FISHERIES MANAGEMENT PLAN

FOR THE

SOUTH FORK FLATHEAD RIVER DRAINAGE

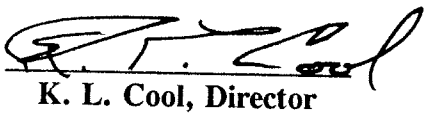
including Hungry Horse Reservoir, and the
South Fork Flatehad River upstream from Hungry Horse Reservoir

Developed by:

The Montana Department of Fish, Wildlife and Parks,
U.S. Forest Service,
and a
Citizen Committee

approved May 10, 1991 by the

Montana Fish, Wildlife and Parks Commission



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Cover photo: Angler with westslope cutthroat trout, South Fork Flathead River, 1927.

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EXECUTIVE SUMMARY

This plan outlines fisheries management direction for the South Fork Flathead River drainage from the headwaters to Hungry Horse Dam. The Montana Department of Fish, Wildlife and Parks (the Department) developed the plan in cooperation with a citizen and agency management committee after extensive scoping and public involvement. The plan sets fisheries management direction from 1991-1996.

The South Fork of the Flathead River and Hungry Horse Reservoir support a high quality fishery for native westslope cutthroat trout and bull trout, both considered species of special concern. Drainage-wide fisheries management goals include: (1) maintain self sustaining fish populations; (2) maintain and improve the genetic integrity of westslope cutthroat trout; (3) emphasize a quality fishery over quantity of harvest; and (4) manage the fishery consistent with wilderness management guidelines.

The preferred objective for westslope cutthroat trout on the South Fork Flathead River is to manage for a moderate increase in fish size. On Hungry Horse Reservoir, the preferred objective for westslope cutthroat is to manage for a moderate increase in fish numbers and size. Management actions which could be used to achieve these objectives include:

- increase enforcement of angling regulations through cooperative agency efforts;
- improve habitat and fish passage in tributaries for adult westslope cutthroat in Hungry Horse Reservoir; implement reservoir level controls;
- maintain the wilderness limit of three fish, none over 12 inches and the catch-and-release angling regulations;
- Extend the wilderness lake limit of 3 fish to Hungry Horse Reservoir;
- Educate anglers to use barbless hooks, artificial flies and lures only; encourage sound catch-and-release techniques. Education efforts will include direct contacts and an annual newsletter.

The preferred objective for bull trout in the drainage is to manage for a moderate increase in fish size and numbers. Management actions addressing reservoir habitat and enforcement of angling regulations will help to achieve this objective. In addition, education efforts will be focused on voluntary use of single, barbless hooks or lures.

The preferred objective for mountain whitefish in the drainage is to increase harvest through public education and involvement. This will be achieved by producing pamphlets and news releases, and by contacting anglers through other education efforts.

We will monitor the populations of westslope cutthroat and bull trout under our Hungry Horse mitigation project and Limits of Acceptable Change monitoring program. This information will help us evaluate the success of various actions in meeting fisheries management objectives. Funding may limit the implementation of some management actions.

INTRODUCTION

This plan outlines fisheries management direction for the South Fork Flathead River drainage from the headwaters to Hungry Horse Dam. Major geographic components include Hungry Horse Reservoir and tributaries, and the South Fork River and tributaries upstream of the reservoir. The South Fork Flathead below the dam will be managed consistent with this plan and the Upper Flathead System Fisheries Management Plan, prepared by the Montana Department of Fish, Wildlife and Parks (the Department) and the Confederated Salish and Kootenai Tribes. This fisheries management plan for the South Fork drainage stands as a companion document to the Upper Flathead System Management Plan.

The Department developed this plan in cooperation with a citizen/agency management committee. The committee included citizen representatives of various user groups and U.S. Forest Service representatives who indicated interest in serving during the initial scoping process. The committee met three times in 1990 to outline important issues and develop options for fisheries management objectives and strategies for the South Fork drainage.

The Department's fisheries management in the South Fork drainage focuses on two species of special concern, the westslope cutthroat trout and the bull trout. Public input has strongly supported careful management of these species in the drainage. This plan complements other ongoing efforts including the Limits of Acceptable Change management plan for the Bob Marshall Wilderness Complex (an amendment to the Flathead Forest Long Range Management Plan), the westslope cutthroat recovery planning process, and mountain lakes management planning.

This plan addresses fisheries and habitat information in the drainage, states drainage-wide fisheries management goals, reviews fish population status and species-specific management objectives and strategies, and incorporates public input and scoping. An appendix document contains the results of the scoping and management committee process. The Department and management committee has designed the plan to guide fisheries management in the drainage from 1991-1996.

DESCRIPTION OF THE AREA

The upper South Fork Flathead River originates at the confluence of Danaher and Youngs creeks and flows north for 57 miles into Hungry Horse Reservoir. The upper 50 miles of the South Fork from the headwaters to the Spotted Bear River is classified a Wild River under the National Wild and Scenic Rivers Act of 1976; the lower reach, downstream to the reservoir, is classified as a Recreational River. Elevations range from 3,560 feet msl at HHR during full pool to tall peaks ranging from 8,700 to 9,400 feet. Relief from mountain top to valley floor exceeds 5,000 feet throughout the drainage. Major tributaries of the South Fork include Youngs, Danaher, Gordon, Bunker, Big

Salmon, and Little Salmon creeks, and the White and Spotted Bear rivers.

Land within the South Fork drainage is almost entirely within the Flathead National Forest and administered by the U.S. Forest Service. The upper 40 miles of the South Fork lies within the Bob Marshall Wilderness. The mountain range along the eastern shore of HHR is in the Great Bear Wilderness and the majority of the Jewel Basin hiking area, west of Hungry Horse Reservoir, lies in the South Fork drainage. Annual precipitation ranges from about 30 inches around the reservoir to 90 inches on the highest ridge tops. Average flow into the reservoir (1964-1980) was 2,301 cubic feet per second. Low nutrient concentrations, transparent water and low algal biomass are related to the basin's geology and relatively pristine nature, and result in lower fisheries productivity than in many areas of Montana. The reservoir supports native fish species, including westslope cutthroat, bull trout, and mountain whitefish.

Hungry Horse Dam was completed in 1952 on the South Fork five miles upstream from its confluence with the main stem Flathead River. The dam was constructed and is operated and maintained by the U.S. Bureau of Reclamation. The reservoir reached full pool (3,560 feet msl) for the first time in 1953, flooding 35 miles of the river channel and 42 miles of tributary streams. Maximum surface area is 23,813 acres, containing 3,465,718 acre feet of water. Active storage between full and minimum pool (3,336 feet msl) includes 2,982,000 acre feet or 86 percent of full pool volume. Hungry Horse Reservoir provides 16.4 percent of total United States flood storage in the Columbia River dam system. The maximum drawdown on record, 178 feet during 1988, reduced the volume to 22.6 percent of full pool capacity.

The operation of Hungry Horse Dam is controlled by demands for hydro-electrical generation, flood control, recreational use of the reservoir, resident fish flows in the Flathead River and downstream water needs including anadromous fish passage and irrigation in the Columbia River drainage. The reservoir is drafted during late summer and fall to provide advance power for direct service industries. Increased energy demand during the cold months dictates water releases from December through March. Water is also drafted for flood control during high water years. Minimum pool generally occurs in mid-April, then water is retained through spring runoff as the reservoir refills. The reservoir usually fills by the end of July and remains at or near full pool until after Labor Day to provide summer recreational opportunities.

Temperature and water fluctuations are the two main impacts on the biological system caused by dam operation. Hungry Horse Dam has a single water withdrawal depth; outflowing water temperatures remain between 38 and 41° F all year. High summer discharges cause drastic temperature fluctuations in the 47 river miles of "semi-regulated", lower Flathead River, affecting insect populations and fish growth. Water level fluctuations subject huge expanses of river and reservoir bottom to drying, freezing and erosion, killing aquatic insects, and changing species composition. Fish eggs in the fluctuation zone may be dewatered, limiting reproductive success. Woody debris, important habitat for insects and fish security cover, dries, washes loose and is lost. In the reservoir, these effects

eliminate a large portion of the spring food supply for gamefish. Failure to refill the reservoir during the growing season reduces fish food production and the volume of warm water necessary for rapid fish growth and survival. The dam blocks fish migrations to and from the Flathead Lake system.

Mitigation options to offset these losses are presently being negotiated through the Northwest Power Planning Council. These options include reservoir level control, installation of a selective withdrawal structure on the dam to control downstream temperatures, habitat improvement, and hatchery supplementation.

Land use in the drainage includes timber harvest, hunting, fishing, recreational rafting and boating, hiking, camping, berry picking, snowmobiling, skiing, wildlife viewing, and rock climbing.

THE FISHERY

The South Fork of the Flathead River and Hungry Horse Reservoir support a high quality fishery for native species. Westslope cutthroat and bull trout are designated Species of Special Concern in Montana because of limited distribution and threats to their populations. Because of this designation, the Department affords special protection to these species. Fisheries management direction in the drainage has emphasized a quality fishery with restrictive limits, rather than a high-harvest production fishery for bull trout and westslope cutthroat species. Large numbers of mountain whitefish inhabit the river and reservoir, but few anglers take advantage of this sport potential and food source.

Statewide creel surveys have estimated that the South Fork Flathead River, upstream from the Reservoir, supports from 5,000-12,000 angler days each year. No reliable estimates exist for total harvest of westslope cutthroat, bull trout, or mountain whitefish. However, the Department conducted creel surveys in 1983, 1988, and 1989, and tabulated information on catch rates and angler characteristics.

In 1983, anglers caught 1.5 cutthroat trout per hour on the South Fork. Anglers within the wilderness kept only 8 percent of the fish they caught, while anglers outside the wilderness kept 42 percent of their catch (this was prior to establishment of a catch and release section). Anglers fished an average of 3-4 hours per day. Anglers caught bull trout at a rate of .05 fish/hour.

The South Fork Flathead River supports a popular float-fishery. The most common points where floaters begin their trip include the junction of Danaher and Youngs creeks, Big Salmon Creek, Gordon Creek, Harrison Creek, and Spotted Bear. In 1985 and 1986, the U.S. Forest Service estimated that about 600 and 800 people, respectively, floated the South Fork above Spotted Bear. In 1983, the Department estimated that float anglers and bank anglers each caught about half of the total cutthroat harvested.

In 1988 and 1989, the Department, in cooperation with the USFS, surveyed anglers on the South Fork Flathead within the Bob Marshall Wilderness. Anglers caught 2.6 to 4.1 cutthroat per hour of

fishing. About one-fourth of these fish were greater than 12 inches in length. Anglers kept seven percent of their catch. Catch rates for bull trout were .01 to .02 fish/hour; however, most anglers were not fishing for bull trout specifically. Anglers caught .09 mountain whitefish/hour and kept 31 percent of their catch. Most anglers on the South Fork Flathead River use flies, lures, or a combination of tackle, and about two-thirds reside in Montana.

The fishery in Hungry Horse Reservoir is supported by a native fish assemblage, unique for a man-made water body. The Montana Department of Fish, Wildlife and Parks surveyed anglers in 1985, 1988, and 1989, and found that westslope cutthroat supported most of the angling pressure. Anglers caught cutthroat at a rate of .16 to .26 fish per hour. Bull trout and mountain whitefish catch rates ranged from .03 to .08 fish per hour. Catch rates of cutthroat and whitefish in tributaries to the reservoir were more than double these figures. Westslope cutthroat, bull trout, and mountain whitefish caught in the reservoir averaged 12.7, 18.3, and 12.1 inches, respectively. Anglers kept most of the fish they caught.

About two-thirds of all anglers on the reservoir boated. Over 95 percent of all anglers reside in Montana. Most anglers used lures, bait, or a combination of the two.

According to statewide creel surveys, Hungry Horse Reservoir supports from 5,000 to 10,000 angler days each year. Reservoir drawdown significantly reduces recreational use on the Reservoir. In 1989, the Bureau of Reclamation estimated a loss of 32,000 recreation days (all forms of recreation, including angling) and a loss of $1.5 million to the local economy due to a large drawdown.

SCOPING PROCESS RESULTS

In late June, 1989, approximately 800 questionnaires on the South Fork drainage fishery were mailed to anglers or made available at the Department and U.S. Forest Service offices. The Department received 135 return questionnaires.

People were asked to give their opinions on the fishery in the South Fork Flathead River, Hungry Horse Reservoir and tributaries. Anglers listed their opinions on fish species preferences, problems facing the fisheries, and fisheries management direction. Also, the survey asked anglers if they would consider serving on a committee to address management issues in the drainage and guide preparation of a fisheries management plan.

Detailed results from the questionnaires appear in the appendix report. Anglers wanted to fish for westslope cutthroat in the South Fork drainage, followed by bull trout. Anglers expressed little desire to fish for mountain whitefish. Anglers wanted to catch larger westslope cutthroat in the South Fork Flathead River, but were satisfied with the catch rate. In Hungry Horse Reservoir, anglers preferred to catch larger fish and preferred a higher catch rate as well. Most anglers were satisfied with the current catch rate and size

of bull trout, although many would prefer larger fish.

Respondents listed poaching, overharvest, fish size, and too many floaters as the major problems facing the fishery in the South Fork Flathead River upstream of Hungry Horse Reservoir. Major problems listed for Hungry Horse Reservoir included reservoir drawdowns caused by Hungry Horse Dam, low catch rates, threat of non-native fish species, and fish size. Many anglers wrote detailed comments concerning the fishery (see Appendix Report). Anglers specifically mentioned overharvest of westslope cutthroat in tributaries of Hungry Horse Reservoir, hooking mortality of catch and released fish, lack of enforcement, and poaching.

Most anglers felt that the fishery for bull trout and mountain whitefish has remained about the same during the period they had fished in the drainage. Anglers felt that fishing for westslope cutthroat had declined.

Thirty-five respondents indicated that they would consider serving on an ad hoc committee to guide preparation of a fisheries management plan. Meetings were held in February, March (synopses in Appendix Report), and June, 1990. Fifteen people, including outfitters, anglers, interested citizens, and representatives of the U.S. Forest Service participated in the process. In addition, representatives of Fish, Wildlife and Parks worked as part of the committee during all or a portion of the meetings.

At the first meeting, the committee discussed goals of the process, fish management survey results, and biological information on the South Fork Flathead drainage. The group outlined important problems and issues concerning the fishery in each portion of the drainage.

During the second meeting, the Department enforcement officials discussed some of the concerns the group raised during the first meeting. The committee then generated information on: (1) system-wide goals; (2) options for objectives by species, and; (3) strategies to address the objectives.

The Montana Department of Fish, Wildlife and Parks relied on information and guidance provided by the committee to prepare an initial draft management plan. At the June, 1990 meeting, the committee reviewed the plan and suggested revisions which were incorporated into a second draft, released in July, 1990. A six month comment period followed.

The Appendix Report contains the responses of the public to a questionnaire concerning the July, 1990 draft. We used these results to help shape the final draft.

On April 4, 1991, the Department hosted an open house and committee meeting to discuss the final draft. Seventeen people participated in a round-table discussion, ranked specific management actions and refined final management direction. The Department used the results of the open house and other information from the scoping process to finalize the plan.

DRAINAGE-WIDE FISHERIES MANAGEMENT GOALS

The Department will manage the South Fork drainage fishery consistent with the following goals:

1. Maintain self-sustaining fish populations, emphasizing species of special concern. The system supports populations of unique native species that should be protected from human impacts.

2. Prevent hybridization of native species; improve genetic integrity.

3. Provide a recreational fishery emphasizing quality of the angling experience over quantity of harvest, maintaining consistency with the above goals.

4. Manage the fishery consistent with the U.S. Forest Service Limits of Acceptable Change Management Plan, wilderness management guidelines, other Forest Service plans, the Department Upper Flathead System Fisheries Management Plan, and the Northwest Power Planning Council's 1987 Fish and Wildlife Plan.

SPECIES-SPECIFIC MANAGEMENT DIRECTION

Westslope Cutthroat

Life History

Westslope cutthroat trout exhibit three life history patterns in the South Fork Flathead drainage. Adfluvial fish grow to maturity in Hungry Horse Reservoir and migrate into tributaries to spawn. Cutthroat spawn at four to six years of age. Young fish live from one to three years in tributaries before returning to the reservoir. Fluvial fish live as adults in the South Fork Flathead River and spawn in tributaries. Adfluvial and fluvial cutthroat adults range from 12 to 17 inches in length. Resident fish complete their entire life cycle in tributaries, and seldom attain lengths greater than ten inches. Biologists do not know if the major difference between fish exhibiting these life history patterns is genetic or environmental. The Department of Fish, Wildlife and Parks has classified westslope cutthroat as a Class A species of special concern because of reductions in numbers and distribution statewide.

In tributaries, westslope cutthroat trout eat aquatic and terrestrial insects. In the reservoir, cutthroat eat terrestrial and aquatic insects in spring through fall, and zooplankton during the winter.

Tagging studies conducted by the Department have shown that most cutthroat trout in the upper South Fork Flathead River (above the White River) are fluvial, meaning that the adults reside in the river and spawn in tributaries. However, a proportion of fish tagged in this area moved downstream; several moved downstream to below Meadow Creek Gorge. One cutthroat tagged below Meadow Creek Gorge was recaptured above the gorge. In managing

westslope cutthroat trout in the drainage, it is important to fully consider the interconnected nature of populations in the river, reservoir and tributaries.

Genetic testing has shown that most cutthroat in the South Fork Flathead River are pure westslope in origin. All of a sample of 23 cutthroat trout collected in the river near Big Prairie in 1981 tested genetically pure. Of 30 cutthroat collected from the same area in 1985, 29 tested genetically pure; one fish was a Yellowstone/westslope cutthroat hybrid. This single fish could have drifted into the river from a lake system containing Yellowstone cutthroat trout. Testing of 26 fish from lower Gordon Creek, and 26 fish from Danaher Creek in 1989, indicated these stream sections support pure westslope cutthroat trout.

Populations of westslope cutthroat trout in the South Fork Flathead River have remained predominantly pure despite past stocking of undesignated cutthroat trout. Department of Fish, Wildlife and Parks records show that nearly 800,000 cutthroat were planted in the river (exact location unknown) from 1926 to 1947. Nearly 500,000 undesignated cutthroat were planted in tributaries from Twin Creek to Gordon Creek during the same period. Cutthroat and rainbow were introduced into many high mountain lakes in the drainage during the same period.

Department of Fish, Wildlife and Parks sampling has shown that tributaries to Hungry Horse Reservoir with high mountain lakes containing non-native species at their origin generally support hybrid populations of cutthroat in the stream system below the lake. Conversely, tributaries with no lake at the headwaters generally support pure westslope cutthroat trout.

Abundance and Size

Cutthroat densities in the drainage are generally highest in tributaries. Some tributaries of the South Fork Flathead River support up to 1,000 cutthroat trout per mile. These tributary fish may be a mix of resident, fluvial, and adfluvial stocks.

The South Fork Flathead River supports from 300 to 1,000 cutthroat trout per mile. Estimates in the river near Harrison Creek and in the river near Gordon Creek have been near the lower end of this range; the river near Black Bear supports a population near the upper end of the range. Lower numbers of trout per mile in the lower and upper river sections as compared to the middle river section may be related to fish habitat factors. However, cutthroat trout are very vulnerable to angling, so populations could be affected by harvest and catch-release mortality.

In 1984, the Department established a catch-and-release regulation on the South Fork Flathead River from Meadow Creek footbridge to Spotted Bear footbridge. Social acceptance of the regulation has been very good. According to samples of fish measured in 1984, 1985, 1989, and 1990, this regulation may be increasing the number of larger fish in the section. The percentage of fish greater than 12 inches increased from 2.0 in 1984 and 1985, to 6.0 in 1989 and 8.0 in 1990. The numbers of fish greater than 10.0 inches per 0.6 miles of stream were 20 in 1984, 28 in 1985, and 59 in 1990. Populations in the Black Bear section within the wilderness complex did

not show an increase in size and numbers from 1985 to 1989.

The Department of Fish, Wildlife and Parks conducted mark-recapture estimates in 1989 which estimated that Hungry Horse Reservoir supports approximately 40,000 westslope cutthroat trout greater than seven inches in length. Sonar estimates indicated that approximately 15,000 of these fish are adults greater than 12 inches. The Department monitored adult and juvenile westslope cutthroat in Hungry Horse Creek in the 1960s, 1970s, and 1980s. Adult spawning runs into the creek averaged about 1,000 fish, 700 fish and 300 fish in the three time periods. The decline in number of spawners may be related to reservoir drawdowns and harvest of fish by anglers. Adult spawners average 14 to 15 inches in length. The number of young, mostly two and three year old fish leaving the creek and entering the reservoir, has ranged from 1,000-2,000 fish. These young fish average five to six inches in length.

Past Management

Before the 1983 angling season, cutthroat trout limits on the South Fork Flathead River were the same as the general stream limit. From 1939 through 1954, the limit was 15 fish. From 1955 through 1958, the cutthroat limit was 10 fish. From 1959 through 1981, the limit was 10 pounds and one fish, or 10 fish, whichever was reached first. The 1982 limit was five cutthroat, and in 1983, the limit was five cutthroat, only one fish over 14 inches. Beginning with the 1984 angling season, the Department implemented more restrictive limits to reduce harvest in the cutthroat fishery. Limits included three fish, none over 12 inches within the wilderness area, and the catch-and-release section from Meadow Creek footbridge to Spotted Bear footbridge.

In Hungry Horse Reservoir, anglers were limited to five cutthroat prior to 1957. From 1957 to the late 1960s, the limit was 10 fish or 10 pounds and one fish, a 300-foot closure at the mouths of spawning streams, and a June 15 opening. From the late 1960s to present, the limit was set at five cutthroat, and the tributary mouth closure and June 15 opening were dropped. In 1988, the Department set tributary limits at 3 fish, none over 12 inches.

Recent management of westslope cutthroat in the South Fork Flathead drainage has focused on emphasizing a quality fishery and maintaining and improving genetic integrity of populations. Beginning in 1986, the Department planted pure westslope cutthroat in several lakes with non-native species to "swamp out" or dilute the non-native genes. The Department of Fish, Wildlife and Parks made these plants in lakes draining into Hungry Horse Reservoir and the South Fork Flathead River. For these and other efforts, the Department developed a pure brood stock comprised of genetically tested westslope cutthroat, mostly from tributaries to Hungry Horse Reservoir.

Recent management has also included an important effort on Hungry Horse Reservoir aimed at establishing reservoir levels and habitat to protect and enhance the cutthroat population. Drawdown of the reservoir in the fall, winter and early spring affects important fish food sources and habitat. The migratory nature of cutthroat populations in the drainage requires that all

components of the system be protected. The Department and the Confederated Salish and Kootenai Tribes have recommended to the Northwest Power Planning Council a protection and enhancement program to reduce impacts of reservoir operations.

Management Concerns

1. Pure westslope cutthroat trout stocks must be maintained.

2. Spawning and rearing habitats in tributaries around Hungry Horse Reservoir and rearing habitat in the reservoir are affected by human activities such as poor culvert placements, reservoir drawdown, and timber harvest.

3. Westslope cutthroat trout are vulnerable to harvest.

4. Anglers may be reducing the spawning runs to the reservoir by overharvesting fish in tributaries and bays.

5. Limits in the river, tributaries, mountain lakes, and reservoir are not consistent.

6. Many anglers are not informed of regulations; regulations may be too complex.

7. The current level of enforcement is inadequate to protect the cutthroat population.

8. The reservoir is often difficult to access because of drawdown conditions, restricting fishing opportunities.

Management Direction

Westslope cutthroat populations in the reservoir, river, and tributary system are to some degree interconnected. However, because of the distinction in geography and fisheries issues, this section addresses management strategies separately for the river and reservoir. This plan assumes a stable level of recreational use and angling pressure through the period. If conditions change, the plan may have to be modified.

***Objective:** Manage for a moderate increase in average length (up to one inch) of westslope cutthroat in the South Fork Flathead River system; manage for a moderate increase in numbers and size of westslope cutthroat in Hungry Horse Reservoir.*

Specific Management Actions

The objectives for westslope cutthroat will be attained through the following specific management actions:

- Include the following in the fall, 1991 tentative fishing regulation process: extend the wilderness limit of three fish, any size to Hungry Horse Reservoir and all lakes in the South Fork drainage. This regulation would accomplish the goal of reducing harvest on spawners in Hungry Horse Reservoir and reduce the need for bay closures and other regulations which are more difficult to enforce.

- Pursue habitat improvement, fish passage improvement, and water level controls on Hungry Horse

Reservoir; implement the Department's recommendations on mitigating the effects of Hungry Horse Dam on the reservoir fishery. This action will aid the upstream river population because of the migratory nature of some reservoir trout.

- Increase enforcement patrols in the drainage. During the 1991 angling season one warden will be assigned to patrol the Hungry Horse Reservoir area from the dam to Meadow Creek. This represents a very substantial committment to increase enforcement efforts. Results of this program in 1991 will be used to plan future enforcement needs.

- Increase public education efforts on catch and release methods, voluntary use of single, barbless hooks, and general resource ethics. This will be accomplished by enforcement personnel, biological crews and an annual newsletter or brochure produced cooperatively by the Department, U.S. Forest Service, and other groups.

- Maintain the 3-fish, none over 12 inches angling limits on streams in the drainage and the catch-and-release section on the South Fork Flathead River from Meadow Creek to Spotted Bear. These regulations appear to be effective and have gained social acceptance.

Bull Trout

Life History

Bull trout are a land-locked form of the smaller, coastal Dolly Varden. They are the largest fish native to the drainage, attaining a length up to three feet and a weight up to 16 pounds. Hungry Horse Dam isolated the bull trout population in the South Fork from the Flathead Lake system. Migratory bull trout which once grew to maturity in Flathead Lake, now mature in Hungry Horse Reservoir and migrate into the headwaters of tributaries to spawn. Juveniles live in their natal tributaries for one to four years before entering the reservoir. The bull trout has been designated a species of special concern in Montana because of restricted distribution and threats to spawning habitat and the possibility of hybridization with brook trout (access of brook trout to the South Fork is limited and none have been captured in recent years).

The diet of bull trout in Hungry Horse Reservoir consists almost entirely of fish. Northern squawfish, suckers and mountain whitefish are the most important food items. Suckers comprise a larger proportion of the diet of adults. Cutthroat can make up one-fifth of the diet of juvenile bull trout. Adult bull trout rarely eat cutthroat.

Bull trout enter the reservoir at about eight inches in length and grow two to four inches per year. Unlike cutthroat which have a rapid growth spurt during their first year in the reservoir, bull trout growth peaks during their fifth and sixth year of life.

Most bull trout mature at six years of age (ranging from 20 to 36 inches in length) and, beginning in April or May, embark on a spawning run to the headwaters. In the Flathead, most bull trout enter tributaries during July and August, hold in streams for one month or more, and spawn in September and October, when water temperatures drop below about 50° F. Adults excavate nests, or "redds," in clean, uncompacted gravel with ample groundwater inflow or upwelling. These specific habitat requirements restrict the range of spawning within the drainage. Preferred spawning streams in the South Fork have not been surveyed in detail. Redds have been observed in four reservoir tributaries and migrant adults have been observed in wilderness tributaries including Gordon, Youngs, Danaher, Little Salmon, Big Salmon, Holbrook, White River, and Spotted Bear River.

Eggs hatch in January and fry emerge from the gravel in April. Survival of incubating eggs and sac fry is reduced by siltation and other streambed disturbances. Downstream emigration of juveniles from their natal streams occurs from June through August.

Past Management

The Department of Fish, Wildlife and Parks has managed the bull trout as a unique trophy species since the early 1950s when a daily creel limit of two fish was implemented.

In 1982, the Department reduced the creel limit on bull trout to one fish daily and in possession. An 18-inch minimum size limit was discontinued in 1983, because the one fish limit was considered adequate protection.

Considerable management and research has focused on this species. In cooperation with the U.S. Forest Service, the Department has monitored the effects of timber harvest on spawning and rearing habitat in the Middle and North Fork drainages, and worked to protect spawning areas from disturbance. In addition, the Department has monitored the species abundance through reservoir surveys and angler creel census above and below the wilderness boundary.

Abundance

Trends in bull trout abundance have been monitored in Hungry Horse Reservoir since the early 1970s with sinking gill nets. Average catch per net during the period from 1983 through 1987 were similar to those obtained in the early 1970s. More recently, spring and fall catches during 1988 and 1989 indicate an increase in bull trout numbers.

A population estimate using a dual-beam echosounder was completed during May 1989. Based on species relative abundance and depth distributions during the survey, approximately 47,000 bull trout, ten inches or longer, were present in the reservoir.

Bull trout support an important trophy fishery in the South Fork. Based on a 1989 creel census, four percent of all anglers sought bull trout specifically and 31 percent had no preference as to the species of gamefish they caught. Anglers fished about ten hours for each bull trout landed.

The largest bull trout on record from the South Fork was 36 inches long and weighed 16 pounds.

Management Concerns

1. Bull trout mature in the reservoir and travel to the headwaters of the South Fork to spawn. Therefore, fish in the Wilderness and in Hungry Horse Reservoir belong to the same population.

2. Natural reproduction of the species is extremely sensitive to streambed siltation.

3. Spawning adults are visible and, therefore, vulnerable to poaching and angling pressure.

4. Bull trout are predators and a portion of their diet is composed of other gamefish including mountain whitefish and westslope cutthroat.

Management Direction

Objective: Manage for a moderate increase in numbers and size of bull trout in the drainage.

Specific Management Actions

- Increase enforcement patrols, particularly in the wilderness, which focus on suspected bull trout poaching sites. Increase cooperation between Department and U.S. Forest Service enforcement personnel.

- Focus education efforts on voluntary use of single barbless hooks when fishing for bull trout, particularly in the South Fork Flathead River system.

- Concentrate a portion of hydropower mitigation efforts on bull trout. If populations of other fish species on Hungry Horse Reservoir are increased, bull trout (a predator) will benefit.

- Other specific management actions listed for westslope cutthroat will indirectly benefit bull trout by providing more prey.

If these actions fail to reach the stated management objective, other actions (such as closing of spawning tributaries to angling) could be implemented.

Mountain Whitefish

Life History

Mountain whitefish are native to the South Fork Flathead drainage and are the most abundant fish in the drainage. Individuals grow to about 19 inches in length. Whitefish exhibit seasonal movements associated with feeding, overwintering, and spawning behavior. In the river system, whitefish overwinter in deep pools. In the spring, whitefish gradually move into some tributaries to feed. Whitefish mature at 3 to 5 years of age and spawn from October through December, broadcasting their eggs over gravel and small rocks in shallow, fast-flowing, midstream areas. Whitefish are prolific; one female can produce from 3,000

to 8,000 eggs. After hatching in spring, fry rear in shallow riffles, backwaters and stream margins, then move to deeper water as they grow. Juveniles that move to the reservoir, generally emigrate from their natal tributary during their first year of life.

Whitefish grow nearly five inches during their first year. Growth decreases with age to less than a one inch increase in length between age four and five.

Mountain whitefish are typically a bottom feeder consuming primarily zooplankton and aquatic insect larvae. When bottom food is less abundant, whitefish will eat suspended zooplankton and insect pupa and insects in the surface film.

Past Management

Regulations have focused on increasing angler use of this highly abundant and under-utilized fish. Daily creel limits are 100 whitefish per day and in possession.

Abundance

Mountain whitefish are the most abundant fish in the South Fork drainage. Population estimates in the Wilderness headwaters revealed whitefish densities as high as 1,624 fish per mile, or about five times that of cutthroat. A survey in 1989 in Hungry Horse Reservoir estimated that whitefish compose 32 percent of all fish within the impoundment.

Angler Use and Harvest

Based on a 1989 creel census on the reservoir, two percent of all anglers actively sought mountain whitefish. Another 31 percent had no preference as to the species of gamefish they caught. Regardless of this lack of interest in whitefish, many are caught because of their abundance. Catch rates averaged as high as 1.4 fish per hour, yet only 9 percent are kept by anglers. Some anglers fish for spawning whitefish in reservoir tributaries during the fall.

Management Concerns

1. Mountain whitefish compete for food and space with other gamefish that are more popular with anglers.

2. Mountain whitefish are an important prey species of bald eagles.

3. The species is greatly under-utilized relative to its abundance. Mountain whitefish provide anglers with an alternative fishing experience and food source. Reducing the whitefish population will reduce potential competition with more popular gamefish for food and space.

Management Direction

Objective: ***Increase the harvest of mountain whitefish through public education and involvement.***

Specific Management Actions

- Produce and dispense pamphlets and news releases to encourage angling and harvest of mountain whitefish. Include an article in the first newsletter describing angling techniques and recipes for whitefish.

MONITORING AND EVALUATION

The Department will monitor the populations of westslope cutthroat and bull trout under our Hungry Horse mitigation project periodic fish population estimates, and Limits of Acceptable Change monitoring program. This information will help us evaluate the success of various actions in meeting fisheries management objectives.

We will evaluate the success of strategies desired to increase harvest of mountain whitefish through periodic creel surveys. These surveys are part of the Limits of Acceptable Change monitoring program.

The management committee will meet annually in April to review monitoring information and management strategies. If changes in management actions are needed during the five-year period, the Department will notify the Fish, Wildlife and Parks Commission, notify the public, and ask for comment on the changes.

ACKNOWLEDGEMENTS

The following citizens assisted in writing this management plan: Bill Armstrong, Jane Cheek, Dana Cole, Dallas Eklund, Pat Harbin, Ed Hula, Joan Hula, Bob Hull, Ed Kinsman, Bill Leonard, Dave Owen, C.B. Rich, Jack Rich, and Jerry Smalley. U.S. Forest Service participants included Greg Warren, Gordon Ash, and Lloyd Reesman.

Representing the Montana Department of Fish, Wildlife and Parks were John Fraley, Brian Marotz, Jim Vashro, Tom Weaver, Ed Kelly, and Chet Lamoreux. Dave Owen provided the cover photo. Sharon Sarver typed the manuscript.

MP-7

APPENDIX DOCUMENT --

SUMMARY OF THE PUBLIC INVOLVEMENT PROCESS

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FISHERIES MANAGEMENT PLAN

FOR THE

SOUTH FORK FLATHEAD RIVER DRAINAGE

including Hungry Horse Reservoir, and the South Fork Flathead River upstream from Hungry Horse Reservoir

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS

In cooperation with a citizen committee on South Fork fisheries management and the U.S. Forest Service

May 1991

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APPENDIX A

Summary of responses from the scoping process on fisheries in the South Fork Flathead Drainage.

HIGHLIGHTS FROM THE SOUTH FORK DRAINAGE FISHERIES QUESTIONNAIRES
(135 Responses)

1. Average number of days/year and total years fishing:
   - South Fork above Meadow Creek - 3.3 days/8.0 years
   - South Fork from Meadow Creek to Hungry Horse Reservoir - 2.3 days/6.7 years
   - South Fork below Hungry Horse - <1. days/5.1 years
   - Hungry Horse Reservoir - 2.6 days/6.9 years

2. Fish species preference (same for all sections in the drainage)
   1. westslope cutthroat
   2. bull trout
   3. mountain whitefish

3. Preferred seasons:
   Anglers preferred fishing Hungry Horse Reservoir in the spring and summer; they preferred fishing the South Fork Flathead River during the summer and fall.

4. Management direction:

	Management Direction (% Response)		
	Have an increased catch rate?	Catch larger fish?	Maintain present catch rate and size?
South Fork Flathead River from Hungry Horse Reservoir to Meadow Creek Gorge			
mountain whitefish	26%	10%	64%
bull trout	17%	37%	46%
westslope cutthroat trout	19%	50%	31%
South Fork Flathead River upstream of Meadow Creek Gorge (within the wilderness)			
mountain whitefish	22%	10%	68%
bull trout	12%	35%	53%
westslope cutthroat trout	18%	46%	36%
Hungry Horse Reservoir			
mountain whitefish	23%	13%	64%
bull trout	24%	39%	40%
westslope cutthroat trout	41%	41%	18%

5. Problems facing the fishery in the South Fork Drainage:

Ranking in order of the number of responses:	South Fork upstream from Meadow Cr	South Fork from Hungry Horse Resv. to Meadow Cr	South Fork downstream from Hungry Horse Resv	Hungry Horse Resv.
Dam, reservoir drawdowns, river flows	6	7	1	1
Non-native fish species	3	6	3	3
Anglers catch too many fish	2	2	4	6
Anglers can't catch enough fish	4	4	5	2
Poachers	1	2	2	5
Inadequate access	5	8	4	6
Too many bank anglers	7	9	7	8
Too many floaters	2	3	6	7
Fish are too small	7	1	2	4
Regulations too complex	3	5	6	5
Other_____				

Additional Problems Listed by Respondents: listed in order of importance, based ont he number of times the problem was mentioned. Note: many of these overlap with the previously ranked problem.

1. Anglers catch too many spawners in Hungry Horse tributaries.
2. Hooking mortality on caught and released fish.
3. Too many guided anglers.
4. Too many floaters.
5. Too many trash fish.
6. Outfitters don't emphasize regulations to their clients.
7. -Habitat destruction from horse use.
   -Overfishing.
   -Regulations inadequate--should be no kill of westslope cutthroat, bull trout.
   -Water temperature, water quality problems.
   -Poor enforcement.
   -FWP personnel inadequately informed of regulations.
   -Too many restrictive regulations--get by politics.

6. Changes in fishing during the period respondents fished:

	Percent Responses		
	Improved	Same	Worse
Hungry Horse Reservoir:			
mountain whitefish	16	73	11
bull trout	8	53	39
westslope cutthroat	1	32	60
South Fork Flathead River:			
mountain whitefish	21	68	11
bull trout	13	44	43
westslope cutthroat	13	29	58

7. Additional Comments:

   See attached

SFFR QUESTIONNAIRE COMMENTS

COMMENTS

UNREALISTIC 12 IN. LIMIT FOR CT
PROBLEMS DUE TO CATCH AND RELEASE KILLS
BT LIMIT INCREASED TO TWO
CAUGHT 38 CT IN ONE DAY
ONLY THREE WERE OVER 12 IN., NO TAGS, THREE WF, AREA FROM BP TO SALMON FORK

NOT ENOUGH FOOD AND TOO MUCH FLUCTUATION OF RESERVOIR LEVELS FOR GOOD HABITAT.
MOST ANGLERS IGNORE THE REGS FOR THE SOUTH FORK BECAUSE THEY ARE TOO COMPLICATED
VISIBLE ENFORCEMENT

FISHES LOWER FLTHD. FOR BT AND WOULD SUPPORT PROGRAMS THAT WOULD PUT MORE LARGE FISH IN THE SYSTEM.
BELIEVES THAT CT POPULATION IS HURT BECAUSE OF FISHING DURING SPAWNING.
ALOT OF ANGLERS IGNORE THE REGS. OVER-FISHING MAY BE THE PROBLEM IN AREA FROM HHR UP.
SHOULD ALLOW ONE TROPHY-SIZED FISH TO BE TAKEN FROM MC TO SPTTD. BEAR AREA LIMITS ABOVE MC SHOULD BE CONT.. SPTTD. BEAR TO HHR: LIMIT MAINTAINED BUT SIZE INCREASED. RESV. LIMITS BE SAME AS RIVER.
REGS ARE CONFUSING,CT OVER-FISHED,KEEP 1 FISH 18UP
SF FROM DANAHER CR TO BLACK BEAR STATION IS ONE OF THE FINEST TROUT FISHERIES
HAPPY WITH EXISTING REGS.

MORE WARDENS SHOULD BE SENT OUT TO HHR TO ELIMINATE POACHING AND EX-CESSIVE KILLS.

TOO MANY FLOATERS REDUCE SANCTUARIES FOR FISH
WE MUST REDUCE FLOATING OR RESTICT AREAS & LIMITS.
OBSERVE A QUALITY FISHERY MAINTAINED AND PRESERVE THE GENETICS OF BTAND CT (GOOD MANAGEMENT AFTER)

DID NOT HUNT OT FISH.
HAVE FISHED HHR AND BELOW BUT ARE INTERESTED IN THE MC AREA.

CLOSE SPAWNING STREAMS FOR CT
ALSO STOCK HHR WITH CT'S.

HHR: RAINBOW WOULD BE BETTER SUITED TO THE RESERVOIR- MAYBE KAMLOOPS-TO EAT THE TRASH FISH.

SF IS THE FINEST WILD FISHERY LEFT IN THE WORLD FOR CT. SCENIC RIVERACT FAILED TO PROTECT & ENHANCE.

SFFR QUESTIONNAIRE COMMENTS

COMMENTS

HAS ONLY BEEN HERE ONE SUMMER FOR 25 DAYS.
SPAWNING STREAMS ABOVE HHR SHOULD BE CLOSED UNTIL JULY 15TH
OLD STUDIES OF THAT AREA ARE NOT VALID. BT PROBLEM UNDER CONTROL
WE SHOULD CONCENTRATE ON WCT (CHANGE THE SIZE & LIMIT TO BE REALISTIC)

CURRENT REGS ON THE UPPER SF (IN THE BMWA) HAVE MADE NOTICABLE IMPROVEMENTS BUT STILL CONCERNED WITH FISH THAT ARE CAUGHT ON BAIT AND LURES NOT SURVIVING AFTER BEING RELEASED.CT'S ARE WORTH PRESERVING

WOULD LIKE TO SEE CT, RB AND EBT PLANTED IN HHR AND LOWER FLTHD. TOO MANY SCRAP FISH IN WATER BODIES.
100% OF MY FISHING IS DONE ON FLATHEAD LAKE.
ALL AREAS NEED BETTER FISHING.
A NATURAL FISHERY IS NOT FEASIBLE
MAN HAS ALREADY MADE TOO MANY CHANGES. PLANT FISH THAT FLOURISH.

CATCH AND RELEASE REGS NEEDED ON UPPER SFF(DANAHER CR., MEADOWS AND BASIN) TO COUNTERACT HEAVY FISHING PRESSURE ON LARGER TROUT. RELEASE ALL FISH OVER 12".

TOO MANY CLEARCUTS
ALL SPAWNING STREAMS HAD GOOD RUNS IN THE 1950'S BUT BECAUSE OF PREMATURE OPENINGS THEY WERE DESTROYED
EARLY STUDY DONE ON DORIS CR. SHOWED 70% SPAWNERS DIED OF NAT. CAUSES
FACT: HIT THEM W/ STICKS
BOB IS A WONDERFULFUL PLACE TO CAMP AND FISH AS IS
INCREASED ACCESSABILITY WOULD BE HARMFUL.

NO RAFTING
PLANT FISH IN RESERVOIRS
CLOSE ALL CREEKS YEAR ROUND
DON'T DRAW RESERVOIR DOWN AS LOW
SF ABOVE MC: NEED TO CHANGE PUBLIC VEIWS ABOUT CONSUMPTIVE FISHING. OVERUSE OF FISH RESOURCE MAY BECOME A MAJOR PROBLEM. A HIGH-QUALITY, TROPHY-SIZE FISHERY WOULD MORE IN KEEPING WITH WILDERNESS VAL.
ENJOY FIAHING AND HIKING IN PRIMITIVE AREAS, FAVOR LESS LOGGING AND DEVELOPMENT
WOULD LIKE TO SEE TO SOUTH FORK MANAGED FOR TROPHY FISHING ONLY
CATCH & RELEASE ONLY

HAS NOT FISHED IN FLTHD. AREA FOR 10 YEARS BECAUSE OF LOW FISH POP. TOO MANY PPL. FISHING. MANY MOUNTAIN STREAMS ARE TOO COLD FOR FISH FEED PRODUCTION.
THROUGH THE YEARS, FISH SIZE HAS BEEN ON THE DECREASE.

SALMON SHOULD BE PLANTED IN THE HHR
THEY COULD RUN UP THE SF AND OTHER CREEKS IN THE FALL WITH VERY LITTLE INTERFERENCE AND REPRODUCE.

SFFR QUESTIONNAIRE COMMENTS

COMMENTS

HHR IS THE MAIN ISSUE-IT NEEDS: A FISH LADDER, FUNNEL TUNNEL,OR SOME MEANS TO CONNECT TO THE LOWER DRAINAGE AND FLTHD. LAKE. WOULD BENEFIT DV, WCT.
SF: FALL HUNTING TRIPS YRS. AGO,NOT QUALIFIED TO ANSWER QUESTIONAIRE BUT STILL INTERESTED. COULD BOB BE LIMITED TO EAT ON SITE OR RELEASE?--NO CARRY OUT.
REGS IMPROVED FISHING
ESPECIALLY LARGER CT
FEELS THAT WILDERNESS LIMITS ARE WORKING: MORE YOUNG CT, PUBLIC NEEDS MORE INFO, WF ARE VALUABLE.
MAKE IT SIMPLE AND CONSERVATIVE, IMPROVED SIZE OF FISH, MAKE FISHING A RELAXING EXPERIENCE.
STRICT LIMIT ENFORCEMENT FOR CT & BT
CULVERTS ALONG HHR ROAD TO RESTRICT SPAWNING
LOGGING RDS CLSD
OUTFITTERS DON'T ENFORCE SIZE OR 3 FISH LIMIT. FLOATERS OVERFISH THE HOLES ON RIVER AND ARE MESSY.
HHR AND TRIBUTARIES SHOULD BE CLOSED FROM MARCH 1---JULY 1 TO ALLOW THE CT TO SPAWN. WOULD NEED HEAVY PATROL TO ENFORCE.
THE FISHERIES HAS GONE ON SO LONG IT HAS HAD AN IMPACT ON SPORT FISHING.
CLOSE SULLIVAN CR. TO REPLENISH HHR
REPLACE FISH TAKEN OUT OF SULLIVAN DRAINAGE. CLOSE BT SEASON FROM SEPT.30TH -- TO ALLOW SPAWNING.
PRIMARY CONCERN IS THE PRESERVATION OF NATIVE FISH SPECIES, INCLUDING NON-GAME SPECIES, SF DRAINAGE

HE LIKES THE WILDERNESS LIMITS.

HHR: BPA AND MFWP MUST WORK TOGETHER
SUSTAIN NATIVE SPECIES BY INCREASING SIZE & LOWERING LIMIT.
FISHING HAS DIMINISHED PRIMARILY BECAUSE OF MISUSE AND OVERUSE BY THE MANY OUTFITTERS IN THE BOB.

CURIOUS TO KNOW WHY FISH ARE PLANTED IN THE BOB(BLACK BEAR AREA)
IS FISHING PRESSURE THAT GREAT?
MCUP: FLOATERS HAVE NEARLY RUINED THIS RIVER
STRICTER REGS AND LAW ENFORCEMENT
CATCH & RELEASE

TOO MANY FISH ARE KILLED
CATCH & RELEASE PLUS BARBLESS HOOKS FOR BT AND CT. ONE FISH PER DAY LIM.

SF ABOVE MC: THOUGHT FISHING WAS GREAT
LEAVE REGS AS THEY ARE.

FISHING IS GREAT ON THE SF.
IMPRESSED WITH LAW ENFORCEMENT AND FISHERIES MANAGEMENT ABOVE MEADOW CREEK GORGE.
FISH BOB ONCE A YEAR IN JUNE
FISH ARE SMALL BUT GOOD, MAYBE LARGER LATER, DOES NOT FISH RESERVOIR

SFFR QUESTIONNAIRE COMMENTS

COMMENTS

FISHING ON THE RESERVOIR SHOULD BE CLOSED UNTIL STREAM FISHING OPENS TO ALLOW SPAWNING.
CT ARE MORE VULNERABLE DURING SPAWNING AND MANY ANGLERS TAKE ADVANTAGE OF THIS SITUATION. CONDUCT MID-WEEK CREEL CENSUS ALONG WITH CHECKING BOTH SIDES OF HHR. USE OF BARBLESS HOOKS WILL ALSO HELP CT.

FISHERMAN TEND NOT TO OBEY LIMITS OR OTHER REGULATIONS
EDUCATING FISHERMAN INCREASES PRODUCTIVITY
DON'T FISH ENOUGH IN AREA TO BE FAMILIAR WITH PROBLEMS OR TRENDS.
FISHING MEADOW CR. A NIGHTMARE
DAM RAISING AND DROPPING WATER LEVELS. NEED SIMPLER FISHING REGS.
TOO MANY SUCKERS AND WF IN WATERS
WANTS WORTHWHILE FISH INTRODUCED.

DOES NOT FAVOR IMPROVED ACCESS TO THE BOB
TOO MANY PEOPLE THERE ALREADY
REDUCED CATCH & SIZE DUE TO FLOATERS ACCESS TO BOB
SOME IMPROVEMENTWITH REGS. NO NEW OFFICE OR BLDS
TOO MUCH TIME & MONEY SPENT ON STUDIES
DEAL WITH PRESSURES THAT HURT CT & BT HABITAT FIRST.
SIZE AND LIMIT REGS SEEM TO BA A POITIVE STEP ABOVE MDW CR.
HHR & MDW CR. HAMMERED BY FLOATERS

LIMIT-RESTRICT-OVERSEE AMOUNT OF SOAP, DTERGENT, WASHING-WATER ENTERING STREAM. ENCOURAGE USE OF BIO-DEGRADE SOAP. KEEP HORSES AND HORSECAMPS FAR AWAY FROM RIVER. LIMIT NUM. OF OUTFITTERS AND GUESTS.
OUTFITTERS & CAMPERS MUST HAVE MORE RESTRICTIONS:LESS HORSES, NO SOAP OR DETERGENTS CLOSE TO WATER.
LIVES ON FLATHEAD LAKE
KOK POPULATION IS ALL BUT DEAD. THE DRAWDOWNS OF HHR ARE LIKELY TO BE A STRONG FACTOR.

UPPER SF: DECLINE IN FISHING QUALITY IN LATE 70'S AND EARLY 80'S, CONTINUE PRESENT REGS & EDUCATE ANGLERS ON C & R TECH.
TOO MANY ANGLERS CATCH SPAWNING CT. ALL STREAMS SHOULD BE CLOSED DURING SPAWNING SEASON AND THIS LAW ENFORCED.

MANAGEMENT FOR QUALITY
CANYON ABOVE HHR RECEIVES TOO MUCH PEOPLE PRESSURE, ENJOYS THE FISHING ,SEES A CATCH% INCREASE.
SF ABOVE MC: CATCH AND RELEASE FOR CT, EAT WF, LIMIT NUMBER OF FLOATERS, REDUCE NUMBER OF OUTFITTERS. PRESENT REGS SEEM TO BE IMPROVING THE SITUATION FOR CT'S.

PUSH FOR MORE CATCH AND RELEASE IN WILDERNESS ALONG WITH HEAVIER PATROLS TO CUT DOWN ON POACHING.
FISHING WOULD IMPROVE IS MFWP WOULD QUIT LETTING FOREST SERVICE HAVE THERE WAY. NO LOGGING THAT IS CONTRARY TO THE FISHERIES. PEOPLE WOULD BE MORE SUPPORTIVE IF YOU DID. NOT AGAINST LOGGING IN GENERAL

SFFR QUESTIONNAIRE COMMENTS

COMMENTS

NEED MORE CONTROL OVER WATER LEVEL WHEN FISH ARE SPAWNING. NEED A FISH HATCHERY TO SUPPLY HHR AND SURROUNDING AREA (LIKE THE ONE THAT USED TO BE AT BITT. LAKE). SPEND MONEY ON SOMETHING THAT WORKS.
PROMOTES USE OF BARBLESS HOOKS OR ARTIFICIAL BAIT IN BOB WLD. FLOATERS KEEP OR KILL FISH.
SUPPORTS NATIVE SPECIES
MAKE PUBLIC AWARE OF SAME

PROBLEMS WITH THE WAY TRIBAL FISHERY MATTERS ARE HANDLED. MFWP HAS DONE A POOR JOB ON SALMON PROJECT FOR FLTHD. DRAINAGE AND THIS TREND MAY CONTINUE FOR ALL SPECIES. PROMOTE FISHIN CLOSE TO HOME.

HHR: WHY NOT PLANT OTHER KINDS OF FISH SUCH AS WALLEYE'S OR CHINOOK SALMON? WONDERS WHY HHR CAN'T HAVE THE FABULOUS FISHING RESULTS THAT CLARK CANYON RES. HAS (BROWNS AND RB WERE PLANTED THERE).

ELIMINATE SQ IN HHR
PLANT CT INSTEAD
IMPLEMENT A GOOD RESTOCKING PROGRAM IN HHR.

wants to serve on the SYA committee

Record#	name	address	citystzip
121	ALLEY, DON	810 3RD AVE. E	KALISPELL, MT 59901
91	ARMSTRONG, BILL	P.O. BOX 293	WEST GLACIER, MT 59936
78	BUKAOSKY, JIM	P.O. BOX 1387	COLUMBIA FALLS, MT 59912
48	CHEEK, JANE	P.O. BOX 1880	COLUMBIA FALLS, MT 59912
102	CHOSE, THOMAS E.	P.O. BOX 983	COLUMBIA FALLS, MT 59912
32	COLE, DANA E.	801 P ST(SPOTTED BEAR)	LINCOLN, NE 68508
99	COUNTRYMAN, ROY	P.O. BOX 818	COLUMBIA FALLS, MT 59903
132	CURTISS, RON	326 BENCH DR.	KALISPELL, MT 59901
69	EKLUND, DALLAS	162-5TH AVE. EN	KALISPELL, MT 59901
117	FRANKLIN, GARY	P.O. BOX 2761	KALISPELL, MT 59901
88	GIPE, HOWARD	800 S MAIN	KALISPELL, MT 59901
6	HANSON, DAVID N.	P.O. BOX 241	TOGIAK, AK 99678
25	HARBIN, MILES "PAT"	120 PLEASANT VEIW DR.	KALISPELL, MT 59901
105	HOWARD, DONALD E.	590 5TH AVE. WN	KALISPELL, MT 59901
39	HULA, ED	1000 KELLER RD.	COLUMBIA FALLS, MT 59912
118	HULL, R. W.	125 WISCONSIN AVE.	WHITEFISH, MT 59937
104	KENNEDY, ED	125 GARLAND	KALISPELL, MT 59901
40	KINSMAN, ED	85 SUSSEX DR.	KALISPELL, MT 59901
53	LEONARD, BILL	P.O. BOX 1537	WHITEFISH, MT 59937
111	MALSON, JERRY	22 SWAMP CR. RD.	TROUT CREEK, MT 59874
49	MANEY, GERRY	5115 MAINVIEW	MISSOULA, MT 59803
29	MARYOTT, DOUG	556 7TH AVE. EN	COLUMBIA FALLS, MT 59912
20	OURSLAND, DAN	584 CONCORD LANE	KALISPELL, MT 59901
35	OURSLAND, LAURENCE	23 W. COTTONWOOD DR.	KALISPELL, MT 59901
63	OWEN, DAVID L.	1 BIG SKY BLVD.	KALISPELL, MT 59901
9	REESMAN, LLOYD L.	670-4TH AVE. WN	KALISPELL, MT 59901
93	RICH, JACK	P.O. BOX 495	SEELY LAKE, MT 59868
2	SAMSON, TODD	P.O. BOX 2237	KALISPELL, MT 59903
45	SCOTT, DOUGLAS L.	1691 PRINCETON AVE.	ST.PAUL, MN 55105
130	SIMONSEN, WILLIAM	108 SHOTZMAN	BIGFORK, MT 59928
133	SISTOK, VICTOR A.	15 KNOLEY DR.	KALISPELL, MT 59901
4	SMALLEY, JERRY	1142 COLUMBIA MTN.RD.	COLUMBIA FALLS, MT 59912
67	WAGNER, DOUGLAS T.	P.O. BOX 21	HUNGRY HORSE, MT 59919
94	WILSON, GEORGE E.	405 1ST AVE.E,PO 2350	COLUMBIA FALLS, MT 59912
75	WILSON, TOM	P.O. BOX 41	STRYKER, MT 59933

APPENDIX B

Synopsis of the first and second meetings of the Fisheries Management Committee for the South Fork Flathead River Drainage.

FISHERIES MANAGEMENT COMMITTEE
SOUTH FORK FLATHEAD DRAINAGE
Meeting Synopsis 2/20/90

Attendees: Citizens: Bill Armstrong, Jane Cheek, Dallas Eklund, Ed Hula, Joan Hula, Bob Hull, Ed Kinsman, Bill Leonard, C. B. Rich, Jack Rich, and Jerry Smalley

FWP: John Fraley, Brian Marotz, Jim Vashro, and Tom Weaver

Summary

The committee met from 6:30-10:00 p.m.; 15 people (11 citizens, 4 FWP representatives) participated. The committee discussed goals of the process, fish management survey results, and biological information on the system. The group then outlined problems and issues for (1) the South Fork Flathead River below Hungry Horse Dam, (2) Hungry Horse Reservoir and tributaries, and (3) the South Fork Flathead River above Hungry Horse Reservoir.

The group agreed to meet again on Thursday, March 15, 6:30-9:30 p.m. at FWP headquarters. The purpose of the next meeting will be to draft objectives and list options for meeting those objectives. FWP will then prepare the draft fisheries management plan. The committee will meet to review the draft, then it will be released to the public for general review.

Identification of Specific Issues and Problems

1. **Flathead River below Hungry Horse Dam**

-Water temperature in this portion of the river is too cold for proper fish growth and recreational angling. The temperature regime negatively affects aquatic insects.

- Rapid water level fluctuations pose a safety hazard for anglers. Water level fluctuations affect fish and aquatic insect habitat.

-FWP is not managing this river section for a fishery because of these habitat problems.

-A good fishery in this river section which has good access could become increasingly important in the future.

2. **Hungry Horse Reservoir**

-Water level fluctuations cause decreases in fish food supply, fish growth, and fish survival.

-Drawdown reduces access to the reservoir. Most ramps are only accessible for a few months during the year.

-Large cutthroat spawners are being caught in tributaries.

-The reservoir could support more fish if spawning was increased.

-Most of the cutthroat harvest is from the tributaries and tributary bays.

-Limits in the tributaries and in the reservoir are skewed. The reservoir still has a five-fish, no size-limit regulation, whereas the tributaries have a 3 fish under 12 inches restriction. Anglers can claim they caught tributary fish in the reservoir.

-Tributaries open to angling the third Saturday in May during the spawning season.

-Some anglers are not obeying the 3 fish, none over 12" limit on the tributaries.

-FWP is not enforcing the tributary regulation sufficiently.

-On several streams, anglers are harvesting too many spawners. Examples are Margaret, Graves, Emery, Hungry Horse, Riverside, and Doris creeks.

-Graves Creek has spawning area above the falls, but fish can't access it.

-There may be insufficient spawning area for recruitment of cutthroat to the reservoir.

-The reservoir would support more family fishing if anglers could catch more fish (of any size).

-Anglers can access spawning streams too easily.

-Catch rates for cutthroat are too low in the reservoir.

-Other activities (timber harvest, fire, road building) have affected tributary habitat.

-The reservoir provides adult bull trout and westslope cutthroat to the South Fork upstream. Therefore, it is an integral part of this fishery for native species.

-Avoid the temptation to implement a put-and-take planting program for Hungry Horse Reservoir.

-As demand increases, may need to develop more access sites to the reservoir. Abbot Bay site is already overused.

-Mountain whitefish are underutilized. The bull trout fishery in the reservoir may be underutilized.

3. South Fork Flathead River above Hungry Horse Reservoir

-The river and its cutthroat and bull trout populations are a unique, native resource wholly supported by natural reproduction.

-Management of westslope cutthroat is made more difficult because of varied movement patterns in the river.

-Anglers are overharvesting westslope cutthroat spawners near the mouth of the river, particularly in early July. Some believe that harvest is a problem on the river in general.

-There is a general lack of knowledge of the proper way to release fish. Insufficient education efforts on catch-and-release. Ethics of catch-and-release are not being stressed.

-Certain areas along the river are overfished. Examples: Black Bear, mouth of Little Salmon Creek.

-Poaching of bull trout in tributaries of the Upper south Fork is a problem.

-A major problem is general lack of enforcement of fishing regulations on the river, particularly in the wilderness.

-Fisheries regulations are difficult to understand.

-Anglers lack understanding and awareness of the regulations.

-Insufficient information in the regulations to identify fish species (e.g. no picture of a bull trout).

-A conflict exists between bank and boat anglers. Part of this is related to the old practice of "cooler filling" by floaters. Part is related to floaters easily reaching tough spots where bank anglers had to hike into. Also, some anglers believe that floaters may reach areas where trout seek security. Part of the conflict is aesthetics.

-Only four outfitters are licensed to float the South Fork. Perhaps there is insufficient enforcement of this.

-FWP does not post sufficient information and maintain it.

-FWP should find a good regulations program, then leave it in place long enough for the biological benefit and for people to get used to it.

-FWP may not sufficiently recognize the social benefit of a catch-and-release section like Harrison Creek. Many anglers won't fish if it's <u>not</u> catch-and-release.

-Catch-and-release information in regulations should be more prominent. Insufficient information on catch-and-release on television in Region One.

-Regulations on South Fork Flathead River are inconsistent with mountain lakes in the drainage in and outside the wilderness, and with the Hungry Horse Reservoir regulations.

The group then discussed general philosophies on education, enforcement, catch-and-release, social aspects of regulations. The meeting adjourned at about 10:00 p.m.

SOUTH FORK FISHERIES MANAGEMENT PLANNING
SECOND COMMITTEE MEETING
March 15, 1990 6:30-10:00pm

ATTENDEES: Gordon Ash, Jane Cheek, John Fraley, Miles "Pat" Harbin, Ed Hula, Joan Hula, Ed Kelly, Ed Kinsman, Chet Lamoreux, Bill Leonard, Brian Marotz, Dave Owen, Jerry Smalley, Greg Warren, and Tom Weaver

SUMMARY The committee met from 6:30-10:00pm. For the first hour, Warden Captain Ed Kelly addressed some of the enforcement concerns that were expressed at the first committee meeting. The group then generated information for (1) system-wide goals, (2) options for objectives by species and area, and (3) strategies to address the objectives.

FWP will take the information and guidelines generated by the two committee meetings and write a draft management plan containing all options. FWP will mail the plan to the committee for review in May. The committee will then meet again (approximately in 2 months) to edit the draft for general public review.

ENFORCEMENT DISCUSSION

Captain Ed Kelly discussed the committee's concerns about enforcement in the South Fork drainage:

-Increased coordination between USFS and FWP regarding enforcement.
-Use uniformed volunteers (liability problem).
-Fishing vs hunting enforcement.
-Law enforcement education.
-Set levels of enforcement needed in the action plan, even though funding limits the actual level.
-Hot spots for fish poaching: Emery Bay, Hungry Horse Bay, mouth of the South Fork (upper end of the reservoir).
-Simplify regulations: is this possible or desirable.
-Signs--keep simple, prominent
-Combination of handouts on regulations, catch-and-release, no trace camping.
-Enforcement of outfitter use levels.
-Enforcement budgets.

SYSTEM GOALS AND OBJECTIVES

The following points should be part of the overall goals statements:

-South Fork Flathead River above the reservoir:
Native species, genetic integrety, unique fishery, consistent with LAC, wild and scenic, wilderness management guidelines, USFS plans, wilderness experience, low-consumptive fishery.
-Hungry Horse Reservoir:
Similar values as above, more diverse recreational opportunities, coordinate with BOR.

-South Fork Flathead River below the dam:
Optimize recreational fishery, consistent with Flathead System Management Plan.

SPECIES GOALS AND OBJECTIVES

Westslope Cutthroat Trout:

South Fork Flathead River above the Reservoir:
Objective options:

Size: current size distribution, increase size to pre-impacted distribution, time phase interim objectives towards goal.

1) ~ 30% >12 inches
2) ~ 15% >12 inches--maintain size
3) upward trend: time-phased objective

Numbers: same as size.

1) maintain currents numbers.
2) increase to pre-impact numbers; time- phased interim goal

Strategies:

1) size >30% over 12"
2) maintain current limit
3) shorten angling season--time of day
4) release fish over 12"
5) educate people on fish releases
6) barbless hooks
7) slot limit (1 >14" (?) or larger)
8) catch-and-release
9) lower limit
10) single hooks
11) artificial lures
12) tippet restriction (avoid exhaustion)
13) limited entry
14) no fishing while floating
15) floating enforcement? impacts on population?
16) emphasize mountain whitefish harvest

Hungry Horse Reservoir:
Objective options:

1) increase number of fish ___%
2) increase catch rate to 1.0 fish/hour
3) status quo
4) increase average size

Strategies: (to increase catch rate)

1) educate on fishing techniques
2) reduce limit
3) close all tribs during spawning
4) close selected tribs
5) sign trib mouths
6) enforcement/education
7) tackle restriction
8) distance from mouth of tributary

9) season which apply to reservoir during spawning
10) artificial habitat/slash/seeding
11) control of fluctuation in reservoir
12) direct hatchery plants into reservoir
13) imprint plants in tribs
14) habitat improvement in tribs
15) reopen spawning areas
16) wetland improvements
17) habitat protection and improvement
18) restrictive size limits
19) temporary closure or restriction or test

Bull Trout:

South Fork Flathead River below the Dam:
Objectives options:
1) current size, numbers; Note: increase population in Big Salmon Lake
2) maintain upward trends
3) enforcement in tributaries
4) close spawning tribs (all or some)
5) education/identification
6) management concerns; bull trout-Wct predation

Hungry Horse Reservoir:
Objective options:
1) maintain numbers and size
2) increase numbers and size
3) increase harvest
-increase limit
-close tribs
-increase spawning, plants in tribs; reservoir and other management strategies

Ref:JF30.90
3/16/90

South Fork Flathead River Management Committee - Mailing List

Citizens:

Name	Address	City/State/Zip
Don Alley	810-3rd Avenue East	Kalispell, MT 59901
Gordon Ash	HHR-USFSBox 340	Hungry Horse, MT 59919
Bill Armstrong	P. O. Box 293	West Glacier, MT 59936
Jim Bukaosky	P. O. Box 1387	Columbia Falls, MT 59912
Jane Cheek	P. O. Box 1880	Columbia Falls, MT 59912
Thomas E. Chose	P. O. Box 983	Columbia Falls, MT 59912
Dana E. Cole	801 P Street (Spotted Bear)	Lincoln, NE 68508
Roy Countryman	P. O. Box 818	Columbia Falls, MT 59903
Ron Curtiss	326 Bench Drive	Kalispell, MT 59901
Dallas Eklund	162-5th Avenue EN	Kalispell, MT 59901
Gary Franklin	P. O. Box 2761	Kalispell, MT 59903
Howard Gipe	800 South Main	Kalispell, MT 59901
Otto Hallgren	317 Lupfer Ave.	Whitefish, MT 59937
David N. Hanson	P. O. Box 241	Togiak, AK 99678
Miles "Pat" Harbin	120 Pleasant View Drive	Kalispell, MT 59901
Donald E. Howard	590 - 5th Avenue WN	Kalispell, MT 59901
Ed Hula	1000 Keller Road	Columbia Falls, MT 59912
R. W. Hull	125 Wisconsin Ave.	Whitefish, MT 59937
Ed Kennedy	125 Garland	Kalispell, MT 59901
Ed Kinsman	85 Sussex Drive	Kalispell, MT 59901
Bill Leonard	P. O. Box 1537	Whitefish, MT 59937
Jerry Malson	22 Swamp Creek Rd.	Trout Creek, MT 59874
Doug Maryott	556 7th Ave. EN	Columbia Falls, MT 59912
Dan Oursland	584 Concord Lane	Kalispell, MT 59901
Laurence Oursland	23 W. Cottonwood Drive	Kalispell, MT 59901
David L. Owen	1 Big Sky Blvd.	Kalispell, MT 59901
Lloyd L. Reesman	670-4th Ave. WN	Kalispell, MT 59901
Jack Rich	P. O. Box 495	Seeley Lake, MT 59868
Todd Samson	P. O. Box 2237	Kalispell, MT 59903
Douglas L. Scott	1691 Princeton Ave.	St. Paul, MN 55105
William Simonsen	108 Shotzman	Bigfork, MT 59928
Victor A. Sistok	15 Konley Drive	Kalispell, MT 59901
Jerry Smalley	1142 Columbia Mtn. Rd.	Columbia Falls, MT 59912
Douglas T. Wagner	P. O. Box 21	Hungry Horse, MT 59919
Greg Warren	Spotted Bear Ranger Dist.	Hungry Horse, MT 59919
George E. Wilson	405-1st Ave.E, P.O.2350	Columbia Falls, MT 59912
Tom Wilson	P. O. Box 41	Stryker, MT 59933

DFWP Liasons:

John Fraley	P. O. Box 67	Kalispell, MT 59903
Brian Marotz	P. O. Box 67	Kalispell, MT 59903
Jim Vashro	P. O. Box 67	Kalispell, MT 59903
Tom Weaver	P. O. Box 67	Kalispell, MT 59903

APPENDIX C

Questionnaire addressing the South Fork Flathead Management Plan Options

After you review this management plan, please complete the following brief questionnaire, staple and return by September 15, 1990. The South Fork Management Committee will analyze responses and formulate a preferred management direction and final draft plan.

- **Thank You** -

1. Please rank the following management options (1 = most important, etc.) for each species. Refer to details in the management plan as background for your ranking.

Westslope Cutthroat

South Fork Flathead River

___ Maintain current size and numbers of westslope cutthroat trout; maintain current catch rates and harvest.

___ Manage for a moderate increase in size of westslope cutthroat in the river system.

___ Manage for a large increase in size of westslope cutthroat in the river system.

___ Management for increase in numbers of westslope cutthroat trout in the river.

___ Other (please specify)_____

_____

Hungry Horse Reservoir

___ Maintain current size, numbers, and catch rates of westslope cutthroat trout in Hungry Horse Reservoir and tributaries.

___ Manage for a moderate increase in numbers and size of westslope cutthroat in the reservoir.

___ Manage for large increase in numbers and size of westslope cutthroat trout in Hungry Horse Reservoir and tributaries.

___ Other (please specify) _____

_____

Comments (attach additional sheets if necessary):_____

_____

_____

Bull Trout

___ Maintain present numbers and size of bull trout in the drainage.

___ Manage for a moderate increase in numbers and size of bull trout in the drainage.

___ Manage for increased numbers of bull trout in the system and provide greater opportunity for harvest in Hungry Horse Reservoir.

___ Other (please specify) _____

_____

Comments:_____

_____

_____

Mountain Whitefish

___ Maintain current size, number and harvest of mountain whitefish in the reservoir, river, and tributaries.

___ Increase the harvest of mountain whitefish through public education and involvement.

___ Other (please specify) _____

_____

Comments:_____

_____

_____

2. To attain some of the management options considered in this plan, the following regulation strategies may or may not be required. Please indicate if you would support the use of each strategy by indicating a plus (+); if you would not support the strategy indicate by a minus (-).

Strategy

A. Apply wilderness limits to all waters upstream of Hungry Horse Dam. This would mean Hungry Horse Reservoir and all lakes in the drainage would have a 3-fish limit. All streams would have a 3-fish, none over 12 inches. ____

B. Close bays in the reservoir out to 1,000 feet from each stream mouth. ____

C. Regulate the number of floaters on the South Fork Flathead River. ____

D. Maintain the catch/release regulation on the South Fork from Meadow Creek Bridge to Spotted Bear Bridge. ____

E. Close the most important westslope cutthroat spawning streams around the reservoir to angling (eg. Hungry Horse, Emery). ____

F. Close to angling the most important bull trout spawning streams in the wilderness portion of the South Fork. ____

G. Implement catch and release regulations on a larger portion of the South Fork. ____

H. Restrict the use of bait on the South Fork Flathead River. ____

I. Require barbless hooks, artificial flies, and lures only on the South Fork. ____

J. Increase the limit on cutthroat in Hungry Horse Reservoir. ____

K. Increase the limit on bull trout in Hungry Horse Reservoir. ____

L. Produce an educational pamphlet on regulations and catch and release techniques for the South Fork Drainage. ____

M. Allow anglers to keep one fish greater than 12 inches on the South Fork in the wilderness. ____

N. Increase enforcement of regulations in the drainage through MDFWP and USFS cooperative efforts. ____

O. Continue planting westslope cutthroat in lakes where non-native species exist to improve genetics in the drainage. ____

P. Plant westslope cutthroat in tributaries to Hungry Horse Reservoir to establish more spawning runs. ____

Q. Plant bull trout in tributaries to Hungry Horse Reservoir to establish more spawning runs. ____

R. Plant westslope cutthroat directly into Hungry Horse Reservoir to bolster populations. ____

S. Plant bull trout directly into Hungry Horse Reservoir to bolster populations. ____

T. Reduce the limit on cutthroat in the South Fork to 1 or 2 fish daily. ____

U. Pursue habitat improvement and better water levels on the reservoir through the Northwest Power Planning Council. ____

V. Limit the number of anglers on the South Fork Flathead. ____

3. I have the following additional comments regarding this Draft Plan (attach additional sheets if necessary).

_____

_____

_____

_____

_____

_____

4. I would be interested in attending an information meeting to discuss the final draft plan. ___ Yes ___ No

Name: _____

Address: _____

_____

_____

Phone: _____

/ss

APPENDIX D

Questionnaire results on the July 1991 Draft of the South Fork Flathead Management

Montana Department of Fish, Wildlife & Parks

INTEROFFICE MEMORANDUM

November 20, 1990
Ref: JF26.91

TO: South Fork Fisheries Management Committee

FROM: John Fraley JF

SUBJECT: Results of the Management Plan Questionnaire

We have summarized the 38 completed questionnaires received from the draft South Fork Flathead Management Plan. The responses will be used to shape the draft plan into a preferred management direction. You should receive the next draft shortly after the first of the year.

Please review the questionnaire responses and the next draft plan when you receive it. We will schedule a committee meeting to make final adjustments to the plan in late January.

Thanks for your continued cooperation!

/bj
Enc.

After you review this management plan, please complete the following brief questionnaire, staple and return by September 15, 1990. The South Fork Management Committee will analyze responses and formulate a preferred management direction and final draft plan.

- Thank You -

1. Please rank the following management options (1 = most important, etc.) for each species. Refer to details in the management plan as background for your ranking.

Westslope Cutthroat

0	1	2	3	4	other-5
3	17	6	11	7	0
5	22	10	2	1	0
8	6	4	8	12	0
7	5	10	7	8	0
31	3	1	0	0	3

South Fork Flathead River

Maintain current size and numbers of westslope cutthroat trout; maintain current catch rates and harvest.

Manage for a moderate increase in size of westslope cutthroat in the river system.

Manage for a large increase in size of westslope cutthroat in the river system.

Management for increase in numbers of westslope cutthroat trout in the river.

Other (please specify)_____

_____

Hungry Horse Reservoir

8	7	12	11	0	0
5	22	10	1	0	0
8	10	5	15	0	0
31	3	0	0	0	4

Maintain current size, numbers, and catch rates of westslope cutthroat trout in Hungry Horse Reservoir and tributaries.

Manage for a moderate increase in numbers and size of westslope cutthroat in the reservoir.

Manage for large increase in numbers and size of westslope cutthroat trout in Hungry Horse Reservoir and tributaries.

Other (please specify) _____

_____

Comments (attach additional sheets if necessary):_____

_____

_____

Bull Trout

0	1	2	3	other-4	
3	16	9	9	1	
6	17	14	1	0	
10	5	5	17	1	
36	2	0	0	0	

Maintain present numbers and size of bull trout in the drainage.

Manage for a moderate increase in numbers and size of bull trout in the drainage.

Manage for increased numbers of bull trout in the system and provide greater opportunity for harvest in Hungry Horse Reservoir.

Other (please specify) _____

_____

Comments:_____

_____

_____

Mountain Whitefish

0	1	2	other-3	
8	15	14	1	
6	22	10	0	
35	2	1	0	

Maintain current size, number and harvest of mountain whitefish in the reservoir, river, and tributaries.

Increase the harvest of mountain whitefish through public education and involvement.

Other (please specify) _____

_____

Comments:_____

_____

_____

2. To attain some of the management options considered in this plan, the following regulation strategies may or may not be required. Please indicate if you would support the use of each strategy by indicating a plus (+); if you would not support the strategy indicate by a minus (-).

Strategy		(0) −	(1) +	(3) blank
A.	Apply wilderness limits to all waters upstream of Hungry Horse Dam. This would mean Hungry Horse Reservoir and all lakes in the drainage would have a 3-fish limit. All streams would have a 3-fish, none over 12 inches.	16	28	0
B.	Close bays in the reservoir out to 1,000 feet from each stream mouth.	19	19	0
C.	Regulate the number of floaters on the South Fork Flathead River.	12	26	0
D.	Maintain the catch/release regulation on the South Fork from Meadow Creek Bridge to Spotted Bear Bridge.	4	34	0
E.	Close the most important westslope cutthroat spawning streams around the reservoir to angling (eg. Hungry Horse, Emery).	6	32	0
F.	Close to angling the most important bull trout spawning streams in the wilderness portion of the South Fork.	9	29	0
G.	Implement catch and release regulations on a larger portion of the South Fork.	19	19	0
H.	Restrict the use of bait on the South Fork Flathead River.	18	19	1
I.	Require barbless hooks, artificial flies, and lures only on the South Fork.	13	25	0
J.	Increase the limit on cutthroat in Hungry Horse Reservoir.	33	5	1
K.	Increase the limit on bull trout in Hungry Horse Reservoir.	28	9	1
L.	Produce an educational pamphlet on regulations and catch and release techniques for the South Fork Drainage.	7	31	0
M.	Allow anglers to keep one fish greater than 12 inches on the South Fork in the wilderness.	17	21	0
N.	Increase enforcement of regulations in the drainage through MDFWP and USFS cooperative efforts.	4	34	0
O.	Continue planting westslope cutthroat in lakes where non-native species exist to improve genetics in the drainage.	5	33	0
P.	Plant westslope cutthroat in tributaries to Hungry Horse Reservoir to establish more spawning runs.	6	32	0

	(0) −	(1) +	(3) blank
Q. Plant bull trout in tributaries to Hungry Horse Reservoir to establish more spawning runs.	15	21	2
R. Plant westslope cutthroat directly into Hungry Horse Reservoir to bolster populations.	14	22	2
S. Plant bull trout directly into Hungry Horse Reservoir to bolster populations.	22	14	2
T. Reduce the limit on cutthroat in the South Fork to 1 or 2 fish daily.	21	16	1
U. Pursue habitat improvement and better water levels on the reservoir through the Northwest Power Planning Council.	1	37	0
V. Limit the number of anglers on the South Fork Flathead.	30	7	1

3. I have the following additional comments regarding this Draft Plan (attach additional sheets if necessary).

_____

_____

_____

_____

_____

_____

4. I would be interested in attending an information meeting to discuss the final draft plan. 27 Yes 9 No

Name: _____

Address: _____

_____

_____

Phone: _____

/ss

WESTSLOPE CUTTHROAT

.South Fork Flathead River

Record#	Other category:
1	5--Option removed if bait fisherman excluded; they need to fish too; educate
5	1--Manage for mod.inc.in size, to represent wilderness principles in W.Act.
13	1--Maintain 3 fish limit; regardless of size
17	5--Protect present adults, tighter supervision of fish in spawning periods.
22	5--Make it catch and release until the number size increases
34	1--Institute slot limit as means of increasing spawner survival.
36	2--Cut down on number of float-fishing trips; barbless hooks a must

. Hungry Horse Reservoir

Record#	Other category:
1	4--Managing for moderate inc. using strategy b; recommend mitigation
2	4--No stocking by hatchery fish so as not to weaken native fish
13	1--establish 3 fish limit; regardless of size
17	4--Close all streams in spr for ct and fall for bull trout; see final comm
19	1--stock HHR with ct and bull trout; not many now because not stocked
22	4--Make c and r until number and size increase; greatly reduce squawfish
34	1--Institute slot limit as above.

. General Comments on Westslope Cutthroat

Record#	Comment:
3	Allow a few lrg fish to be kept; we don't have many bluebaks in this stream; will have fewer law vio
11	If funds not available for selected option, then options selected determined by funding level avail?
13	Make SF/HHR the same; simple regs then enforce. Reduce # of biologists and office staff; inc wardens
15	Stop drafting HHR every time someone in Washington State needs a drink of water
17	Protect, improve and increase spawning potential in HHR with opening of streams 7/7 or 7/15
19	I fished 8 days and no strike; fish gone because they don't stock it at all
26	Put distance restriction back on the bays on impt. tribs into HHR--poaching is high
27	Post more signs stating the current regs; I see more violations all the time

BULL TROUT

. Other Category

Record#	Comment:
8	1--Manage for increased numbers of bull trout in the system
37	1--Go to catch and release and barbless hooks only in Wilderness portion.

. General Comment Category

Record#	Comment:
1	Increasing #'s of bull trout in HHR could lead to overharvest and predation increase on WCT
2	There seems to be a plentiful supply of food for increased numbers and size of bull trout
3	Inconsistent with ct prog to inc #'s of bulls in SF; they are at max level now if ct to have pref.
5	Philosophy in wilderness the same as identified for cutthroat
13	Put wardens in field to enforce/teach/educate public; BE SURE they work and not BS
17	Lots of bulls in resv but small; largest I caught was 12 # inspite of excellent supply of Sq,Wf,etc
19	Bull trout are great but they are not enough to be able to catch any
20	Altho there are plenty of bulls in the drainage above the dam they are fragile and no more pressure
22	Bulls easily taken on lures; make lure restriction like single set of treble hook
23	Don't take bulls from SF any time; would increase #'s and size--increases survival & spawning adults
37	Few people fish consumptively for bull but their harvesting of mature spawners has dramatic impact

MOUNTAIN WHITEFISH

. Other Category

Record#	Comment:
3	2--larger limits should be considered on commercial too
13	1--Introduce king salmon or coho to feed on whitefish
17	1--35 limit

. General Comment Category

Record#	Comment:
2	Whitefish could be a large feed source for increase numbers of bull trout
5	#1 in conjunction with some education of public which would increase the harvest

Mountain Whitefish General Comment Category continued

7	With the now low limits on all trout, it is to be hoped people will go after whitefish
10	Increase limit and education a must.
11	What are sources of increased funding for selected options; is there cost/benefit determination for options; is any option for resv practical as long as wtr levels vary & no real control?
12	Canning and "pickeling" recipes which would utilize whitefish--few people know how, but what a money savings over store brought products. EDUCATION
13	Whitefish are predators; I have caught 10-14" MWF with their stomachs full of fry.
15	Most fishermen don't want them.
17	Difficult to find other than in main rv except maybe fall; definite decline in fall '89 in Fisher River where commercial licenses; com. operators had nets across lower part of river near the Kootenai
20	Whitefish are good eating but can be harder to catch; have to look at 6-8 cuts before you can get bait down to the whitefish
21	Whitefish is a very good eating fish.
26	Should do more harvesting of whitefish; also you should try to get rid of the "sucker" population.
28	"Educate" that the whitefish is challenging & rewarding as a sportfish and is great as food if smoked

GENERAL COMMENTS REGARDING DRAFT PLAN

Record#	Comments:
1	Goal stmts: "Preventing" hybridization is well-nigh impossible. Maintaining genetically pure pops and improving genetics of native trout has merit. Need tighter regs and inc law enf. funding.
2	Better enf is key to any program to inc the SF fishery; more restrictions and smaller limits should be monitored to measure worth; if no progress in given time change to something else & measure again; should manage as trophy fishery stress c-and-r
3	Manage SF as a ct fishery; MF and NF are already protected bull trout drainages; this was a natural when the SF was a free stream; give spawning streams the protection we now give bull trout
4	Habitat preservation is crucial to quality of streams; logging and other development can adversly affect watershed and destroy spawning areas; destruction of ecosystems will kill more wildlife than poaching.(Wtr address:Spotted Bear R Stn, HH, 59919)

5 Wilderness values need to be highlighted in more detail as a guiding factor for mgmt action/policy; more so than the first intro sentence; support for planting of any spp is conditional upon supply is generated from a native population

6 I am primarily interested in quality cutthroat fishing in the SF and tribs and not interested in increasing numbers of bull trout in the system.

7 Too bad we now have such low limits the lrg # of anglers mandates so many of the present restrictions; I worked for yrs in the Bob--there were few people; now it looks like main st of a small town;without protection of spawning streams then ltl spawn

8 The cutthroat on the SF are so easy to catch, I fail to see why bait is permitted in special reg wtrs--catch & release and wilderness limits sections of the SF. Mortality rates of released fish would be reduced if bait were prohibited in SF system.

9 Ranking the above as priorities I would single out C, G, and I as most important.

11 Stra B: 1000' current level or high wtr level? Concerned about relative/actual costs of ea option--source of increased funds/what done when funds unavailabe; plan should reference current regs--catch #'s, sizes, season, etc.

12 How do you tell young/old/occasional angler how to fish and throw the big one back? "Education" to protect very impt; diff between use and abuse; protect all $ to F&G for wise use; Fish Hatch from and for SF-utilize 2 drainages (E & W)closed yr round

13 Fished area 22 yr never checked by F&G; F&G not working towards Ch of Com end result of more tourists and USFS advocating clear cuts; F&G maintains "natural/native" and there is no more. Manage for survival/hardiness/fast growing. Less study and DO.

14 NOTE: Questionnatire not filled out. Typed a page of remarks.

15 Regulate HHR; our needs are as impt as downstream out of state. FWP work with fish around HHR as much as they fool around with the bears!

17 Wct--HHR: close year round streams not supporting resident population. Draft plan fairly accurate; since dam built spawning ct not adequately protected; it will take many yrs of concentrated effort to get good fishing there again.

19 If F&G would stock a few ct in HHR every year and close the streams where they go up to spawn, they will have better fishing for everyone, the way that it is done now it is a poor system the way I look at it.

20 Add "Except bull trout and whitefish to 12" max." Restricing bait would reduce whitefish catch which is not needed. Fished bulls for 18 yrs and all in stomachs is 100% whitefish, so increasing bulls is linked to an abundance of whitefish

21 Fishing has been very poor all over the valley.

General Comments Regarding Draft Plan continued

23 Doing an excellent job! Continue to recognize unique opp. to manage remote trophy ct fishery while providing increased angler oppor. to take both spp in resv. Reducing harvest oppor at critical times may accelerate inc in #'s and size of both spp

25 I don't see how you can fairly limit the rafters or anglers without either hulting the outfitters or upsetting the public. If the spawners were protected better (vulnerable at this time) and there was more planting of fish, size & #'s would increase.

29 As we limit floaters on river horsemen should be limited in # of horses/party; strictly enforce. Restrict outfitters to smaller #; restrict pvt parties to 12 riding + 6 pack horses; keep outfitters with horses & camps away from river 100 yd at night

30 I proposed "M" but was intended for the river outside of wilderness; this was for those that want a trophy to mount. Item "D" maintain as catch and release area i.e. trout Unlimited members and related types.

31 I think that the complete closure of HHR and its tribs from March 1 until July 1 would be of great importance to increasing spawning ct and population.

32 Bull trout pray heavily on ct. Let's not sacrifice ct to raise bulls--Flathead Lake, MF, NF would be better places to provide more bull trout.

33 I still don't understand why the introduction of either walleyes or chinook salmon which both would feed on whitefish, suckers, and trash fish would harm the HHR.

34 Cutthroat--institute slot limit throughout the resv. and on entire SF. Also, step up spot checks on roads leading out of the resv area using checking stations; volunteer could perform this funciton and report violations, saving warden time for patrol

38 I have fished SF for years. Willing to sacrifice for a time to improve the fishing in the future. Wants very limited fishing until #'s and size increase. Raft floaters don't hurt fishery, its those who fish from rafts.

South Fork Flathead River Management Committee - Mailing List

Citizens:

Name	Address	City/State/Zip
Don Alley	810-3rd Avenue East	Kalispell, MT 59901
Gordon Ash	HHR-USFSBox 340	Hungry Horse, MT 59919
Bill Armstrong	P. O. Box 293	West Glacier, MT 59936
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Thomas E. Chose	P. O. Box 983	Columbia Falls, MT 59912
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Ron Curtiss	326 Bench Drive	Kalispell, MT 59901
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APPENDIX E

South Fork Flathead River Management Plan
Open House Results

OPEN HOUSE

SOUTH FORK FLATHEAD DRAINAGE FISHERIES MANAGEMENT PLAN

April 4, 1991

Attendees: John Fraley, Tom Weaver, Bob Peters, Carlene Peters, Jim Seek, Floyd Ridenour, Greg Barkus, Lloyd L. Reesman, Gordon Ash, Ed Kinonion, Bill Leonard, Robert B. Evans, Greg Warren, Brian Marotz, Jack Rich, C.B. Rich, Gary Collier.

The Department hosted an open house on the South Fork Fisheries Management Plan on April 4 from 7:00 to 10:00 p.m., at the Region One headquarters. Seventeen people participated in a round-table discussion and helped rank management actions proposed in the final draft plan.

Major comments included:

- People catching lots of fish near the culvert outlets on tributaries to Hungry Horse Reservoir.
- The tributaries could be closed to angling or only open after the spawners have returned to the reservoir.
- Need to identify the major spawning tributaries where poaching is taking place, and identify the major bays in the reservoir.
- Try other management actions first before implementing things like floater limitations and angler limitations.
- Warden Captain Ed Kelly will assign a warden to the Hungry Horse Reservoir area for the summer of 1991. This will address committee members' enforcement concerns and yield information on the poaching problem. Fisheries staff will prepare a map showing prime areas and time periods of suspected poaching.
- Annual review of the progress on the management plan actions would be a good idea--reconvene committee in April annually.
- Use enforcement and biological personnel to educate the public about catch and release ethics, barbless hooks, single hooks or lures, limit use of bait, creel limits, and poaching. Explain that voluntary methods could help us avoid new, more restrictive regulations.
- FWP and USFS personnel could distribute flies with barbless hooks as a courtesy and education tool.

- Tie plan more closely to wilderness values in the introduction.

- Consider a newsletter rather than a brochure for the Bob Marshall Wilderness Complex as an education tool. Include minimum impact camping; joint effort between FWP, USFS, outfitters, etc. Add regulations and catch and release techniques to this year's USFS information.

- Need to maintain the opportunity to keep some fish in the BMWC.

- Extend wilderness lake limit to Hungry Horse Reservoir and mountain lakes. This would drop the limit from five fish to three fish in Hungry Horse Reservoir, reducing harvest and accomplishing similar objective as other steps (tributary mouth closures) which would be harder to enforce.

- Dana Cole participated by mail and included the following comments:

  - eliminate the use of bait;
  - impose catch and release on the entire South fork. This would increase fish size and simplify regulations;
  - what will be the scope and frequency of monitoring?
  - fishing pressure is a factor which can reduce the overall health of the fishery. The river is too fragile to provide something for everyone.

Attendees at the open house ranked the 18 management options in the draft plan. Eight management actions were selected as reasonable to consider during the five-year management period:

1. Close the most important westslope cutthroat spawning tributaries and the reservior to angling.

2. Pursue habitat improvement and water level control for Hungry Horse Reservoir.

3. Continue planting westslope cutthroat in South Fork drainage lakes to "swamp out" non-native species.

4. Increase enforcement efforts.

5. Require barbless hooks, single lure hooks, no bait on the South Fork Flathead.

6. Increase education, produce an annual pamphlet or newsletter.

7. Extend wilderness limits to Hungry Horse Reservoir and other lakes in the drainage (3 fish).

8. Maintain the catch and release regulations in the river from Meadow Creek to Spotted Bear.

Increasing enforcement and education, and extending wilderness limits will address concerns raised under numbers 1 and 5.