential for starting fires.

An active summer fire prevention program aimed at reducing the threat of man caused fires is utilized. Fire detection is primarily by aerial patrol and by stationary lookout. Suppression is generally by ground crews using tankers and other mechanized equipment.

Glacier National Park is responsible for its own fire protection activities. The Flathead National Forest affords fire protection to all State, private, and National Forest lands along the Middle Fork Flathead River.

Assumptions

The threat of man caused fire to the river corridor area will continue despite national and local prevention efforts.

Management Direction

Suppress all fires within the river corridor until an approved fire management plan establishes different policy. Fire control objectives in the river corridor will be to suppress fires without the use of bulldozers or other earth moving equipment wherever possible.

INSECTS AND DISEASE

Situation

A variety of forest insects and diseases are naturally found in the river corridor and adjacent forested areas. A recent epidemic infestation of mountain pine beetle has occurred in the nearby North Fork

Flathead River drainage and is slowly spreading into other areas including the Lower Middle Fork drainage.

Certain age and size class lodgepole pine trees are more readily attacked than others.

A forested cover is also important in protecting other river values.

Assumptions

Mountain pine beetle infested trees must be harvested soon after attack or economic value will be lost.

A naturally forested appearance as is presently the case is expected by river corridor recreation visitors.

Management Direction

Conduct no timber harvest activities within the river corridor area in Glacier National Park.

Continue to monitor insect and disease outbreaks within and adjacent to the river corridor.

Accomplish salvage/sanitation harvest of insect killed, diseased, or highly susceptible trees to protect river resource values. Harvest will be done in a manner that river values will be protected or enhanced. Generally, no permanent roads for timber harvest will be constructed in the river corridor area.

ADMINISTRATIVE ACTIVITIES AND IMPROVEMENTS

TRANSPORTATION SYSTEM

Situation

U.S. Highway No. 2 parallels the Middle Fork for 42 miles from its confluence with the South Fork upstream to Bear Creek. With the exception of the upper 4 miles which is within Glacier National Park, the road follows the river on the south side. This major east-west highway across northern Montana is heavily used and is a major access route to Glacier National Park. The 4-mile stretch within Glacier National Park and the 11-mile stretch from West Glacier south to Hungry Horse are scheduled for reconstruction. This highway has been classified by the State of Montana as a Scenic Highway.

The Burlington Northern railroad closely follows the Middle Fork. This section contains five tunnels totaling more than a mile in length and a 1,500-foot snowshed located near Essex. The highway and railroad combined required 1½ miles of major channel change or bank alteration of the Middle Fork and 5 miles of riprapping at 27 locations.

A trail within Glacier National Park closely parallels the river on the north bank from West Glacier to Walton Ranger Station. This trail is used principally by hikers and climbers for access to branch trails leading to glaciated peaks near the Continental Divide.

Two railroad bridges and four road bridges span this lower portion of the Middle Fork.

Assumptions

U.S. highway No. 2 will eventually be reconstructed from Hungry Horse past where the highway leaves the river corridor at Bear Creek. Other minor additions to the transportation system in the form of roads to river access sites will be needed. Additional roads may be constructed on private lands in the river corridor.

Management Direction

Manage road construction on private lands through the terms of the scenic easement where appropriate.

Review reconstruction plans for U.S. Highway No. 2 and railroad projects in light of protecting identified river and associated values.

Design river access roads and other road projects on National Forest lands to minimum standards to meet the anticipated use needs.

SIGNING, AND BOUNDARY POSTING

Situation

The river corridor area contains much private land immediately bordering the river and intermingled with National Forest and State lands.

Assumptions

Recreation use of the river and corridor area will increase. This will provide an increasing potential for conflict with private landowners. Existing signing by both private landowners and the Forest Service is inadequate to allow recreationists to know where they are on the river or when they are on public lands.

Some sign designs and sizes are not appropriate along a nationally classified river.

Management Direction

Manage signing on private lands within the river corridor with the scenic easement where appropriate.

Sign access sites, mouths of major creeks and points at which floaters are entering and leaving publicly owned shoreline.

MOTORIZED AND MECHANIZED USE

Situation

Motorized overland vehicle travel in the corridor is generally limited to established roads due to terrain and vegetation. Off road motorized travel within Glacier National Park is not permitted. Certain areas of the National Forest may be closed to motorized travel to protect resource values or experience levels.

Past motorized river use has been very slight and primarily limited to fishing use in the area below Blankenship Bridge.

Some sections of the river and corridor area exist in a National Park wilderness or near wilderness setting.

Assumptions

Motorized river use is generally not appropriate in those areas where it would detract from the natural setting and the near primitive recreational experience sought by many visitors. Motorized craft use of the river at times may cause undue disturbance to wildlife. Upstream motorized traffic has the potential for traffic conflict with downstream non-motorized craft travel.

Management Direction

Prohibit general use of boats driven by motors that exceed 10 horsepower. Use of boat motors in excess of 10 horsepower may be authorized for essential administrative purposes, practice and execution of search and rescue and for research purposes not possible via craft with less powerful motors. Authorization must be obtained from the Forest Supervisor on a case-by-case basis except that research will be considered on a project basis. The Chief Ranger, Glacier National Park, will be immediately notified of all such authorizations where Park lands border the river. Permission to exceed the 10 horsepower limitation will be granted only for the following reasons:

1. Identified vessels of recognized search and rescue organizations or agency actively involved in search or rescue activities for suspected injured or drowning victims. Permission will not be granted for search for lost or damaged vessels, or equipment.

2. Identified vessels of recognized search and rescue organizations or agency (FS, NPS, State) actively involved in training runs, or agency administrative or research activities not possible via craft propelled by a 10 horsepower or less motor.

3. All excepted vessels will be clearly identified while on the river. No recreational equipment will be carried on board during these trips.

Areas or roads in the river corridor may be closed to all or certain types of motorized travel to protect resource values. Such closure will be effected by a Special Closure Order signed by the Flathead Forest Supervisor and publicly posted.

VISITOR MANAGEMENT

Situation

At present, recreation river and corridor users are only restricted by those regulations in force and applicable to other areas of National Park, National Forest, or State lands in the area.

River float outfitters are regulated by National Forest Special Use Permit.

Assumptions

At present, general public, private floater use of the river is growing but is not felt to be at capacity. Until private floater use reaches a capacity level determined by management or research to be more appropriate, private floater controls in the form of a mandatory float permit will not be instituted.

Management Direction

Support research efforts to determine river floater recreation carrying capacities.

Defer implementation of a mandatory float permit system until necessary.

ADMINISTRATIVE ORGANIZATION AND RESPONSIBILITIES

Situation

The Forest Service has been designated as lead agency for river management activities in the classified Flathead River System. The National Park Service and the State of Montana retain management responsibility for their lands within the river corridor.

The Forest Service, the National Park Serivce, and the State of Montana, Departments of Natural Resources and Conservation, and Fish, Wildlife and Parks have participated cooperatively in the formulation of this River Management Plan.

Current National Forest administrative responsibility for management activities on the Recreational River is with the Hungry Horse District Ranger. On the District, there is an individual assigned river management duties as a part of his overall job responsibility. Management responsibility for Glacier National Park lands within the river corridor is with the West Lakes District Ranger at West Glacier.

Assumptions

As public use and associated demands of the river corridor continues to grow more management and administrative staffing time will be needed.

Management Direction

Provide an adequate workforce to achieve the objectives of this plan. A seasonal river ranger should be assigned to the Middle Fork that would provide visitor contact (including river floater), river patrol, river and corridor cleanup, and access site maintenance.

Provide more administrative staff time for scenic easement administration as funding allows.

VISITOR INFORMATION SERVICE

Situation

Principal responsibility for search and rescue operations on lands outside of Glacier National Park, on the river and in the corridor area resides with the Flathead County Sheriff. Within Glacier National Park the National Park Service has exclusive jurisdiction. The Forest Service and National Park Service may assist with search and rescue operations in emergency situations on an as needed basis on the river as in other areas.

At present, little published information on river floating and use of the corridor area is available from management agencies. The river corridor has little informative signing at access sites. Recreation visitors have little opportunity to discuss river floating and its hazards with management agency personnel unless they stop by a ranger station and actively solicit it.

During high spring runoff (normally May and June) the Middle Fork of the Flathead river offers greater hazards to river floaters. This arises from two situations. Water temperatures are extremely low during this period and can quickly induce hypothermia (lowering of the body temperature) in persons immersed (or wet from spray or rain) in the water. Secondly, the severe wave action, turbulence, and obstacles in the water can overturn a boat or raft and place the occupants in danger of drowning in the swift, turbulent water. In some areas the river is not readily accessible to the highway and it may be difficult to obtain assistance in an emergency situation.

Assumptions

River use by both qualified and beginner river floaters will increase with more people on the river. The chance of emergency incidents will increase as well.

Portions of the river may be more safely floated with proper equipment, skill level, and knowledge of the river during a portion of the use season.

The provision of information to the public by the agency relative to floating, is an important management tool to help insure a safer, higher quality recreational floating experience.

The decision to accept the risks associated with river floating are personal decisions to be made by each individual. Risk is an integral part of the river floating experience.

Management Direction

Continue Forest Service cooperation with the Flathead County Sheriff and other agencies, as appropriate, in search and rescue missions in the river and corridor area.

Provide information to users on potential hazards, type of equipment, and river safety through publications, recreation visitor services at ranger stations, and at access sites through signing or visitor contact where feasible. The final decision to accept the risk and the consequences of a river float will be made by the individual recreationist.

Train employees in river VIS and Good Host programs.

STRUCTURES AND IMPROVEMENTS

Situation

Management agency administrative structures within the classified corridor area are National Park developments at the Walton and Flathead Ranger Stations, Nyack Barn Patrol Cabin, Lincoln Creek Patrol Cabin and Glacier National Park headquarters at West Glacier. These improvements are not obtrusive and fit harmoniously in the river corridor area.

At present, the only management agency recreational site improvements within the corridor area include trails, the picnic ground developments adjacent to Walton Ranger Station, and the State managed Kuhns Fishing Access Site located half way between Paola and Dickey Creeks. There is a need for additional recreation access sites along the river to provide regular periodic access.

There are many structures and improvements located on private lands within the corridor area. In many instances these developments are harmonious with river values. These include private homes, recreation and travel oriented commercial business, and others.

Assumptions

Existing agency administrative structures, improvements, and recreation developments are necessary and will continue to be maintained with regard for river recreation and resource values. Additional recreational access sites will be developed as proposed in the Recreation section of this chapter. Care will be taken to insure that additional recreational and access site developments are compatible with river recreation and resource values and are the minimum developments needed to meet their purpose on a site by site basis.

Developments on private lands in the river corridor will continue.

Management Direction

Provide protection of private lands from overdevelopment and incompatible structures and improvements with scenic easements. Easements will be acquired on private lands in the river corridor as detailed in the Flathead Wild and Scenic River Acquisition Plan, available upon request from the Forest Supervisor, Flathead National Forest.

RESEARCH

Situation

There is a continuing need for data on the recreational carrying capacity and experience expectations of recreation visitors to the river and corridor area. There is also a need for data regarding fish, birds, and wildlife that inhabit or pass through the corridor. It will be increasingly important to understand how growing recreation use affects the corridor resources and inhabitants. Refer to Chapter IX, Research.

Assumptions

The need for research data relative to the river and corridor area will continue.

Management Direction

Encourage and where feasible support, bonafide research efforts at filling identified research needs.

CHAPTER V

SOUTH FORK WILD RIVER SEGMENT

RESOURCES

WILDERNESS

Situation

The South Fork above Meadow Creek Gorge flows through the Bob Marshall Wilderness. The river corridor receives heavy use from non-floating wilderness users. There are 32 outfitters operating in the drainage, five of which are permitted to conduct float operations. There are approximately 150,000 Visitor Days use in the Bob Marshall annually. Horse parties account for 59% of the use. A high percentage of these visitors travel through and use the Wild River corridor. The heavy use is becoming apparent at popular campsites.

There is no mechanized access to this segment of the river. All visitors reach the area either on foot or horseback. Virtually all floaters are stock-supported. In many cases, private parties use the outfitters as a means of moving people and equipment to the river.

Major access routes are up the river from Meadow Creek and through Gordon Creek from Holland Lake. Other routes are through Youngs Creek, Danaher Creek, and Big Salmon Creek from the west side of the Continental Divide and through White River from the east side of the Divide. These routes are the same for both river and general wilderness uses.

River use has increased significantly since classification. Although specific river use data is not available, observations during 1978 and 1979 confirm this trend. Present use is probably in the vicinity of 200 - 400 river floats per year. Popular launch points are at Black Bear, Salmon Forks, White River, Big Prairie, and the headwaters. The primary float season is from July 1 to September 1.

Visitors come to the area seeking a primitive recreation experience in a natural environment as well as the excellent fishing.

Assumptions

The purpose of this plan is to manage the river and the river corridor only.

Wilderness and river use will continue to increase, as will impacts in the river corridor.

Opportunities for solitude, primitive, unconfined recreation, and the natural environment are factors which attract visitors to the area.

Protection of the wilderness resource will receive first priority in managing the river.

There will be a continuing demand for more Float Outfitter Permits.

Management Direction

Direct management of river uses and activities toward maintaining the natural environment and opportunities for solitude and primitive recreation experiences.

Manage numbers of Float Outfitter Permits and outfitter use at current levels, until data indicates these levels should be modified.

Stress low impact use of the river through visitor education programs and contacts.

Continue river research to refine carrying capacities and to assess visitor needs and preferences.

Consider logjams and individual "sweepers" as natural hazards not to be removed.

Manage this portion of the Wild segment of the South Fork as a Primitive (P) Recreation Opportunity (See Table 4).

RECREATION (OUTSIDE WILDERNESS)

Situation

The Wild River segment between Meadow Creek and Spotted Bear lies outside wilderness. The river corridor is paralleled by Forest Trail #80 on the east side and the Meadow Creek Road on the west side. Trail #80 is closed to motorized use. The Meadow Creek Airstrip lies at the upper end of this segment. Access to the river is from the airstrip or by a short (¼-mile) trail opposite the mouth of Harrison Creek on the Meadow Creek Road. At present, the trailhead is not signed, and parking is not adequate. The trail was improved in 1979.

Use on the river is light at present, approximately at the same level as prior to classification. This is due, in part, to the poorly developed access site. One outfitter currently operates on this stretch of the river. This segment of the river is ideally suited to day-floating; it can be run in 4 - 6 hours. Sophisticated equipment and technical river skills are not necessary. There are few desirable campsites in close proximity to the river. The Meadow Creek - Spotted Bear segment has the greatest potential of any Wild segment for increase in use, once the access point is clearly identified.

Assumptions

This is the most accessible reach of the river.

It is the most subject to a rapid increase in growth.

Management Direction

Continue river research to refine carrying capacities and identify visitor preferences.

Complete work on the Harrison Creek access site.

Encourage day-use on this river segment.

Maintain the present level of outfitter use allocation until further river carrying capacity information is acquired.

Emphasize low impact use of the river through visitor education programs.

Consider logjams and individual "sweepers" as natural hazards not to be removed.

Manage this portion of the Wild segment of the South Fork as a Semi-Primitive Non-Motorized (SPNM) Recreation Opportunity (See Table 4).

FOREST COVER

Situation

The river corridor supports a variety of tree species, depending on aspect, elevation, soil type, and fire history. Douglas-fir, western larch, and lodgepole pine are the major species. Engelmann spruce, ponderosa pine, and subalpine fir are present to a lesser degree. Lodgepole pine stands are the result of past fires.

There have been no commercial timber sales in the river corridor. Some timber has been cut in the past for construction and maintenance of administrative facilities and outfitter camps, for firewood, and in the process of maintaining trails. Outside wilderness, some cutting units are visible outside the river corridor.

Assumption

The unaltered forest cover is an integral part of the Wild River corridor.

Management Direction

Exclude timber cutting except as needed in association with a primitive recreation experience (such as trail maintenance), in the process of fire suppression, or for administrative purposes.

RANGE

Situation

Suitable grazing areas within the Wild River corridor are found within the Bob Marshall Wilderness and at the Meadow Creek Airstrip. In the wilderness, these areas consist of scattered openings stocked with native grasses. Due to the popularity of the river corridor and the associated recreational stock use, many grazing areas are being over-used. This condition existed prior to classification of the river in 1976. The increased river use has compounded the problem. There are no Grazing Permits in the area. In heavily-used areas, grazing exceeds the standards set for wilderness in the Forest Service Manual.

Due to a lack of funding in recent years, the Forest Service has been unable to inventory range conditions. As a result, there is no background information to use in assessing the forage trends. A range study will be started in 1980 to gather this information. From the study, carrying capacities will be developed for each allotment, describing acceptable levels of use. Allocation of the forage resource must consider wildlife, esthetic, outfitters, private and administrative categories.

Assumptions

Forage resources are limited and, in some cases, over-used within the river corridor.

Use of the river segment above Meadow Creek Gorge requires the use of stock in most cases.

The demand for forage will increase as river and general wilderness use increases.

Management Direction

Place major emphasis on acquiring range resource data and developing carrying capacities.

Encourage or, if necessary, require the use of methods that will reduce dependence on grazing.

Deny requests for stock grazing other than recreational pack stock.

Give priority to wildlife if conflicts develop between forage needs for wildlife and recreational pack stock.

FISH AND WILDLIFE

Situation

The South Fork supports an excellent native fishery of westslope cutthroat trout, bull trout, and mountain whitefish. Past management efforts have been to maintain and improve this fishery without introducing non-native species. The high-quality fishing has drawn many visitors to the area.

A wide variety of wildlife species inhabit or frequent the river corridor. Big game species include whitetail and mule deer, elk, moose, and black and grizzly bear. Game birds common to the area are Franklin and ruffed grouse.

The river corridor from Spotted Bear to Harrison Creek and from Black Bear to the headwaters is critical winter range for elk; it is also critical spring range for grizzlies.

Big game hunting is a major use during the fall. Furbearers and coyotes are trapped in small numbers. Management of wildlife species is the responsibility of the Montana Department of Fish, Wildlife, and Parks.

Assumptions

Wildlife is an essential part of the Wild River environment.

River use is at low levels and occurs at a time when it will have the least effect on wildlife.

Increased river use will place increased pressure on the fishery.

Management Direction

See pages 13 through 15 for additional discussion of fish and wildlife, including threatened and endangered species and management direction.

VISUAL (INSIDE WILDERNESS)

Situation

This segment is contained in wilderness.

Assumption

Visual characteristics will only be changed by natural processes.

Visual management is not applicable because this segment is inside wilderness.

Management Direction

The visual quality objective for wilderness is preservation.

Preservation allows ecological changes only, management activities are not permitted except for safety purposes and very low visual impact facilities.

VISUAL (OUTSIDE WILDERNESS)

Situation

This segment of the river flows through steep rocky gorges. Much of the area is closed in by rock walls and vegetation. The combination of rocky cliffs and lush forest, walled in views and distant vistas give the area highly scenic qualities.

Assumptions

Visual resource management needs to be consistent with the primitive recreation experience associated with a Wild River.

Management Direction

Refer to page 20 for additional discussion of the visual resource and direction.

LAND USES AND PROTECTION

LAND OWNERSHIP

Situation

All lands within the Wild River corridor are public lands under the administration of the Forest Service.

Assumption

Land ownership will not change.

Management Direction

Continue public ownership.

FIRE

Situation

In recent years in the South Fork, fire occurrance has been low, and the fires have been relatively small. Historically, however, large fires

have occurred as evidenced by the vegetative patterns. There are some man-caused fires each year; those within the river corridor have been small.

Fire detection is by aerial patrol and fixed lookout station. The lower portion of the river is within view of Spotted Bear Mountain Lookout. Suppression is accomplished by smoke jumpers and ground crews. Mechanized equipment such as helicopters, chain saws, and pumps have been used in the suppression efforts.

A study which will lead to a Fire Management Plan for the Bob Marshall Wilderness is currently underway. The first segment of the study which includes the southern end of the river corridor will be completed in 1980. The study will continue through other areas of the wilderness in following years.

Assumptions

Current management policy is to develop plans which will allow fire to play a more natural role in wilderness. This will include a major portion of the Wild River corridor.

Until the fire plan is implemented, all fires will be suppressed.

The risk of man-caused fires will increase as use increases.

Management Direction

Continue with development of the Bob Marshall Fire Management Plan.

Meet fire suppression objectives with methods that least alter the natural setting of the river corridor.

INSECTS AND DISEASE

Situation

Insects and diseases have not been a major problem in the South Fork. Endemic infestations of mountain pine beetle have been identified in and adjacent to the river corridor.

Assumptions

Insects and disease are a natural part of the wilderness and Wild River corridor.

The potential exists for a mountain pine beetle epidemic in lodgepole pine stands in the river corridor.

Other insects and diseases are not a problem at this time.

Management Direction

Continue to monitor insect population changes.

Allow epidemics to run their natural course within the Wild River corridor in wilderness.

Outside wilderness allow disease and insect outbreaks to run their natural course if it appears that the outbreak will be confined to the Wild River corridor. If it appears that losses from insects or disease seriously threaten values outside the river corridor take control measures that are consistent with Wild River values.

ADMINISTRATIVE ACTIVITIES AND IMPROVEMENTS

TRANSPORTATION

Situation

Access to the South Fork is provided by Forest Roads #38, #895, and #2826. The upper portion of the river is reached by South Fork Trails #80 and #263, Big Salmon Trail, Gordon Creek Trail, Youngs Creek Trail, Danaher Creek Trail, and White River Trail. These main routes are opened annually. Generally trail conditions are deteriorating each year due to a lack of funding to complete the necessary heavy maintenance. Trail signs are generally adequate and are limited to those necessary to identify trail junctions.

The Harrison Creek access site and trail, is not identified on the ground; suitable parking space is not available. Funds have not been available to complete the necessary work.

The Meadow Creek trailhead needs improvement to provide additional parking and better visitor information.

Assumptions

The demand for access sites, trailheads, and satisfactorily maintained trails will increase as use increases.

Funding for this type of work will continue to be in short supply.

Management Direction

Establish consistent funding levels that will provide adequate development and maintenance of dispersed recreation facilities for river use.

Use Human Resource programs to accomplish needed development and maintenance to the extent possible.

SIGNING AND BOUNDARY POSTING

Situation

The river corridor boundary is not signed. There is little need for such signing on the South Fork. A warning sign is in place at the last take out point above the Meadow Creek Gorge because of the extremely dangerous reach of river through the gorge.

Assumption

There will be only a few areas where the boundary of the Wild River corridor will need to be marked on the ground.

Management Direction

Identify boundary segments that need signing and complete work as funding becomes available.

COMMUNICATIONS SYSTEMS

Situation

Forest net radios provide the only communications into and out of the river corridor. Base stations are located at Big Prairie and Spotted Bear. Wilderness guards and trail crews normally carry portable radios that can reach the base stations. When crews are working in the river corridor, they can provide backup communications. Within the river corridor the old ground return phone line is in service from Black Bear to Big Prairie. Phones are accessible for public use at Black Bear, Salmon Forks, and Big Prairie. All communications systems are maintained for administrative use and are available to the public only in emergency situations.

Assumption

Existing communications systems are necessary for administrative purposes.

Management Direction

Continue to maintain existing communications systems, seek to improve the radio net serving the area.

MOTORIZED AND MECHANIZED USE

Situation

The river corridor is closed to public use with motorized vehicles except for the Meadow Creek Airstrip. Administrative use of such equipment is allowed by the Wilderness Act and the Wild and Scenic River Act,

~~subject to approval by the Forest Supervisor or the Regional Forester.~~ In the past, approval has been granted for emergency situations such as fire and search and rescue and in cases where the work cannot be accomplished by primitive means.

The Meadow Creek Airstrip, located within the river corridor, remains open for public use as recommended in the Flathead Wild and Scenic River Study. The study further recommended that the airstrip not be expanded and that access for motorized maintenance equipment not be allowed.

Assumptions

There will be a continuing demand and need for motorized equipment in the river corridor.

At some time in the future, there will be requests to expand the Meadow Creek Airstrip and maintain it with mechanized equipment.

Management Direction

Prohibit public use of motorized equipment in the river corridor.

Permit administrative use of motorized equipment in emergency situations, i.e., fire and search and rescue.

Meet fire suppression objectives using methods that least alter the natural state of the river corridor when mechanized equipment is authorized.

Permit other administrative uses of mechanized equipment only when the work cannot be accomplished by primitive means. Within wilderness, requests for mechanized equipment use will be evaluated using wilderness standards; the most restrictive criteria will apply.

Permit continued public use of the Meadow Creek Airstrip.

Prohibit expansion of the Meadow Creek Airstrip and overland access of mechanized equipment for maintenance purposes.

VISITOR MANAGEMENT

Situation

At present, five float outfitters are permitted to operate above Meadow Creek Gorge; one outfitter is permitted to operate below the Gorge. Outfitters are permitted to launch three trips per week on the segment above Harrison Creek and one trip per week below Harrison Creek. There are currently no limits or restrictions on private trips.

Assumptions

Demands for all types of river experiences will continue to increase.

Each river trip will cause additional impacts on the river corridor and the wilderness where the two overlap.

The opportunity for solitude is the key social value on the Wild River and in wilderness.

The carrying capacity of the Wild River is relatively low when compared with other river segments.

The carrying capacity can be exceeded by a relatively small increase in total visitor use.

Estimated carrying capacities will be set at a conservative level until river studies show that higher use levels are acceptable.

Management Direction

Continue outfitter use and numbers at present levels pending river research findings.

Conduct river studies to further refine carrying capacity figures and to assess user preferences and needs. (See Research Chapter).

ADMINISTRATIVE ORGANIZATION AND RESPONSIBILITIES

Situation

Administration of the South Fork Wild River is the responsibility of the Spotted Bear District Ranger. A river manager has been designated on the District to perform regular river administration.

The river management organization presently includes the river manager, one wilderness ranger, and two seasonal wilderness guards. All of these individuals have other administrative responsibilities. Less than 20% of their time is spent on river administration.

Assumptions

The present organization is not adequate to administer the river.

Adequate funding will continue to be a problem in river administration.

Management Direction

Continue to seek stable funding levels to adequately administer the River Management Plan.

Provide an adequate work force to achieve the objectives of this plan. A wilderness ranger and two wilderness guards should devote approximately 30 - 35% of their time to river administration. A seasonal River Ranger should be assigned full time to river administration.

VISITOR INFORMATION SERVICE (VIS)

Situation

Visitor information is presently provided by Forest and District employees normally involved in the VIS program, i.e., receptionists, and by those directly involved in river management. In some cases, they have a limited knowledge of the river and of river management philosophy. There are no brochures available. A comprehensive river brochure is under preparation. At present, there is no organized visitor education program.

Assumptions

The demand for visitor information will continue to increase.

A high-quality visitor information and education program is essential to maintain river values and to provide a safe and satisfying river experience.

Management Direction

Place a high priority on providing quality visitor information.

Continue to train those involved in the river VIS and Good Host program.

Develop an effective visitor education program.

STRUCTURES AND IMPROVEMENTS

Situation

There are three administrative cabins located in the Wild River corridor. They are located at Black Bear, Salmon Forks, and Holbrook. The first two include barns, a corral, a fenced pasture, and a water system.

The Big Prairie Work Center is also located within the river corridor. This former ranger station includes an office, bunkhouse, two dwellings, barn, corrals, fenced pasture, and several storage buildings.

In addition to these facilities, there are three pit toilets and two corrals for public use in the river corridor. One toilet is located at Little Salmon Park; the other two toilets and the corrals are in the Black Bear vicinity.

There are nine outfitter base camps within the Wild River corridor.

Assumptions

Administrative facilities will continue to be essential for future management.

Outfitter camps will continue to serve a public need in the future.

Management Direction

Screen administrative facilities from the river or blend them into the river setting with design techniques and earth tone colors.

Modify existing outfitter camps where necessary to achieve a more compatible blend with the river environment or relocate them outside of the area seen from the river.

Withhold approval of additional outfitter base camps in the river corridor.

Reevaluate the need for public toilets and corrals in the river corridor. If they are no longer necessary or suitable, remove them.

RESEARCH

Situation

Research on river carrying capacities and uses and range will begin in 1980. There is currently a proposal to begin a fisheries study on the South Fork. See Chapter IX, Research.

Assumptions

There will be a continuing demand to conduct a variety of studies in the river corridor.

There will be a continuing need for river studies to refine management techniques.

Management Direction

Evaluate requests for research studies to insure that study methods are compatible with river values and management direction.

Evaluation of requests for research studies will also consider the extent to which the study will benefit river management or, where applicable, wilderness management.

CHAPTER VI

SOUTH FORK RECREATIONAL RIVER SEGMENT

RESOURCES

RECREATION

Situation

The South Fork Recreational segment begins at Spotted Bear and ends at Hungry Horse Reservoir. The river is remote from population centers. The lower end of the Recreational segment is approximately 48 miles by gravel road from U.S. Highway 2. Use is light at present; classification does not appear to have increased use significantly. There have been no visitor surveys to quantify use levels. Users generally appear to be those who are in the vicinity for other purposes, i.e., general camping, who take the opportunity to float the river.

There are three Special Use Resorts and one Forest Service campground in the vicinity. The campground and one resort are within the river corridor. There are numerous popular dispersed campsites in the corridor. Most of the use in the corridor is by non-floating visitors. Currently, there is one outfitter operating on this river segment.

Access to the river corridor is by the Eastside Road #38, Westside Road #895, and Meadow Creek Road #2826. Roads #895 and #2826 are open yearlong for public use. Road #38 is closed from Brush Creek to the junction with Road #895 from December 1 to May 1. There are no Forest Service Trails in the river corridor.

The river can be easily reached from these roads in most places. Primary launch points are at the Spotted Bear Ranger Station, and at the South Fork Bridge on Road #895. The primary use period is from July 1 to September 1.

The river is ideally suited to leisurely day-floats. Most visitors combine floating use of the river with short day fishing trips.

Sanitation problems are developing at some of the heavily-used dispersed sites.

Assumptions

Use increases will be modest since comparable opportunities are available closer to population centers.

River conditions and classification will allow a relatively large increase in use without affecting river values.

Management Direction

Continue river research to define the carrying capacity and to identify visitor preferences.

Develop a system to monitor visitor use.

Encourage day-use on this river segment.

Install pit toilets where sanitation problems develop at dispersed camping or launch sites. Toilets will be located in upland areas a minimum of 200 feet from the water and will be screened from the river.

Limit maximum size of motors on the river to 10 horsepower.

Consider logjams as a natural hazard not to be moved. Individual "sweepers" may be removed if they present an immediate and extreme hazard to floaters.

Manage the Recreational segment of the South Fork as a Roaded Natural Appearing (RNA) Recreation Opportunity (See Table 4).

FOREST COVER

Situation

The river corridor supports a variety of tree species, depending on aspect, elevation, soil type, and fire history. Douglas-fir, western larch, and lodgepole pine are the major species. Engelmann spruce, ponderosa pine, and subalpine fir are present to a lesser degree. Lodgepole pine stands are the result of past fires.

There have been a variety of vegetative manipulation projects on the river corridor, including timber harvest, thinning, planting, and wildlife habitat improvement. At the Spotted Bear Ranger Station, in the campground, and the resort, trees have been removed to reduce safety hazards, allow construction, and to open the sometimes dense forest canopy.

The majority of these projects are not visible from the river. A few, however, extend up the river banks.

Assumption

Vegetative manipulation within the Recreational River corridor is acceptable, provided that it is accomplished in a manner that preserves the values for which the river was classified.

Management Direction

Allow vegetative manipulation in the river corridor (1) in connection with the construction and maintenance of appropriate developments, (2) to reduce a safety hazard, (3) when determined necessary to prevent deterioration of river values, (4) to improve wildlife habitat, and (5) to maintain a healthy, vigorous timber stand.

Design approved vegetative manipulation projects to protect the values for which the river was classified. Where possible, they will be screened from the river or designed to blend with the natural lines, forms, textures and colors. Management activities outside the river corridor will be coordinated with river management objectives to minimize impacts on views from the river. Refer to page 20 for additional discussion of the visual resource and management direction.

RANGE

Situation

There are no suitable natural grazing areas within the river corridor. Available forage is concentrated along seeded road banks on the Westside Road #895, at the Spotted Bear Airstrip, and clearcuts within the river corridor. One outfitter grazes recreational pack stock in the area under the terms of an Outfitter/Guide Permit. The use is not affecting river values; available forage is fully utilized.

Assumption

Forage production will begin to decline as trees begin to fill clearcuts.

Management Direction

Deny permits for additional grazing in the area.

Monitor existing use to insure that it remains compatible with river and other resource values. Reduce the level of use if necessary.

FISH AND WILDLIFE

Situation

The South Fork has an excellent native fishery of westslope cutthroat trout, bull trout, and mountain whitefish. Past management efforts

have been to maintain and improve this fishery without introducing non-native species. High-quality fishing draws many visitors to the area.

A wide variety of wildlife species inhabit or frequent the river corridor. Big game species include whitetail and mule deer, elk, moose, and black and grizzly bear. Game birds common to the area are Franklin and ruffed grouse. The river corridor is critical winter range for elk. The winter range extends north and east of the corridor along Horse Ridge and Dry Parks. The area is also critical spring range for grizzlies.

Big game hunting is a major use during the fall. Management of wildlife species is the responsibility of the Montana Department of Fish, Wildlife, and Parks.

Assumptions

Wildlife is an essential part of the Recreational River corridor.

River use is at low levels and occurs at a time when it will have the least effect on wildlife.

Increased river use will increase pressure on the fishery.

Management Direction

See pages 13 through 15 for additional discussion of fish and wildlife, including threatened and endangered species and management direction.

Continue vegetative manipulation projects to improve wildlife habitat outside the river corridor. Such projects will be screened from the river or designed so that they blend into the landscape where possible.

VISUAL

Situation

Below Spotted Bear, the river valley becomes increasingly flat and broad. Views not screened by vegetation are more panoramic than above Spotted Bear. Generally, this segment does not contain as much variety as the Wild segment. Views of roads occur, but not frequently.

Assumptions

The varied and natural-appearing characteristic landscape in this segment is a major attraction and one of the reasons for the "Recreational" classification.

Maintenance and enhancement of the existing characteristic landscape is desirable.

Management Direction

Refer to page 20 for additional discussion of the visual resource and management direction.

Manage to maintain existing characteristic landscape.

Enchance characteristic landscape where possible.

LAND USES AND PROTECTION

LAND OWNERSHIP

Situation

All lands within the river corridor are public lands under the administration of the Forest Service.

Assumption

Land ownership will not change.

Management Direction

Continue public ownership.

FIRE

Situation

In recent years in the South Fork, fire occurrances have been relatively low, and the fires have been rather small. However, historically, large fires have occurred in the river corridor, as evidenced by vegetative patterns. Some man-caused fires have occurred in recent years; they are not a major problem.

Fire detection is by aerial patrol and a fixed lookout station. Fire suppression in the river corridor has been by ground crews. Mechanized equipment is regularly used in suppression efforts.

Assumptions

The risk of man-caused fires will increase as use increases.

Fuel loading will increase as a result of vegetative manipulation projects.

All fires in the river corridor will be suppressed.

Management Direction

Meet fire suppression objectives using methods that least alter the visual resource in the river corridor.

Include fuel abatement plans to reduce fuel loading to acceptable levels in vegetative manipulation projects.

INSECTS AND DISEASE

Situation

Insects and diseases have not been a major problem in the South Fork. Endemic populations of mountain pine beetle have been identified in and adjacent to the river corridor.

Assumptions

The potential exists for a mountain pine beetle epidemic in the lodgepole pine stands in the river corridor.

Other insects and diseases are not a problem at this time.

Management Direction

Continue to monitor insect population changes.

Acknowledge that if an epidemic occurs, management actions to control it are acceptable in the Recreational River corridor.

Insure vegetative manipulation for this purpose is in accordance with the Management Direction in the Forest Cover section of this chapter.

ADMINISTRATIVE ACTIVITIES AND IMPROVEMENTS

TRANSPORTATION

Situation

Access to the river corridor is provided by Forest Roads #38, #895 and #2826. There are no Forest Service Trails within the river corridor. The river is, for the most part, readily accessible from these roads. In several locations, low standard roads lead from the access roads to the river.

Popular launch points have adequate parking space to accommodate existing use.

Assumptions

River access is adequate to serve visitor needs even with a modest increase in use levels.

Management Direction

Identify and develop additional river access as use increases.

Locate and design additional developments in a manner compatible with established river values.

SIGNING AND BOUNDARY POSTING

Situation

The river corridor boundary is not signed. There is little need for such signing on the South Fork.

Assumptions

There will only be a few areas where the boundary of the corridor should be marked on the ground.

Management Direction

Sign the boundary in those areas in need of such signing.

COMMUNICATION SYSTEMS

Situation

The Forest Service maintains both a radio and radio phone system at the Spotted Bear Ranger Station. The radio net is capable of reaching the Forest Supervisor's Office in Kalispell. The radio phone is

connected to commercial phone lines in Kalispell. Communication systems are maintained for administrative purposes. They are available for public use in emergencies. The radio phone is available for limited public use during non-duty hours.

One of the resorts in the area, also maintains a radio phone system. It is available for use in emergency situations.

Assumptions

Existing communication systems are essential for administrative purposes and serve a public need especially in emergency situations.

Management Direction

Continue to maintain existing communication systems.

MOTORIZED AND MECHANIZED USE

Situation

There are currently no restrictions on motorized or mechanized use in the river corridor except for Road #38 between Brush Creek and Road #895 which is closed to motorized use from December 1 to April 30.

Assumptions

Motorized overland use is generally acceptable in the river corridor.

Motorized river use is generally not appropriate in those areas where it would detract from the natural setting and the near primitive recreational experience sought by many visitors. Motorized craft use of the river at times may cause undue disturbance to wildlife. Upstream motorized traffic has the potential for traffic conflict with downstream non-motorized craft travel.

Management Direction

Prohibit general use of boats driven by motors that exceed 10 horsepower. Use of boat motors in excess of 10 horsepower may be authorized for essential administrative purposes, practice and execution of search and rescue and for research purposes not possible via craft with less powerful motors. Authorization must be obtained from the Forest Supervisor on a case by case basis except that research will be considered on a project basis. Permission to exceed the 10 horsepower limitation will be granted only for the following reasons:

1. Identified vessels of recognized search and rescue organizations or agency actively involved in search or rescue activities for suspected injured or drowning victims. Permission will not be granted for search for lost or damaged vessels, or equipment.

2. Identified vessels of recognized search and rescue organizations or agency (FS, NPS, State) actively involved in training runs, or agency administrative or research activities not possible via craft propelled by a 10 horsepower or less motor.

3. All excepted vessels will be clearly identified while on the river. No recreational equipment will be carried on board during these trips.

Areas or roads in the river corridor may be closed to all or certain types of motorized travel to protect resource values. Such closure will be effected by a special closure order signed by the Flathead Forest Supervisor and publicly posted.

VISITOR MANAGEMENT

Situation

At present there is one float outfitter permitted to operate on the river. There are no limitations on private party use.

Assumptions

Use levels are presently low and will increase at a moderate rate.

The carrying capacity is relatively high.

There may be a demand for additional outfitter permits in the future.

Management Direction

Conduct studies to determine carrying capacities and visitor preferences and needs.

ADMINISTRATIVE ORGANIZATION AND RESPONSIBILITIES

Situation

Administration of the South Fork Recreational River is the responsibility of the Spotted Bear District Ranger. A River Manager has been designated on the District to perform regular river administration.

The river management organization presently includes the river manager and one seasonal recreation guard. These individuals have other administrative responsibilities. Less than 5% of their time is spent on river administration.

Assumptions

The present organization is not adequate to administer the river.

Funding will continue to be a problem in river administration.

Management Direction

Continue to seek stable funding levels to adequately administer the River Management Plan.

Provide an adequate work force to achieve the objectives of this plan. A recreation guard should spend considerably more time in river administration.

VISITOR INFORMATION SERVICE (VIS)

Situation

Visitor information is presently provided by Forest and District employees normally involved in the VIS program, i.e., receptionists, and by those directly involved in river management. In some cases, they have a limited knowledge of the river and of river management philosophy. There are few brochures available. A comprehensive river brochure is under preparation. At present, there is no organized visitor education program.

Assumptions

The demand for visitor information will continue to increase.

A high-quality visitor information and education program is essential to maintain river values and to provide a safe and satisfying river experience.

Management Direction

Place a high priority on providing quality visitor information.

Continue to train those involved in the river VIS and Good Host program.

Develop an effective visitor education program.

STRUCTURES AND IMPROVEMENTS

Situation

There are several administrative facilities and one Special Use Resort within the river corridor.

The Spotted Bear Ranger Station is located in the southeast corner of the corridor. It includes offices, log and frame dwellings, trailer houses, bunkhouses, warehouses, a cookhouse, barn, corrals and other buildings. Electricity is presently generated on the site by diesel

generators. A hydroelectric plant is currently under construction on Bruce Creek which will reduce the need for diesel generators. Most facilities at the Ranger Station are screened from the river.

The Spotted Bear Campground lies north of the ranger station across the Spotted Bear River. It consists of 13 units. Campground facilities are screened from the river.

The Special Use Resort lies north of the campground. It consists of a lodge, several guest and employee cabins, a barn, corrals and other storage and service buildings. Power is generated on the site by a gasoline generator. The resort is generally well screened from the river. Structures are painted with earth tones that blend into the surroundings.

There are two bridges across the river, a suspension foot bridge at the ranger station and a modern cement pier bridge downstream approximately 2 miles.

There are two Bonneville Power Administration and one Soil Conservation Service gaging stations along the river. The SCS Station which is across the river from the ranger station, is located directly on the river bank. One BPA Station is located on the ranger station compound. The other is downstream approximately 6 miles. It is located on the river bank. There is a cable tramway across the river at this point.

There are several popular dispersed campsites along the river. None of them have toilets. Sanitation is a problem at the most heavily used sites.

Assumptions

Administrative facilities will continue to be essential for management needs and to serve the public.

The resort will continue to serve a public need.

Management Direction

Screen administrative facilities from the river or blend them into the river setting.

Allow additional development of the resort provided it is screened from the river and is compatible with the river environment.

Deny additional permits for commercial public use facilities in the river corridor.

Develop additional public facilities such as launch ramps, campsites, and toilets in the corridor as the need arises. Such facilities will be designed and located so as to protect the values for which the river was classified.

RESEARCH

Situation

Research studies have been conducted in the river corridor in the past. Research on river carrying capacities and uses and range problems will begin in 1980. There is currently a proposal to begin a fisheries study on the South Fork. See Chapter IX, Research.

Assumptions

There will be a continuing demand to conduct a variety of studies in the river corridor.

There will be a continuing need for river studies to refine management techniques.

Management Direction

Evaluate requests for research studies to insure that study methods are compatible with river values and management direction.

Evaluation of requests for research studies will also consider the extent to which the study will benefit river management.

CHAPTER VII

NORTH FORK SCENIC RIVER SEGMENT

RESOURCES

WILDERNESS

Situation

This segment of the river extends from the Canadian border to Camas Bridge. There are no classified wilderness areas along the North Fork. However, the area inside Glacier National Park from the Canadian border to Starvation Creek is managed as defacto wilderness by the Park Service. Management of the rest of the corridor in the Park gives emphasis to natural processes. The west side of the river below Coal Creek provides a natural scenic setting.

Assumptions

The corridor within Glacier Park, with the exception of Polebridge Ranger Station, will be managed for its wilderness attributes, i.e. plant and animal life will be allowed to evolve naturally.

Management Direction

Manage publicly owned corridor lands and lands under scenic easements to maintain a natural appearing environment.

Maintain wilderness values in Glacier National Park and the natural appearing scenic setting on Forest Service lands in the corridor and private lands under scenic easements.

Maintain commercial rafting services at present levels until further research indicates the need to modify this level.

Require a National Park Service Backcountry Use Permit for overnight camping in Glacier Park.

Maintain wilderness values in Glacier National Park by planning only minor improvements necessary to protect resources.

Retain the river islands in their natural state except for very limited facilities necessary to protect resources.

RECREATION

Situation

The primary recreation use of the river area at this time is fishing, floating and hunting. Summer homes on private lands adjacent to the river are also a major recreation use. Minor uses include observing wildlife, viewing the scenery, trapping, snowmobiling and photography.

There are no developed National Forest campgrounds in this reach of river. One small private camping area is located south of Moran Creek outside of the river corridor.

Access to the river is limited and not sufficiently signed to inform visitors which lands are publicly owned.

The greatest dispersed recreation use along the river is probably river floating. Development of access sites at the border and at Ford Station are planned during the 1980 field season.

There are a few year-round dwellings and many summer homes between Coal Creek and the international boundary.

Commercial and private floating have increased over the past ten years. Outfitters have yearly requested increases for additional allocations to serve more clients. More potential rafting companies have requested outfitting permits from the Forest Service. They have been denied pending conclusion of on-going research. (See Research chapter).

Upgrading the North Fork Road may have increased recreation use of the area. Increases in recreational visits may have occured because of classification of the river. Discussions with river users indicate that a 1979 National Geographic article increased interest nationally in vacationing on the North Fork.

Migrating bull trout and cutthroat trout are popular fishery species. The season extends from June to September. The last few years have shown a rapid increase of bow hunters, who quite often hunt in the river corridor for whitetailed deer, elk and moose. The season closes with general hunting ending about Thanksgiving. From September to November the river corridor is used to hunt upland grouse in this area. Two studies are underway to determine the needs of the threatened grizzly bear and the endangered Northern Rocky Mountain wolf. Although grizzly bears are known to inhabit the corridor during part of the year the effects of man upon the activities is not fully understood.

Private landowners are very dissatisfied with trespassing by river users and with the trash left on their property.

Assumptions

Although gas prices and shortages of fuel may inhibit the rapid increase in recreation visits, the net number of visitor days by recreationists will increase during the next decade. Increasing population of the Flathead Valley region will more than likely account for much of the increase in recreation use of the Scenic River corridor.

The local community will supply most of the increase in fishermen and private floaters. Outfitters floating will increase primarily from people who originate from out of the region. Outfitting for river floating in the future depends on the price of fuel and the availability of vacation packages.

Permittee rafting companies will request more allocations for clients.

New companies will request outfitting permits.

Both private parties and outfitters will seek increases in allocations as river use reaches its resource capacity and sociologic needs (demands) of prospective users are made known.

Floaters and fishermen will compete for recreation opportunity as floating increases.

The 2-lane road from Canyon Creek to Camas Bridge is programmed for reconstruction within the next ten years. It is also presumed that the county will pave the portion from Camas Bridge to Polebridge in the next few years. The combination of these two road improvement programs will have substantial effect of increasing river use in the Scenic segment, especially from Polebridge south.

The grizzly bear research now underway will show that the grizzly uses certain areas for foraging more than others in spring and fall, and uses certain strips of land for travel lanes for crossing back and forth from Glacier National Park. Increasing use of these lands by recreationists will cause some human-grizzly conflicts.

Human activity in the corridor during the heavy use season may adversely impact the wolf if this species does in fact inhabit the river corridor.

Management Direction

Administer uses and activities to maintain the scenic qualities and primitiveness of the corridor. Management emphasis will be on Outdoor Recreation Class Semi-Primitive Motorized. (See Table 4)

Design and construct recreation developments to maintain a pleasing and harmonious riverscape in keeping with the qualities on which the designation was based. Facilities will be: (1) located outside the immediate foreground, (2) complimentary to the view from the river, and (3) accomplished with the benefit of a detail site analysis to determine site suitability. Public access will be planned at intervals of 5 - 10 miles.

Develop floater campsites which generally consist of vault toilets located in upland areas adjacent to the campsite, adequately signed access trail to the toilet, and standardized campsite identification and information signs. Toilets will be screened by vegetation or topography from the river and from the campsites. Campsites are to be located where impacts on wildlife are minimized. Campsites will be screened from view of road, administrative sites or within 200 yards on private lands where possible.

Manage dispersed areas with a "pack-it-in, pack-it-out" policy.

Consider logjams a natural hazard confronting floaters, which will not be removed except for "sweeper" logs that present an extreme hazard to life.

Favor wildlife over recreation developments where conflicts occur.

Protect significant historic, scenic, geologic, and archeologic sites when located.

Permit commercial services to serve the public needs at levels commensurate with maintaining river values.

Encourage public and private efforts designed to protect or improve river values on private lands within the management zone.

Direct management practices toward protection of endangered or threatened species where conflicts between humans and these species occur.

Acquire scenic easements or purchase fee title on a willing seller basis to aid in improving or maintaining the river environment on privately owned land.

Defer action on requests for increased number of outfitter floating companies and requests for increased client allocations until completion of further research (see Research chapter).

Improve quality of visitor information services as funding levels permit. The visitor information goal is to reduce landowner and visitor conflicts, to enhance safety and quality recreational experience, and to prevent resource damage.

Delay requirement of permits for those non-outfitter parties wanting to float the river until further research and use figures indicate the need for rationing use.

Reduce recreation conflicts with threatened and endangered species to the extent possible.

Cooperate with property owners in establishing a property signing program to aid in preventing conflicts between landowners and other river users.

Construct access points and floater campsites at (1) Canadian border, (2) Ford Station, (3) Polebridge, and (4) Coal Creek. Access will include the necessary signing and road construction.

Require Backcountry Use Permits for overnight use in Glacier National Park.

Develop an environmental assessment regarding use of formerly private facilities when they are included in property acquisitions. The Sondreson Ranch and the Siederman property are first priorities.

FOREST COVER

Situation

The vegetation varies from grassland and sagebrush to stands of trees composed of lodgepole pine, ponderosa pine, Englemann spruce, cottonwood, Douglas-fir, larch and minor amounts of other species. The stands of lodgepole originated from fires occurring from the late 1800's to 1919.

The sagebrush grows on the gravelly river bottoms that are quite dry during the summer months. Most of this vegetative type is evident from Polebridge north to the Sondreson Ranch. Mule deer favor this plant species during winter.

Because of early farming activities, some lands are in a variety of grasses. This gives the river user an opportunity to obtain panoramic vistas of Livingston Range in Glacier National Park and the Whitefish Divide to the west on the National Forest.

The mountain pine beetle has had a devastating effect on stands of lodgepole pine and ponderosa pine adjacent to the river. Heavy mortality has occurred in the river corridor. West of the river the Forest Service, the State of Montana and private landowners have salvaged millions of board feet of timber, much of which is in the corridor.

In some areas along the North Fork Road the Forest Service has created vistas of Glacier Park with small clearcuts. Because the river is located behind a steep embankment, the cuttings cannot be seen from the river.

Because of the beetle epidemic numerous logging activities can be seen at various points along the river.

Assumptions

Maintenance of a variety of land covers for aesthetic values on the west side of the river will continue to be a major concern for managers. The management objective in Glacier National Park of providing a natural environment will reduce visual management conflicts.

Aesthetics, wildlife and water quality are key resources.

The mountain pine beetle will continue to kill the majority of the larger lodgepole pine trees. Where no logging is done, the cover will regenerate to lodgepole pine, Engelmann spruce and Douglas-fir.

The probability of fire will increase in the corridor as dead lodgepole pines drop and increase fuel loads.

Management Direction

Manage the timber and other vegetation on National Forest lands in the corridor for visual quality, wildlife protection and water quality.

Permit timber harvest and vegetative manipulation where such activity can be accomplished without substantial adverse impact on the natural appearance of the classified corridor. Trees, brush and other vegetation can be removed: (1) in connection with appropriate development, (2) to reduce or eliminate safety hazards, (3) to prevent deterioration of river values, (4) to improve wildlife habitat and (5) when economic values can be removed without significant degradation of river values.

Plan and manage timber harvest operations in a manner that meets the visual quality objectives established in this plan. Evaluate each timber sale proposal to determine that each sale follows this management plan.

Design approved vegetative manipulation projects to protect the values for which the river was classified. Where possible, they will be screened from the river or designed to blend with natural lines, forms, textures and colors. Management activities outside the river corridor will be coordinated with river management objectives to minimize impacts on views from the river. Refer to page 20 for additional discussion of the visual resource and management direction.

Give special emphasis to protecting streamside vegetation.

RANGE

Situation

Presently there is only one grazing allotment under permit. This is an on-off term permit with only about 10 percent of the area in National Forest. A temporary permit was issued in 1979 to a local resident. Horses graze on private property throughout the length of the river. Managers are unaware of any environmental resource damage presently caused by grazing animals.

Rangeland is extremely limited except in private land. A few areas cleared for farming around the turn of the century provide some range.

Assumptions

Demands for grazing of recreation stock will increase as more individuals move into the North Fork for permanent or summer homes.

Historical grazing use of available grasslands will continue and can be allowed in scenic easements.

Management Direction

Exclude grazing from Glacier National Park or areas adjacent to access sites and developed floater campsites.

Manage grazing use on private lands under terms of scenic easements and on public land with special use permits.

Favor wildlife, recreation and water quality on Forest Service land where a conflict occurs between grazing and any of the resources.

Analyze the alternative uses of the Sondreson Ranch to determine best management for the area.

FISH AND WILDLIFE

See pages 13 through 15 for discussion of fish and wildlife including threatened and endangered species and management direction.

Permit vegetative manipulation to improve or maintain wildlife habitat in the river corridor where appropriate considering other resource values.

VISUAL

Situation

Border - Polebridge: This river segment flows through a broad, flat valley bounded by steep ridges one-half to two miles away.

Floaters views of the mountains in Glacier National Park are of short duration because of dense riverside vegetation. Private dwellings and roads are seen from the river.

Polebridge - Camas Bridge: Riverside vegetation closes views, but differing ages and species provide foreground variety. Some private dwellings and roads are seen.

Assumptions

The varied and natural-appearing characteristic landscape in this segment is a major attraction and one of the reasons for the Scenic classification.

Maintenance and enhancement of the existing characteristic landscape is desirable.

Management Direction

Refer to page 20 for additional discussion of the visual resource and management direction.

LAND USES AND PROTECTION

LAND OWNERSHIP

Situation

There are many private landowners from Coal Creek to the Canadian boundary. The east bank of the North Fork is within Glacier National Park, but some land is still privately owned. Also there are several parcels of State lands along the corridor.

Currently, scenic easements are being negotiated with the private landowners. Fee title acquisition on a willing seller-buyer basis is being negotiated on certain parcels.

Assumptions

Development of privately owned land will continue, and until scenic easements are all acquired, it is expected that some further development will be incompatible with river values.

Although management objective on lands owned by the State of Montana is to maximize returns to the State School Fund, Montana Division of Forestry will cooperate in managing State lands in a manner compatible with this plan through an interagency memorandum of understanding.

Management Direction

Proceed with scenic easement acquisition on a priority basis. (Reference Flathead Wild and Scenic River Acquisition Plan available in the Forest Supervisor's Office).

Work closely with landowners to provide for adequate levels of easement administration and inspection.

Inspect each scenic easement parcel a minimum of once a year.

Respond in a timely manner, (within 30 days) to landowner requests for construction or development authorization as required by the terms of a scenic easement.

LAND OCCUPANCY AND USE

Situation

There is a variety of special use permits and easements providing for use of National Forest lands, in or adjacent to the corridor by private individuals, other government or state agencies, companies, or public utilities.

Assumptions

Requests for use of National Forest lands for a variety of uses will continue.

Management Direction

Modify items currently under permit which are readily visible from the river or main access roads, or do not blend or fit in with the natural environment of the corridor area or terminate them upon expiration of the current permit term.

Approve new permit applications only upon completion of an Environment Assessment showing that:

1. The proposed use will be inconspicuous from the river, main access roads or trails where appropriate.

2. Any visible improvements will be designed and constructed to blend or fit with their natural surroundings.

3. Wildlife, fishery, and watershed values will be protected or enhanced.

4. Proposed uses will compliment Glacier National Park defacto wilderness management where applicable.

5. The proposed use will not detract from public recreation uses and experiences available.

FIRE

Situation

Large fires, occuring mostly between 1910 - 1930, created most of the Forest composition now in existence in the area. Since 1930 most fires have been small because of Federal fire control measures.

Earlier detection methods of numerous fire lookouts have now changed to aerial patrol, a few lookouts and ground patrol.

Suppression has generally been by hand tools, tankers and bulldozers.

Glacier National Park is responsible for its own fire protection activities. Glacier View Ranger District of the Flathead National Forest provides fire detection and control to all lands west of the North Fork River in the corridor.

Assumptions

The threat of man caused fire to the river corridor area will continue despite Federal, State and local prevention efforts.

Management Direction

Suppress all fires within the river corridor until an approved fire management plan establishes different policy. Fire control objectives in the river corridor will be to suppress fires without the use of bulldozers or other earth moving equipment wherever possible.

INSECTS AND DISEASE

Situation

A variety of forest insects and diseases are naturally found in the river corridor and adjacent forested areas. A recent epidemic infestation of mountain pine beetle has occurred in the nearby North Fork Flathead River drainage and is slowly spreading into other areas including the Lower Middle Fork drainage.

Certain age and size class lodgepole pine trees are more readily attacked than others.

Assumptions

Mountain pine beetle infested trees must be harvested soon after attack or economic value will be lost.

A naturally forested appearance is expected by river corridor recreation visitors.

Management Direction

Continue to monitor insect and disease outbreaks within and adjacent to the river corridor.

Salvage/sanitation harvest bug killed, diseased, or highly susceptible trees to protect river resource values. Harvest will be done in a manner that will protect or enhance other river values. Generally, no permanent roads for timber harvest will be constructed in the river corridor area.

Salvage dead trees on the National Forest with horses or light equipment as mortality occurs.

Leave some areas for natural decay and for wildlife trees, especially where logging will reduce the river values.

Construct no roads that cannot later be returned to a natural looking condition.

Provide compatible management on State lands through a memorandum of understanding with the Department of Natural Resources.

ADMINISTRATIVE ACTIVITIES AND IMPROVEMENTS

TRANSPORTATION SYSTEM

Situation

The North Fork Road #210 parallels the North Fork Flathead River from Camas Bridge to the Canadian boundary. It's distance from the river varies up to 2 miles away from the river and it passes in and out of the river corridor numerous times. Many branch roads run easterly from the North Fork Road to various dwellings in and out of the corridor. Some logging roads terminate in the corridor also.

In Glacier National Park a river road runs parallel to the river from Polebridge Ranger Station almost to the border at Kishenehn cabin. This road also is partly in and partly out of the classified river corridor.

The only bridge that crosses the North Fork in the Scenic River segment is at Polebridge Ranger Station. This road and bridge provides access for those recreating on the northwest portion of Glacier National Park.

The North Fork Road is under Flathead County jurisdiction.

Assumption

Flathead County will pave the North Fork Road from Camas Bridge to Polebridge within the next 5 years. Paving will be done to present road widths.

More roads will be constructed into private properties from the North Fork Road.

Logging road construction will decrease because most of the beetle infested timber (lodgepole pine) has been removed from private lands.

Management Direction

Manage road construction on private lands under terms of scenic easements.

Design river access roads and other projects on National Forest lands to standards that protect or enhance scenic river values.

SIGNING AND BOUNDARY POSTING

Situation

The river corridor area contains much private land immediately bordering the river and intermingled with National Forest and State lands.

Assumptions

Recreation use of the river and corridor area will increase. This will provide an increasing potential for conflict with private landowners. Existing signing by both private landowners and the Forest Service is inadequate to inform recreationists as to where they are on the river or when they are on public or private lands.

Some sign designs and sizes are not appropriate along a National Scenic river.

Management Direction

Manage signing on private lands within the river corridor under terms of scenic easements.

Sign access sites, mouths of major creeks and points at which floaters are entering and leaving shoreline in Forest Service ownership.

MOTORIZED AND MECHANIZED USE

Situation

Motorized overland vehicle travel in the corridor is generally limited to established roads due to terrain and vegetation. Off road motorized travel within Glacier National Park is not permitted. Certain areas of the National Forest may be closed to motorized travel to protect resource values or experience levels.

Past motorized river use has been very slight and primarily limited to fishing use in the area below Blankenship Bridge.

Some sections of the river and corridor area in Glacier National Park are in a defacto wilderness or near wilderness setting.

Assumptions

Motorized river use is generally not appropriate in those areas where it would detract from the natural setting and the near primitive recreational experience sought by many visitors. Motorized craft use of the river at times may cause undue disturbance to wildlife. Upstream motorized traffic has the potential for traffic conflict with downstream non-motorized craft travel.

Management Direction

Prohibit use of boats driven by motors. Use of boat motors may be authorized for essential administrative purposes, practice and execution of search and rescue and for research purposes not possible via craft without motors. Authorization must be obtained from the Forest Supervisor on a case-by-case basis except that research will be considered on a project basis. The Chief Ranger, Glacier National Park, will be immediately notified of all such authorizations where Park lands border the river. Permission to exceed the 10 horsepower limitation will be granted only for the following reasons:

1. Identified vessels of recognized search and rescue organizations or agency actively involved in search or rescue activities for suspected injured or drowning victims. Permission will not be granted for search for lost or damaged vessels, or equipment.

2. Identified vessels of recognized search and rescue organizations or agency (FS, NPS, State) actively involved in training runs, or agency administrative or research activities not possible via craft propelled by a 10 horsepower or less motor.

3. All excepted vessels will be clearly identified while on the river. No recreational equipment will be carried on board during these trips such as fishing or hunting equipment.

Areas or roads in the river corridor may be closed to all or certain types of motorized travel to protect resource values. Such closure will be effected by a special closure order signed by the Flathead Forest Supervisor and publicly posted.

VISITOR MANAGEMENT

Situation

At present, recreation river and corridor users are only restricted by those regulations in force and applicable to other areas of National Park, National Forest, or State lands in the area.

Commerical river float outfitters are regulated by National Forest Special Use Permit.

Assumptions

At present, general public, private floater use of the river is growing but is not felt to be at capacity. Until private floater use reaches a capacity level determined by management or research to be more appropriate, private floater controls in the form of a mandatory float permit will not be instituted.

Management Direction

Support research efforts that help determine river floater needs and desires.

Defer implementation of a mandatory float permit system until necessary.

ADMINISTRATIVE ORGANIZATION AND RESPONSIBILITIES

Situation

The Forest Service has been designated as lead agency for river management activities in the classified Flathead River System. The National Park Service and the State of Montana retain management responsibility for their lands within the river corridor.

The Forest Service, the National Park Serivce, and the State of Montana, Departments of Natural Resources and Conservation, and Fish, Wildlife and Parks have participated cooperatively in the formulation of this River Management Plan.

Current National Forest administrative responsibility for management activities on the Recreational River is with the Glacier View District Ranger. On the District, under the District Ranger, there is an individual assigned river management duties as a part of his overall job responsibility. Management responsibility for Glacier National Park lands within the river corridor is with the Chief Ranger. Management responsibility for the State of Montana lands within the river corridor lies with the Stillwater Unit Forester, Montana Division of Forestry headquartered at Olney, MT.

Assumptions

As public use and associated demands of the river corridor continues to grow more management and administrative staffing will be needed.

Management Direction

Provide an adequate work force to achieve the objectives of this plan. A seasonal river ranger should provide visitor contact (including river floaters), river patrol, river and corridor cleanup, and access site maintenance.

Provide more administrative staff time for scenic easement administration as funding allows.

VISITOR INFORMATION SERVICE (VIS)

Situation

Principal responsibility for search and rescue operations on lands outside of Glacier National Park, on the river and in the corridor area resides with the Flathead County Sheriff. Within Glacier National Park the National Park Service has exclusive jurisdiction. The Forest Service and National Park Service may assist with search and rescue operations in emergency situations on an as needed basis on the river as in other areas.

At present, little published information on river floating and use of the corridor area is available from management agencies. The river corridor has little informative signing at access sites. Recreation visitors have little opportunity to discuss river floating and its hazards with management agency personnel unless they stop by a ranger station and actively solicit it.

During high spring runoff (normally May and June) the North Fork offers greater hazards to river floaters. This arises from two situations. Water temperatures are extremely low during this period and can quickly induce hypothermia (lowering of the body temperature) in persons immersed (or wet from spray or rain) in the water. Secondly, the severe wave action, turbulence, and obstacles in the water can overturn a boat or raft and place the occupants in danger of drowning in the swift, turbulent water. In some areas the river is not readily accessible to the highway and it may be difficult to obtain assistance in an emergency situation.

Assumptions

River use by both qualified and beginner river floaters will increase with more people on the river. The chance of emergency incidents will increase as well.

Portions of the river may be more safely floated with proper equipment, skill level, and knowledge of the river during a portion of the use season.

The provision of information to the public by the agency relative to floating, is an important management tool to help insure a safer, higher quality recreational floating experience.

The decision to accept the risks associated with river floating are personal decisions to be made by each individual. Risk is an integral part of the river floating experience.

Management Direction

Continue Forest Service cooperation with the Flathead County Sheriff and other agencies, as appropriate, in search and rescue missions in the river and corridor area.

Provide information to users on potential hazards, type of equipment, and river safety through publications, recreation visitor services at ranger stations, and at access sites through signing or visitor contact where feasible. The final decision to accept the risk and the consequences of a river float will be made by the individual recreationist.

STRUCTURES AND IMPROVEMENTS

Situation

Ford Station is a work center utilized by the Forest Service to administer all resources on Glacier View. The original structures were built around 1910-1918.

Three other groups of buildings are on parcels of land purchased by the Forest Service under the Wild and Scenic River Acquisition Program. The Sondreson Ranch buildings can be viewed from the river and has a landing field on the premises. The Seiderman structures cannot be seen from the river. At the border there are two buildings on National Forest land, one serving as a Custom's Station and the other is used by the Forest Service.

There is need for river access development with related facilities at the border, Ford Station, Polebridge and Coal Creek. This is primarily for day use trips on the river.

There are numerous structures and improvements located on private lands. Some blend well with the surrounding environment, and some do not.

Polebridge Ranger Station and several homes and camping sites are located in the Glacier National Park portion of the corridor. Most development is in harmony with the river setting.

Assumptions

Existing agency administrative structures, and improvements, are necessary and will continue to be maintained with regard for river recreation and resource values. Additional recreational access sites will be developed as proposed in the Recreation section of this chapter. Care will be taken to insure that existing and additional recreational and access site developments are compatible with river recreation and resource values and are the minimum developments needed to meet their purpose on a site by site basis. Developments on private lands in the river corridor will continue.

Management Direction

Provide protection of private lands from overdevelopment and incompatible structures and improvements with scenic easements. Easements will be acquired on private lands in the river corridor as detailed in the Flathead Wild and Scenic River Acquisition Plan, available upon request from the Forest Supervisor, Flathead National Forest.

RESEARCH

Situation

There is a continuing need for data on the recreational carrying capacity and experience expectations of recreation visitors to the river and corridor area. There is also a need for data regarding fish, birds, and wildlife that inhabit or pass through the corridor. It will be increasingly important to understand how increasing recreation use affects the corridor resources and inhabitants.

Assumptions

The need for research data relative to the river and corridor area will continue.

Management Direction

Encourage and where feasible support, bonafide research efforts at filling identified research needs. (See Chapter IX, Research).

CHAPTER VIII

NORTH FORK RECREATIONAL RIVER SEGMENT

17.6

RESOURCES

WILDERNESS

Situation

This segment of the river extends from Camas Bridge to the confluence of the North and Middle Forks of the Flathead River, a distance of 17.6 miles. Glacier National Park manages the corridor on the east side as defacto wilderness. The section on the west bank presently varies from developed to natural on National Forest to semideveloped on private land.

Assumptions

Lands within Glacier National Park will remain as wilderness, and be classified as wilderness within a few years. Demand for use of the river will increase steadily, primarily for floating (private and outfitter) and for fishing and camping. Trespassing on private lands will increase creating conflicts between landowners and river users.

Management Direction

Manage the use of the corridor to preserve or enhance the values for which the river was classified.

Provide specific management direction which will foster preservation of wilderness values of lands in Glacier National Park between Camas Bridge and confluence of North and Middle Fork Flathead River.

Require a permit to camp for all overnight use of the Glacier National Park side of the river for National Park backcountry management purposes.

Supply minimum facilities for resource protection as the need arises, but develop no significant facilities in Glacier National Park.

RECREATION

Situation

The following are use figures of the Recreational segment of the North Fork:

Year	Recreation Visitor Days
1967	1900
1968	2200
1969	2700
1970	1200
1971	1300
1972	3000
1973	4400
1974	5100
1975	5500
1976	6000
1977	6500
1978	7500
1979	7500

This data was derived from visual observation with no statistical methods involved.

The use has been increasing on the North Fork Road over the past 10 to 15 years. Until 1971, the lower 10 miles was a single-lane dirt surface. Reconstruction created a sudden increase in the use of the corridor from local residents. Also the Camas Road in Glacier National Park was constructed in 1969. This funneled traffic to the northern tip of the Recreational River segment. More private floaters are utilizing this segment primarily for short trips in the fast moving water.

The developed campsite at Big Creek carrying capacity is 125 PAOT's (persons at one time), while the dispersed capacity is estimated at 500 PAOT's. The potential for increasing PAOT's exists, especially at Glacier Rim and at Great Northern Flats. Currently full capacity utilization is being approached at the developed campsites, and dispersed areas are nearly utilized to maximum on weekends.

Since 1970, some private lands from Canyon Creek to the Middle Fork have been subdivided and homes constructed. Forest Service acquisition of scenic easements are continuing in this area.

Bull trout and cutthroat trout migrate from Flathead Lake annually. This creates heavy use of the area by fishermen from June to September. Glacier Rim, Great Northern Flats, Hell Roaring Creek and Big Creek Campground are the primary access points.

The North Fork Road between Camas Road and Canyon Creek is presently being assessed for reconstruction.

The grizzly bear is listed as "threatened" under the Endangered Species Act of 1973. The Border Grizzly Study is underway to determine critical habitat needs for that species. In addition the University of Montana has conducted studies to determine habitat needs of the gray wolf. This species is classified as "endangered" under the Act. Recreationists may conflict with the life cycles of these animals.

Assumptions

Population trends are expected to rise rapidly in the surrounding communities for the next two decades. Automobile travel by tourists from out of the valley will be somewhat inhibited by increasing gas prices for the next five years. Demand is expected to increase in river use. Part of this increase will be due to recreationists from out of the area staying longer.

Further research will aid management in allocating river use, determining user desires, and facility needs.

Outfitter rafting companies will request more of the allotment of allowed floater use. It is also presumed that private floaters will increase their use of this segment of the river.

As increase in use occurs from floating and fishing, recreation conflicts will occur between user groups. A conflict now occurs between river users and private landowners in the lower segment of the river, and this conflict will increase with increased floating.

The plan assumes that the North Fork Road from Canyon Creek to Camas will be improved to a 2-lane paved highway. This will increase use. The road will no longer be gravel, and more local citizens will utilize the scenic driving loop thru the Park. Furthermore a paved loop road will allow Glacier Park visitors to travel to Flathead valley communities without retracking once they have driven over the Camas Road from West Glacier area.

Management Direction

Direct administration of uses and activities toward maintaining the scenic qualities of the area even though intensive use and development may occur. Management emphasis will be on Outdoor Recreation Opportunity Class Roaded Natural Appearing (RNA). Refer to Table 4.

Design and construct recreation developments to maintain a pleasing view and harmony with the qualities on which designation was based. Recreation facilities will be: (1) located outside the immediate

foreground, (2) complimentary to the view from the river, and (3) accomplished with the benefit of a detailed site analysis to determine site suitability.

Provide developed floater campsites that generally consist of toilets located in upland areas adjacent to the campsite, access trail to the toilet, and standardized campsite identification sign. Toilets will be screened by vegetation or topography from the river and from the campsites but adequately signed for easy location. Sites will be located where impacts on wildlife will be minimized. Campsites will not be located within view of main road, administrative sites or within 100 yards of any private lands where possible.

Provide floater access sites that generally contain one access path with brush cleared wide enough to carry an inflated rubber raft. Minimal facilities will include one toilet, parking for up to 10 vehicles, notice boards and signs.

Locate picnic areas at least five miles apart and away from important wildlife habitat, and on resiliant sites screened from the river. Picnic areas and dispersed areas will be managed under a "pack-it-in, pack-it-out" policy.

Consider logjams a natural hazard to be encountered by floaters. They will not usually be removed. However, individual "sweeper" logs may be removed if they present an extreme hazard to floaters.

Favor wildlife over recreation developments where conflicts occur.

Protect significant historic, scenic, geologic, and archeologic sites.

Permit commercial services to serve the public needs commensurate with maintaining river values.

Encourage public and private efforts designed to protect or improve river values on private land within the river management zone.

Effect management practices that favor rare and endangered species if recreation activities are found to be disruptive of their life cycles and habitat.

Require a non-fee Backcountry Use Permit for overnight use of Glacier National Park.

Develop launch sites at Big Creek Campground, Great Northern Flats and Glacier Rim. Recreation development is to consider environmental education and visitor information.

Sign Forest Service lands to reduce conflict between river users and private landowners.

Develop a plan of action to control serious resource and sociological conflicts as use increases. Pending research will aid river managers in allocating use to outfitter and private floaters, as well as determining total use. (See Research chapter)

Continue the present number of outfitter floating allocations until further analysis supports the need for change.

Ration private floater use only when additional data and research indicates the need for rationing.

FOREST COVER

Situation

The river corridor supports a variety of vegetation. Development and complexity of vegetation types is dependent on aspect, elevation, soil type, depth of soil, moisture and past natural and man-made historical events.

The slopes along the Recreational River segment are covered with coniferous trees and a variety of brush fields. The brush fields are located in Glacier National Park and are mainly a result of a 1967 forest fire.

Trees present include grand fir, Douglas-fir, lodgepole pine, western whitepine, western red cedar, western larch, Englemann spruce, sub-alpine fir, ponderosa pine and cottonwood. Shrubs common to the understory include parchistima, alder, willow, redstem ceonolthus, mountain maple, mountain ash, huckleberry and serviceberry.

The timber resource located on National Forest consists of about 30% of the total timber resource within the corridor. The remainder is owned by private individuals or is within Glacier National Park. With exception of the Glacier Rim area, most tree stands are immature. Glacier Rim is an over-mature cedar-white pine type. Small patches of brush fields occur along the corridor on the west side of the river. Present Forest management practices consist of salvage and sanitation cuts. The mountain pine beetle, has now infested the river corridor. Timber cutting is not a predominate feature in this section of river.

Assumptions

Maintenance of a forest cover for aesthetic values on the west side of the river will continue to be a major management concern. On the Park side, however, the objective will be to continue to preserve the natural condition.

Aesthetics, wildlife and water quality will predominate as key resources, manipulation of forest cover will consider these above values first.

The mountain pine beetle will continue to spread and kill mature lodgepole pine.

Management Direction

Manage timber and other vegetation in the corridor primarily for visual quality and wildlife purposes. The primary objectives for management of forest cover are described under the Recreation, Visual Resource, Wildlife and Water Quality sections of Chapter I.

Allow vegetative manipulation in the river corridor (1) in connection with the construction and maintenance of appropriate developments, (2) to reduce a safety hazard, (3) when determined necessary to prevent deterioration of river values, (4) to improve wildlife habitat, and (5) to maintain a healthy, vigorous timber stand.

Design approved vegetative manipulation projects to protect the values for which the river was classified. Where possible, they will be screened from the river or designed to blend with natural lines, forms, textures and colors. Management activities outside the river corridor will be coordinated with river management objectives to minimize impacts on views from the river. Refer to page 20 for additional discussion of the visual resource and management direction.

RANGE

Situation

Since the river management zone is generally forested, grazing is of minor importance. Presently the Rose Ranch at Blankenship Junction is the only commercial ranching operation that includes grazing along the river. Development of private lands in the area are reducing grazing lands.

Assumptions

Demand for grazing within the corridor will increase, as a result of recreation stock increases on private lands.

Historical grazing use of these lands will continue and can be provided in scenic easements.

Grazing will not be permitted within Glacier National Park or at developed campsites.

Management Direction

Manage grazing under terms of scenic easements to protect resource values.

Favor wildlife and recreation use on National Forest where conflict exists.

Review grazing permits to determine their need and compatability with "Recreational" river values.

FISH AND WILDLIFE

Situation

Big game wintering range is located from Great Northern Flats to Camas Bridge on the Park side of the corridor. The primary winter range on the National Forest extends from Big Creek Campground to Camas Bridge.

Fishing is an important recreational use of this segment of river from June to September. Some hunting and trapping takes place also.

Assumptions

Reconstruction of the North Fork Road will increase the resident population and visitor use and conflicts will rise.

Increasing visitor use along this segment will exert increasing pressure on the fisheries and wildlife resource.

Management Direction

Resolve domestic stock grazing conflicts with wildlife on National Forest lands in favor of wildlife.

Prohibit snowmobile use within the corridor from December 1 to May 1 from Big Creek Station to Camas Bridge annually because of adverse impacts on wildlife.

Prohibit motorized use of Big Creek Campground from November 1 to May 1 to protect wildlife.

See pages 13 through 15 for additional discussion of fish and wildlife including threatened and endangered species and management direction.

VISUAL

Situation

From Big Creek to the confluence of the North and Middle Forks, the river flows through a broad v-shaped valley. In many cases, steep slopes continue down to the waters edge. Views are more open than on the Scenic segment, and roads are seen frequently and for long duration.

Assumptions

The varied and natural appearing characteristic landscape in this segment is a major attraction and one of the reasons for the Recreational classification.

Maintenance and enhancement of the existing characteristic landscape is desirable.

Management Direction

Refer to page 20 for additional discussion of the visual resource and management direction.

LAND USES AND PROTECTION

LAND OWNERSHIP

Situation

From Camas Bridge down river to McGinnis Road all lands west of the river are National Forest. South of the McGinnis Road to Blankenship Bridge are mixed private lands and National Forest. All of the corridor east of the river is within Glacier National Park.

Scenic easement negotiations are underway for the private lands. Acquisitions for fee title are only being pursued on a willing seller-buyer basis.

Assumptions

Development of privately owned land will continue. There will be some development not compatible with the recreational classification before completion of scenic easement acquisition.

Management Direction

Proceed with acquisition of scenic easements on a priority basis.

Inspect and document each scenic easement parcel a minimum of once per year.

Respond in a timely manner (within 30 days) to landowners request for construction or development authorization as required by scenic easement terms.

LAND OCCUPANCY AND USE

Situation

There are a variety of special use permits and easements providing for use of National Forest Lands, in or adjacent to the corridor by private individuals, other Government or State agencies, companies, or public utilities.

Assumptions

Requests for use of National Forest lands for a variety of uses will continue.

Management Direction

Continue to accept and evaluate applications for all uses in the river corridor on a case by case basis. Only those uses that are of a public service, utility, or sanitation nature will be approved. Permits to authorize convenience type use will not be issued.

Modify items currently under permit which are readily visible from the river or main access roads, or do not blend or fit in with the natural environment of the corridor area or terminate them upon expiration of the current permit term. Approve new permit applications only upon completion of an Environment Assessment showing that:

1. The proposed use will be inconspicuous from the river, main access roads or trails where appropriate.

2. Any visible improvements will be designed and constructed to blend or fit with their natural surroundings.

3. Wildlife, fishery, and watershed values will be protected or enhanced.

4. Proposed uses will compliment Glacier National Park defacto wilderness management where applicable.

5. The proposed use will not detract from public recreation uses and experiences available.

FIRE

Situation

Fire occurrence in the lower portion of the Recreational segment has been insignificant since 1930. The Half Moon Fire of 1929 burned some of this area. The area from Dry Creek to Camas in Glacier National Park and small portions west of the river on National Forest lands burned in 1967 in a severe fire. Brush fields have been regenerated with some tree seedlings reestablished.

The Glacier View District conducts an active fire prevention program during the annual fire season. Forest Service aerial patrol, Cyclone Lookout and Huckleberry Lookout in Glacier National Park are the primary detection methods used. Suppression is by ground crews in the area west of the river. Glacier National Park is responsible for fire protection within Park boundaries. Flathead National Forest suppresses fires on State, private, and its own lands.

Assumptions

Man-caused fires will increase because of increased use by people along the river.

Management Direction

Suppress all fires until an approved fire management plan allows otherwise. Fire control objectives are aimed at suppressing fires without use of heavy earth moving equipment.

INSECTS AND DISEASE

Situation

In 1973 endemic mountain pine beetle infestations erupted into an epidemic near Kintla Lake in Glacier National Park. Heavy concentrations of these insects now are present from the Canadian border to Camas Bridge on both the National Forest and in the Park. They are now found in scattered patches all the way to Columbia Falls. Mortality is severe in trees over 6" in diameter.

Dwarf mistletoe is present throughout the older lodgepole pine stands. Generally mortality has been minimum.

Douglas-fir beetle has caused heavy losses over the past 10 years in the larger Douglas-fir trees. Tree crowns appear to thin 3 to 5 years before death.

Healthy stands of trees along the river offer a natural looking experience for the river user.

Assumptions

The mountain pine beetle epidemic will continue until nearly all of the larger lodgepole pines have been killed.

The economic value of lodgepole pine for lumber declines substantially after the dead tree passes through 2 summer seasons. Firewood and pulp value remains for many years.

The mistletoe will infect adjacent newly regenerated trees, unless the stands are burned by fire or large patches are killed by the mountain pine beetle.

Some large Douglas-fir trees will gradually succumb to the Douglas-fir beetle. During the intervening period, the area will be naturally restocked to Douglas-fir.

The naturalness of the river may be lessened for a period as the mountain pine beetle epidemic runs its course. Aesthetic values will be lessened.

Management Direction

Salvage dead trees on the National Forest with horses or light equipment as mortality occurs.

Leave some areas for natural decay and for wildlife trees, especially where logging will reduce the river values.

Construct no roads that cannot later be returned to a natural looking condition.

Provide compatible management on State lands through a memorandum of understanding with the Department of Natural Resources.

ADMINISTRATIVE ACTIVITIES AND IMPROVEMENTS

TRANSPORTATION SYSTEM

Situation

The North Fork Road #210 extends from Columbia Falls to the Canadian border. Although for many years it was administered by the Forest Service, it has now been transferred to Flathead County jurisdiction. This road parallels the Recreational River corridor from Blankenship Junction to Camas Bridge, and it passes in and out of the classified corridor numerous times. It is presently a paved 2-lane highway from Blankenship Junction to Canyon Creek, a distance of 3 miles. From there to Camas, it is primarily a 1½ lane dirt road. The Federal Highway Administration is now preparing an environmental assessment to determine the need to improve the road to a 2-lane paved standard.

The Blankenship Road, county jurisdiction, runs from the North Fork road approximately 3 miles to the Blankenship Bridge, the lower termini of the Recreational segment. Numerous year-round homes occupy the roadside. This road is partly paved.

North of the Blankenship Junction along the North Fork Road for 1 - 2 miles, several access roads extend toward the river to permanent homes.

The only other roads leading to the river are Glacier Rim, Great Northern Flat and Big Creek Campground. All are single-lane dirt.

In Glacier Park a low grade jeep trail runs from the Quarter Circle Bridge down the Middle Fork and up the North Fork to an old logging camp on the river.

Along the Park periphery adjacent to the North Fork River, there is a Park boundary trail that was used for patrol in the past. The trail is in poor condition and rarely used.

Assumptions

Forest #210, the North Fork Road, will be approved for upgrading to a 2-lane paved road from Canyon Creek to Camas Bridge. This will gradually increase traffic.

Paving of the Blankenship Road to the bridge will be completed in the next few years.

The road into Great Northern Flat and Big Creek will be improved as primary access to the river. No impovements will be made on the Glacier Rim roads in the forseeable future.

More roads are expected to be built on the private lands for new home access.

Management Direction

Manage road construction on private lands with terms in scenic easements.

Design river access roads and other road projects on National Forest lands to standards which will protect resources in the river area.

Allow the road and trail in the Park to revert to a natural condition.

SIGNING AND BOUNDARY POSTING

Situation

The river corridor area contains much private land immediately bordering the river and intermingled with National Forest and State lands.

Assumptions

Recreation use of the river and corridor area will increase. This will provide increasing potential for conflict with private landowners. Existing signing by both private landowners and the Forest Service is inadequate to inform recreationists where they are on the river, and if they are on public or private lands.

Some sign designs and sizes are not appropriate along a nationally classified river.

Management Direction

Manage signing on private lands within the river corridor under terms of scenic easements where appropriate.

Sign access sites, mouths of major creeks and points at which floaters are entering and leaving publicly owned shoreline.

MOTORIZED AND MECHANIZED USE

Situation

With the exception of snowmobiles, motorized off-road vehicle use is generally limited by steep slopes and heavy vegetation. Off-road motorized travel within Glacier National Park is not permitted. From Big Creek to Camas Bridge, snowmobile use is prohibited to protect wintering big game.

Assumptions

Motorized river use is generally not appropriate in those areas where it would detract from the natural setting and the near primitive recreational experience sought by many visitors. Motorized craft use of the river at times may cause undue disturbance to wildlife. Upstream motorized traffic has the potential for traffic conflict with downstream non-motorized craft travel.

Management Direction

Prohibit general use of boats driven by motors that exceed 10 horsepower. Use of boat motors in excess of 10 horsepower may be authorized for essential administrative purposes, practice and execution of search and rescue and for research purposes not possible via craft with less powerful motors. Authorization must be obtained from the Forest Supervisor on a case by case basis except that research will be considered on a project basis. The Chief Ranger, Glacier National Park, will be immediately notified of all such authorizations where Park lands border the river. Permission to exceed the 10 horsepower limitation will be granted only for the following reasons:

1. Identified vessels of recognized search and rescue organizations or agency actively involved in search or rescue activities for suspected injured or drowning victims. Permission will not be granted for search for lost or damaged vessels, or equipment.

2. Identified vessels of recognized search and rescue organizations or agency (FS, NPS, State) actively involved in training runs, or agency administrative or research activities not possible via craft propelled by a 10 horsepower or less motor.

3. All excepted vessels will be clearly identified while on the river. No recreational equipment will be carried on board during these trips.

Areas or roads in the river corridor may be closed to all or certain types of motorized travel to protect resource values. Such closure will be effected by a special closure order signed by the Flathead Forest Supervisor and publicly posted.

VISITOR MANAGEMENT

Situation

At present, recreation river and corridor users are only restricted by those regulations in force and applicable to other areas of National Park, National Forest, or State lands in the area.

River float outfitters are regulated by National Forest Special Use Permit.

Assumptions

Floater use is growing but has not reached the upper limits of river use capacity.

Management Direction

Support research efforts to determine river floater recreation carrying capacities. Defer implementation of a mandatory float permit system until necessary.

ADMINISTRATION ORGANIZATION AND RESPONSIBILITIES

Situation

The Forest Service has been designated as lead agency for river management activities in the classified Flathead River System.
The National Park Service and the State of Montana retain management responsibility for their lands within the river corridor.

The Forest Service, the National Park Service, and the State of Montana, Departments of Natural Resources and Conservation, and Fish, Wildlife, and Parks have participated cooperatively in the formulation of this River Management Plan.

Current National Forest administrative responsibility for management activities on the Recreational River is with the Glacier View Ranger. On the District, there is an individual assigned river management duties as a part of his overall job responsibility. Management responsibility for Glacier National Park lands within the river corridor is with the Chief Ranger.

Assumptions

As public use and associated demands of the river corridor continues to grow, more management and administrative staffing time will be needed.

Management Direction

Provide an adequate work force to achieve the objectives of this plan. Develop a permanent professional staff to administer the protection of river resources, and to enhance the experiences of river users.

Form a team of Glacier View District and Glacier National Park personnel and several landowners to stay abreast of potential problems and opportunities.

VISITOR INFORMATION SERVICE (VIS)

Situation

Principal responsibility for search and rescue operations on lands outside of Glacier National Park, on the river and in the corridor area resides with the Flathead County Sheriff. Within Glacier National Park the National Park Service has exclusive jurisdiction.

The Forest Service and National Park Service may assist with search and rescue operations in emergency situations on an as needed basis on the river as in other areas.

At present, little published information on river floating and use of the corridor area is available from management agencies. The river corridor has little informative signing at access sites. Recreation

visitors have little opportunity to discuss river floating and its hazards with management agency personnel unless they stop by a Ranger Station and actively solicit it.

During high spring runnoff (normally May and June) the North Fork of the Flathead river offers greater hazards to river floaters. This arises from two situations. Water temperatures are extremely low during this period and can quickly induce hypothermia (lowering of the body temperature) in persons immersed (or wet from spray or rain) in the water. Secondly, the severe wave action, turbulence, and obstacles in the water can overturn a boat or raft and place the occupants in danger of drowning in the swift, turbulent water. In some areas the river is not readily accessible to the highway and it may be difficult to obtain assistance in an emergency situation.

Assumptions

River use by both qualified and beginner river floaters will increase with more people on the river. The chance of emergency incidents will increase as well.

Portions of the river may be more safely floated with proper equipment, skill level, and the knowledge of the river during a portion of the use season.

The provision of information to the public, relative to floating, by the agency is an important management tool to help insure a safer, higher quality recreational floating experience.

The decision to accept the risks associated with river floating are personal decisions to be made by each individual. Risk is an integral part of the river floating experience.

Management Direction

Continue Forest Service cooperation with the Flathead County Sheriff and other agencies, as appropriate, in search and rescue missions in the river and corridor area.

Provide information to users on potential hazards, type of equipment, and river safety through publications, recreation visitor services at Ranger Stations, and at access sites through signing or visitor contact where feasible. The final decision to accept the risk and the consequences of a river float will be made by the individual recreationist.

STRUCTURES AND IMPROVEMENTS

Situation

The only agency administrative structures in the corridor are at Big Creek Work Center. These include all the facilities at the Work Center, all facilities at Big Creek Campground and some facilities at Upper Big

Creek Campground. Most of these structures blend in with the natural environment and are not obtrusive. They have been in the area for many years.

There are numerous private structures within the corridor. Most are far enough away to be unobtrusive. In some instances, structures do detract from natural river values.

There are private structures within the corridor. Most are far enough away to be unobtrusive. In some instances, structures do detract from natural river values.

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Assumptions

Existing agency administrative structures, improvements, and recreation developments are necessary and will continue to be maintained with regard for river recreation and resource values. Additional recreational access sites will be developed as proposed in the Recreation section of this chapter. Care will be taken to insure that additional recreational and access site developments are compatible with river recreation and resource values and are the minimum developments needed to meet their purpose on a site by site basis.

Management Direction

Developments on private lands in the river corridor will continue. Scenic easement controls, when acquired, will provide protection to river recreation and resource values. Scenic easements will be acquired on all lands in the river corridor as detailed in the Flathead Wild and Scenic River Acquisition Plan.

RESEARCH

Situation

There is a continuing need for data on the recreational carrying capacity and experience expectations of recreation visitors to the river and corridor area. There is also a need for data regarding fish, birds, and wildlife that inhabit or pass through the corridor. It will be increasingly important to understand how growing recreation use affects the corridor resources and inhabitants. See Chapter IX, Research.

Assumptions

The need for research data relative to the river and corridor area will continue.

Management Direction

Encourage and where feasible support, bonafide research efforts at filling identified research needs.

CHAPTER IX

RESEARCH

One of the major needs related to administration of the Flathead Wild and Scenic River is that of more adequate data on which to base management decisions.

Recreation stock use along the South Fork Wild segment within the Bob Marshall Wilderness is having a major impact on the area's ecology. Because of the remoteness of this stretch of river, recreation stock is heavily used to transport river floaters, their equipment and supplies to launch points, and in many cases provide logistics support for each camp established during the float down river. The corridor is also a focal point of hunting camps in the fall, and a multitude of backpackers and horseback wilderness users during the summer. Consequently, range degradation is occurring on many popular campsites. In order to gain more information about the range situation along the South Fork, a two-year range study will begin in the 1980 field season.

Although river managers currently have some data on which decisions regarding social and physical carrying capacities of floaters can be made, a comprehensive study of the three forks of the Flathead is needed to supplement the present state of knowledge. To meet this need, Flathead National Forest and Glacier National Park have entered into agreements with the Department of Wildland Recreation Management, College of Forestry, Wildlife and Range Science, University of Idaho to conduct a two-year study of the three forks of the Flathead. The study will be conducted under the supervision of William J. McLaughlin, Ph. D., principal investigator, and Edwin Krumpe, Ph. D., co-investigator.

The study is being coordinated with Forest Service wilderness research being conducted by Robert C. Lucas, Research Project Leader, Forestry Science Laboratory, Missoula, Montana. Also, John H. Schomaker, Research Forester, and David W. Lime, Research Social Scientist, of the Forest Service, North Central Forest Experiment Station, St. Paul, Minnesota, have been consulted regarding the merits of this study and they have given their support to the effort. The Flathead study will compliment the National River Recreation Study now being conducted by Lime and Richard C. Knopf, Research Forester. An advisory group composed of river managers, Forest Service researchers, and representatives of commercial outfitters, non-commercial floaters and corridor landowners

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will provide consultation on the execution of the study. The South Fork portion of the river study will compliment the range study being conducted there at the same time.

The study's overall purposes are to determine the perceptions, characteristics and distribution of participants in river recreation on the North, Middle and South Forks of the Flathead River and to investigate in an exploratory manner the relationships between the management preferences of present users and existing setting opportunities (physical and social). The specific objectives are:

1. To determine the characteristics of the river users of the North, South and Middle Forks of the Flathead River. This will include demographic characteristics (e.g. age, sex, occupation, residence, income, etc.) social characistics, (e.g. group size and type, behavior, spatial tolerance) desired psychological outcomes as defined by B. L. Driver, and information concerning location of user, and recreation activity characteristics.

2. To identify the preferences of existing users for maximum group size, number of parties, proposed river management policies, river campsites and/or day use facilities and presence of outfitters.

3. To determine if users perceive differences between the sections of river classified "Scenic" "Recreational" and "Wild".

4. To establish and monitor throughout the recreation use season selected observable human impacts for a series of sites along the South, North and Middle Forks of the Flathead. These will be identified and selected in conjunction with the agency managers. The emphasis will be on monitoring change and the establishment of reference points for the future.

This 2-year study will be done in conjunction with an on-going non-agency funded 3-year study (November 1979 - November 1983) entitled "Cognitive Images, Visitor Profiles and the Choice Process in Dispersed Forest Recreation." The on-going study includes only the North Fork of the Flathead and focuses on the development of a theoretical framework linking prototypic cognitive images of recreation environments with the recreation choice process.

The combination of the two projects will provide the following information useful to managers:

1. Recreation resource impact information.

2. Information on perceptions of present use levels.

3. Information on user satisfaction.

4. User preferences for permit allocations.

5. Users perceptions and preferences of management practices according to the Scenic, Wild, and Recreational River class ification categories.

6. Identification of users' motives and reasons why they float the three forks of the Flathead River.

This information will be used by managers in refining this river management plan and in making daily management decisions.

Another significant aspect of the study is that little, if any, research is presently being conducted to explore the theorized conceptual linkage between the recreationist's mental image of a particular recreation setting and how that image is used by the recreationist in choosing recreation settings. The potential of adding to our existing knowledge about prototype formation and man's perception of the riverine environment also make this work important.

More detailed information on the methodology of the river study is contained in Appendix C, River User Study Methodology.

The individuals listed below have been asked to serve on a study project coordinating committee in an advisory role. They represent State and Federal agencies, outfitters, landowners, non-outfitter river runners and scientists who have knowledge of and interest in the management of the Flathead River. The group will meet periodically throughout the course of the study and provide input related to the design, execution, and analysis of the research project.

Dr. Bob Lucas
Intermountain Forest and Range Experiment Station

Dr. John Schomaker
North Central Experiment Station
USDA Forest Service

Mr. Jerry Stokes
Recreation Staff Officer
Flathead National Forest

Mr. Tony Buechel
Recreation Staff
Montana Department of Fish Wildlife and Parks

Mr. Dick Call, District Ranger
Glacier View Ranger District

Mr. Jerry DeSanto
Subdistrict Supervisory Park Ranger
Glacier National Park

Mr. Chuck Sigler
Chief Ranger
Glacier National Park

Mr. Leo Marnell
Aquatic Ecologist
Glacier National Park

Mr. Bob Morey
Wilderness Specialist
Glacier National Park

Mr. Rick Fitzgerald, Outfitter
Big River Traverse

Mr. Chuck Brooks, District Ranger
Hungry Horse Ranger District

Mr. Fred Flint
Spotted Bear Ranger District

Mr. Dave Panabaker
Subdistrict Supervisory Park
Ranger, Glacier National Park

Mr. Pat Graham
Project Leader
Flathead River Basin
Fisheries Study

Mr. Onno Wieringa, Outfitter
Glacier Raft Company

Mr. Gus Sonnberg
North Fork Land Owner's
Association

Mr. Mike Daily
Local private floater

Mr. Tom Vars
Division of Forestry

Mr. Jim Dolan
Recreation and Lands
Wilderness and Wild/Scenic Rivers Coordinator
Region 1, Forest Service

Mr. Roland Cheek, Outfitter
Skyline Outfitters

Mr. Reno Baldwin, Outfitter
Great Northern Rafting

Mr. C. B. Rich
Professional Wilderness
Outfitters Association

Dr. Dave Cole
Research Ecologist
Intermountain Forest and
Range Experiment Station

Mr. Robert F. Salandi
Local private floater

Dr. Steve McCool
School of Forestry
University of Montana

Mr. Sid Goodrich
Middle Fork landowner

Mr. Ernie Clark
Local private floater

CHAPTER X

PUBLIC INVOLVEMENT SUMMARY

Notices of the draft management plan were sent to 360 landowners, 40 Federal, State, and local Governmental agencies, 5 newspapers, and 7 radio stations. Requests for copies of the plan were received from 103 landowners, 10 Governmental agencies, 83 other citizens, and 12 outfitters. Written responses were received from 8 landowners, 8 local floaters, 3 non-local floaters, 16 outfitters, 19 Forest Service employees, 5 Governmental agencies, 3 local citizens, 4 non-local citizens, and 3 unidentified respondents for a total of 69 responses. The high number of Forest Service personnel who commented resulted from review of the draft plan by Regional Office personnel representing various resource disciplines, and by other Forest Service river managers in Region One. In addition to the written comments, oral comments were received at a meeting with outfitters representing seven outfitter operations and another meeting with eight private floaters representing the general local floating public.

A ninety page analysis of comments was compiled. This analysis displays all comments by draft plan page number to which each comment applied. These comments were helpful in defining management direction in the plan.

The major concerns identified from the public responses are listed below. They are not listed in the order of importance. All comments received are on file at the Flathead National Forest Supervisor's Office, Kalispell, Montana.

Concern:

> Many comments were related to the absence of use data in which the need for restrictions such as permits and limits on number of users could be justified.

Response:

> Management direction related to size of party and frequency of launches for outfitted parties is based on mechanical counters, estimates by managers and actual numbers of floaters served by outfitter operations and the recreation opportunity that is to be provided by each river segment. If further research so warrants, management direction will be modified accordingly.

Proposals to institute a permit system for private floaters have been deferred pending completion of the river user study in 1982. (See Research, Chapter IX).

Concern:

Restrictions placed on Recreational segments were generally felt to be unnecessary and not in keeping with the definition of "Recreational".

Response:

No permits will be required for non-commercial floaters on Recreational segments and there will be no limits on non-commercial party size or number of launches and unless further information indicates such controls are necessary.

Commercial party size has been increased on the Recreational segment most heavily used by outfitters by allowing party sizes of more than 20 people per launch if they can be safely accomodated in four rafts.

Concern:

Implementation of a permit system for non-commercial floaters was widely opposed.

Response:

No general permit system will be implemented on the Wild, Scenic, or Recreational segments until and unless further information at a later date indicates a permit system is needed on these segments.

Concern:

River managers need more research data on which to base rational, defensible management decisions.

Response:

Glacier National Park and Flathead National Forest are jointly funding a two-year study, beginning in 1980, and to be conducted by the University of Idaho Department of Wildland Recreation, to gather additional information on which to base social and physical carrying capacity.

Concern:

Outfitters feel the percentage of total use allocated to paying guests is discriminatory.

Response:

Private use will not be rationed at this time on any segment. Thus no allocation between commercial and non-commercial users exists.

Concern:

The tone of the draft plan is restrictive in nature.

Response:

Several of the restrictions found in the draft plan have been modified or eliminated. The approach to management of the Flathead Wild and Scenic River will be to inform and educate river users in low impact camping and other environmentally sensitive practices. River use and possible resource damage will be closely monitored. If all other management methods fail to protect the river resource, restriction will be used.

Concern:

Corridor landowners are being adversely impacted by the growing numbers and actions of other river users.

Response:

Public access sites are being developed along those river segments bordered by private lands. The corridor will be signed during 1980 to advise river users where private lands are. A user guide to the three forks will soon be available showing public and private lands and public access sites. Those developments, and provision of more information and education through more visitor contact as called for in the plan will alleviate much of the landowner concern about public use of the corridor.

APPENDIX A

RIVER USE

1. "Launch" Is defined as the original entry into the river at the start of any given river float trip.

2. "River Float Trip" Includes any trip where the primary means of travel or advertised reason for the trip is by river craft including rafts, canoes, kayaks, dorries, or other recognized types of craft. Not included are swimming, wet suiting, snorkeling, tubing, etc.

3. "River Use Allocation Display" The following chart displays allocation of recreational river float trips to the commercially outfitted.

4. "River Float Season" - While segments of the river system may be floated, at various levels of difficulty, from April through October, the primary use periods for the three forks of the river are as listed below:

South Fork (Wild)	7/1 - 8/30
South Fork (Rec.)	6/15 - 9/5
Middle Fork (Wild)	6/1 - 7/30
Middle Fork (Rec.)	5/15 - 9/5
North Fork (Scenic)	6/1 - 8/15
North Fork (Rec.)	6/1 - 8/15

	No. of Outfitter Launches	No. of People per Outfitter Trip inc. Boatmen, Guides, etc.	No. of Outfitters Permitted
South Fork Wild River Within Wilderness	3/wk.	10*	5
South Fork Wild River Outside Wilderness	3/wk.	10*	1
South Fork Recreational River	2/day	20	1
Middle Fork Wild River	3/wk.	10*	3
Middle Fork Recreational River Except Moccasin Cr. to W. Glacier	15/day	20	5
Middle Fork Recreational River Moccasin Cr. to W. Glacier	12/day	20**	
North Fork Scenic River	4/day	15	3
North Fork Recreational River	9/day	20	

* Size of party in individual wild river trips may be increased a maximum of 20 percent per trip by the river manager if in his judgment the outfitter is adopting innovative methods not generally in common use by the industry and which will lead to a significant reduction in resource impacts.

** 20 people per launch (or 4 boats per launch with number of people determined by manufacturer's boat loading capacity recommendation).

5. Guidelines for outfitted or guided river float trips:

A. A legitimate outfitter who operated acceptably during the season will have preference for a similar permit the following year.

B. When outfitter vacancies occur due to termination of permit or sale of real property, the following procedures will be followed:

a. Reevaluation of public need for continued outfitter services.

b. If a need is shown a determination of whether an existing outfitter should be allowed to provide the necessary services or

c. Selection of a new outfitter based on qualifications of applicant, ability to meet specifically identified public service need, resource value protection.

C. Outfitter/Guide permits or permit privileges are not transferable, assignable, or salable. The sale of an outfitter business (real property) does not guarantee the new owner of the equipment will be selected to receive a permit.

D. Permit applications from previous season outfitters will be accepted 9/1 - 3/31, and tentative approval or disapproval will be made within two weeks of receipt of the application.

E. Permits are terminable for violation of any permit clauses or limitations. A permit terminated for cause will not be reissued to the same individual, partner, or company at a later date.

F. Fee payment will be by a lump sum payment prior to going on the river. This payment will be based on the outfitters best estimate of service days he will be able to use within the limits of the permit.

G. Permits will be issued to applicants only when acceptable proof of insurance is provided, fees are paid, and certification of required first aid training is provided.

H. One boatman per party must have, as a minimum, current American Red Cross certification of completion of standard course and CPR training.

I. The outfitter must certify in writing that each individual boatman has piloted a craft through the section of river he will be operating on a minimum of 3 times (Middle Fork), 1 time (South and North Forks), and that he is thoroughly competent to handle the type of craft and equipment that the outfitter will use.

J. Prior to commencing season operations the outfitter will furnish a list of boatmen and certify their experience. The river manager must be notified of any changes in boatmen.

K. The permittee must have, in his possession, a complete, approved copy of the permit before going on the river.

L. Wild River launch dates may not be changed without the approval of the river manager.

M. All river camps will be temporary in nature and all improvements or equipment will be set up and removed with each trip. Each campsite use must be approved by the appropriate river manager for the permit.

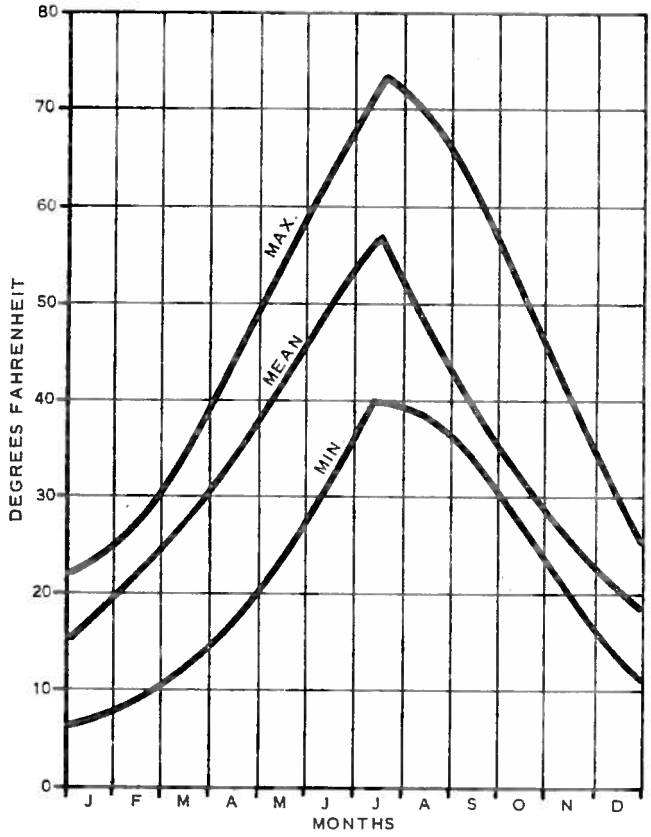
N. The outfitter will notify the appropriate river manager as soon as possible or within 12 hours of the end of the trip of any personal injury requiring a doctor's care or in the case of property loss or damage in excess of $200.00.

O. Training trips must be scheduled by the outfitter and approved in advance by the river manager. Training trips will be limited to 3 per season per outfitter on Wild River segments.

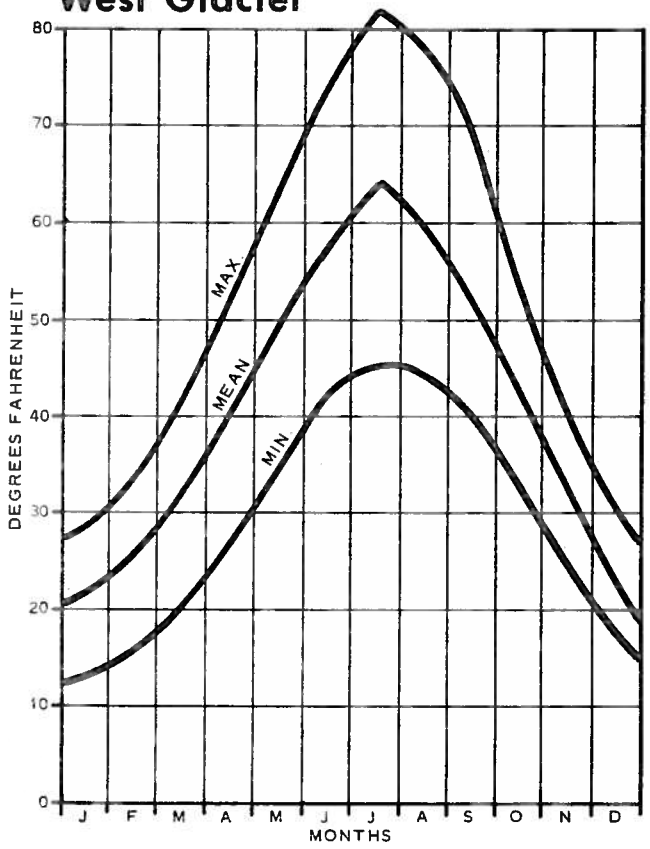
P. The permittee will furnish the appropriate actual use records on a monthly basis or as otherwise directed.

Daily Mean Temperatures

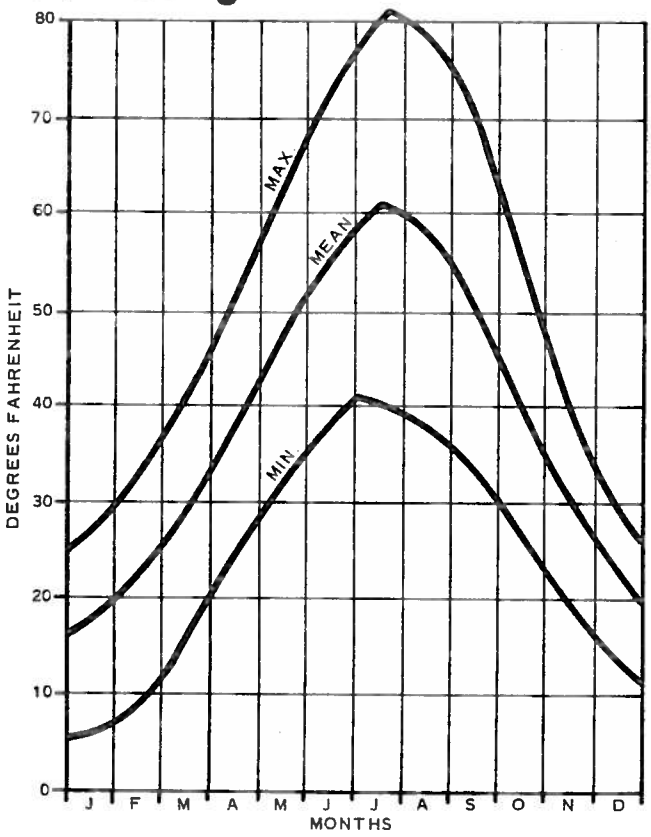
Summit



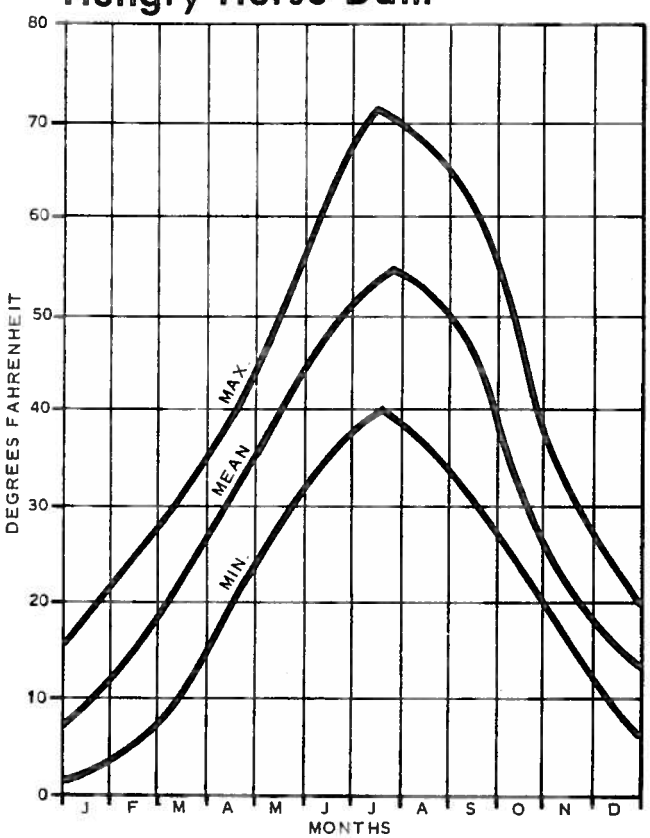
West Glacier



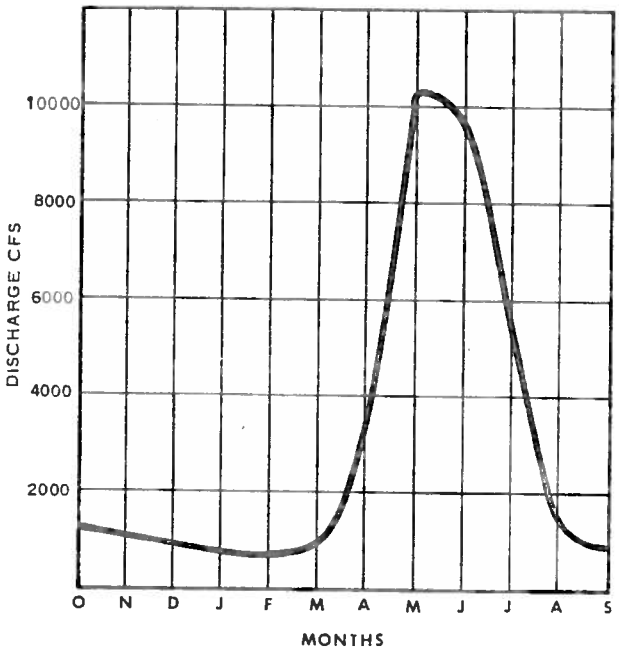
Polebridge



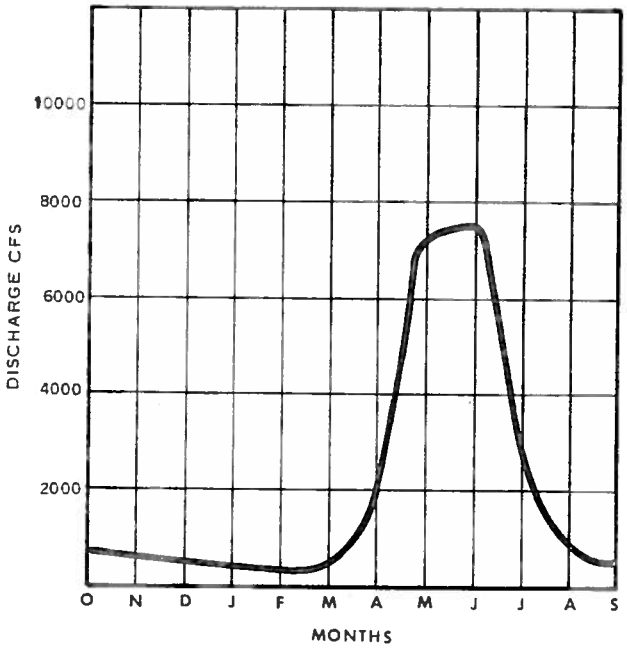
Hungry Horse Dam



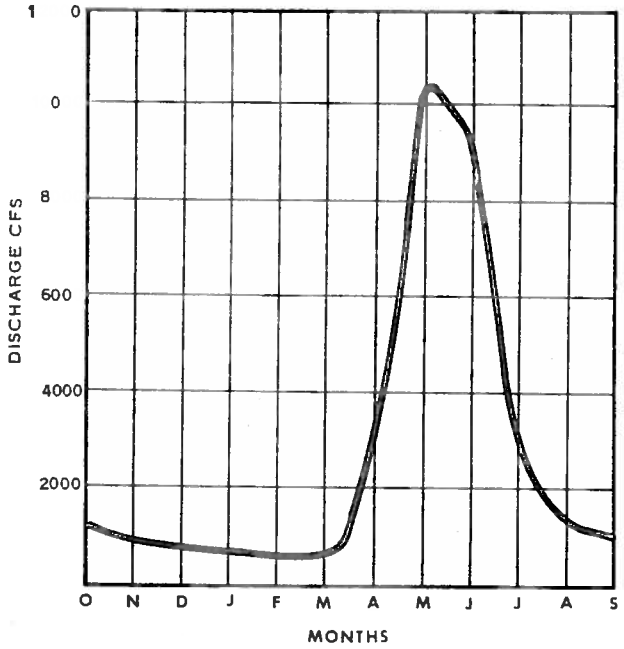
Mean Monthly Discharge



MIDDLE FORK at West Glacier

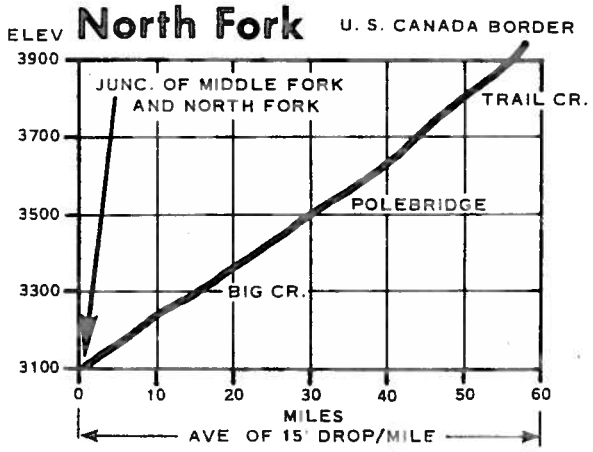


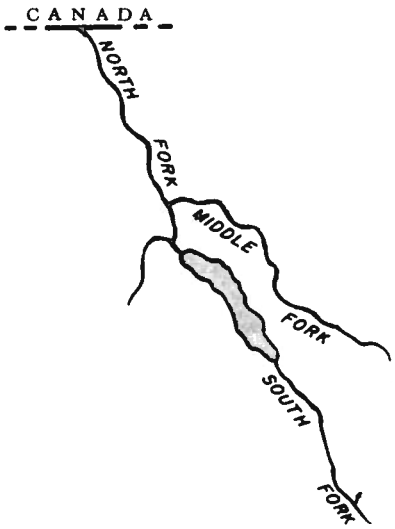
SOUTH FORK at Spotted Bear

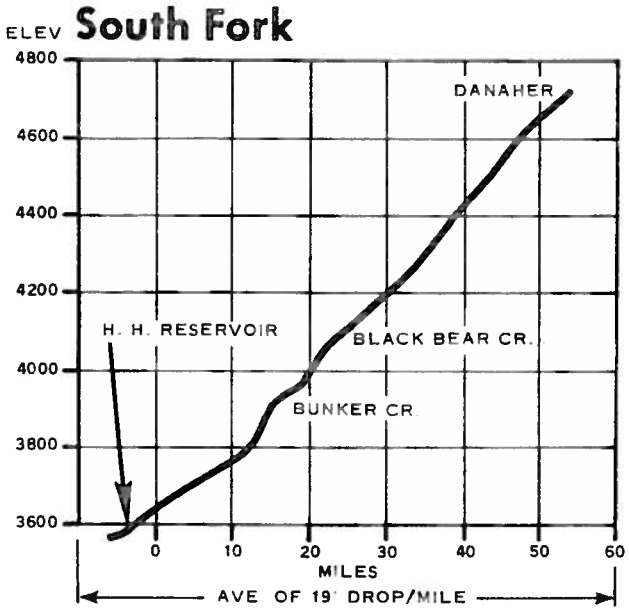


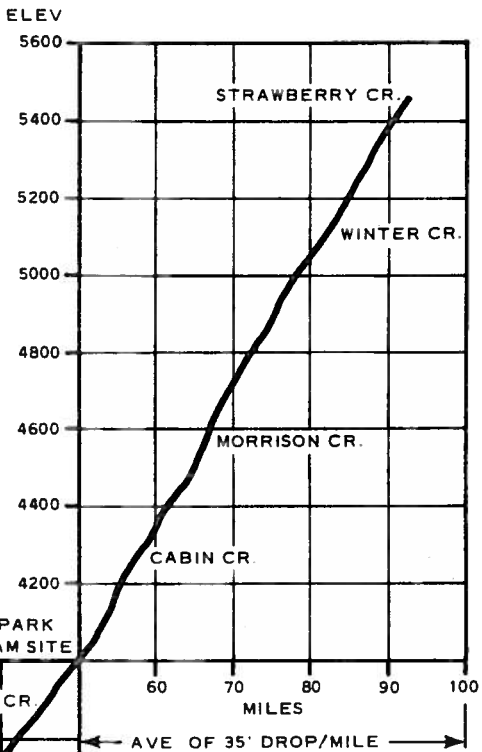
NORTH FORK near Big Creek

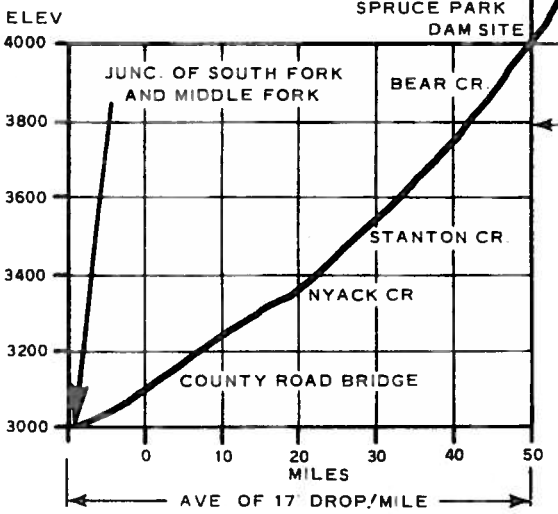
River Gradient Profiles





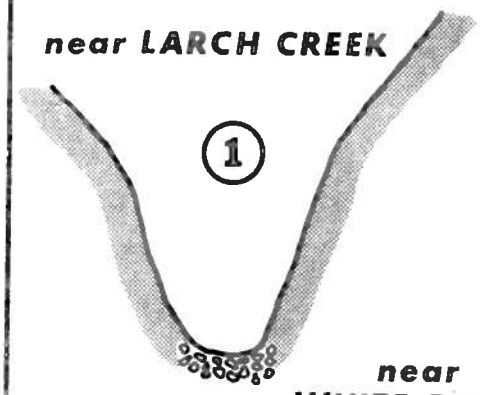


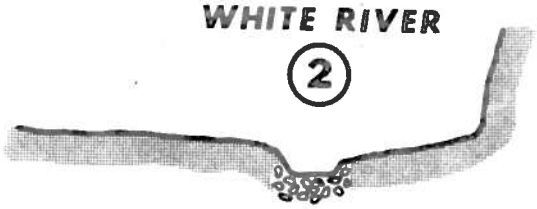


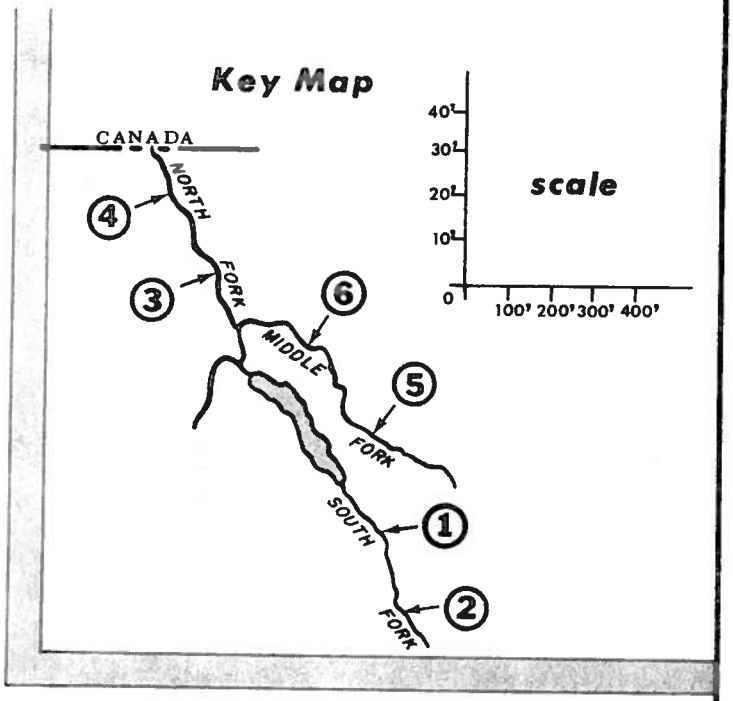


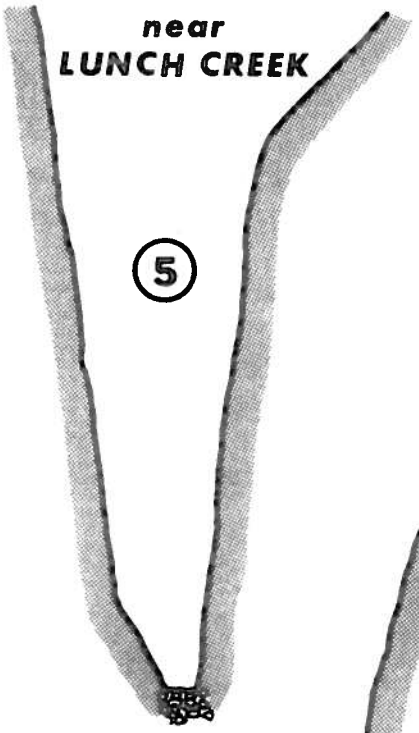
Middle Fork

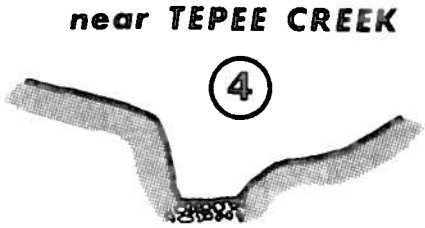
RIVER CROSS SECTION

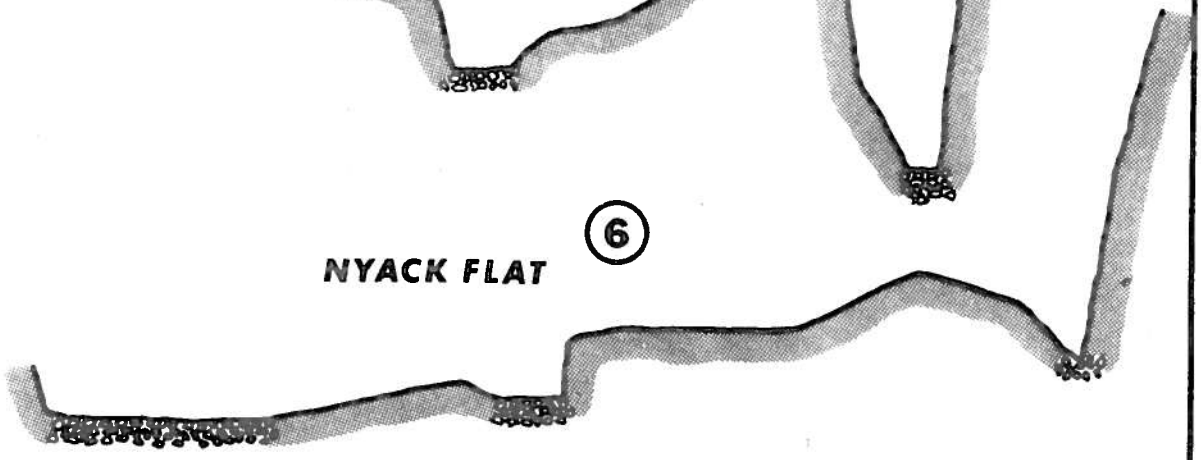












APPENDIX C

FLATHEAD WILD AND SCENIC RIVER USER STUDY

METHODOLOGY AND PROCEDURES

Methodology for Objectives 1, 2, and 3: (See study objectives in Chapter IX)

The survey research method will be utilized to accomplish these objectives. In particular, questionnaire design and administration will follow the Total Design Method (Dillman 1978). Major steps of the survey research process are briefly addressed in the following material.

Prioritized listings of future management issues (i.e., physical and social) relevant to the North, South and Middle Forks of the Flathead River have been developed by the researchers using the nominal group process technique (Delbecq, Van de Ven and Gustafson 1975). River managers from the National Park Service, the U.S. Forest Service, and river outfitters participated in this process in September of 1979. This information will be used in designing the management oriented questions and in an attempt to assure relevance.

The information obtained from the nominal group process technique combined with the objectives of this study, previously used methods for operationalizing the prototype concept, and continued inputs from agencies will be used to develop and refine objectives for each of the survey techniques proposed for use. As is shown in Figure 1 these include a pretrip interview and a post-trip questionnaire. The pre-trip interview will be structured and include a user response form which will illicit user expectations and preferred psychological outcomes (motives) toward river recreation and the riverine environment. The post-trip mail-back questionnaire will contain questions designed to determine resulting preferences and perceptions of subjects with regard to the physical, social and managerial attributes of the riverine environment after a trip is completed. Additional questions addressing demographic and social characteristics, recreation activity characteristics, management preferences, and other items will be included. The final block of questions used in the mail-back questionnaire will use a picture format and solicit responses pertaining to the subject's cognitive image of the river. The process used to design these instruments (i.e., pictures) is more fully described in the following pages.

Figure 1. Questionnaire Administration Timeframe (a)

Pre-trip Interview	River Trip	Post-Trip Questionnaire
R O_1	X	O_2
R	X	O_2

For the purposes of sampling design the population will be all recreation float users of the Flathead River. The sample population will include rafters, canoers, kayakers and any other non-agency boat users of the river that are 16 years of age or older. For the pre-trip interviews, users will be contacted at the beginning or termination of their river trip at known informal and formal North, South and Middle Fork launch points. A trained surveyor will administer a short (5-10 minute) interview. The post-trip mail-back questionnaire will be sent to randomly selected river users within two weeks of trip completion. Launch and egress points will be identified through consultation between river managers and investigators.

The sample size and randomization procedures will follow accepted sampling methodology (Bailey 1978, Hays 1973, Cochran 1977). The preliminary design is to sample on randomly selected days of each month from June to September and survey all users encountered. Trained surveyors will obtain the subject's name and address.

All questionnaires will be pretested. The pretest will be done using two purposively selected audiences. The first audience will be a group of thirty randomly selected undergraduate freshmen and sophomore students in the Department of Wildland Recreation Management who have never run a river. These individuals will be asked to complete each questionnaire and specifically address the issues of question clarity and length. A second group will consist of randomly selected individuals from a list of names provided by outfitters of individuals who had run the river in the 1979 season. This group will be able to deal with the questionnaires based upon actual participation in river recreation on the Flathead River System. Pre-test results will be analyzed and necessary revisions will be incorporated into the final questionnaires.

a. Footnote: "An X will represent the exposure of a group to an experimental variable or event, the effects of which are to be measured; O will refer to some process of observation or measurement; the X's and O's in a given row are applied to the same specific persons. The left-to-right dimensions indicates the temporal order, and X's and O's vertical to one another are simultaneous . . . a symbol R, indicating random assignment to separate treatment groups (Campbell and Stanley, 1963, p. 6).

Data resulting from questionnaires will be coded and keypunched for computer analysis. Standard statistical packages, like SPSS (Nie et al. 1970) and SAS (Barr et al. 1976), available at the University of Idaho will be used. Answers will include nominal, ordinal, interval and radio level responses. Initial analysis of information will be completed using descriptive statistics, like frequency, means, and medians. Parametric and non-parametric statistics will be used when testing hypotheses and inferences underlying the research objectives.

Data on desired psychological outcomes will be analyzed using cluster analysis. Clusters of scale items will be defined according to confidence limits using the ICLUST program (Revelle 1979). The NORMIX program (Wolfe 1971), a minimum variance clustering on the basis of euclidean distance, will be used to group subjects according to definable outcome types. Relationships between outcome types and setting attributes and management preferences will be measured using multivariate non-parametric and parametric statistical techniques (Nie et al. 1977, Hayes 1973).

Research techniques employing both university students and recreationists as test subjects will be used to identify and describe prototypic images of the study area. The students will be utilized in the initial phases of the study to develop prototypes which will subsequently be presented to the recreation users of the river in the questionnaires described in objective 1. It is realized that students may be atypical but the use of students is deemed acceptable due to the exploratory nature of this step which will identify prototypes. Furthermore, because a concept is being demonstrated there is little need for generalizability at this point. The cost-effectiveness of using students is an additional consideration.

Bias resulting from not using a group of subjects who have actually experienced the study area environment to develop the prototypes will be minimized by exposing subjects to a simulated trip down the Flathead River using 35mm color slides taken at equal intervals along the corridor. To avoid introducing bias as to what is representative an impartial random view sampling procedure was used to collect the photographs. The simulated trip approach will allow the researcher to eliminate other intervening variables that may influence the recognition of a particular feature. For example, a user might recall a particular feature based on an experience such as falling out of the raft next to the large oval shaped rock protruding from the water. The simulated trip offers a way to control for such influences.

The procedures that will be followed to identify and describe prototypes are briefly described in the following steps:

1. Develop a simulated trip down the Flathead River using 35mm color slides. This was completed in August and September of 1979. Randomly sampled views taken at equal intervals along the river corridor were photographed and their approximate geographic location recorded on U.S.G.S. 7½' topographic maps.

2. Randomly select 35-50 subjects (students) and expose them to the slides that make up the simulated trip. Each slide will be seen in the sequence that it would be encountered if the subjects had floated the river. Each color slide will be left on the screen for five seconds. A standard set of instructions will be developed and used in this procedure.

3. Using a free recall methodology (Klatzky 1975), subjects will be asked to list and assign an importance rank to those attributes or features of the river environment which they recall from the simulated trip. This step will be conducted within a time period (6-30 days after step 2) that assumes long term memory storage and minimizes forgetting differences. These recalled attributes will be utilized in procedure 9 described below.

4. Subjects will view the similated trip for the second time and be asked to rate how strongly they recognize and prefer each slide. Recognition and preference will be measured using a likert-type assumed interval scale. This second viewing will take place somewhere between 6 and 30 days after subjects are exposed to the first simulated trip. Each slide will be viewed for 15 seconds. This time allows for the two ratings to be made. "Distractors," slides from other rivers, and additional slides of the Flathead will be included as controls. These should encourage subjects to respond in accordance with actual recognition and discourage guessing.

5. Subjects will then be asked to sort pictures based on perceived similarities. The Q-sort technique (Kerlinger 1964) will be used.

6. The data collected in procedures 4 and 5 will be used to group scenes into categories. Similarity categories will result from the Q-sort. Preference and recognition categories will be developed by conducting a cluster analysis of slides using the resources on the likert-type scales for preference and recognition. Clusters will be defined according to a prescribed confidence limit imposed on the analysis (.05 level) using the ICLUST program (Revelle 1977). These clustering techniques will provide categories that can then be tested for correlation. This will allow the relationships between preference and recognition, similarity and recognition, and preferences and similarity to be explored.

7. Using the similarity, preference and recognition categories developed in procedure 6, subjects will be asked to define and rank order within each category the features which they feel best portray that category.

8. Slides assigned to each of the similarity, preference and recognition categories will then be ranked by the subjects according to how well they represent the subject's image of that category. This will give each scene a measure of prototypicality (Rosch and Mervis 1975).

9. Scenes that are assigned a high prototypical ranking in procedure 8 will be analyzed to determine which of the attributes or features identified in procedure 3 and 7 are present.

10. Construct using photographic and/or graphic techniques a picture or drawing that is made up of attributes listed as important for each of the identified categories. These will serve as researcher constructed prototypes.

11. Include in the mail-back questionnaire the researcher constructed prototypes for each category, scenes that received the highest and lowest prototypicality rating within each category, and a series of detractor scenes. These would then be rated by the sampled river users on the same preference and recognition scales that were used in the development of prototypes.

12. Recognition ratings of the prototype and detractor scenes obtained from respondents to the mail questionnaires will be used to test a series of hypotheses that will allow the researchers to infer the existence or non-existence of prototypes for the Flathead River. The data analysis will utilize multivariate, non-parametric and parametric statistical techniques (Nie et al. 1977, Hayes 1973, Revelle 1979, Wolfe 1971).

Methodology for Objective 4:

The objective is to establish and monitor selected observable human impacts for a series of sites along the North, South and Middle Forks of the Flathead River throughout the recreation use season. The emphasis will be on monitoring change related to human use and to establish baseline reference information for future comparisons. The study sites will be identified and selected in conjunction with agency managers. These study sites will include both places that are presently used and sites that are currently unused but have potential for recreational use. Some sites will be selected randomly and others will be purposively sampled.

The photometric index method of collecting data (Sullivan and Kipp 1975) will be used to collect and measure the impact data. This method employs repeated photographs from the same point on each site. From these photographs, impact data is collected for each square foot of the site using a reproducible calibrated overlay grid which compensates for depth-of-field and changes in perspective of the photographed site.

To prepare the calibrated overlay grid a clean dry surface is marked off in a 6 foot by 16 foot rectangle with masking tape. The rectangle is then divided into two-foot squares and a photograph is taken from a position six feet beyond the mid-point of the short side at a camera height of six feet above the surface. A 5" x 7" black and white photograph is developed and printed. A sheet of clear acetate is then placed over the photo and the masking tape grid is traced in black ink. Each square is then further divided into four squares, dividing an area that represents four square feet into one foot squares (squares at the top of the overlay are smaller than those at the bottom). This grid overlay will be used to rate the amount of each variable in all photographs taken at sampled sites.

An index will be constructed for each variable to be monitored over time. These variables are: (1) bare mineral soil; (2) shrub cover; (3) herb cover; (4) organic litter cover; (5) man-made litter; (6) man-made artifacts; and (7) vegetation damage. Variables to be recorded for each site on a one time basis include: (1) elevation; (2) slope; (3) aspect; (4) slope position; (5) habitat type; (6) parent material; and (7) microtopography.

Changes over time will be measured by comparing index values for each variable measured over time. Nominal classifications such as habitat types will be correlated with index changes which we are assuming represent interval data.

Presently it is estimated that 62 sites will be monitored. Each site will be monitored 3 times during the peak river use season. This procedure will be conducted both years and a photographic record maintained. This method was selected over others that were reviewed (Frissell 1965, 1973; Helgath 1973; Magill 1970) because of its simplicity, reproducibility, ease of application and low cost.