FISHERIES MANAGEMENT PLAN 1991-1995

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FISHERIES MANAGEMENT PLAN
1991-1995

INTRODUCTION AND PURPOSE

Title 36 Idaho Code, declares fish and wildlife to be the property of the state of Idaho and mandates the Idaho Fish and Game Commission (Commission) to "preserve, protect, and perpetuate such wildlife and provide for the citizens of this state and as by law permitted to others, continued supplies of such wildlife for hunting, fishing, and trapping." Under the Commission's guidance, the Idaho Department of Fish and Game (Department) manages the fish and wildlife of the state.

This fishery management plan describes the management direction which the Department intends to pursue over the next five years in order to provide the continued supplies of fish and fishing opportunity as mandated by law. It describes overall Department and specific fisheries policies and sets forth major fisheries goals and objectives. In some cases, the management direction outlined in this plan is a continuation of long-established programs. In other cases, factors limiting fisheries are identified and corrective measures proposed. After public review and Commission approval, this document will be the guide for management of fishery resources in Idaho from 1991 through 1995.

Budget preparation for fisheries activities of the Department will be within the guidelines set down by this plan. Programs listed are those which the Department intends to initiate or accomplish within this planning period.

The Department has management responsibility for over 80 different species of fish in Idaho, of which 14 species are native game fish and an additional 28 species are game fish that have been introduced. Populations of these fish occur throughout the 26,000 miles of rivers and streams, 225,000 acres of lakes, and 239,000 acres of reservoirs found in the state.

Fish species of primary concern from a management standpoint are native sport fish, including rainbow trout, cutthroat trout, bull trout, steelhead (rainbow trout), chinook salmon, kokanee, and white sturgeon. Two of these, steelhead and chinook salmon, migrate to the ocean to complete a portion of their life cycle (i.e., they are "anadromous" species), and thus management of these two species involves cooperative agreements among other state, federal, and tribal agencies. Introduced game fish, such as brown trout, lake trout, brook trout, landlocked coho and chinook, bass, sunfish, perch, crappie, catfish, walleye, pike, and tiger muskie, are used to provide sport fisheries where habitat conditions are unsuitable for native species and to provide a diversity of angling opportunity. A variety of regulations are used on different waters to provide a mixture of sport fishing opportunities. New fishing opportunities will continue to be developed through reclamation of damaged habitats and development of

new water areas. A small group of fish species, including certain species of game fish and five species of nongame fish, have been designated as "Species of Special Concern" because of limited range in Idaho, low populations, or threats to their existence.

A major thrust of Department fisheries activities is to provide continued supplies of game fish for sport fishermen. A top priority is to manage waterways so that sportfishing demands can be met through natural production of resident and anadromous fish species. Management activities are aided by a wide range of research projects and other information-gathering activities. In areas where sufficient fish habitat exists but natural production is insufficient to meet demands, fish stocks may be rebuilt through supplementation. Appropriate wild stocks will be evaluated and utilized wherever possible. Hatchery subcatchable and catchable programs are used in other heavily-fished, public waters to provide recreational fishing opportunity, with emphasis on those areas that will allow a high proportion of hatchery-produced fish to be returned to the creel.

The complexity of anadromous fish management requires a separate detailed plan to discuss management objectives and actions for the next five years. Therefore, only proposed general programs will be outlined in this document, primarily with reference to the relationship of anadromous management to resident species. "The Idaho Anadromous Fish Management Plan, 1991-1995" has been published and distributed separately.

The focus of the anadromous fish program is to maintain and rebuild anadromous stocks and, in particular, wild stocks by improving the ability of salmon and steelhead to migrate to and from Idaho. Key elements of this program are provision of adequate river flows for downstream migration of juveniles, minimizing factors associated with post-release mortality of hatchery fish and implementing regional harvest management adjustments. These elements are coupled with intra-state protection of spawning and rearing habitat necessary for naturally producing stocks of fish.

The Department also has responsibility for management of commercial fisheries in Idaho. Commercial fishing in public waters is limited to nongame fish species, crayfish, and mysis shrimp. These operations are regulated to minimize the potential for impacting sport fisheries.

The Department's Bureau of Fisheries is divided into four sections: (1) resident fisheries, (2) anadromous fisheries, (3) hatcheries, and (4) fisheries research. The primary responsibility of the resident fisheries and anadromous fisheries sections, along with the regional fisheries staff, is to actively manage fish populations and provide a diversity of angling opportunities. These management activities include manipulation of fish populations, fish habitat protection and enhancement, development of angler access and angler information, coordination with the general fishing public, and development of

harvest regulations for game fish. Most of the management effort involves Department field staff (biologists, technicians, and others) working in coordination with headquarter's staff and often with personnel of state and federal land management agencies as well.

The hatcheries program raises fish to meet particular fisheries management goals. In addition to development of new technologies to raise healthy fish in the most cost-effective manner, this program has a fish health section designed to identify and treat various fish diseases and to improve the health and disease resistance of particular stocks. Fisheries projects that benefit directly from the hatchery program include put-and-take and put-grow-and-take fish stocking programs, supplementation of salmon and steelhead natural production, supplementation of reduced populations of resident fish, and production of other game fishes.

The fisheries research section serves to enhance management capabilities by providing detailed information on specific fisheries or biological systems to address specific management needs. In addition to collecting and analyzing biological data, the fisheries research section aids in the development of management recommendations, development of management methods, and summarizing existing information.

The function of habitat protection is carried out through the Bureau of Program Coordination. Regional fisheries staff, however, must supply most of the data needs and manpower to coordinate with land management agencies for the Bureau of Program Coordination until the regions acquire regional habitat coordinators.

HOW TO USE THIS DOCUMENT

It is divided into two parts:

1. The first section deals with fisheries on a statewide basis, provides Department policies and Bureau of Fisheries policies, outlines the general management direction, and describes specific statewide programs.

2. The second section proposes specific management direction for each drainage. A narrative overview describes the location, gives pertinent statistics on use, land management activities, demographics, and describes the habitat and important fisheries. Objectives and programs specific to each drainage are listed. Management direction for important waters in each drainage is presented.

DEPARTMENT POLICIES

The wildlife policy of Idaho is contained in Idaho Code, Section 36-103, which states:

> All wildlife, including all wild animals, wild birds, and fish, within the state of Idaho, is hereby declared to be the property of the state of Idaho. It shall be preserved, protected, perpetuated, and managed. It shall be only captured or taken at such times or places, under such conditions, or by such means, or in such manner, as will preserve, protect, and perpetuate such wildlife, and provide for the citizens of this state and, as by law permitted to others, continued supplies of such wildlife for hunting, fishing, and trapping.

In order to accomplish the Department's mission to protect fish and wildlife resources and to provide for their use by the public, a number of guiding principles have been developed. They are:

Management

1. The Department will advocate that fish and wildlife receive equal treatment with all other resources in land and water management decisions.

2. The fish and wildlife resources of Idaho belong to the residents of the state and, while national interests will also be considered, these resources will be managed for the recreational and other legitimate benefits that can be derived primarily by the residents of Idaho.

3. Fish and wildlife management will be designed to provide a variety of consumptive and nonconsumptive recreational opportunities, as well as scientific and educational uses.

4. Fish and wildlife habitat and populations will be preserved, protected, perpetuated, and managed for their intrinsic and ecological values, as well as their direct benefit to man.

5. The Department will support sport fishing, hunting, and trapping as traditional and legitimate uses of Idaho's fish and wildlife resources.

6. The Department will manage wildlife at levels that provide for recreational opportunity but do not result in significant damage to private property.

7. The Department will use the best available biological and sociological information in making resource decisions and supports research efforts to provide state-of-the-art techniques and data.

Public Involvement

8. The Department will involve the public in the decision-making process, using a variety of formats, including public meetings, surveys, and working groups.

9. The Department is the principal government spokesman for Idaho's fish and wildlife resources and habitats and has a responsibility to inform interested citizens of potential threats to those resources.

10. The Department will promote and conduct training and educational programs that emphasize sportsmanship, outdoor skills, ethical outdoor behavior, the needs of fish and wildlife, and the wise use and appreciation of fish and wildlife resources.

11. The Department will provide information on Idaho's hunting and fishing, to identify recreational opportunities and to meet specific management goals.

12. The Department will emphasize individual recreational opportunities rather than promoting contests or competitions, or activities that may result in commercialization of fish and wildlife resources.

Regulations

13. Within the range of biologically sound alternatives, the Department will consider legal and economic factors, desires of the sporting public, social acceptability, and administrative feasibility when promulgating regulations.

14. Regulations will be designed for ease of understanding and will include only those restrictions necessary to meet desired management objectives.

Access

15. On land open to the public, the Department will advocate access that provides a variety of fish- and wildlife-associated recreational opportunities while achieving habitat and population management goals.

16. The Department will cooperate with sportsmen and landowners to minimize negative impacts of outdoor recreation on private lands and ensure the continued availability of recreational access by permission to private lands for wildlife-associated recreation.

Introductions and Stocking

17. Maintaining self-perpetuating populations of fish and wildlife will receive priority over stocking programs.

18. Introduction of fish and wildlife species may be considered when (1) substantial benefits are anticipated; (2) sufficient and suitable habitat is available; (3) impacts to native species are acceptable; and (4) where necessary, approval is obtained from appropriate agencies or private landholders.

19. The Department will advocate strict controls on the importation and introduction of exotic fish and wildlife.

Land Acquisition

20. The Department will focus land acquisition efforts on critical habitats, particularly wetlands, access to waterways, and land adjacent to existing Wildlife Management Areas.

21. The Department will support payment of a fee in lieu of taxes for unimproved real property it owns or holds.

22. The Department will control noxious weeds on Department-owned lands.

Cooperation with other Agencies

23. Agreements with other governing agencies will be developed to insure cooperative management of fish and wildlife resources shared in common.

24. The Department will advocate land management practices that protect, restore, and enhance fish and wildlife habitat, especially habitats such as wetlands and riparian areas that benefit a wide variety of fish and wildlife species.

25. Cooperation and assistance will be provided in the development of fish and wildlife management plans and educational programs where benefits accrue to the general public.

Native Americans

26. Native American treaty rights will be recognized in the management of fish and wildlife.

Outfitting

27. The Department will oppose the issuance of outfitting licenses and special use permits where the impacts to fish and wildlife resources are unacceptable or the opportunity for non-guided recreation is significantly impaired.

Habitat Protection

28. The Department will actively support and participate in efforts to protect or enhance the quality of water in Idaho's lakes, rivers, and streams.

29. The Department will oppose legislation, land and water use activities, policies or programs that result in significant and unwarranted loss of fish and wildlife habitat or populations and will advocate project designs that minimize or eliminate such losses.

30. The Department will advocate strictly controlled use of pesticides and other substances that can result in direct or indirect mortality to fish or wildlife and their replacement with less toxic materials or elimination wherever possible.

Mitigation

31. Whenever unavoidable fish and wildlife habitat or population losses occur, the Department will, where practical and legally possible, actively seek compensation under the following guidelines:

    - For long-term losses caused by habitat elimination or degradation, compensation by acquisition and improvement of alternate habitat will be sought rather than monetary restitution. Compensation must be permanent and include funding necessary for annual operations, maintenance, and monitoring if these are required to insure that target goals for fish and wildlife benefits are achieved.

    - Monetary restitution, based on costs to replace lost resources, will be sought for losses caused by direct mortality if replacement of animals is not feasible.

    - Whenever possible, replacement of losses will be by the same fish and wildlife species or by habitat capable of producing the same species that suffered the loss and compensation programs will be located in the immediate area of loss.

    - Offsite locations and different species may be substituted in compensation programs if "onsite" and "inkind" compensation is not possible.

    - Compensation levels will be based on loss of habitat and loss of potential for fish and wildlife production and recreation rather than numbers of animals or days of use of animals occurring at the time of loss.

    - In jointly funded projects requiring fish and wildlife mitigation, participating entities will share mitigation credit proportional to their contribution.

Enforcement

32. The Department will seek to reduce illegal activities that result in the taking of fish or wildlife or which damage fish or wildlife habitat.

FISHERIES POLICIES

1. Idaho waters will be managed to provide optimum sport fishery benefits.

2. Protection and restoration of fish habitat and water quality will be a top priority in the management program.

3. Wild native populations of resident and anadromous fish species will receive priority consideration in management decisions.

4. Management decisions will emphasize maintenance of self-sustaining populations of fish.

5. The Department will oppose any activity that results in significant loss or degradation of habitat capable of supporting self-sustaining fish populations.

6. Factors affecting downstream survival will receive priority attention in anadromous fish management.

7. Hatchery-reared fish will be stocked to establish or reestablish depleted fish populations and to provide angling opportunity to the general public.

8. The Department will strive to maintain genetic integrity of wild native stocks of resident fish and naturally managed anadromous fish when using hatchery supplementation.

9. Non-native species of fish will be introduced only in waters where they are not expected to adversely impact stocks of wild native fish.

10. Department funds will not be used to manage waters closed to public fishing access, except where such closures are part of a Department-approved management program.

PROGRAM COORDINATION POLICIES RELATING TO FISHERIES

1. The Department will provide timely reviews of projects that affect Idaho's fish and wildlife resources, based solely on potential effects on those resources and their recreational use and will suggest means of eliminating or reducing adverse impacts.

2. The Department will maintain effective channels of communication with others concerned with management of Idaho's land and water resources, to insure that fish and wildlife resources are considered in planning activities.

3. The Department will support and participate in efforts to eliminate non-point sources of pollution to Idaho waters, restore water quality where needed, and to protect or restore beneficial uses.

4. The Department will work with developers and the Federal Energy Regulatory Commission to insure that hydroelectric development on Idaho waters will have benign impacts to aquatic resources.

5. The Department will strive to insure that adequate flows remain in Idaho streams to protect aquatic and riparian resources and provide for fish- and wildlife-oriented recreation.

6. The Department will oppose hydroelectric development on rivers designated as "protected" by the Northwest Power Planning Council unless the project has a benign impact on fish and wildlife resources and provides an exceptional benefit to fish and wildlife.

7. The Department will support and participate in efforts to develop a State Protected River System and the inclusion of important fish and wildlife habitats into that system.

8. The Department will develop cooperative agreements for the management and enforcement of road closure areas involving both public and private lands.

STATEWIDE FISHERIES MANAGEMENT GOALS

1. Increase sport fishing opportunities in Idaho.

2. Provide a diversity of angling opportunities of types desired by the public.

3. Maintain or enhance the quality of fish habitat.

4. Fully utilize fish habitat capabilities by increasing populations of suitable fish species to carrying capacity of the habitat.

5. Maintain angler success rates at or above the present level.

6. Maintain or restore wild native populations of game fish in suitable waters.

IDAHO ANGLERS AND THEIR PREFERENCES

In order to set management objectives and programs that are responsive to the angling public, the Department did an extensive mail survey of the attitudes and preferences of Idaho anglers. A 36-question survey was mailed to 28,950 1987 license buyers.

During 1987, 421,727 sportsmen purchased licenses to fish Idaho waters. Those anglers expended about 6.4 million days of effort (Figure 1). Idaho residents purchased just over 60% of all licenses sold, and over one-third of those anglers reside in Fish and Game's Region 3 (southwestern Idaho). The remaining two-thirds of the Idaho residents are equally distributed throughout the remaining five regions. Nearly 30% of the Idaho license buyers were nonresidents that spent less than ten days fishing. Nonresident anglers came primarily from California, Washington, Utah, Oregon, and Montana.

The average age of anglers in Idaho has changed little from 1967. People in the 30-39 and 40-49 age classes made up almost one-half of the state's anglers. Juvenile license buyers may have declined slightly from 1967. However, without statistical data from the 1967 survey, we cannot determine the significance, if any, of the decline. The Department should, however, continue information and education programs to introduce fishing to juveniles throughout the state. Those programs should be directed towards families that do not currently fish. Survey results indicate that family togetherness is one of the major reasons why people fish. The survey results also show that if a fishing family has children under 14 living at home, those children probably fish. The large number of female license buyers in Idaho is also indicative of the "family fishing" concept displayed by the Idaho angler.

Sportsmen that belong to organized groups in Idaho are more vocal in letting their preferences be known than are anglers who do not belong to organized sportsmen groups. In Idaho, less than one out of every five anglers belongs to any sportsmen group. Based on a comparison of questions from the survey, there is a major difference between the opinions of group members and nongroup members. Those that join organized groups tend to be more oriented towards quality/trophy management and tend not to fish with bait.

Results of the survey also indicate that there is a significant difference in responses based on type of terminal gear preferred. Those using artificial flies tend to favor more restrictive regulations, larger fish, protection of wild trout, and habitat protection programs. Bait anglers, on the other hand, tend to want high catch rates and less restrictive regulations. However, they do support protection of wild trout and fish habitat, at a lesser percentage than fly anglers. On most issues, those that stated a preference for lure fishing had opinions that would lie between those of fly and bait anglers.

Statewide, just over one-third of the anglers in Idaho own a boat used for fishing. In Region 1, which has a large portion of Idaho's lakes, over one-half of the anglers own boats used for fishing.

Over two-thirds of both residents and nonresidents felt the current limit of six trout to be "about right." More nonresidents than residents thought six fish to be "too many." Over one-half of the

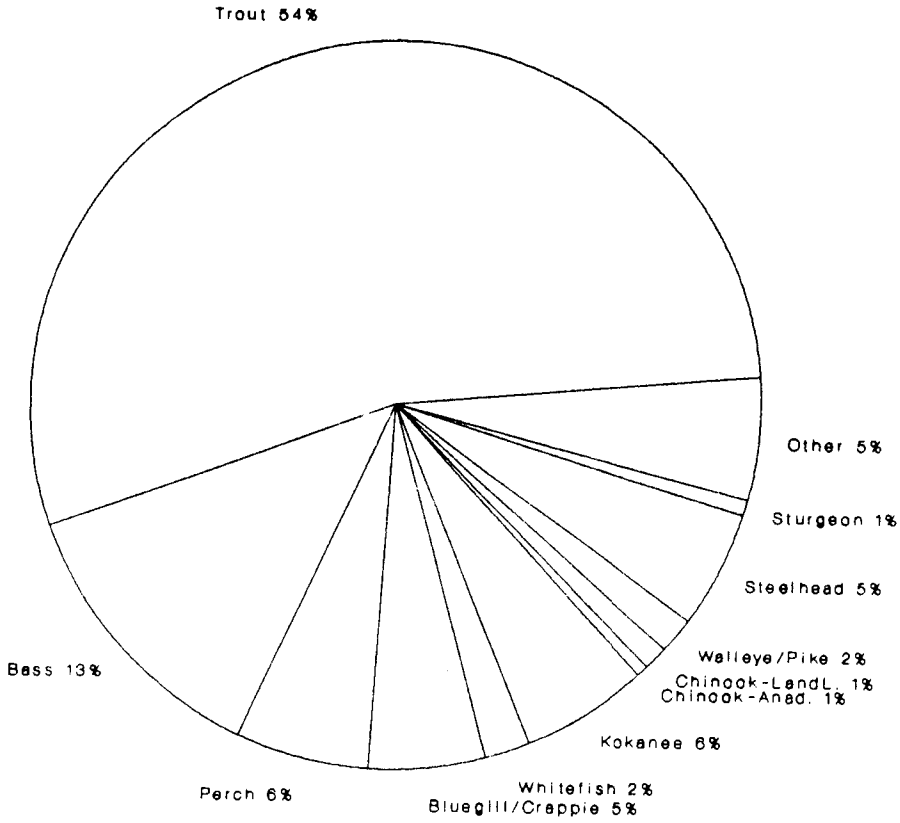


Figure 1. Percentage of estimated total fishing pressure by fishery type, Idaho 1987.

Idaho anglers would not want the possession limit on lakes and reservoirs increased from one daily bag to two daily bag limits if it would result in lower catch rates.

The general Idaho angler seems quite satisfied with the quality of Idaho Fish and Game's hatchery product. About one-third of those surveyed would like to have a few trout larger than 9 inches stocked, even knowing that one 12-inch trout will displace three 9-inch trout from the hatchery. A slightly larger fraction of the anglers did not want larger fish at the expense of numbers. Over two-thirds of the survey respondents would like to have additional program emphasis on hatchery trout for lakes, reservoirs, rivers, and streams.

The issues of catch-and-release fishing, wild trout protection, and trophy trout management appear to be of major interest to anglers. Of all the topics addressed, these three issues drew the highest response rate and least number of "no opinion" responses. The majority (67.3%) of anglers fishing in Idaho feel protection and enhancement of wild trout needs additional program emphasis, and they would not want wild trout replaced with hatchery trout. They also would like to have more lakes or streams managed to provide larger than average trout. Over one-third of the survey respondents, resident and nonresident, said they would fish catch-and-release waters. However, nearly 60% of the Idaho resident fishermen said they would abandon their favorite stream if they had to release all trout caught, and over one-half would not fish a catch-and-release lake or stream for the opportunity to catch a trophy trout. If restrictions are needed to increase the size or catch rate of trout, most anglers would prefer bag restrictions. Size restrictions and tackle restrictions were the next most preferred options. Shorter season length was the least preferred option to increase size or catch rates. There was not a great deal of difference between the number of choices favoring size restrictions and tackle restrictions, indicating these two options may have been selected in tandem.

Over one-half of the survey respondents felt that fishing tournaments and contests should be regulated or prohibited. These opinions are unchanged from those expressed in 1977. Shortly after completion of this survey, the Idaho Legislature passed legislation giving authority to the Department to draft rules and regulations to govern fishing contests and tournaments.

Survey results indicated that almost one-half of the fishermen in Idaho would favor managing additional lakes or ponds to provide bass greater than 15 inches in length. Over 30% of the survey respondents had "no opinion" on this and most other warmwater-related questions.

The average size of bass which anglers indicated was acceptable was 11.2 inches for largemouth and 10.7 inches for smallmouth. A 16-inch bass was the size most often considered as quality size for largemouth, while a 14-inch smallmouth was considered a quality bass.

The Department has introduced walleye into three reservoirs in southern Idaho. Those waters which have received walleye are either closed systems where they do not have the potential to impact other game fish populations outside the waters where introduced, or reservoirs in drainages already containing walleye. The opinion survey indicates the Idaho fisherman generally agrees with that policy. Almost 60% of the survey respondents would oppose further introductions of walleye if they would impact trout or anadromous fish populations. Nineteen percent were in favor of walleye introductions, and 23% had no opinion.

Just over three-fourths of Idaho anglers prefer fishing for coldwater species. Over two-thirds of the respondents listing a preferred species chose one of the trout species. Rainbow trout is the single most popular species fished for in Idaho. Over 20% of the anglers said they preferred fishing for rainbow trout, and in excess of 80% said they fished for rainbow at least once during 1987. Anglers that prefer warmwater species have increased from 7% to almost 23% between 1977 and 1987 (Table 1). Anglers stating a preference for bass accounted for 10% of the survey respondents. Just over 30% of the fishing effort in 1987 was directed towards warm- or coolwater species, up from 17% in 1977.

As a single body of water, more people fished the Snake River than any other water in the state. The Salmon River was the next most popular water. However, both the Snake and Salmon rivers flow across regional boundaries. Cascade Reservoir in Region 3 was the most fished water within a single region. Other top-ten waters include the Clearwater River, the Boise River, Henrys Lake, the Big Wood River, Island Park Reservoir, Coeur d'Alene Lake, Pend Oreille Lake, the Payette River, and Lucky Peak Reservoir. The Snake River within Region 3 would rank Number 4 if the Snake were to be broken out by regions. For the most part, the top-ten waters have remained the same since 1977, with only changes in order.

Fishing on rivers and streams remain the most preferred "water type" for fishing, as it was in 1967 and again in 1977 (Figure 2). Anglers also preferred bank or shore fishing (56.8%), and bait was the preferred terminal tackle in this survey (bait 37%, lures 35%, flies 28%). Nonresident fishermen most preferred fly fishing. Boat angling with lures on lakes and reservoirs was most popular with warmwater fishermen.

Although most anglers preferred fishing rivers and streams over lakes and reservoirs, almost equal numbers of individuals fished each water type at least once during 1987, and 54% of the days spent fishing occurred on flat water (Figure 2).

Idaho anglers have expressed overall satisfaction with trout programs on both lake and river systems. Fishing at high mountain lakes received the highest satisfaction rating of all programs. Anglers also expressed general satisfaction with the fishing for perch and sunfish. Anadromous fish, landlocked salmon, walleye, and pike fisheries received a poor satisfaction mark from most anglers. It is noted that

Table 1. Most preferred species of fish sought by anglers in Idaho 1987.

Coldwater - 77.4		Warmwater - 22.6	
Species	%	Species	%
Rainbow trout	20.8	Any bass	7.1
Any trout	13.2	Crappie	3.2
Cutthroat trout	11.9	Perch	2.8
Steelhead trout	7.2	Catfish	3.0
Brook trout	6.6	Largemouth bass	1.9
Brown trout	6.5	Walleye	1.6
Kokanee	3.6	Smallmouth bass	1.4
Anadromous chinook	2.3	Bluegill	0.9
Lake trout	1.8	Pike	0.5
Bull trout	1.3	Other species	0.2
Coho	1.0		
Other species	1.2		

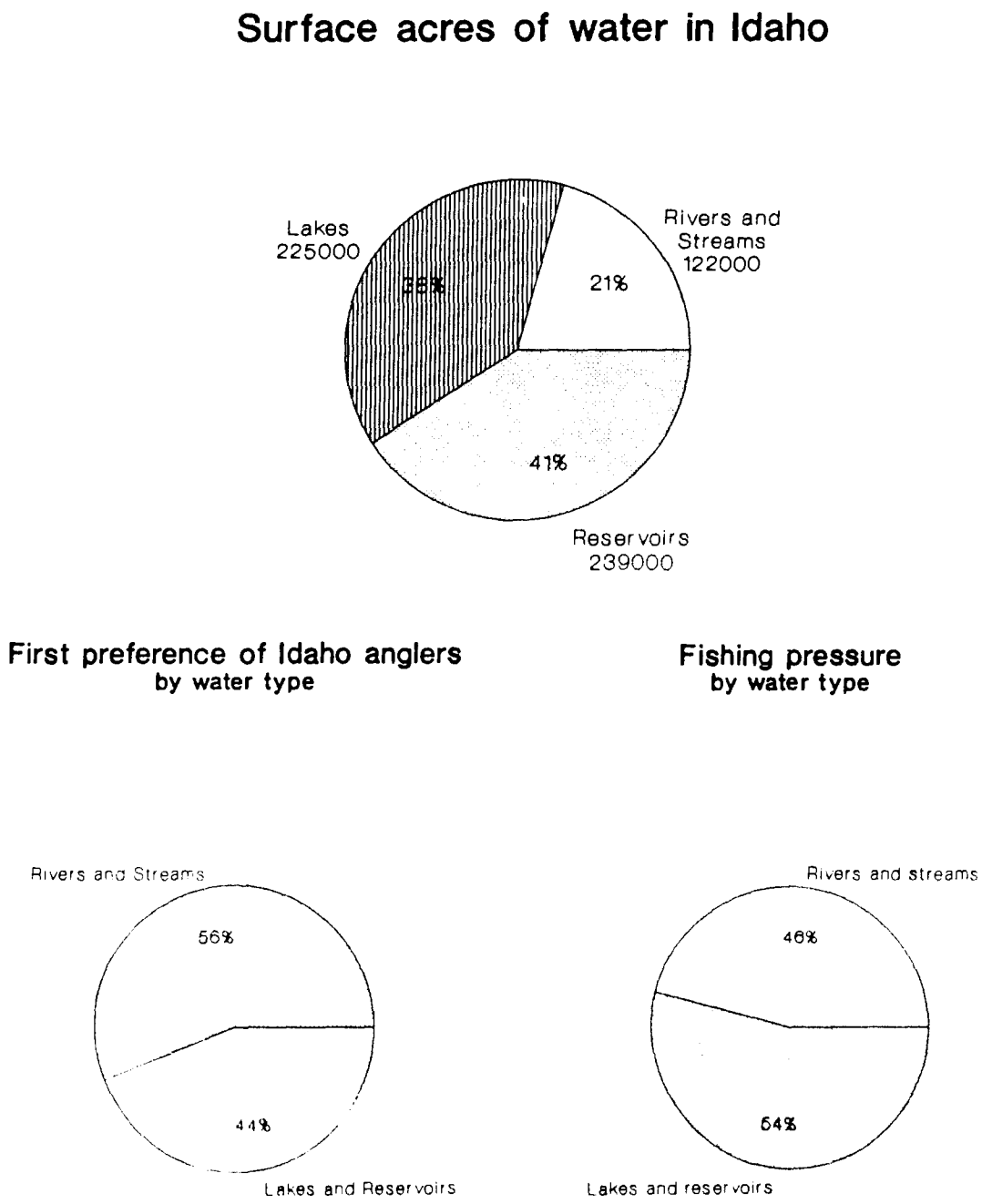


Figure 2. Surface acres of water in Idaho, the preferred water type, and the water type most used by Idaho anglers, 1987.

1987 was a poor year for anadromous fish in Idaho. Had the Angler Opinion Survey been conducted after a year of good returns (1988-90), the satisfaction rating may have been considerably higher.

When selecting "where to fish," most Idaho fishermen place a great deal of emphasis on "aesthetic" factors such as water quality and natural beauty of the area. Social factors, such as avoidance of other recreationists and avoidance of angler crowding, were also given as important "where to fish" factors. Although important, catchability of fish, the chance to catch a trophy fish, or the chance to catch a variety of fish did not weigh as heavily as the aesthetic or social factors. Material factors such as nearness to restaurants, boat launching facilities, marinas, or travel distance appeared to be relatively unimportant.

The high value anglers place on aesthetic factors could, in part, account for the high satisfaction rating given to high mountain lake fishing. It could also partially explain the lower satisfaction rating given to warmwater fisheries which occur in lowland areas close to population centers and with lower water quality than many of the trout fisheries.

By a ratio of almost two-to-one, anglers would like more information about available fishing opportunities, such as location of lakes and streams, public access areas, and types of fish available. "Why" anglers fish in Idaho correlates well with "where" they choose to fish. Relaxation, to enjoy nature, solitude, and family togetherness are given as important reasons why people fish. Catching fish for consumption or the opportunity to catch a trophy fish were less important to most anglers.

Overall, the general opinion of Idaho fishermen, as a population, has changed little over the past 20 years. The median age has remained about the same, and the most fished waters are about the same. Preference for river and stream fishing, bank or shore fishing, and the use of bait as the preferred terminal tackle has changed little. Also, anglers are asking for program emphasis for the same programs as they did in 1967 and 1977.

PROGRAM DIRECTION

Based on the Idaho Angler Opinion Survey and angler input through other means, the following are the major areas of concern and program directions desired by Idaho anglers and approaches proposed to meet them:

1. Increase emphasis on habitat protection.

2. Increase emphasis on protection and enhancement of wild trout.

3. Increase emphasis on hatchery trout programs in streams, lakes, and reservoirs.

4. Increase emphasis on protection and enhancement of salmon and steelhead.

5. Increase quality and trophy fishing opportunity.

6. Provide additional angling information to the public.

7. Provide a diversity of angling opportunity.

8. Provide increased access, particularly for bank anglers.

9. Provide increased family fishing opportunity, especially near population centers.

10. Provide educational programs to encourage children to fish.

11. Simplify and standardize fishing regulations.

1. Increase Emphasis on Habitat Protection

Over 70% of the angling public surveyed said the Department should increase emphasis on habitat protection. We will work with land management agencies (Bureau of Land Management, Forest Service, Department of Lands), water management agencies (Bureau of Reclamation, Corps of Engineers, Department of Water Resources), private landowners, and regulatory agencies (Idaho Department of Health and Welfare, Environmental Protection Agency, Corps of Engineers, Federal Energy Regulatory Commission) to reduce impacts of land disturbing activities, improve management practices, and enforce water quality standards. Minimum stream flows will be established for priority fisheries streams.

The 1989 Legislature created antidegradation legislation and established two positions for the Department to address this issue. These new positions and some internal reorganization that shifted a Fisheries Bureau position to the Program Coordination Bureau have helped to address immediate habitat concerns, particularly antidegradation and the development of coordinated statewide habitat protection activities. Because of increased demands on Fisheries Bureau and Regional Fishery Management personnel, and because of the importance of habitat protection, the Department proposes to establish habitat coordinators in each Region during this planning period.

Regional habitat coordinators should allow for increased advocacy of habitat concerns. They should provide greater public awareness of habitat issues and more education of the public on how to prevent or minimize problems. Additionally, they should develop and implement programs to correct past problems. Programs such as: use of grazing systems, fencing of key streams to prevent grazing impacts, streambank stabilization projects, revegetation projects, and recommending logging

and farming practices that are more benign to stream environments, should be undertaken.

An important component of these programs might be the expansion of volunteer help in the process. This should increase public awareness of habitat importance and expand the public's feeling of ownership in the programs.

2. Increase Emphasis on Protection and Enhancement of Wild Trout

During this five-year period, the Department proposes to increase emphasis on protection and enhancement of wild trout in several ways. The program measures described above under habitat protection will be one of the most important. These measures strive to both maintain existing habitat quality and enhance habitat to improve wild trout populations. The Department should also implement a major program of "wild trout management" which is described in more detail in a following section.

Under this program, the Department will manage for wild trout in streams with the potential to support acceptable fisheries on wild trout alone. This may involve varying levels of harvest regulation necessary to maintain catch rates.

The Department should also strive to control overharvest and mortality of wild trout through nonregulatory means. Public information materials and programs will be used to promote nonconsumptive values of wild trout and educate anglers on release methods to minimize hooking mortality.

Hatchery trout stockings should be concentrated in high access areas to be designated and managed as hatchery trout fisheries. This may reduce potential impacts of competition, interbreeding, and increasing consumptive fishing pressure on wild trout.

Additional measures to protect spawning wild trout or young fish in rearing streams, where they are especially vulnerable to overharvest, may be necessary. Harvest restrictions or catch-and-release regulations should be utilized where possible, with fishing closures used only where biologically necessary.

The Department proposes to also undertake measures to restore wild trout access to streams where culverts, diversions, and other manmade structures have blocked passage. This should include pressure on agencies responsible for road construction and development of water resources to utilize state-of-art techniques, incorporate fish passage criteria, and incorporate fish screening criteria into projects. The Department will require passage facilities and screens on new structures where appropriate to maintain wild trout access.

3. Increase Emphasis on Hatchery Trout Programs in Streams, Lakes, and Reservoirs

The Idaho Department of Fish and Game proposes to increase emphasis on hatchery trout programs in streams by increasing the frequency and number of fish stocked in hatchery-supported streams where there is convenient angler access and the return to anglers is good. Streams may be designated as "put-and-take" trout streams which will be identified in free angler brochures and maps made available to the public.

Hatchery trout programs in lakes and reservoirs may be enhanced by planting greater numbers of fingerling and 5- to 7-inch "subcatchable" trout in the fall where natural food and overwinter survival conditions are good. Planting greater numbers of subcatchables and utilizing natural growth conditions rather than planting catchables may result in increased catch rates and harvest opportunity.

Experimental rearing of trout in net pens at the lakes where they will be released will be evaluated. In addition to economically providing a quality fish, fish reared in this manner in other states have returned to the shoreline rearing areas as adults and provided excellent fisheries. Because of concerns about water quality and lake aesthetics, this program will be monitored to ensure desired results without undue environmental damage.

Where harvest restrictions are necessary to maintain or restore wild trout populations in streams, lakes, and reservoirs, harvest opportunity may be provided by marked hatchery fish. A more indepth description of hatchery trout programs is provided in a following section on hatchery trout.

4. Increased Emphasis on Protection and Enhancement of Salmon and Steelhead

The range and abundance of anadromous salmon and steelhead in Idaho is reduced from historic conditions (Figure 3). A primary factor in the decline of Idaho's once productive anadromous stocks has been development of the Snake and Columbia rivers hydroelectric system. Mortalities to migrating juveniles are incurred either because of adverse migration conditions or physical damage as they pass through dams. Habitat degradation and mixed-stock fisheries have also contributed to the decline.

The Department proposes to increase emphasis on enhancement of hatchery fish health and smolt quality factors most likely associated with early migration mortality, focus on maintaining a secure wild fish management program, emphasize management for natural production, and implement fisheries safeguarding naturally produced salmon and steelhead while providing fishing opportunity for surplus hatchery fish. Hatchery facilities to produce a total of about 21 million salmon and steelhead smolts are scheduled to be in operation by 1992, as partial mitigation for losses to Idaho runs attributed to hydroelectric dams. Low survival (less than 0.2%) of spring and summer chinook smolts produced

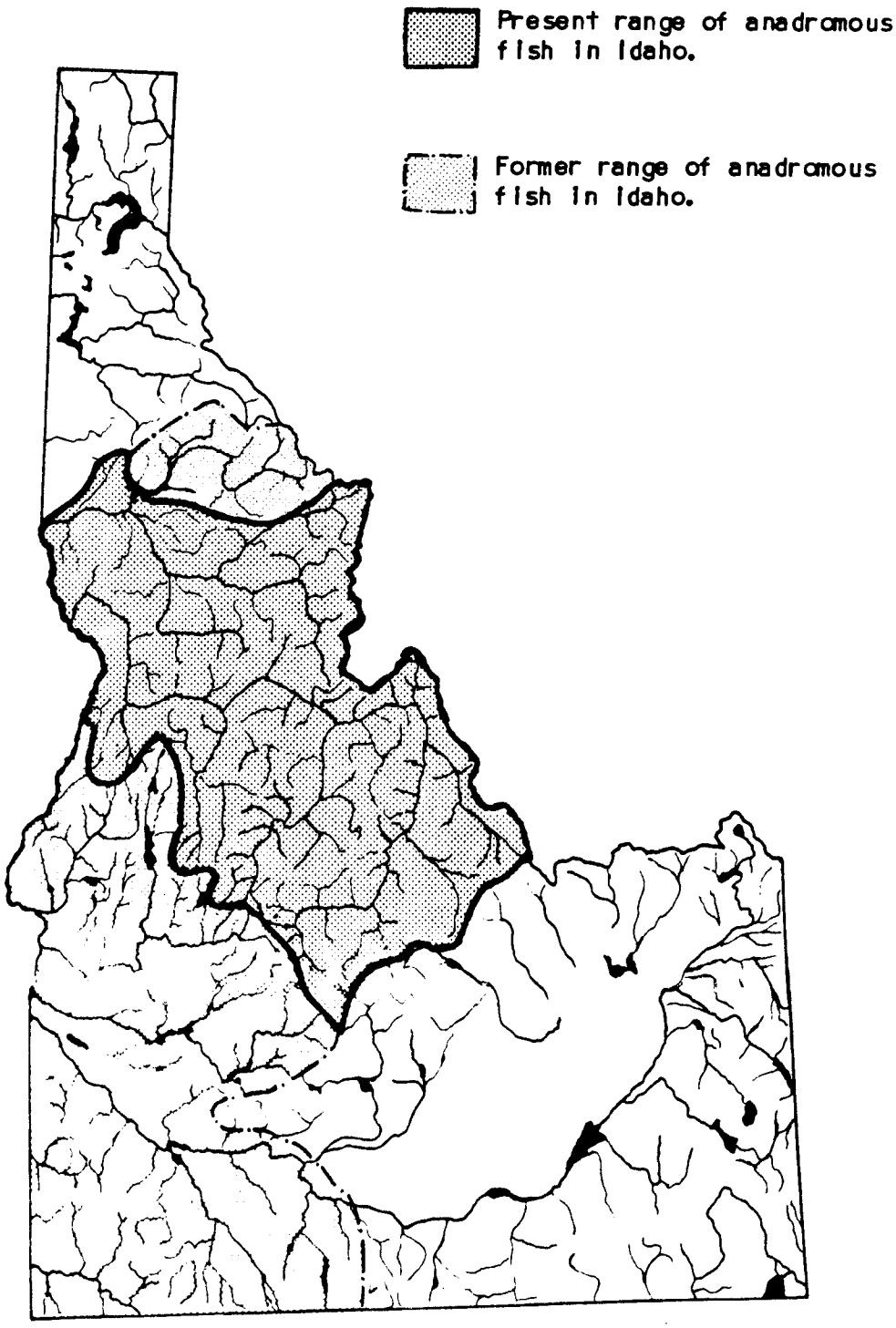


Figure 3. Former and current range of anadromous fish in Idaho.

by these facilities have occurred in the past five years. Mitigation planning expected returns three to four times better than those occurring. Wild spring chinook of the Middle Fork Salmon River have also experienced poor survival at about 0.4%. Intensified efforts to achieve improved survival of Snake River salmon and steelhead will be an important management activity. Priorities will be directed at hydroelectric system operational and water management changes.

Through negotiation or legal means, the Department will seek to ensure sufficient returns of anadromous fish to Idaho waters to perpetuate both naturally and hatchery-produced runs and to allow angler harvest. Efforts will be continued to ensure a fair allocation of the available harvest of anadromous fish among the various Idaho user groups.

5. Increase Quality and Trophy Fishing Opportunity

As the Angler Opinion Survey points out, the quality of an angling experience is affected by many factors. Within this plan, however, the terms "quality" and "trophy" are used to refer to the size of fish being managed. (See Quality and Trophy Fish Management Program Description for definitions.) A quality or trophy fishery is one specifically managed to limit harvest in some way to provide enhanced catch rates and/or larger fish.

During this five-year period, the Department proposes to manage approximately five to ten additional streams or stream segments with regulations to increase quality or trophy trout fishing opportunities. Emphasis will be to provide opportunities in southwest, southeast, and west-central Idaho. During this five-year period, the Department proposes to manage approximately 10 to 15 additional lakes or reservoirs for quality or trophy trout fishing and approximately 5 to 10 additional lakes or reservoirs for quality or trophy bass.

6. Provide Additional Angling Information to the Public

During this five-year planning period, the Department will increase its production of maps, brochures, and other information to make it easier for the public to understand and utilize their fishery resource. "Angler's Guide" brochures will be developed for all major lowland lakes and reservoirs, which will include lake maps, location of angler facilities, information on species present, and angler tips. Adjunct to that will be development or expansion of informational type signs in high use areas (boat ramps, parks, trailheads, etc.) which may include brochures and maps. Location of hatchery-stocked trout will be advertised and maps made available through vendors and Department employees to direct anglers to these areas. The current methods for disseminating information will be expanded where possible. This includes radio, television, newspapers, and Department publications.

7. Provide a Diversity of Angling Opportunity

A mixture of hatchery and wild trout management and general, quality, and trophy management regulations may be used to provide a diversity of angling opportunities within geographic areas. A diversity of angling opportunity, especially near population centers, may invite greater use and increased angler satisfaction.

The Department currently stocks 24 different fish species and 13 additional "strains" to provide a diversity of angling opportunities. Some of these existing species will be proposed for introduction in additional lakes and reservoirs to provide a diversity of species available within various geographical areas. Bull trout, lake trout, and splake may be used in mountain lakes to provide a diversity of angling opportunity and utilize stunted brook trout. Atlantic salmon have been experimentally introduced and will be evaluated. Other game fish and forage fish species will be considered for introduction into Idaho waters. Intensive studies of their potential effects on wild trout and other existing species will be made prior to any introductions.

8. Provide Increased Access, Particularly for Bank Anglers

The Department will continue its programs of landowner relations, acquiring easements, leasing, or purchase and development of key areas to provide access for anglers. Additional fishing docks and handicap access facilities will be provided at public fishing lakes with limited fishing access. Additional boat ramps and docks will be built or existing ones repaired or replaced where appropriate. Approximately $400,000 per year will be expended in the next five years for the maintenance of existing or acquisition and development of new boating and fishing access facilities, with major funding provided through federal excise tax on fishing and boating equipment. This subject is presented in more detail in a separate five-year plan on access management, available upon request from the Department.

9. Provide Increased Family Fishing Opportunity, Especially Near Population Centers

Providing additional information on fishing opportunities available and increasing angler access described above will serve to increase family fishing opportunity. In addition, during the next five-year period, the Department will identify sites and complete or initiate development of new fishing lakes. Acquisition of, or easement to, private ponds near heavily populated areas will also be pursued to provide increased fishing opportunity. This particularly will benefit family groups that traditionally do not travel far to participate in fishing activities.

10. Provide Educational Programs to Encourage Children to Fish

Coupling new water, better family-oriented facilities, and additional access areas with more educational programs can fulfill the anglers' desires to encourage children to start fishing. In 1990, the Department created an Aquatic Education Coordinator position to develop a curriculum that can be taught through the school system to educate

children about the aquatic world around them. During the next five years, the Department will conduct or facilitate an annual program of youth fishing clinics around the state to teach angler skills, fishing ethics, and an appreciation of habitat requirements needed to support fish populations.

11. Simplify and Standardize Fishing Regulations

To make it easier for anglers to understand the fishing regulations, the Department will continue efforts to standardize length limits or bag limits where appropriate. Standard year-round seasons for lakes and reservoirs, standard stream fishing opening dates, and liberalized regulations have been implemented to make regulations simpler and more understandable where they do not jeopardize fish populations. During the next five years, the Department will increase signage of regulations and landmarks which differentiate regulation areas.

PROGRAM AND SPECIES DESCRIPTIONS

Habitat Protection

During the next five years, the Department will actively pursue ways to protect or enhance habitat that affects fisheries in Idaho. This includes stream, lake, riparian, and upland habitat work; water quality and quantity issues; land owner relations; and cooperative work to enhance specific areas with degraded habitat.

Specific actions the Department will undertake during this planning period include:

1. Work with the Legislature, Department of Water Resources and water users to modify existing statutes to allow conversion of consumptive water rights to instream water rights without penalty or loss of priority dates.

2. Continue work with the Department of Health and Welfare, Division of Environmental Quality to improve or establish water quality criteria where needed and to improve acceptance of and compliance with voluntary best management practices.

3. Actively participate in local working groups under the anti-degredation program to develop site-specific best management practices.

4. Develop programs under the new habitat coordinator positions to:
   a. Seek funding and cooperators for habitat improvement projects on private land.
   b. Coordinate and promote volunteer work for specific habitat improvement projects.
   c. Provide expertise and serve as lead agency in biological monitoring programs under the antidegredation program.

d. Provide fish and game money to purchase materials for key habitat protection or improvement projects.

Involvement from the general public is essential if habitat protection programs are to be implemented. This is important, not only from the hands-on labor needs, but more so from the social/political interaction concerned citizens can have with decision makers outside the Department. Habitat protection has to be a grassroots approach to work with Legislators, because elected officials do listen to their constituents if enough people speak up. Legislators also know that the Department or the Commission speaks to these items because it is their duty, so our message does not often carry as much weight as that of citizens or citizen groups.

The Division of Environmental Quality is the other agency deeply involved with, and has primary responsibility for, water quality, antidegradation, and watershed protection. While they, and a number of citizen groups, have been working hard on water quality and stream protection issues, there has not been any coordinated multi-agency approach taken to date. The Department's Fisheries and Program Coordination bureaus will take the lead in setting up an identifiable contact point for concerned citizens wanting to enhance or improve fisheries habitat.

Wild Trout

Maintaining wild trout fisheries in Idaho waters continues to be a major concern of Idaho anglers and the Department. Biologically, wild native trout are essential because they are the best suited fish for many Idaho waters in which they evolved. Sociologically, wild trout are important because many anglers perceive that wild fish are of higher quality than hatchery-reared fish. Economically, managing for wild trout in streams and utilizing natural recruitment and growth potential has tremendous advantages over managing with hatchery catchables where it often requires more than the cost of a season license to put one day's limit in the creel. Wild trout are sensitive to habitat conditions and fishing pressure. The Department has emphasized wild trout management for the past two decades, with special fishing regulations on some populations and increased emphasis on habitat protection to areas which support wild trout.

During the next five-year period, the Department proposes to place a greater emphasis on wild trout management. Following the Department policy of managing for natural production potential and the public's desire to protect and enhance wild trout, the Department proposes to manage streams for wild trout alone wherever there is the potential to provide an acceptable wild trout fishery. Wild trout management will involve:

1. Education of the angling public and promotion of voluntarily limiting harvest to maintain populations.

2. Regulations to control harvest, where necessary, to maintain acceptable catch rates.

3. Elimination or reduction of competition with hatchery catchables.

4. Increased involvement by the Department and anglers in stream habitat protection and enhancement.

As previously discussed in the Program Direction section, our efforts to educate the angling public will be elevated to a higher level. The following discussion on hatchery trout explains how we will reduce competition with wild trout, and the habitat protection aspect will receive major and increasing attention over the five years this plan is in effect. Where necessary to reduce harvest by regulations, some form of size limit is generally required. Bag limits are normally reduced as well, but reducing bag limits alone does little to reduce harvest if the number of anglers remains the same. Even when unregulated, the majority of anglers catch and harvest three or fewer fish per trip. Total harvest is directly related to the number of anglers, unless a major portion of the fish caught are released voluntarily or because of regulation.

Designated wild trout streams will be managed under a 2-fish bag limit, while designated put-and-take trout streams and streams with year-round seasons will be managed under the current 6-trout limit. As mentioned previously, the reduction in bag limit alone would do little to control harvest and may not be biologically necessary in lightly fished streams. However, having a differential bag limit may serve to shift angling pressure and direct more consumptive-oriented anglers to put-and-take trout and year-round waters. The differential bag limit would also reinforce the nonconsumptive values of wild trout. It would add complexity to the fishing regulations, however. Under this approach, additional restrictions would still be needed for more heavily fished streams and for more vulnerable species in even lightly fished streams.

Hatchery Trout

The Department currently has 12 hatcheries that produce only resident salmonids. Three other facilities produce resident fish in addition to their primary function as anadromous fish hatcheries.

Domesticated rainbow trout stocks, used in this program, do not survive well in streams and contribute little to production. Fingerling trout do not generally do well in streams, and only a small percentage survive to catchable size. Therefore, most trout stocked in streams are rainbows reared to catchable size (8 to 10 inches). Hatchery trout of various sizes from fry to catchables are used in lakes and reservoirs depending on growth, survival, and reservoir water conditions.

Catchable-size fish are expensive to raise and transport. They must be stocked at times and places where they are available to anglers and where a high percentage will be caught. Catchable trout cost approximately $0.40 each to rear and stock. In streams where only one out of five are harvested, each fish harvested costs $2.00. Under these conditions, just one day's limit costs the equivalent of a season license.

No increase in numbers of catchable-size trout is proposed in this planning period. Fishing opportunity can be increased and improved by increasing efficiency of catchable trout programs through: (1) concentrating releases of catchables in easily accessible, heavily fished waters, (2) timing releases to coincide with peaks in fishing pressure, (3) testing strains of rainbow trout which improve returns to creel, (4) publicizing the location of put-and-take trout streams, (5) improving pools and holding water where possible, and (6) producing a consistently high-quality product at the hatcheries.

During the next five-year period, return rates for catchable trout will continue to be evaluated and programs continued only where at least a 40% return rate by numbers or 100% return by weight can be achieved. Beware that this means some fishing spots will not be stocked in the future. They are the ones that have poor return rates. Other fishing spots will receive more hatchery catchables and/or will be stocked more often. In some cases, where hatchery catchables provide the only viable alternative for a fishery, we will continue to use this program, even if the desired return rate is not met.

Shifting hatchery catchable production for lakes and reservoirs to 5- to 7-inch subcatchables will be evaluated on individual waters. If successful, this program will allow the Department to stock greater numbers of trout and return fish to the creel at a lower production cost.

During the next five-year period, the Department, in cooperation with the University of Idaho will develop its own warmwater production capabilities in the Magic Valley area to be able to enhance certain warmwater programs and reduce dependence on purchasing from or bartering with other states for fish.

Details of planned hatchery production, development, and maintenance are described in separate reports available from the Department.

Anadromous Fish

The long-range goals of the anadromous fish program are to: (1) maintain genetic diversity and integrity of both naturally and hatchery-produced fish, (2) rebuild naturally producing populations of anadromous fish to utilize existing and potential habitat at an optimal level, (3) achieve equitable mitigation benefits for losses of anadromous fish caused by development of the hydroelectric dam system

on the Snake and Columbia rivers, (4) secure adequate flow and passage conditions to increase smolt and adult survival, (5) allow consumptive harvest by sport and treaty fishers, and (6) coordinate regional management with Idaho anadromous management to ensure achievement of Idaho escapement and other goals.

Wild/Natural

Emphasis will be placed on maintaining remaining runs of wild, native stocks of salmon and steelhead where they occur, and allowing these populations to rebuild to harvestable levels. Examples include wild steelhead in the Selway River and the South Fork Salmon River drainages, or wild salmon and steelhead in the Middle Fork Salmon River drainage and the Salmon Canyon tributaries. Maintaining genetic integrity of the native stocks is essential to continued production of quality anadromous fish, as well as being the only practical means of utilizing the production capability of wilderness streams.

A variety of actions will be employed to manage wild and natural fish populations. Artificial production will be limited or curtailed in areas to be managed for natural production. Stocking fish into wild fish production streams will not occur. Releases of hatchery-produced fish will be managed to minimize straying of those fish as juveniles or adults into wild fish streams. Fisheries programs will not reduce population status to a level reducing genetic variability. Population abundance will be increased by improving survival of juveniles and adults with priority on those major mortality factors related to juvenile and adult migration through the hydroelectric system and regional fisheries. Naturally reproducing populations will be enhanced by setting fishing regulations to concentrate angler harvest on hatchery fish, continuing efforts to preserve and restore spawning and rearing habitat, and improving survival of downstream migrants. Supplementation of populations which are not considered wild but are naturally self-sustaining will be limited to regionally coordinated and Department-approved research studies. Wide-scale outplanting of hatchery fish to increase natural production will be curtailed during this period. Emphasis will be directed at improving natural fish management practices above hatchery weirs. Techniques to identify naturally produced fish are needed to direct the appropriate changes.

Hatchery

Hatchery production will be used to provide maximum fishing opportunity. Each hatchery program will be managed to maintain hatchery productivity, produce the greatest percentage of returning adults, maximize the return to fisheries, and minimize straying into natural production areas. Emphasis will be placed on developing techniques for identifying hatchery fish needed to refine operations of weirs and brood selection procedures. The continuation of research and management studies producing solutions and reduction of mortality of hatchery smolts during migration will be critical.

White Sturgeon

White sturgeon is the largest freshwater fish in North America, reaching documented sizes up to 18 feet in length and 1,385 pounds and rumored to be even larger. White sturgeon occur in the Snake River downstream from Shoshone Falls, the lower Salmon River, and in the Kootenai River. Much of the large, free-flowing river habitat required by sturgeon has been lost to impoundments. Present populations of sturgeon in the Snake River drainage are restricted to short river reaches and isolated from other populations by dams. Harvest of sturgeon from the Snake River drainage has been prohibited since 1970. Harvest of sturgeon was also prohibited in the United States' section of the Kootenai River in 1984 because this population is decreasing.

The statewide sturgeon management goal is to preserve, restore, and enhance viable white sturgeon populations capable of providing sport fishing opportunity. The Department has five policies governing sturgeon management. They are:

1. The status of existing sturgeon populations will be determined and monitored and factors suppressing populations will be evaluated.

2. The sport fishing will be regulated commensurate with population status.

3. Habitat loss or degradation will be opposed and measures promoted to improve limiting factors.

4. Importation of non-native sturgeon will be restricted to avoid potential genetic or disease impacts to native stocks.

5. Sturgeon populations will be supplemented with native stocks where necessary to: maintain future management options, to research survival rates, or in suitable rearing habitat where natural recruitment does not exist.

In the last five-year period, a sturgeon fishing permit system was developed to provide annual information on the numbers and sizes of fish caught in various river reaches. That information will be evaluated annually to aid in management decisions affecting sturgeon.

Research conducted on the Kootenai River sturgeon population showed that no reproduction has occurred since 1974. Changes in the flow pattern caused by Libby Dam (located in northwest Montana), high copper and zinc concentrations, organic pesticide contamination, and harvest on the Canadian side (through 1989) may be contributing factors to the reproductive failure. Research will continue to focus on regulation of discharge and contaminants as the major factors in depressing the Kootenai River sturgeon population.

Successful sturgeon culture capabilities were developed in 1988, and 3,411 juveniles were stocked in the mid-Snake River in 1989. These fish were tagged, then stocked in free-flowing reaches between major dams where reproduction has been eliminated or considerably reduced.

During the next five-year period, the survival of hatchery-reared sturgeon will be evaluated in the Snake River and additional supplementation made if warranted. Introductions may be recommended in suitable sturgeon rearing habitat outside their current distribution to provide new fishing opportunities.

Mitigation measures will be recommended to restore natural sturgeon reproduction on the Kootenai. The Department, in cooperation with the Kootenai Indian Tribe, will develop an experimental fish culture facility to spawn wild sturgeon and raise young for reintroduction into the Kootenai system to maintain future management options.

Further reduction in sturgeon habitat will be opposed. The long-range goal of the Department is to improve sturgeon habitat, increase populations of sturgeon, and provide angling opportunity.

Warmwater Game Fish

Approximately one-third of the surface acreage of water in the state is suitable habitat for one or more species of warmwater fish or for mixed fisheries with salmonids. Warmwater habitat is generally located at elevations below 3,000 feet msl except for lakes in southern and eastern Idaho.

Anglers that prefer warmwater species have increased from 7% to 23% between 1977 and 1987, according to the Angler Opinion Survey. These species support approximately 30% of the fishing pressure expended in Idaho each year.

Because warmwater game fish reproduce naturally in most cases, stocking is generally unnecessary once a population is established. Management of warmwater game fish in reservoirs is less expensive than trout management. Because many warmwater game fish are prolific, along with hatchery trout, they can provide the consumptive harvest that wild trout cannot.

In many waters, warmwater and coldwater fish are compatible. For example, "two-story" fisheries are established in many large reservoirs with warmwater species occupying shoreline waters and salmonids occupying offshore areas. Because the two types of fish occupy different habitats, a greater catch rate and yield of game fish may be available than if either were managed alone. Smallmouth bass are particularly suited for management with hatchery rainbow trout in large reservoirs, and in some cases, they have been shown to improve trout growth by reducing nongame fish populations. However, their impact on kokanee and other salmonids is unknown. In some habitats, primarily

small lakes and reservoirs, warmwater species can be detrimental to trout fisheries. Some species of warmwater fish tend to become overpopulated and stunted in small bodies of water. Because small warmwater fish may utilize the same foods as trout, they can retard trout growth and survival. Some species of warmwater game fish are effective predators on other fish. The presence of either large predators or overpopulated warmwater game fish can preclude stocking of fingerling salmonids as a management option.

During the last five-year period, most waters suitable for establishment of a warmwater fishery received introductions. Regulations were developed to improve the quality of bass and provide some trophy opportunity. Additional species were introduced to existing warmwater fisheries to diversify opportunity and provide forage.

During the next five-year period, the primary emphasis will be on management to improve existing warmwater fisheries. Addition of habitat structure and fish concentration devices will be used to improve catch rates for bluegill and crappie. Regulations will be used to provide quality and trophy bass fishing opportunities. Further evaluation of forage needs for bass and other species will be made and forage introduced where needed. Additional species will be added to diversify fisheries in some cases.

During the next five-year period, the Department, in cooperation with the University of Idaho will develop its own warmwater production capabilities in the Magic Valley area to be able to enhance certain warmwater programs and reduce dependence on purchasing from or bartering with other states for fish.

The primary warmwater introductions that will be considered will be smallmouth bass in several large trout reservoirs. Northern pike will be considered for introduction beyond their current distribution pending completion of current research on the species.

Quality and Trophy Management

Bass

While trout remain the mainstay of Idaho fishing, bass have increased in popularity and are the preferred species by over 10% of Idaho anglers. Because of increasing harvest and relatively slow growth across most of Idaho, the Department instituted a statewide 12-inch minimum size limit on bass during the last five-year period to improve size quality and catch rates. Evaluations to date in most waters have documented severalfold increases in total catch rates and a doubling or more of catch rates for fish over 12 inches, though the percentage of fish over 12 inches may have decreased.

In the Angler Opinion Survey, over two-thirds of the anglers expressing an opinion stated they would like to have some waters managed to provide increased catch rates for bass larger than 15 inches, even

though harvest would be restricted. At the end of the last five-year period, the Department placed eight lakes and reservoirs under trophy bass management using either a 2-fish bag limit and 18-inch minimum size or catch-and-release regulation to provide increased catch rates for bass larger than 15 inches. An additional lake has a 2 bass over 20-inch regulation. These trophy regulations are designed to maximize catch rates for larger bass, while providing harvest of only an occasional trophy fish or no harvest.

While the statewide 12-inch minimum size limit improved catch rates for 12-inch bass, it is not designed to significantly increase catch rates for 14- to 16-inch bass, which most anglers consider as "quality" size.

During the next five-year period, the Department proposes to manage some lakes and reservoirs for quality bass in addition to managing some for trophy fishing opportunity.

Quality and trophy bass management differ in the size of bass, the total catch rates, and the harvest opportunity the regulations are designed to provide. They are defined as follows:

Quality Bass Management: A management program using special regulations which reduce or delay harvest to provide increased catch rates for 12- to 16-inch bass but where less than 20% would exceed 16 inches.

Under quality bass management, the percentage of fish which exceed 12 inches would be greater than under general regulations, but total catch rates may be reduced. This management would provide for limited seasonal harvest of fish under 12 inches and over 16 inches.

Trophy Bass Management: A management program using special regulations which reduce or delay harvest to provide increased numbers of larger bass such that 20% or more exceed 16 inches.

Trophy bass management would maximize both catch rates and size of bass and provide only for harvest of trophy-sized bass.

Special regulations used under quality and trophy bass management would use a combination of a two-fish bag limit and various size limits and/or seasonal harvest restrictions. The primary regulation for quality bass management would require the release of all bass prior to July 1 and provide for harvest of bass less than 12 or over 16 inches after that date. The primary regulation for trophy bass management would require the release of all bass less than 20 inches.

During the next five-year period, the Department will evaluate the success of quality and trophy bass regulations and, if appropriate, place approximately five to ten additional lakes or reservoirs under quality or trophy bass management. Growth and recruitment under the 12-inch minimum size limit will continue to be evaluated and site-specific regulation modifications made where needed.

Bass in Idaho are mature and capable of reproducing at 12 inches or less. The current general regulation restriction that no more than two of the five bass harvested may exceed 17 inches is not needed to maintain adequate reproduction. It is perceived to spread large fish out among more anglers, but the number of occasions in general-regulation waters where more than two fish over 17 inches are caught is small enough the regulation probably has little affect. In waters where the desire is to provide more large bass, quality or trophy bass regulations would be much more effective. Therefore, the Department proposes to eliminate the only two over 17-inch restriction on the general bass limit.

Trout

The terms "quality" and "trophy" have been applied to trout fisheries by anglers and managers to connote various things, including whether fish were of wild origin or not and the aesthetics of the surroundings. Within the context of the Department's fish management programs and this Plan, however, they are used to refer to specific management programs which apply special regulations to increase the size of trout. They generally provide increased catch rates as well. Trout may be of wild or hatchery origin.

Quality and trophy trout management differ in the size of trout the regulations are designed to provide. They are defined as follows:

> Quality Trout Management: A management program using special regulations which reduce or delay mortality to provide increased catch rates and increased size of trout, but where less than 20% of the fish exceed 16 inches.
>
> Quality trout management is appropriate for lakes and streams with poorer productivity and growth potential, or on waters with trophy growth potential where the majority of affected anglers desire to retain more harvest opportunity than that provided under trophy management.
>
> Trophy Trout Management: A management program using special regulations which reduce or delay mortality to provide increased catch rates and increased size of trout such that 20% or more of the trout exceed 16 inches.
>
> Trophy trout management is appropriate for lakes and streams with good productivity and growth potential where the majority of affected anglers desire to forego a major portion of or all harvest opportunity in order to catch large trout.

Special regulations used under quality and trophy trout management programs will use a combination of a 2-fish bag limit and various size limits, or catch-and-release where appropriate. Bait and/or gear restrictions may be applied where necessary to achieve size structure goals. The Department will propose quality management programs that may utilize a minimum size limit of 14 inches or slot limits such as

none between 8 and 16 inches or 12 and 16 inches, depending primarily on productivity and biological characteristics of the fish population. Trophy management programs may utilize a minimum size limit of 20 inches, or slot limits such as none between 12 and 20 inches, again primarily depending on productivity and biological characteristics of the fish population. The most restrictive regulation, catch-and-release, may be used as part of quality or trophy trout management, depending on the same characteristics.

Quality and trophy management may include seasonal restrictions to reduce mortality of spawners, or trout as they concentrate to migrate downstream in the fall in response to dropping water temperatures. It may also apply to all trout within a body of water or may be applied to certain species in order to provide a diversity of opportunity within the same body of water or a geographical area. At the end of the last five-year period, the Department adopted an area-wide cutthroat trout regulation for eastern Idaho streams that included a bag limit of two cutthroat, neither of which could be between 8 and 16 inches.

Idaho is fortunate to have many bodies of water which provide large trout without special regulations because of their productivity or minimal angling pressure. These waters will remain under current general management with a 6-fish bag limit or wild trout management with a 2-fish bag limit. As the number of anglers using the water increases and harvest rates impact the size structure of the trout, or as more anglers desire to optimize catch rates and size of fish and de-emphasize harvest, quality and trophy trout management may be applied to additional waters.

The Department has been a leader in the northwest in special regulations to enhance the size of trout and provide quality and trophy trout fisheries. There are currently 2,224 miles of streams managed with special regulations designed to increase the size and catch rate of trout. This represents about 8% of the approximately 26,000 miles of trout streams and rivers in Idaho. There are currently 17 lowland lakes and reservoirs managed with special regulations designed to provide increased size of trout. This represents about 10% of the approximately 175 lowland trout lakes and reservoirs.

Fifty-five percent of the anglers responding to the Angler Opinion Survey would like to see additional waters managed for larger trout. In the next five-year period, the Department proposes to apply trophy or quality trout management on approximately 5 to 10 additional streams or stream segments and 10 to 15 additional lakes or reservoirs. During the same period, the Department will evaluate some current quality trout regulations in place which do not restrict gear type or the use of bait. Research will be conducted on bait hooking mortality. Handling methods to minimize bait hooking mortality will be evaluated and a major effort made to educate and encourage anglers to apply techniques to minimize bait hooking mortality.

Alpine Lake Management

High mountain lake anglers have expressed the greatest satisfaction for any of the Department's fishery programs. The reason for that reflect the general experience of the angler's outing, as well as the quality of fishing at alpine lakes. The management for over 50 years has basically been to stock lakes on a regular basis (usually two to three year interval) to assure adequate supplies of fish for anglers. Alpine lakes have been stocked with salmonids native to Idaho (but not necessarily native to a particular lake) and with exotic salmonids (brook trout, golden trout, brown trout, arctic grayling, arctic char, Atlantic salmon).

During this five-year planning period, the Department will develop a Comprehensive Alpine Lakes Management Plan based on the following guiding principles. We will also review current practices to bring them in-line with these guiding principles as soon as possible.

1. Some alpine lakes in each major drainage will be maintained fishless.

   Since many (and possibly most) alpine lake ecosystems evolved without fish populations, there is a need to maintain some lakes as reservoirs for genetic and biological diversity, natural heritage and wilderness values, and for scientific research of other aquatic life forms.

2. Management of alpine lakes in wilderness and national recreation areas will be coordinated closely with the land management agencies.

   The "Policies and Guidelines for Fish and Wildlife Management in Wilderness and Primitive Areas" manual, developed by the Forest Service, Bureau of Land Management, and the International Association of Fish and Wildlife Agencies, will guide management of these alpine lakes. Stocking plans for wilderness lakes should address impacts on fisheries, lake ecosystems, recreational use, and aesthetics.

3. Maintenance of self-sustaining trout populations.

   Determination of lakes capable of providing natural reproduction will be made. Stocking programs will be modified to reflect needs for these lakes and to reduce costs of programs. Detrimental effects of stocking fish on top of existing populations will be reduced.

4. Maintenance of species of special concern and threatened and endangered species within alpine lake drainages.

   Priority will be placed on management of alpine lakes in a manner so as to limit, or reduce impacts to, species of special concern and threatened and endangered species in and downstream from alpine lakes.

Part of the alpine lakes comprehensive plan will be development of an assessment manual based on physical and biological parameters of a lake. This information is currently being gathered in ongoing research and, hopefully, can be applied statewide. This should refine stocking practices to avoid indiscriminate stocking due to a lack of survey data. This may improve the quality of the alpine lake experience for the sportsman and the condition of the aquatic ecosystems.

Commercial Fishing

Commercial fishing regulations were adopted by the Commission in 1988 to provide management information on nongame fish and crustacea. The regulations also established an equitable fee structure for the take of this fishery resource.

In many Idaho waters, the majority of the fish biomass is nongame fish such as suckers, carp, squawfish, and chubs. These species reduce game fish populations through competition and predation and are a nuisance to sport anglers. Some nongame fish do have considerable commercial value as animal feed fish bait, fertilizer, and for human consumption in some areas.

Crayfish are one of the commercial species used for human consumption and are also an important bait for fishing. They are also an important food source for some of our sport fishes. Harvest information, gathered from commercial anglers, will aid the Department's ability to manage these waters for sport fishing activities.

Mysis shrimp is the only other aquatic organism commercially fished in Idaho. Harvest permits are only experimental at this time, and harvest techniques and timing are tightly regulated. It is regulated because fishing techniques used to capture the shrimp also capture kokanee. The Department receives shrimp and kokanee information in monthly reports and monitors this unique fishery for its impacts on the kokanee population. No management changes are proposed during this five-year planning period.

Nongame fish are also important for their scientific and aesthetic values. Idaho has four unique species of nongame fish that occupy limited ranges either entirely within the state or in common waters with Utah, Nevada, and Wyoming. Shoshone sculpin occur only in large springs in the Thousand Springs area and in the Snake River adjacent to those springs. Wood River sculpin are found only in the Wood River system. Bear Lake sculpin occur only in Bear Lake. Leatherside chubs have been found in Goose Creek, the upper South Fork of the Snake River, and the Wood River, but collections have been rare. These species are worthy of special attention to prevent extinction in all or portions of their limited range. They are noted here because commercial fish operations are specifically prohibited from harvesting these species.

Fishing Contests

Effective July 1, 1989, the Department was given the statutory authority to regulate fishing contests, tournaments, and derbies. Pursuant to that authority, a permit is required from the Department for any event in which a prize is awarded to participants based on the capture of an individual fish or the size or number of fish captured.

The Department recognizes and permits two types of fishing contests: (1) a catch-and-release contest where contest rules require specific procedures to keep target species of fish alive and healthy and require that all fish caught by participants be released back into the contest water on the same day they were captured, and (2) a harvest contest where contest rules do not require participants to keep all target species of fish alive but allow participants to harvest the fish.

Applications are reviewed for the potential impact of the contest on other recreational users or impacts to fish populations or fish management goals for the water area. Additional harvest restrictions may be included as provisions of a harvest contest permit.

Permits for catch-and-release contests will require live wells equipped with aeration or recirculation. No harvest will be permitted during catch-and-release contests.

Other Aquatic Animals

All wildlife are considered to be the property of the state and are protected and managed by the Department. Aquatic animals that are important to, or may have an impact on, fish management include amphibians, mollusks, crustaceans, and insects. Aquatic mammals which also may impact fish management are not considered in this document.

One amphibian, the bullfrog (Rana catesbiana), is legally classified as a game fish for management purposes and is subject to sport harvest. Management consists of restricting harvest to the same season as other game fish in waters where they occur and enforcing a possession limit. No program for specific management of bullfrogs is proposed for this five-year plan, other than maintaining present harvest regulations. If the need arises, transplanting bullfrogs into suitable, underutilized habitat may be undertaken.

Commercial fishing regulations were adopted in 1988 by the Idaho Legislature to document the use of crayfish (of the genus Pacifastacus) and nongame fish for commercial purposes. The effect of commercial exploitation of crayfish on the food availability for game fishes is still unknown. However, reporting requirements of the commercial license will provide the Department with that information during this planning period, and if necessary, controls on the harvest of crayfish will be developed.

Other amphibians, crustaceans, aquatic insects, and molluscs provide forage for game fish, are used by anglers for bait, or are of scientific or aesthetic value. No management programs are proposed; however, present populations should be maintained.

Species of Special Concern

A number of races (or subspecies) and species of fish are considered to be threatened, endangered, or of special concern in Idaho (Table 2). Runs of wild anadromous fish into Idaho are at a low level. Sockeye salmon is the most endangered species in Idaho, with the likelihood of being extinct before this planning period ends. All races of chinook salmon are at such low numbers that they are listed as threatened or endangered in Idaho. The white sturgeon of the Kootenai River has not reproduced since 1974 and is, therefore, listed as endangered. The threatened burbot is suffering from the same environmental influences. Because of severe habitat loss, the Bonneville cutthroat trout is endangered in Idaho, and is listed by the American Fisheries Society as endangered throughout its range. The Pacific lamprey is also endangered in Idaho, because of the same factors affecting ocean-going salmon. All other fish listed in Table 2 are species of special concern.

The Fisheries Bureau defines and classifies Threatened and Endangered Species in this Plan as follows:

> Threatened Species: Any species which is likely to become an endangered species within the foreseeable future in all or a significant portion of its range within Idaho.
>
> Endangered Species: Any species which is in danger of extinction throughout all or a significant portion of its range within Idaho.

In contrast with the six bird and mammal species listed as Threatened and Endangered Wildlife under Idaho Code, the fish species listed as threatened or endangered have no statutory protection under Idaho Code. Their classification as threatened or endangered is a policy statement for management, not legal, purposes.

Species of special concern are defined as native species which are either low in number, limited in distribution, or have suffered significant population reductions due to habitat losses. The list includes three categories of species:

1. Species which meet one or more of the criteria above and for which Idaho presently contains, or formerly constituted, a significant portion of their range (i.e. priority species);

Table 2. A list of fish species that are endangered, threatened, or of special concern in Idaho. (Note: This list is developed for management purposes. This is not a list determined for, or by, the Federal Endangered Species Act.)

LEGEND

Status

E	Endangered
T	Threatened
SC	Special Concern

Common name	Scientific name	Status	Comments
Sockeye salmon	Oncorhynchus nerka	E	Restricted range - Redfish, Stanley, Alturas, and Pettit lakes. Currently under study by NMFS for listing under the Endangered Species Act.
Chinook salmon (fall)	Oncorhynchus tshawytscha	E	The NMFS has been petitioned to assess status of Idaho stocks of chinook salmon relative to listing under the Endangered Species Act.
Chinook salmon (summer)	Oncorhynchus tshawytscha	T	The NMFS has been petitioned to assess status of Idaho stocks of chinook salmon relative to listing under the Endangered Species Act.
Chinook salmon (spring)	Oncorhynchus tshawytscha	T	The NMFS has been petitioned to assess status of Idaho stocks of chinook salmon relative to listing under the Endangered Species Act.
White sturgeon (Kootenai River)	Acipenser transmontanus	E	Habitat has been altered and population limited by Libby Dam. Heavy metals and pesticides may affect reproduction. No reproduction since 1974.
White sturgeon (Snake & Salmon Rivers)	Acipenser transmontanus	SC-1	Habitat has been altered, and population limited by impoundments. Additional impoundments or water quality degradation could change status to threatened.
Burbot (Ling)	Lota lota	T	Restricted range - Kootenai River. Population status unknown.
Steelhead trout	Oncorhynchus mykiss	SC-1	Some discrete stocks may be threatened.

Table 2. Continued.

Common name	Scientific name	Status	Comments
Redband trout	Oncorhynchus mykiss spp	SC-1	Habitat degradation has severely limited range. Hybridization with other rainbow trout stocks has diluted gene pool.
Cutthroat trout (Bonneville)	Oncorhynchus clarki utah	E	Restricted range - Preuss, Giraffe and Dry creeks. Has suffered severe population declines from habitat degradation.
Cutthroat trout (Westslope)	Oncorhynchus clarki lewisi	SC-1	Sensitive to habitat modification, overharvest, and hybridization.
Cutthroat trout (Yellowstone)	Oncorhynchus clarki bouvieri	SC-1	Sensitive to habitat modification, overharvest, and hybridization.
Cutthroat trout (Bear Lake)	Oncorhynchus clarki ssp	SC-1	Restricted range - Bear Lake.
Cutthroat trout (Fine-spotted)	Oncorhynchus clarki ssp	SC-1	Restricted range - South Fork Snake River.
Bull trout	Salvelinus confluentus	SC-1	Sensitive to habitat modification and overharvest.
Bear Lake whitefish	Prosopium abyssicola	SC-1	Restricted range - Bear Lake.
Bonneville whitefish	Prosopium spilonotus	SC-1	Restricted range - Bear Lake.
Bonneville cisco	Prosopium gemmiferum	SC-1	Restricted range - Bear Lake.
Leatherside chub	Gila copei	SC-3	Population status unknown.
Bear Lake sculpin	Cottus extensus	SC-1	Restricted range - Bear Lake.
Shoshone sculpin	Cottus greenei	SC-1	Restricted range - Snake River aquifer springs.
Wood River sculpin	Cottus leiopomus	SC-1	Restricted range - Wood River.
Sand roller	Percopsis transmontana	SC-3	Restricted range - Clearwater and Snake rivers near Lewiston. Population status unknown.
Pacific lamprey	Lampetra tridentata	E	Population status unknown.

FMP-TABLE

2. Species which meet one or more of the criteria above but whose populations in Idaho are on the edge of a range that falls largely outside the State (i.e. peripheral species); and

3. Species that may be rare in the state but for which there is little information on their population status, distribution, and/or habitat requirements (i.e. undetermined status species).

Making the Idaho endangered, threatened, or special concern list does not automatically create a management action response, as would happen if the federal Endangered Species Act was applied. The Department will consider these sensitive species when making any fishery management decisions that affect their numbers, genetic integrity, or habitat. Likewise, we will use our knowledge of these fish to affect decisions by other agencies, entities, or individuals relative to the health of these species.

We will seek funding from outside, nontraditional sources to do status assessments, monitoring, or research of nongame species on this list. The Regional Fishery Managers, in concert with the Fisheries Bureau, will pursue information on population status and distribution by integrating inventory and monitoring activities into their annual work plans. The logical progression is to develop species management plans to guide recovery or maintenance of populations.

The Department will closely control the stocking of fish species and other aquatic organisms that might compete or interbreed with these fish, or indirectly have a detrimental affect on populations. We realize that in some cases, artificial augmentation may be the only viable alternative. This is where management plans, such as the Anadromous Fishery Plan 1991-1995, will provide direction.

Anadromous Fish

The Snake River above Lewiston historically produced an estimated 55% of the summer steelhead trout, 40% of the spring chinook salmon, and 45% of the summer chinook salmon in the Columbia River system. Lesser numbers of sockeye salmon, coho salmon, and fall chinook salmon inhabited the Snake River system.

Runs of anadromous fish into Idaho are now at a low level. Snake River coho are extinct. In 1989, only two sockeye crossed over Lower Granite Dam. Fall chinook in the Snake River number in the hundreds. In 1989, spring chinook and summer chinook recorded the seventh and third lowest runs in history. Wild steelhead are only at one-tenth of their potential. The only stocks not seriously threatened are hatchery-produced steelhead trout.

The Department believes that recovery of anadromous fish in Idaho centers on adequate fish passage survival during juvenile outmigration each spring and during the adult steelhead September migration. We will actively advocate changes in the Columbia Basin system to accomplish this goal.

Sockeye Salmon. The Shoshone-Bannock Tribes in March 1990 petitioned the National Marine Fisheries Service to list the sockeye on the Endangered Species List under the Endangered Species Act of 1973. Its former range in Idaho included the Payette and Salmon rivers but is now only a remnant in the Redfish Lake drainage of the upper Salmon River. Other Stanley Basin lakes have remnant native kokanee populations which may exhibit some anadromy; however, Redfish Lake is the only one monitored in recent years.

Protection and enhancement of the remaining habitat will be a priority consideration in management decisions in sockeye salmon waters.

Chinook Salmon. The three races of chinook salmon in Idaho are under severe pressure. Fall chinook are most seriously threatened because of poor juvenile passage, overharvest, and extensive loss of habitat. They were listed as a threatened species in the 1986-1990 Management Plan, and their status has not changed significantly since then.

Wild summer chinook range is restricted to discrete sections of the Salmon River drainage. They have suffered significant habitat loss, and survival is limited by juvenile passage mortality due to the Snake and Columbia hydroelectric system. Summer chinook were also listed as threatened in the previous management plan. Numbers remain low and their status has not improved.

Spring chinook numbers have remained low despite increased hatchery production. Returns to Idaho have been erratic. Because of the tenuous nature of flow management for hydropower operation, spring chinook remain on the Species of Special Concern list.

White Sturgeon

As previously noted, the white sturgeon in Idaho has been affected by habitat alteration and overfishing. Remaining habitat will be protected and angling activity carefully regulated to preserve the species. Sturgeon culture programs have been implemented and may be used as a tool to rebuild populations.

Redband Trout

Listings in previous management plans have included redband trout as a species of special concern. The fish of original concern is a rainbow trout uniquely adapted to streams with extreme water flow and temperature variations and high alkalinity in the high desert of southwest Idaho where land management practices have threatened their status. More recently, taxonomists have concluded that the native rainbow throughout nearly all of southwest and southcentral Idaho are redband trout. Redband populations have remained genetically isolated in areas of extreme environmental conditions where other rainbow trout strains, races, or subspecies have been unable to survive. The redband trout is the only subspecies that can be expected to survive in these types of environment and provide a viable fishery. Therefore, it has a higher value in these environments and should receive management priority by the Department and land management agencies.

Cutthroat Trout

The 1990 Idaho Legislature passed into law legislation declaring the cutthroat trout as the state fish. The state fish is several subspecies of native cutthroat, all in the special concern category. The most widely distributed and the one that has suffered the greatest habitat loss is the westslope. However, the Bonneville cutthroat is the most seriously threatened. All cutthroat must be seriously considered in land management decisions in their remaining unprotected habitat. The Department will be remiss if it does not include cutthroat trout when reviewing timber sales, mining practices, grazing management, point and nonpoint source pollution, and antidegradation guidelines.

The Snake River fine-spotted and the Yellowstone cutthroat may be the same fish, but some taxonomists still suggest they are separate subspecies. Within Idaho, the high quality habitat is restricted to the Snake River drainage upstream from American Falls Reservoir. Where possible, the Department should recover populations by working in cooperation with irrigation canal companies and the Bureau of Reclamation to screen diversions and develop more benign management practices for storage and irrigation usage.

The other two subspecies have extremely limited range in the very southeast Idaho corner. The Bear Lake cutthroat is endemic to Bear Lake and its tributaries. It has been impacted by water management, introductions of other fish species, grazing practices, and irrigation withdrawal in the tributaries. The Bonneville cutthroat is found in only a handful of small tributaries to the Bear River in Idaho and has a very limited distribution outside Idaho. The Caribou National Forest has responsibility for managing most of these affected streams and has failed to provide adequate protection of the streams and riparian habitats from inappropriate grazing practices. The Department will pursue agreements to protect these streams against further habitat loss and enhance already degraded habitats.

Bull Trout

The only native char in Idaho is the bull trout, Salvelinus confluentus. Until 1980, this fish was considered to be the same species as the coastal Dolly Varden, Salvelinus malma, and is still commonly called Dolly Varden in Idaho. This species has only recently been reared in Idaho hatcheries and primarily exists in Idaho only as wild, native populations. Because of its unique niche in Idaho fish communities, its capability to provide trophy-size fish, its wild native status, and the potential to become extinct in some major drainages, it is included on the Species of Special Concern list.

Fishes Endemic to Bear Lake

Because the Bear Lake whitefish, Bonneville whitefish, Bonneville cisco, Bear Lake sculpin, and the Bear Lake cutthroat are only found in Bear Lake, they are vulnerable to extinction should their habitat be altered. The Department will work with the Utah Department of Fish and Game, water managers, and land owners to reduce impacts to these fish.

Shoshone Sculpin

Prior to 1990, the Shoshone sculpin was the only Idaho fish species to be nominated for threatened status under the Endangered Species Act. That nomination was withdrawn after extensive inventory revealed healthy but isolated populations in a few remaining free flowing springs in the Thousand Springs area and the Snake River adjacent to the springs. Remaining habitat must be preserved to ensure a healthy population.

Wood River Sculpin

The Wood River sculpin has been located in only a few tributaries to the Little Wood River. More inventory work is needed to determine the extent of its range. It warrants the protection afforded by the Species of Special Concern Listing until its range is more clearly defined.

Other Species

Several species, for which little information is known, may be extinct or are functionally extinct at this time. They include the sand roller, Pacific lamprey, and leatherside chub. Burbot (ling) numbers have declined drastically since the early 1980s and may suffer the same fate.

Unique to Idaho is an exotic char that is threatened in its native range because of habitat alteration and introduced non-native fish. The blueback trout, Salvelinus alpinus oquassa, (formerly the sunapee trout which was synonymized with the blueback by taxonomists) was introduced into high mountain lakes of the Sawtooth Range, tributary to the Salmon River, many years ago and was only recently (1978) rediscovered. Because it is not native, it will not be listed as a species of special concern, but protection of this fish and its habitat should be a high priority. The Department will protect this species by suppressing publicity, carefully monitoring the populations to determine their status, and by not stocking species which would adversely affect blueback trout in waters where they occur. It is listed by the American Fisheries Society as threatened (1989).

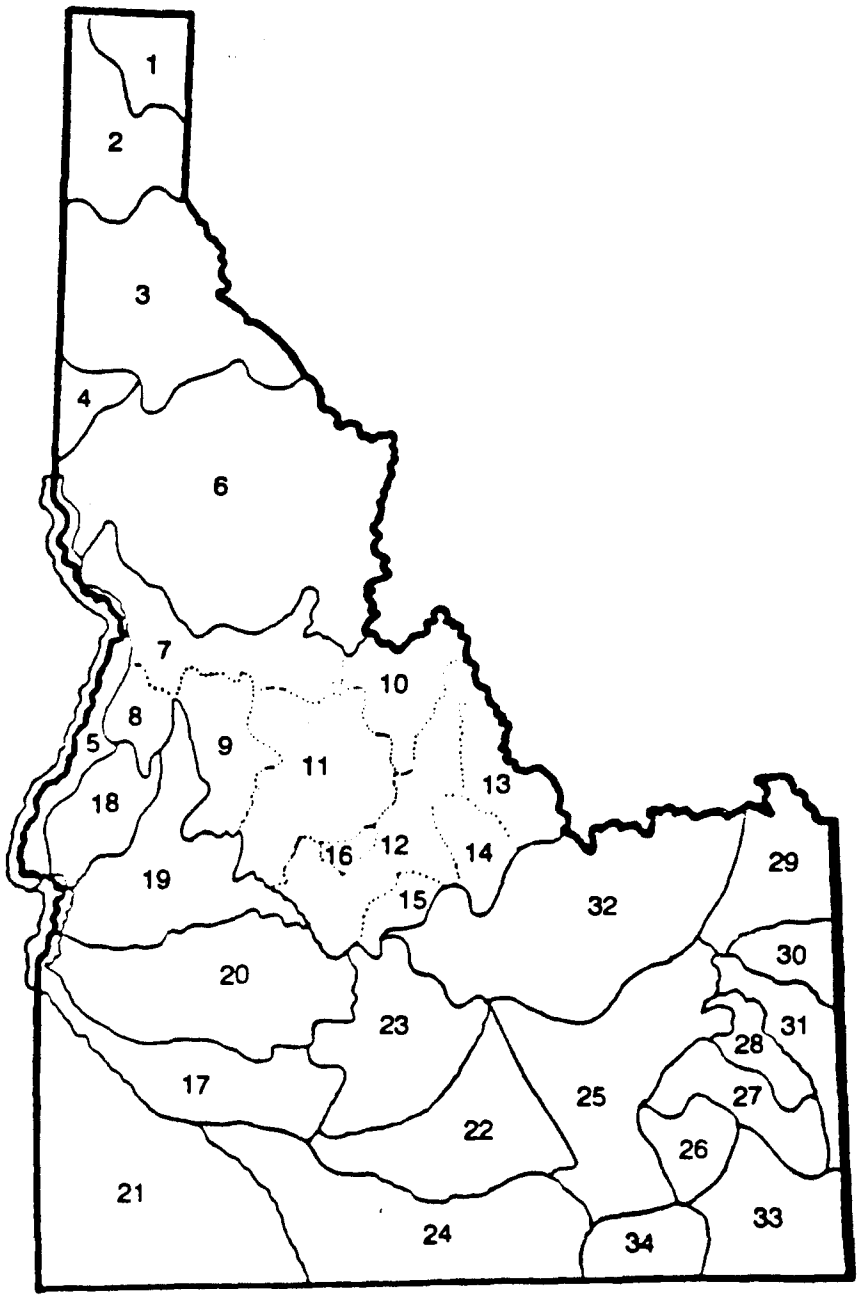
PART II

FISHERY MANAGEMENT PLANS BY DRAINAGE

This portion addresses specific management direction for individual waters. The waters of the state are broken down into 35 separate drainages (Figure 4). Each drainage section consists of three parts:

1. Overview

   A narrative which describes the fisheries and management of the drainage in general terms.



Drainages Used in the
Idaho Fishery Management Plan

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Figure 4. Drainages used in the Idaho Fishery Management Plan.

2. Objectives and Programs

This section lists fisheries objectives for the drainage as a whole or a combination of water areas, and management programs necessary to achieve them.

3. Management Direction

A table which lists the type of fisheries, species present, management, and further management direction proposed for individual waters.

DEFINITIONS OF TERMS USED IN DRAINAGE MANAGEMENT DIRECTION TABLES

1. Fishery Types

A. Coldwater - fisheries supported by resident populations of salmonid game fish including trout, char, nonanadromous salmon (kokanee, coho, chinook), and whitefish (family Salmonidae).

B. Warmwater - fisheries supported by warmwater or coolwater game fish including bass, crappie, sunfish, catfish, northern pike, tiger muskie, walleye, and yellow perch (families Centrarchidae, Ictaluridae, Percidae, and Esocidae).

C. Mixed - fisheries supported by a combination of coldwater and warmwater fish species.

D. Anadromous - fisheries supported by anadromous salmonids (steelhead trout, chinook salmon, and sockeye salmon).

2. Species Present

The major sport fish species currently present and any other species being proposed for introduction at this time. Species which will be considered for introduction but are not proposed at this time are referred to under "management direction."

3. Fishery Management

Describes the primary management applied to the water area; a secondary management listing may be given where a different specific management is applied to individual species. A more complete description of management programs, fishery characteristics, and applicable regulations is provided in Part I of the Plan.

A. Put-and-Take Trout - a management program using intensive stocking of catchable-size hatchery rainbow trout to provide high consumptive catch rates. Applied to small lakes, ponds, and reservoirs and certain streams or stream reaches with

good access and moderate to high fishing pressure. Used where long-term survival and growth is limited due to water area characteristics or harvest rates. Other species, including some naturally produced trout, may be present.

B. Wild Trout - a management program which relies on the natural production potential of a stream to provide fishing opportunity for wild trout. Applied to streams with good to excellent trout habitat where consumptive fishing pressure is light to moderate.

C. Quality - a management program which limits, by regulation, the size and numbers of fish which may be harvested in order to provide increased catch rates for larger fish which are considered quality-size by most anglers. May be applied to water areas or to specific species within a water area.

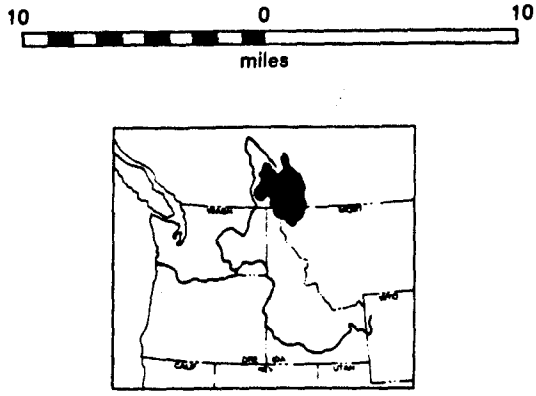
D. Trophy - a management program which limits, by regulation, the size and numbers of fish which may be harvested in order to provide increased catch rates for larger fish which are considered trophy-size by most anglers. May be applied to water areas or to specific species within a water area.

E. Preservation - a management program which prohibits harvest or angling in order to preserve and rebuild the viability of a wild population. May be applied to an individual species or to water areas which are important spawning or nursery areas.

F. Anadromous - a management program for anadromous steelhead and chinook salmon which provides for harvest opportunity, where possible, on known hatchery origin fish while rebuilding wild and natural fish. A more complete description is provided within a separate anadromous management plan.

G. General - a general management program applied to lakes and reservoirs and rivers and streams not suited for wild trout or put-and-take trout management. General management waters may provide warmwater, coldwater, or mixed fisheries. Coldwater fishing is primarily managed through stocking of fry, fingerling, or catchable-size fish which are expected to achieve some growth and contribute to the fishery over an extended time. No special regulations are applied.

Kootenai River Drainage



1. KOOTENAI RIVER DRAINAGE

A. Overview

The Kootenai River is located at the north end of the Idaho Panhandle in Boundary County. It originates in southeastern British Columbia, flows south and west through Montana, and northwest through Idaho, then returns to Canada where it flows through Kootenay Lake and joins the Columbia River at Castlegar, British Columbia. At the International border at Porthill, Idaho, it drains approximately 13,700 square miles with an average discharge of 16,100 cfs. The 66 miles of river in Idaho can be divided into two reaches. The 47-mile section from Porthill to Bonners Ferry is a slow moving, broad, meandering river with holes up to 100' deep. Water level is affected by a dam at the outlet of Kootenay Lake. The 19 miles of river upstream from Bonners Ferry to Montana flows in a canyon with an average gradient of 3 feet/mile.

Closing of Libby Dam in Montana in March 1972 changed the natural seasonal flow and temperature regimes in the Kootenai River. Mean flows during spring runoff have been reduced 50 percent and wintertime flows have tripled. Average wintertime water temperatures have increased by about 4°F. Warmer winter temperatures have resulted in the river remaining virtually ice free, and the impoundment has reduced turbidity and nutrient loads in the river.

The Kootenai River is the only drainage in the State of Idaho where ling (burbot) are native. The Kootenai is also home to the white sturgeon. Fisheries for both of these species have been drastically curtailed in response to major declines in these populations. Elimination of former sloughs, changes in the flow regime, heavy metals, and organic pesticide contamination are suspected of causing these declines.

Numerous tributaries drain the Selkirk and Purcell mountain ranges and enter the Kootenai River directly or through larger tributaries. Due to past glaciation, most Kootenai River tributaries are blocked by falls near their mouths, and recruitment of fish from tributaries is limited.

Trout production in naturally-accessible portions of tributaries has been reduced by habitat alteration and degradation. Sedimentation from logging, roading, and wildfires has degraded former spawning and rearing areas. Manmade obstructions, diversions, and channelization have eliminated former trout habitat completely. The Deep Creek and Boundary Creek drainages are the largest accessible tributaries of the Kootenai River.

The Moyie River is the largest tributary of the Kootenai drainage in Idaho but is isolated from the Kootenai River by a dam and natural falls near its mouth. The Moyie originates at Moyie Lake in British Columbia and flows 58 miles through Canada and 26 miles through Idaho. Very few tributaries of the Moyie are accessible, and recruitment of wild trout is limited.

Inland rainbow trout are native to the Kootenai River drainage and are present in the main stem Kootenai River and above barriers in some tributaries. Hatchery rainbow trout have been widely introduced throughout the drainage and largely support the Moyie River fishery. Other native salmonids include westslope cutthroat trout, bull trout, and mountain whitefish. Introduced eastern brook trout are present throughout the drainage, and early spawning kokanee salmon from Kootenay Lake, British Columbia, are present in the main stem Kootenai River and some west side tributaries during the summer and fall. Kokanee salmon also enter the Kootenai River from Libby Reservoir during some years.

Numerous mountain lakes in the Selkirk and Purcell ranges are stocked with trout fry on a rotating basis. Westslope cutthroat trout, domestic Kamloops rainbow trout, and brook trout are present in most of the lakes, although a few lakes are reserved for speciality species, such as grayling and golden trout.

Numerous natural lowland lakes and McArthur Reservoir provide a mixed bag fishery for trout and spiny-rayed species. Naturalized populations of largemouth bass, black crappie, brown bullhead, yellow perch and pumpkinseed sunfish are present in most lakes. Channel catfish, tiger muskie and bluegill sunfish have recently been introduced in some lakes. Catchable rainbow trout, brook trout fingerlings, and some kokanee salmon are stocked in these lakes to provide salmonid fisheries.

The majority of waters in the Kootenai drainage produce fishing for trout. The Kootenai River and its tributaries, mountain lakes, lowland lakes, and the Moyie River with its tributaries all provide moderate amounts of relatively high quality trout fishing. Although numbers and size of fish have been reduced since the turn of the century, the area has a great potential for improved fishery management.

B. Objectives and Programs

1. Objective: Enhance the white sturgeon and ling populations in the Kootenai River.

   Program: Maintain the harvest closure on sturgeon and close the ling fishery to protect the remaining populations of sturgeon and ling in the river. Continue research to identify limiting factors and provide management alternatives. Implement limited hatchery supplementation program and evaluate.

2. Objective: Minimize impacts to and enhance trout spawning and rearing habitat.

   Program: Work with government agencies, private developers, and interested sportsmen's groups to make protection and enhancement of fisheries habitat a primary concern in land use decisions.

3. Objective: Improve the efficiency of hatchery catchable trout stocking programs.

Program: Evaluate rate of return, catch rate, and angler use on catchable supported waters through a routine data collection system.

Program: Adjust rate, timing or location of stocking to improve rate of return to the creel.

Program: Utilize stocks of rainbow that maximize return to the creel.

Program: Improve habitat in rivers stocked with catchable trout to enhance holding water.

Program: Inform anglers of hatchery supported trout fishing opportunities through maps, brochures, media coverage and signing to improve return to the creel.

Program: Discontinue catchable stocking in waters where a 30% or greater return to the creel cannot be met by the end of this planning period. Provide alternative fisheries to maintain angling opportunity.

4. Objective: Improve fishing and boating access.

Program: Develop or enhance fishing and boat access areas through easements, cooperative agreements or purchase. Utilize the department's Challenge Grant program to build fishing docks for shoreline anglers.

DRAINAGE: Kootenai River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Management	Management direction
Kootenai River from Montana border to Canadian border	66/	Coldwater	Rainbow trout Cutthroat trout Brook trout Mountain whitefish Kokanee salmon Bull trout	General	Work toward obtaining more favorable flows to improve habitat conditions for salmonids and improve the fishery. Improve fishermen access.
			White sturgeon Burbot	Preservation	Identify factors that are causing depressed populations and implement recommendations from BPA-funded research.
Accessible tributaries to Kootenai River	130/	Coldwater	Rainbow trout Cutthroat trout Brook trout Kokanee salmon	General	Enhance trout production for the Kootenai River by identifying critical streams, improving habitat conditions, and modifying regulations if necessary. Continue to seek kokanee salmon from south arm stocks from Kootenay Lake, B.C., to rebuild tributary stocks. Maintain stream closures until kokanee salmon stocks are restored.
Inaccessible tributaries to Kootenai River	300/	Coldwater	Rainbow trout Cutthroat trout Brook trout	Wild trout	Maintain limited consumptive fishery for small resident trout.
Moyie River above Meadow Creek	17/	Coldwater	Rainbow trout Cutthroat trout Brook trout	Put-and-take trout	Maintain fishery by stocking hatchery catchable rainbow trout due to lack of wild recruitment.
Moyie River below Meadow Creek	8/	Coldwater	Rainbow trout Cutthroat trout	Wild trout	Maintain fishery for wild trout. Consider regulation modification if fishery is jeopardized by overharvest. Pursue reestablishment of fish passage into Meadow Creek.

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Moyie River tributaries	35/	Coldwater	Rainbow trout Cutthroat trout Brook trout	General	Maintain limited consumptive fishery for small resident trout.
McArthur Reservoir	/800	Warmwater	Yellow perch	General	Enhance size of perch by controlling population density with lake drawdown and rotenone treatments. Improve angling opportunity for shoreline anglers by providing fishing docks. Re-ladder dam to allow rainbow trout from Deep Creek to utilize tributaries
Robinson, Smith, Brush, Perkins, Bonner lakes	/202	Mixed	Rainbow trout Kokanee salmon Brook trout Splake Largemouth bass Yellow perch Bluegill Pumpkinseed Crappie Bullhead	General	Stock catchable rainbow trout, brook trout fingerlings, and kokanee salmon fry in selected lakes to provide salmonid fisheries. Evaluate splake introduction in Perkins Lake. Diversify warmwater fishery by introducing bluegill and channel catfish were appropriate. Evaluate response of largemouth bass populations to current regulations and modify as appropriate.
Dawson Lake	/35	Warmwater	Largemouth bass Crappie Yellow perch Bluegill Pumkinseed Channel catfish Tiger muskie Bullhead	General	Continue maintenance stocking of channel catfish and tiger muskie. Establish self-reproducing population of bluegill.
Solomon Lake	/9	Coldwater	Cutthroat trout	Quality	Provide quality fishery for cutthroat trout with special regulations.
Bloom Lake	/20	Coldwater	Brook trout Splake	General	Resolve access problems with landowners. Maintain fishery by stocking fingerling brook trout and limited numbers of splake.

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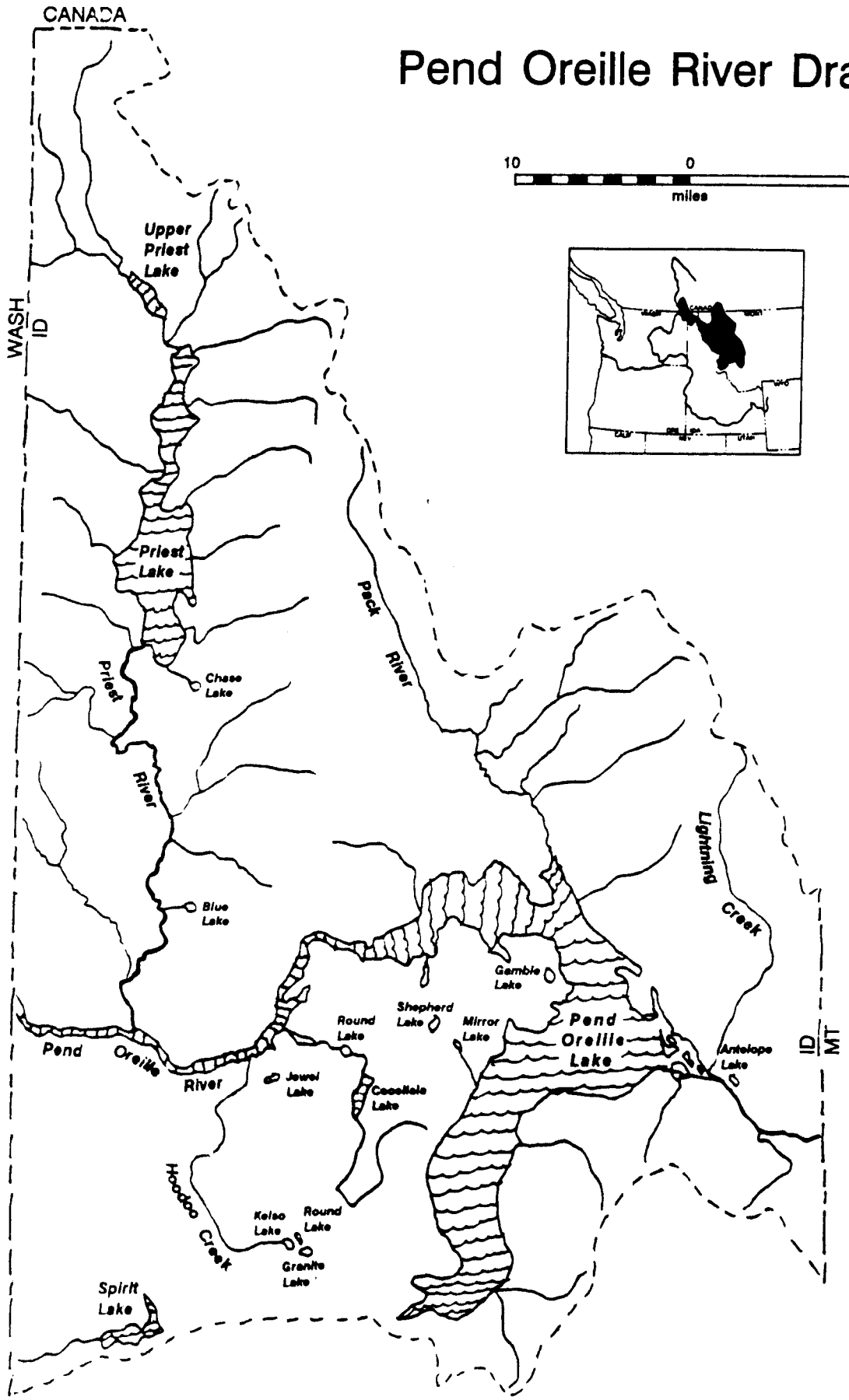
Sinclair Lake	/1.5	Coldwater	Rainbow trout	Put-and-take trout	Provide year-round consumptive fishery for trout by stocking catchable rainbow trout.
Alpine Lakes (20 in the Kootenai River drainage	/260	Coldwater	Cutthroat trout Rainbow trout Brook trout Golden trout Grayling	General	Continue maintenance stocking of trout fry to provide fisheries that are consistent with lake productivity and angler pressure. Use only westslope cutthroat trout for cutthroat trout stocking. Reserve some lakes for specialty fish (golden trout and grayling) only. Determine where stunted brook trout lakes could be converted to more desirable fisheries with rotenone treatments and restocking or utilize bull trout, lake trout, or splake to reduce brook trout densities and provide a trophy component to the fishery. Utilize a more intense volunteer creel census program to evaluate if species selection and stocking rates are producing desired fisheries.


Pend Oreille River Drainage
CANADA
10
0
10
miles
WASH
ID
Upper Priest Lake
Priest Lake
Priest River
Chase Lake
Pack River
Blue Lake
Lightning Creek
Gamble Lake
Shepherd Lake
Round Lake
Mirror Lake
Pend Oreille Lake
Antelope Lake
ID
MT
Pend Oreille River
Jewel Lake
Cocolalla Lake
Hoodoo Creek
Kelso Lake
Round Lake
Granite Lake
Spirit Lake

2. PEND OREILLE RIVER DRAINAGE

A. Overview

The Pend Oreille River drains about 24,200 square miles of land in western Montana and the Panhandle of northern Idaho. Most of the 2,133 square miles of the drainage within Idaho lie in Bonner County. Major tributaries of the Pend Oreille include the Clark Fork, Flathead, Bitterroot, Blackfoot and St. Regis rivers in Montana and the Priest and Pack rivers and Lightning Creek in Idaho.

Pend Oreille Lake is the largest natural lake in Idaho covering 85,960 surface acres with a shoreline length of 111 miles. The lake basin is deep and steep-sided with a maximum depth of 1,152 feet and mean depth of 538 feet. The combined surface area of Pend Oreille Lake and the backwaters of Albeni Falls Dam, located on the Pend Oreille River 23 miles downstream of the lake, is 94,720 acres.

Priest and Upper Priest lakes are glacial lakes connected by a shallow winding channel. Priest Lake has a surface area of about 23,360 acres with a maximum depth of 369 feet and mean depth of 123 feet. Upper Priest Lake is accessible only by boat or foot trail, covers about 1,400 surface acres and has a maximum 100-foot depth.

Spirit Lake has a surface area of 1,477 acres and a maximum depth of about 90 feet.

There are also many smaller lowland lakes in the drainage and numerous alpine lakes in the Selkirk and Cabinet mountains.

Westslope cutthroat trout, pygmy whitefish, mountain whitefish and bull trout are the only salmonids native to the Pend Oreille drainage in Idaho. Prior to the 1940s, cutthroat trout were the most frequently caught fish in the Pend Oreille system. Accounts of good fishing, long stringers of 12"-16" fish, and tributaries full of spawners were common at the turn of the century and into the early 1900s.

Bull trout in Priest and Pend Oreille fed on the whitefish but did not obtain an unusually large size. Spawning runs of mountain whitefish were harvested in Priest Lake tributaries and also supported a significant commercial fishery on Pend Oreille.

Introduction of exotics has played a major role in fisheries of the Pend Oreille drainage. Lake Superior whitefish were introduced to Pend Oreille in 1889. Lake trout were introduced in Priest Lake and Pend Oreille in the 1920s, but provided little in the way of a sport fish in either system during the first half of the century. During the 1930s, kokanee salmon became established in Pend Oreille Lake moving naturally into the system from Flathead Lake in Montana. Kokanee were introduced into Flathead Lake in the early 1900s. Kokanee salmon were transplanted from Pend Oreille to Spirit Lake in 1937 and Priest Lake in the 1940s. Kokanee salmon established themselves quickly in each of these lake systems and had a profound impact on their fisheries. Kokanee

salmon displaced mountain whitefish in the open water habitat but also provided a new forage base for the predators. In Priest Lake, a significant trophy fishery for record-class lake trout and bull trout developed during the 1950s. In Pend Oreille, an abundant kokanee salmon population prompted the introduction of Gerrard rainbow trout. Since that time the lake has produced world record rainbow trout and bull trout and has been widely recognized as a major trophy fishery. Kokanee salmon have also supported a major sport fishery in their own right and have become the single most sought after sport fish in northern Idaho. The combined kokanee salmon and trophy trout fishery in Pend Oreille Lake has made it one of the most important fisheries in the state. Spirit Lake has become one of the most productive kokanee salmon fisheries and has consistently supported high densities of kokanee salmon and fishermen. The relative importance of the fishery has been limited only by the lake's size.

The construction of hydroelectric dams, increased logging and roading and overfishing have taken a toll on fisheries as the drainage has been settled and developed. By the early 1950s, dams on the Clark Fork River blocked runs of game fish from hundreds of miles of critical spawning and rearing streams formerly used by fish from Pend Oreille Lake. Land use impacts on accessible tributaries combined with increasing fishing pressure resulted in significant declines from historic levels. The annual harvest of both cutthroat trout and bull trout declined in Priest and Pend Oreille lakes during the 1950s.

Cutthroat trout can be fairly resilient when overfishing is eliminated. Populations have the potential to rebuild quickly if habitat is in good shape and competition and predation from other fish species in minimal. Bull trout are not as resilient and are much more susceptible to habitat degradation than other species. Large adults in the spawning streams are also vulnerable to excessive poaching. In Priest Lake, bull trout have declined to very low levels and may be on the verge of extinction. Seasons for bull trout have been closed entirely on the Priest Lake system and in the spawning tributaries to Pend Oreille.

The kokanee salmon populations have also declined in both Pend Oreille and Priest lakes. Operation of system dams eliminated spawning habitat and reduced spawning success after their construction. Mysis relicta, the opossum shrimp, was introduced to Pend Oreille and Priest lakes in the 1960s. The introductions were made in an effort to enhance food for kokanee salmon. Although that occurred and record-size kokanee salmon were produced, Mysis reduced available food for young kokanee salmon. The kokanee salmon populations in both lakes declined dramatically during the 1970s. In Priest Lake, the Mysis introduction led to an increase in lake trout. The combination of declining juvenile survival and increasing numbers of lake trout, which also prey on kokanee salmon, led to the complete collapse of the Priest Lake kokanee salmon fishery. In Pend Oreille, the kokanee salmon population was stabilized at a relatively low level through a supplemental hatchery program. The hatchery work and other research shows that the Pend Oreille kokanee salmon population can be artificially re-established. A new hatchery, Cabinet Gorge, capable of producing up to 20 million kokanee salmon fry for Pend Oreille was built under a cooperative agreement between the

Department, Washington Water Power Company and the Bonneville Power Administration. Rehabilitation of the Pend Oreille kokanee salmon population is expected in the near future.

Restoration of kokanee salmon in Priest Lake will not be possible without a major shift in management emphasis. Intense predation by lake trout has resulted in continued collapse of the kokanee salmon population despite hatchery supplementation. Lake level drawdown during spawning and incubation and competition of juvenile kokanee salmon with Mysis shrimp are additional problems. Major reductions in lake trout abundance and the loss of the existing fishery would be required to re-establish a kokanee salmon fishery. Alternative forage species for lake trout are being considered if continued management for lake trout is desired.

Other game fish in the Pend Oreille drainage include brook trout, brown trout, largemouth bass, northern pike, tiger muskie, yellow perch, black crappie, pumpkinseed and bluegill sunfish, bullhead and channel catfish.

B. Objectives and Programs

1. Objective: Minimize impacts of land use and development on fishery habitat in the accessible tributaries to Lake Pend Oreille.

   Program: Work with the Forest Service, private developers and interested sportsmen's groups to make protection of fisheries habitat a primary concern in land use decisions. Work with Forest Service and sportsmen's groups to rehabilitate habitat where possible.

2. Objective: Determine optimum population levels of predator species to insure predator/prey balances can be maintained.

   Program: Shift research emphasis from kokanee salmon restoration to predator population dynamics and predator/prey interactions. Determine the level of hatchery supplementation that is needed for trout and char to replace lost tributary production of wild fish. Continue to monitor kokanee population structure and catch statistics.

3. Objective: Maintain the genetic integrity of Gerrard stock rainbow trout in Pend Oreille Lake.

   Program: Continue to obtain pure strain Gerrard rainbow trout from Kootenay Lake B.C. to develop a broodstock to supplement wild production. Work with Montana to avoid introductions of other stocks of rainbow trout in the Clark Fork River reservoirs above Pend Oreille Lake.

4. Objective: Maintain viable populations of bull trout in both the Priest and Pend Oreille systems to provide unique fisheries for native char.

   Program: Publicize the extreme sensitivity of bull trout to habitat degradation. Work to obtain special consideration, protection, and

improvement of critical bull trout habitat in land use decisions. Monitor bull trout spawning escapement and success in Pend Oreille tributaries. Maintain strict closures until the population rebuilds on Priest Lake. Focus available enforcement to reduce poaching losses. Publicize the unique characteristics of these populations and their vulnerability to poaching. Work to influence public and court attitudes regarding poaching.

Program: Utilize hatchery supplementation to rebuild or enhance wild stocks without jeopardizing the genetic integrity or viability of existing wild populations.

5. Objective: Minimize impacts to lake fisheries due to lakeshore encroachment, pollution and nutrient loading.

Program: Work with county planners to make protection of fish habitat and water quality a primary concern in land use decisions.

6. Objective: Improve westslope cutthroat trout fisheries on major lakes.

Program: Develop a dependable westslope cutthroat trout broodstock with the ability to infuse wild fish on a regular basis. Support research to evaluate artificial enhancement for rebuilding wild production. Evaluate if net pen culture can improve cutthroat trout fisheries by monitoring the harvest of net pen-reared fish.

7. Objective: Improve fishing and boating access.

Program: Develop or enhance fishing and boat access areas through easements, cooperative agreements or purchase. Utilize the department's Challenge Grant program to build fishing docks for shoreline anglers.

8. Objective: Increase consumptive trout fishing opportunity for bank anglers near population centers.

Program: Acquire or develop small, highly accessible waters to provide an intensive hatchery supported fishery.

9. Objective: Improve the efficiency of hatchery catchable trout stocking programs.

Program: Evaluate rate of return, catch rate, and angler use on catchable supported waters through a routine data collection system.

Program: Adjust rate, timing or location of stocking to improve rate of return to the creel.

Program: Utilize strains of rainbow that maximize return to the creel.

Program: Improve habitat in rivers stocked with catchable trout to enhance holding water. Evaluate effectiveness of structures to determine cost/benefit information.

Program: Inform anglers of hatchery supported trout fishing opportunities through maps, brochures, media coverage and signing to improve return to the creel.

Program: Discontinue catchable stocking in waters where a 30% or greater return to the creel cannot be met by the end of this planning period. Provide alternative fisheries to maintain angling opportunity.

DRAINAGE Pend Oreille River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
Pend Oreille Lake and tributaries	200/85,960	Mixed	Rainbow trout	Trophy	Continue restrictive regulations and hatchery supplementation with pure-strain Gerrard rainbow trout from Kootenay Lake, B.C., to enhance the rainbow trout fishery. Maintain restrictive regulations on select tributary streams used by adfluvial fish to maximize production of wild fish for the lake.
			Bull trout Cutthroat trout Brown trout Lake trout	Quality	Maintain restrictive regulations on the lake to provide a limited consumptive fishery. Supplement cutthroat trout and bull trout populations with limited hatchery production. Maintain restrictive regulations on selected tributary streams used by adfluvial fish to maximize production of wild fish for the lake.
			Kokanee salmon Lake Superior whitefish Mountain whitefish	General	Continue hatchery enhancement efforts for kokanee salmon to provide a consumptive fishery for anglers and forage for fish predators. Encourage increased utilization of Lake Superior whitefish to offset reduced limits on trout.
			Brook trout Cutthroat trout	Wild trout	Maintain limited consumptive fishery for small resident trout in tributaries not used by adfluvial trout.

Pend Oreille Lake (Continued)			Largemouth bass Smallmouth bass Northern pike Crappie Yellow perch	General	Maintain existing warmwater fisheries where they will not interfere with salmonid management programs.
Pend Oreille River	25/11,000	Mixed	Rainbow trout Largemouth bass Crappie Yellow perch Bluegill Pumkinseed Bullhead	General	Evaluate the effect of reservoir water level management on fish habitat. Improve habitat and introduce new species to improve fishery without negatively impacting management in Pend Oreille Lake.
Hoodoo Creek	11/	Coldwater	Rainbow trout Brook trout Brown trout	General	Continue limited maintenance stocking of brown trout fingerlings. Work with riparian landowners and sportsmen's groups to restore instream and riparian habitat.
Priest Lake and tributaries	100/23,360	Coldwater	Lake trout	Quality	Better define management goals based on public desires and biological potential. Either create a quality fishery for lake trout with appropriate regulations or improve population levels and fisheries for other species by reducing lake trout abundance. Evaluate potential new forage species for lake trout that do not interfere with management programs in connecting waters.
			Cutthroat trout	Experimental	Rebuild wild cutthroat trout stocks by protecting adult fish in the lake with catch-and-release regulations and juvenile fish in streams with

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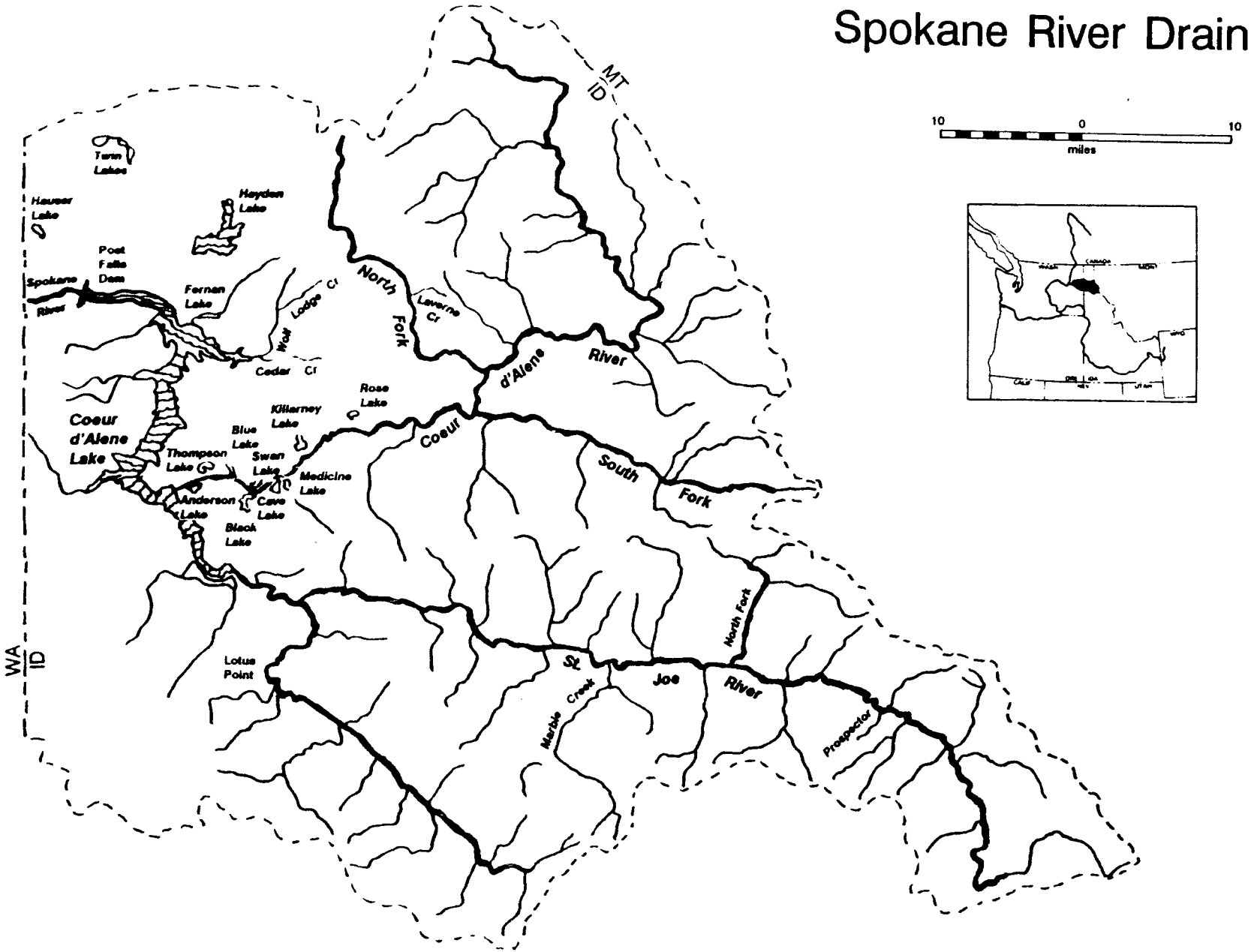
Priest Lake (Continued)					tributary closures. Develop new genetically pure adfluvial westslope cutthroat trout broodstock. Supplement wild production with hatchery fish and reduce competition and predation from brook trout as recommended by research findings. Provide limited consumptive harvest of hatchery cutthroat trout on an experimental basis by stocking nearly catchable-sized cutthroat trout and allowing harvest of adipose clipped fish only.
			Bull trout	Preservation	Maintain harvest closures in lake and tributary streams. Consider hatchery supplementation if viable source is developed.
			Brook trout	General	Maintain consumptive fishery on selected tributaries to offset harvest restrictions on adfluvial cutthroat trout streams.
Upper Priest Lake and tributaries	50/1,400	Coldwater	Cutthroat trout Bull trout	Preservation	Continue harvest closures to maintain strong populations of adfluvial cutthroat trout and bull trout to be used in future hatchery enhancement efforts on the lower lake.
			Lake trout	Quality	Removal of lake trout is desirable but consistency with lower lake regulations and concern for a mixed-stock overharvest of bull trout are concerns. Seek ways to resolve conflicts.

Upper Priest Lake (continued)			Kokanee salmon	General	Do not increase kokanee salmon beyond existing low level to avoid creating competition problems with native species.
Priest River and tributaries	120/	Coldwater	Rainbow trout Cutthroat trout Brook trout Brown trout Mountain whitefish	General	Use hatchery-catchable rainbow trout to provide a consumptive fishery in Priest River. Evaluate return to the creel for catchable rainbow trout and adjust stocking strategies to increase returns if necessary. Consider stocking different strains of brown trout to establish self-sustaining brown trout fishery. Encourage appropriate agencies to evaluate changes in water level management of Priest Lake to enhance fishery flows in Priest River. Maintain bonus brook trout limit on Priest River tributaries to provide consumptive trout fisheries.
Blue Lake	/120	Warmwater	Largemouth bass Northern pike Tiger muskie Crappie Yellow perch Bluegill Channel catfish Pumpkinseed	General	Continue maintenance stocking of channel catfish and tiger muskie to diversify warmwater fishery. Establish a self-reproducing population of bluegill.
Jewel Lake	/35	Coldwater	Cutthroat trout, Rbt x ctt hybrids Kokanee salmon	Quality	Provide quality fishery for trout and salmon with special regulations.
Mirror Lake	/90	Coldwater	Cutthroat trout Brook trout Brown trout Kokanee salmon Crappie	Quality	Restore to trout-only management by rotenoning and restocking. Consider Mirror Lake for quality trout regulations similar to Jewel Lake.

Kelso, Little, Round lakes	/80	Mixed	Largemouth bass Rainbow trout Crappie Yellow perch Bluegill Bullhead Pumpkinseed	Trophy General	Provide trophy largemouth bass fishery for small lake anglers with catch-and-release regulations. Maintain consumptive fisheries for other species.
Granite Lake	/20	Mixed	Cutthroat trout Largemouth bass Crappie Yellow perch Bluegill Pumpkinseed	Quality	Determine if restrictive regulations will create a quality fishery for trout and trophy fishery for largemouth bass. Consider aerating to increase available habitat.
Cocollala, Round, Blanchard lakes	/960	Mixed	Rainbow trout Cutthroat trout Brook trout Brown trout Largemouth bass Crappie Yellow perch Bluegill Bullhead Channel catfish Pumpkinseed	General	Maintain trout fisheries by stocking catchable rainbow or fingerlings of other species. Evaluate stocking of channel catfish in Cocollala Lake and continue if desired fishery is established.
Shepherd and Gamble lakes	/250	Warmwater	Largemouth bass Tiger muskie Crappie Yellow perch Bluegill Bullhead Channel catfish Pumpkinseed	General	Introduce new warmwater species to enhance the existing fisheries. Evaluate the success of introductions and continue maintenance stocking of species that are not self-sustaining.

Spirit Lake and tributaries	10/1,477	Mixed	Kokanee salmon Rainbow trout Cutthroat trout Brook trout Brown trout Largemouth bass Crappie Yellow perch Bluegill Bullhead Pumpkinseed	General	Maintain a high yield kokanee salmon fishery by monitoring population abundance and supplementing with kokanee salmon fry during weak year classes. Use hatchery catchable rainbow trout and fingerlings of other species to support the trout fishery. Maintain the existing fishery for warmwater species.
Alpine Lakes (21 in the Pend Oreille River drainage)	/150	Coldwater	Cutthroat trout Rainbow trout Brook trout Golden trout Grayling	General	Continue maintenance stocking of trout fry to provide fisheries that are consistent with lake productivity and angling pressure. Use only westslope cutthroat trout for cutthroat trout stocking. Reserve some lakes for specialty fish (golden trout and grayling) only. Determine where stunted brook trout lakes could be converted to more desirable fisheries with rotenone treatments and restocking, or utilize bull trout, lake trout, or splake to reduce brook trout densities and provide a trophy component to the fishery. Utilize a more intensive volunteer creel census program to evaluate if species selection and stocking rates are producing desired fisheries.

Spokane River Drainage



3. SPOKANE RIVER DRAINAGE

A. Overview

The Spokane River drains about 3,840 square miles in northern Idaho. The major tributaries of the drainage include the St. Joe, St. Maries and Coeur d'Alene rivers which all feed into Coeur d'Alene Lake. Diversity of habitat in the drainage is great. There are many lowland lakes ranging from a few acres to 31,487-acre Coeur d'Alene Lake. Several lakes are close to the major population center and support important urban fisheries. River systems range from small mountain streams to the much larger St. Joe, Coeur d'Alene and Spokane. Mountain lakes are found in the headwaters of the South Fork Coeur d'Alene and St. Joe rivers.

Native game fish in the drainage include westslope cutthroat trout, bull trout and mountain whitefish. The St. Joe, Coeur d'Alene and St. Maries rivers contain populations of resident and lake run cutthroat trout. Historically both the St. Joe and Coeur d'Alene were regarded as among the finest trout streams in America. Both Coeur d'Alene and Hayden lakes were noted for great numbers of large fish often ranging over 5 pounds.

Introduced game species include rainbow trout, kokanee salmon, brook trout, brown trout, chinook salmon, largemouth bass, smallmouth bass, sunfish, perch, crappie, bullhead, channel catfish, tiger muskie and northern pike. Notable fisheries for large wild rainbow trout have developed in the Lower Coeur d'Alene and Spokane rivers. Largemouth bass are well established throughout the drainage's lakes. Historically the area has been noted for excellent bass fishing and more recently has seen a tremendous increase in bass fishing pressure. The Coeur d'Alene Lake system has become the focus of several major bass fishing tournaments.

Northern pike have become well established throughout the Coeur d'Alene Lake system. Densities appear to be very low and growth is excellent. Fishing pressure is contributing to low population densities, at least in the lateral lakes. Low densities and large fish are producing a fishery that more closely approximates a typical muskellunge fishery. Attempts to increase northern pike population densities through angling restrictions and enhanced recruitment could result in poorer growth and increase predation on other desirable species such as bass and adfluvial cutthroat trout.

Kokanee salmon have become the dominant species in Coeur d'Alene Lake and the single most sought after game fish in the region. In 1979, the lake provided a harvest of nearly 600,000 kokanee salmon and supported over 250,000 angler hours. Kokanee salmon numbers exceeded carrying capacity in Coeur d'Alene Lake and size of fish became unacceptably small to anglers. Fall chinook salmon were introduced in 1982 to control kokanee salmon and have created a very popular sport fishery. Chinook salmon are having an impact on kokanee salmon survival, but population levels and desired fisheries have not been achieved yet. Chinook salmon are successfully reproducing in the system and efforts will need to be made to control wild recruitment so that predator/prey balances can be maintained.

Mining, logging and forest development, highway construction and other land use impacts have taken a major toll on the drainage fisheries. Heavy metal pollution, stream channelization and sedimentation and migration blocks have had an especially severe impact on cutthroat trout. Increased fishing pressure due to normal population expansion and improved access, and the introduction of competing species have also played an important role in the decline of cutthroat trout. Cutthroat trout stocks in the lake systems currently exist at a fraction of historic levels. River populations have responded favorably to special regulations.

The Spokane system has over 800 miles of streams which are generally accessible to fish for spawning and rearing. The opportunity exists to rely heavily on extensive natural reproduction rather than expensive hatchery facilities to provide better fishing. However, since the productivity of North Idaho waters is low, fish populations are easily overharvested and restrictive regulations are often necessary to allow suitable waters to be adequately stocked with naturally produced fish of desirable size. The preference of most anglers for keeping fish to eat presently conflicts with the need to reduce harvests enough to maintain or improve size and numbers of trout. A lack of understanding of this problem results in unrealistic expectations of the fishery resource, including the belief that different species will circumvent the underlying problem with habitat.

The lakes have supported the bulk of the drainages fisheries in recent years, and other than cutthroat trout stocks, fisheries have been maintained in the face of development. Habitat degradation will continue to take its toll, however, and many lakes are beginning to show habitat problems. Declining water quality and shoreline encroachment are serious problems. Recent legislation (Clean Lakes Act, Antidegredation) will help to identify problems, but continued rapid development of north Idaho is likely to eliminate future fishery management options.

B. Objectives and Programs

1. Objective: Minimize impacts of land use and development on fishery habitat in streams.

   Program: Work with the Forest Service, other agencies, private developers and landowners and interested sportsmen's groups to make protection of fisheries habitat a primary concern in land use decisions. Incorporate evaluations of existing habitat in survey projects whenever possible. Develop a data base to demonstrate the magnitude of habitat loss and more effectively influence land use decisions. Work with the Forest Service and Department of Transportation to insure mitigation of habitat loss or restoration of habitat whenever possible.

2. Objective: Minimize impacts to existing lake fisheries due to increasing lakeshore encroachment, pollution and nutrient loading causing degradation of water quality and fish habitat.

Program: Work with county planners to make protection of fish habitat and water quality a primary concern in land use decisions.

3. Objective: Improve angler compliance with special regulations.

   Program: Develop informational programs to encourage compliance. Educate anglers on the need for regulations, the kinds and location of regulations and alternative fishing opportunities.

4. Objective: Improve fishing and boating access.

   Program: Develop or enhance fishing and boat access areas through easements, cooperative agreements or purchase. Utilize the department's Challenge Grant program to build fishing docks for shoreline anglers.

5. Objective: Curtail illegal introductions of fish. Illegal introductions of exotic fishes threaten the stability of other established fisheries.

   Program: Develop informational programs to educate anglers and the public to risks of random introductions of exotic species. Through planning, use enforcement efforts to curtail illegal introductions.

6. Objective: Improve the efficiency of hatchery catchable trout stocking programs.

   Program: Evaluate rate of return, catch rate, and angler use on catchable supported waters through a routine data collection system.

   Program: Adjust rate, timing or location of stockings to improve rate of return to the creel.

   Program: Utilize stocks of rainbow that maximize return to the creel.

   Program: Improve habitat in rivers stocked with catchable trout to enhance holding water.

   Program: Inform anglers of hatchery supported trout fishing opportunities through maps, brochures, media coverage and signing to improve return to the creel.

   Program: Discontinue catchable stocking in waters where a 30% or greater return to the creel cannot be met by the end of this planning period. Provide alternative fisheries to maintain angling opportunity.

Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
Coeur d'Alene Lake and minor tributaries (including Chatcolet, Hidden, Benewah and Round lakes)	100/31,487	Mixed	Cutthroat trout Rainbow trout Brook trout Bull trout	Quality General Preservation	Enhance adfluvial westslope cutthroat trout populations with regulations on the lake and in selected streams that restrict, but do not eliminate harvest. Continue to work with private landowners and agencies to identify and correct habitat problems on both private land, the Interstate 90 corridor, and Forest Service ownership within the Wolf Lodge Creek watershed. Maintain the fishing closure on cutthroat trout in Wolf Lodge Creek to provide maximum recruitment for the Coeur d'Alene Lake fishery. Maintain bull trout closure.
			Chinook salmon	Quality	Manage the chinook salmon population at a level that provides greater catches of 3-18 pound fish as opposed to fewer, but larger (20+ pound) fish. Maintain desired population levels with hatchery supplementation and control of wild chinook salmon recruitment.
			Kokanee salmon	General	Manage the kokanee salmon population at a level that provides a yield fishery for 10" fish and forage for chinook salmon.
			Largemouth bass Northern pike Crappie Yellow perch	General	Maintain consumptive fisheries on warmwater species to provide yield fisheries while reducing potential predation and competition impacts on

Coeur d'Alene Lake (Continued)			Bluegill Bullhead Pumpkinseed Smallmouth bass		adfluvial cutthroat trout. Maintain northern pike population densities at low levels with liberal harvest regulations to maintain rapid growth rates and the trophy pike fishery while reducing predation on largemouth bass and cutthroat trout. Monitor illegal introduction of smallmouth bass.
Hayden Lake and tributaries	20/3,756	Mixed	Rainbow trout Cutthroat trout	Quality	Maintain quality trout fishery with hatchery supplementation. Evaluate size and timing of fingerling releases to maximize survival. Evaluate stock differences between rainbow trout to determine what stock will best meet angler desires. Maintain tributary closures to maximize wild production. Evaluate growth and return to the creel of splake.
			Smallmouth bass Largemouth bass Crappie	Quality	Provide high catch rates for better than average size fish with regulations that reduce, but do not eliminate harvest. Evaluate bass and crappie population structure and fishery to determine if the regulations are functioning properly. Consider separate smallmouth bass and largemouth bass regulations to offer more harvest opportunity while still achieving quality fishery objective.
			Yellow perch Bluegill Bullhead Pumpkinseed	General	Maintain consumptive fisheries. Introduce and attempt to establish bluegill to enhance warmwater fishery.

Upper and Lower Twin Lakes	/850	Mixed	Rainbow trout Brook trout Kokanee salmon	General	Stock catchable rainbow trout to provide a consumptive trout fishery. Limit rainbow trout stocking in the Upper Lake to early spring only while water temperature is suitable. Continue to stock limited numbers of kokanee salmon fry annually to provide limited numbers of large kokanee salmon in the catch.
			Largemouth bass Black crappie Yellow perch Bluegill Bullhead Pumpkinseed	General	Establish bluegill and smallmouth bass in the Twin Lakes system to diversify the warmwater fishery.
Fernan Lake	/300	Mixed	Rainbow trout Cutthroat trout	General	Stock catchable rainbow trout to provide consumptive trout fishery. Stock small numbers of surplus broodstock when available to add trophy fish to the catch.
			Largemouth bass Northern pike Black crappie Yellow perch Sunfish Bullhead Channel catfish	General	Evaluate channel catfish stocking to determine if this program should be maintained. Introduce and attempt to establish bluegill to enhance the warmwater fishery.
Hauser Lake	/550	Mixed	Rainbow trout Cutthroat trout Brook trout Brown trout	General	Stock catchable rainbow trout to provide consumptive trout fishery. Evaluate survival and return to the creel of fingerling releases of trout.
			Largemouth bass Tiger muskie Black crappie Yellow perch Bluegill Bullhead Channel catfish Pumpkinseed	General	Enhance diversity of the warmwater fishery by establishing bluegill, channel catfish, and tiger muskie. Maintain channel catfish and tiger muskie with stocking and evaluate the success of this program.

Lateral Lakes (Anderson, Thompson, Blue, Swan, Medicine, Cave, Black, Bull Run, and Rose lakes and slackwater portions of the Coeur d'Alene River)	/2,960	Warmwater	Largemouth bass Northern pike Yellow perch Black crappie Bluegill Bullhead Pumpkinseed	Quality General	Manage the majority of lakes for year-round consumptive fisheries on warmwater species. Utilize restrictive regulations on a few lakes to provide quality largemouth bass fisheries. Evaluate effectiveness of bass regulations at enhancing bass size. Maintain northern pike population densities at low levels to maintain rapid growth rates and a trophy pike fishery while reducing predation on bass and cutthroat trout. Introduce and attempt to establish bluegill to enhance the warmwater fishery.
Coeur d'Alene River and tributaries above and including Yellow Dog Creek and North Fork Coeur d'Alene River and tributaries above and including Laverne Creek	200/	Coldwater	Cutthroat trout	Quality	Maintain catch-and-release regulations to maximize catch rates and fish size and provide fish for harvest outside of catch-and-release waters.
Coeur d'Alene River below Yellow Dog Creek, North Fork Coeur d'Alene River below Laverne Creek and South Fork Coeur d' Alene River	105/	Coldwater	Rainbow trout	Put-and-take trout	Provide harvest fishery for rainbow trout by stocking catchable rainbow trout in specific areas of the river that are advertised. Utilize fall spawning stocks of rainbow trout to reduce risk of hybridization with cutthroat trout.
			Brook trout Mountain whitefish Kokanee salmon Chinook salmon	General	Maintain existing harvest fisheries on brook trout and mountain whitefish. Allow harvest on kokanee salmon and chinook salmon in the lower river.

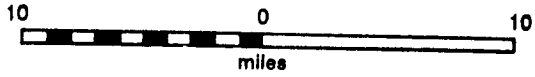
FMPDRAIN

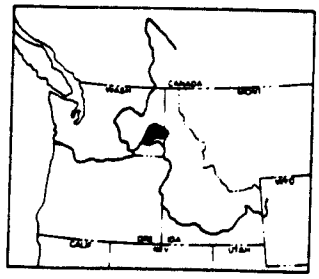
St. Joe River (continued)			Bull trout	Preservation	Maintain closure on bull trout harvest to rebuild population.
Tributaries of the St. Joe River below Prospector Creek, North Fork of the St. Joe and Marble Creek	300+/	Coldwater	Cutthroat trout Brook trout	Wild trout	Allow limited harvest fishery on resident cutthroat trout while protecting migratory stocks with special regulations. Allow continued liberal harvest of brook trout.
Slackwater area of St. Joe River	14/	Mixed	Largemouth bass Tiger muskie Black crappie Yellow perch Bullhead Channel catfish	General	Evaluate the success of tiger muskie and channel catfish introductions. Consider quality largemouth bass regulations to enhance bass fishery. Conduct a comprehensive evaluation of the impacts of smallmouth bass on the existing species complex and fisheries in the Spokane drainage system prior to considering their introduction.
			Cutthroat trout	Quality	Allow limited harvest fishery.
St. Maries River above slackwater	150/	Coldwater	Rainbow trout	Put and take trout	Provide harvest fishery for rainbow trout by stocking catchable rainbow trout in specific areas of the river that are advertised. Utilize fall spawning stocks of rainbow trout to reduce risk of hybridization with cutthroat trout.
			Brook trout Mountain whitefish	General	Maintain existing harvest fisheries for brook trout and mountain whitefish.
			Cutthroat trout	Quality	Utilize restrictive regulations to allow westslope cutthroat trout populations to rebuild while providing limited harvest.
			Bull trout	Preservation	Maintain closure on bull trout harvest to rebuild population.

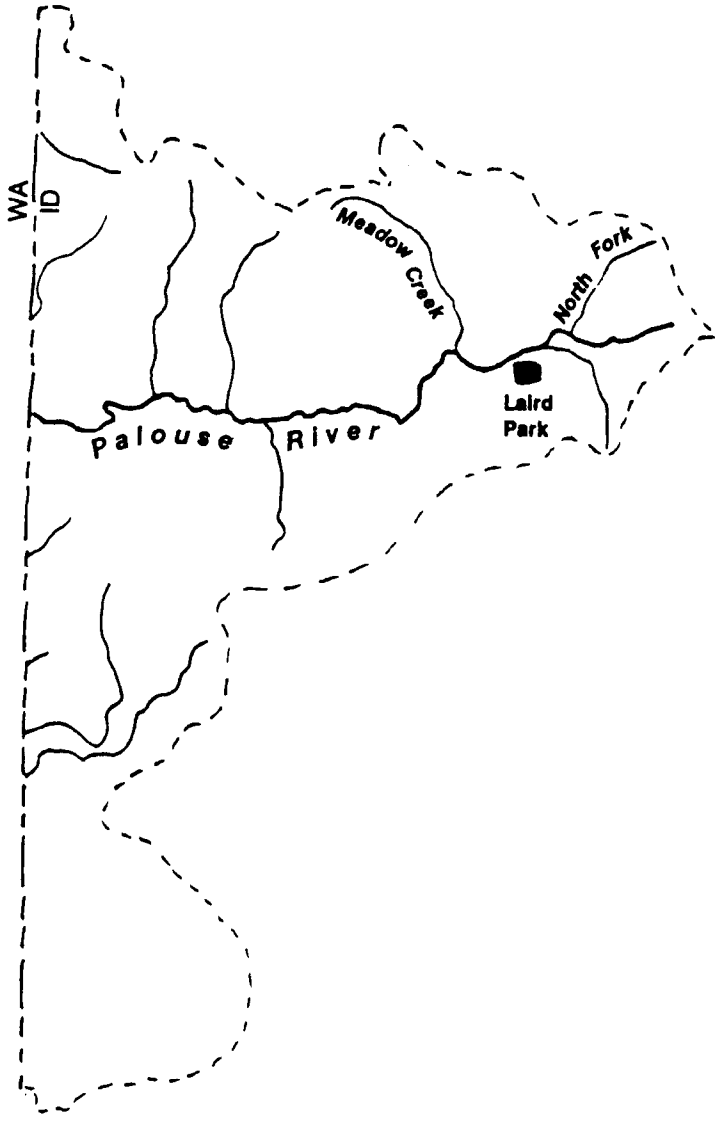
Tributaries of the St. Maries River	200+/	Coldwater	Cutthroat trout Brook trout	Wild trout	Allow limited harvest fishery on resident cutthroat trout while protecting migratory stocks with special regulations. Allow continued liberal harvest of brook trout.
Slackwater area of the St. Maries River	3/	Mixed	Largemouth bass Tiger muskie Black crappie Yellow perch Bullhead Channel catfish	General	Evaluate the success of tiger muskie and channel catfish introductions. Consider quality largemouth bass regulations to enhance bass fishery. Conduct a comprehensive evaluation of the impacts of smallmouth bass on the existing species complex and fisheries in the Spokane drainage system prior to considering their introduction.
			Cutthroat trout	Quality	Allow limited harvest fishery.
Spokane River (Coeur d'Alene Lake to Post Falls Dam)	15/	Mixed	Cutthroat trout	Quality	Utilize restrictive regulations to provide limited consumptive fisheries for westslope cutthroat trout while allowing the population to rebuild. Evaluate the effectiveness of the existing regulations at rebuilding healthy cutthroat trout populations and providing desired angling opportunities during this planning period.
			Largemouth bass Black crappie Yellow perch Bluegill Bullhead Pumpkinseed	General	Zone river to provide harvest of warmwater fish where cutthroat trout enhancement goals are not jeopardized. Restrict harvest of warmwater species in areas of the river and during time periods when cutthroat trout are particularly vulnerable to overharvest.

Spokane River (Post Falls Dam downstream to stateline)	2	Coldwater	Rainbow trout Brown trout	Wild trout	Determine what opportunities exist to enhance both size and catch rates for rainbow trout through regulation reform and habitat enhancement. Evaluate population dynamics and limitations. Evaluate brown trout population status and potential effects on native rainbow populations before any additional enhancement effort is made.
Alpine Lakes (12 in the Spokane River drainage)	/140	Coldwater	Rainbow trout Cutthroat trout Brook trout Golden trout Grayling	General	Continue maintenance stocking of trout fry to provide fisheries that are consistent with lake productivity. Use only westslope cutthroat trout for cutthroat trout lakes. Reserve some lakes for specialty fish (grayling and golden trout) only. Determine where stunted brook trout lakes could be converted to more desirable species, or utilize bull trout, lake trout or splake to reduce brook trout densities and provide a trophy component to the fishery. Utilize a more intensive volunteer creel census program to evaluate if species selection and stocking rates are producing desired fisheries.

Palouse River Drainage





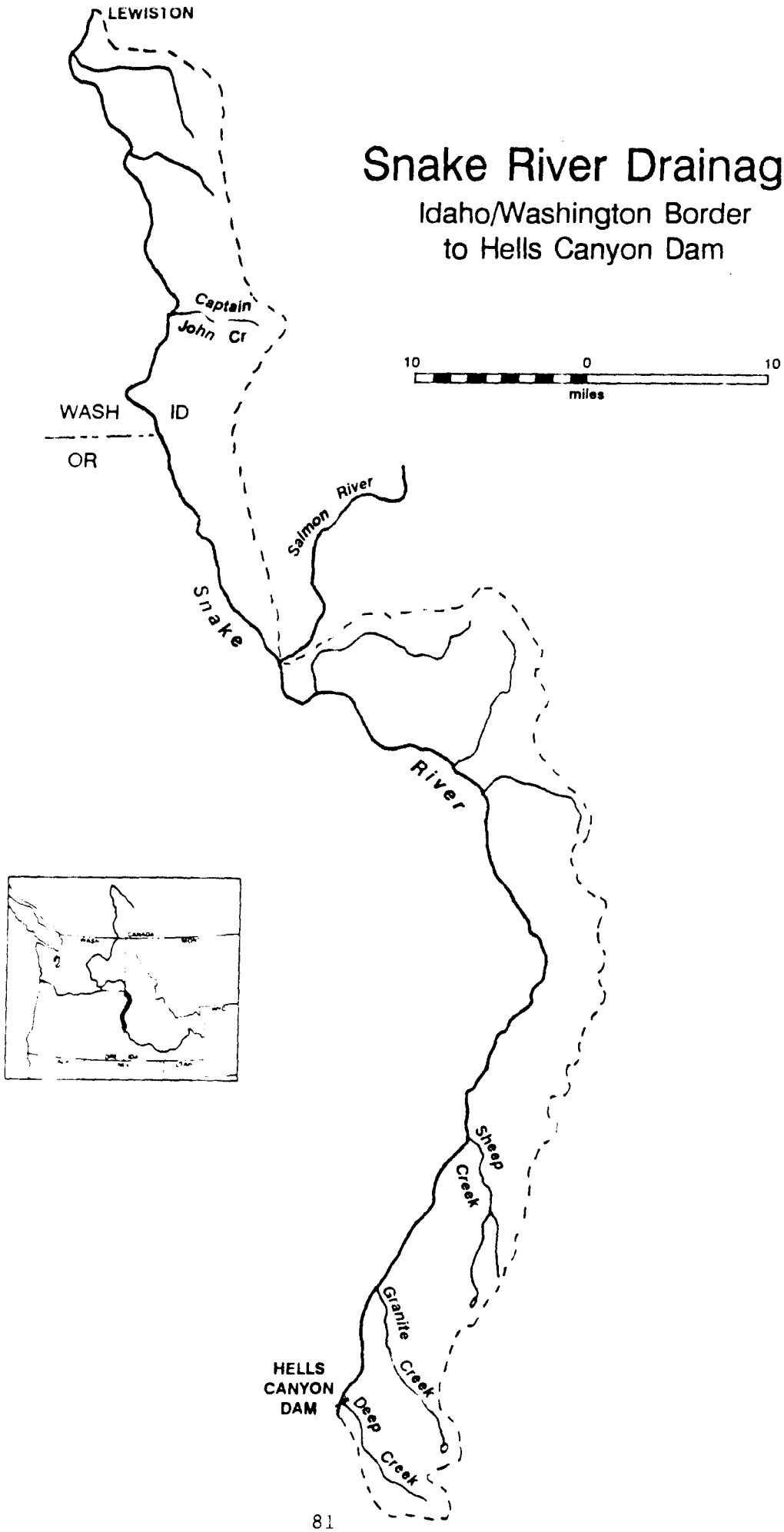


A. Overview

The Palouse River drains from a timbered, mountainous area with elevations ranging to 5,000 feet msl through rolling hills developed as agricultural land at an elevation of 2,500 feet msl near the Idaho-Washington border. The upper reaches of the Palouse drainage have been extensively roaded, logged and dredge mined, while the lower areas have been intensively farmed. The only remaining trout habitat in the drainage is located near the headwaters. Substantial improvements in fish populations in the drainage will necessitate rebuilding riparian habitat that will increase flow and reduce water temperature during the summer.

DRAINAGE: Palouse River

Water	Miles/acres	Fishery			Management direction
		Type	Species present	Management	
Palouse River from Washington border to headwaters, including tributaries	70/	Mixed	Rainbow trout Brown trout Bull trout Brook trout Largemouth bass Smallmouth bass	Put-and-take trout	Stock with catchable rainbow where returns to the creel can be maximized. Test an appropriate stock of brown trout for establishing a fishery and a self-sustaining population. Assess need for further warmwater fish enhancement in the drainage. Evaluate the success of smallmouth bass introductions, continue stocking if necessary.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Snake River Drainage
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SNAKE RIVER AND MINOR TRIBUTARIES
IDAHO/WASHINGTON BORDER TO HELLS CANYON DAM

A. Overview

The portion of the Snake River from the Idaho-Washington border at Lewiston upstream to Hells Canyon Dam is 108 miles in length. The section from the Washington-Oregon border to Hells Canyon Dam flows through the deepest gorge in the United States in the Hells Canyon National Recreation Area. Forty miles of the river from the Washington-Oregon border to Big Canyon Creek is designated a "scenic" river under the Wild and Scenic Rivers System, and the remaining upper 32 miles is classified as "wild." Both the Idaho and Oregon sides of the river in the upper portions of the recreation area are bounded by wilderness. Legislation passed by Congress in 1989 prohibits the Federal Energy Regulatory Commission from issuing any licenses to develop new main stem hydropower projects in the Snake River. Congressional intent also includes federally authorized projects.

River flows are controlled by Hells Canyon Dam and upstream storage. Daily water levels can fluctuate vertically 3-4' below Hells Canyon Dam. Quality of water passing through the canyon has improved substantially since the creation of the upriver impoundments. The reservoirs act as settling basins that enhance water quality. Recreational use of the river from Hells Canyon Dam to Lewiston is very high.

The lower portion of the river near Lewiston is impounded by Lower Granite Dam which lies 40 miles below Lewiston. The reservoir extends above the towns of Lewiston and Clarkston, making the area an inland seaport.

The Snake River from Lewiston upstream is the migration corridor for adult and juvenile anadromous fish moving to and from the Salmon, Imnaha, and Grande Ronde subbasins. Spring, summer, and fall chinook salmon, sockeye, and steelhead pass through this reach of the river. Fall chinook also spawn in the main stem of the Snake River. Most of the minor Snake River tributaries which are accessible to anadromous fish, such as Granite and Captain Johns creeks, are suitable for steelhead spawning and rearing.

The main stem Snake River will continue to be managed for exploitation of hatchery steelhead but consumptive harvest of naturally produced steelhead or chinook is not expected during the next five years. For further details, such as steelhead and chinook hatchery capacities and programs, and specific anadromous program objectives, refer to the IDFG 1991-95 Anadromous Plan, which is published under separate cover and is available from the Department.

Major resident game fish species found in the river include smallmouth bass, channel and flathead catfish, black crappie, white sturgeon and rainbow trout. The rainbow fishery is primarily supported by maintenance

stocking. The present sturgeon fishery is nonconsumptive because of depressed populations. Sturgeon ranging to 9' have been caught in recent years.

The small tributaries in this reach of the Snake River drain from high forested areas through break lands to arid bottoms before entering the river. Many streams have a very steep gradient and are accessible to steelhead only in the lower reaches. The upper reaches of some of the larger streams, such as Granite and Sheep creeks, support populations of resident rainbow, cutthroat and bull trout.

B. Objectives and Programs

1. Objective: Improve juvenile fish migration survival to lower Granite Dam.

   Program: Establish long-term total dissolved gas monitoring stations below Hells Canyon Dam. Collect data on anadromous and resident fish populations, including mortality and gas bubble incidence during periods of high gas levels and correlate with anadromous adult returns. Coordinate all activities with Idaho Power Company. Develop and work to obtain flow regimes in the Snake River that maximize survival of migrating juvenile and adult anadromous fish. Advocate construction of new storage, such as the proposed Galloway Dam project, to provide water to optimize survival of juvenile anadromous fish. Continue to develop smolt timing and relative abundance indices to aid control of water budget flow and water storage management.

2. Objective: Enhance natural production of fall chinook below Hells Canyon Dam.

   Program: Document impacts of fluctuating water levels on fall chinook survival, spawning success, and ecology. Work with Idaho Power Company and federal regulatory agencies to minimize flow fluctuations from Hells Canyon Dam to enhance fall chinook survival. Evaluate genetic compatibility of Lyons Ferry Hatchery broodstock for use above Lower Granite Dam. Protect naturally spawning populations of Snake River fall chinook by not outplanting hatchery fall chinook into the main stem Snake River above Lower Granite Dam. Do not outplant any unmarked hatchery anadromous fall chinook in the Snake River Basin above Lower Granite Dam.

3. Objective: Enhance game fish production below Hells Canyon Dam.

   Program: Document impacts of fluctuating water levels on game fish with emphasis on smallmouth bass and channel catfish survival, spawning success, and ecology. Work with Idaho Power Company and federal regulatory agencies to minimize flow fluctuations from Hells Canyon Dam to enhance resident game fish survival.

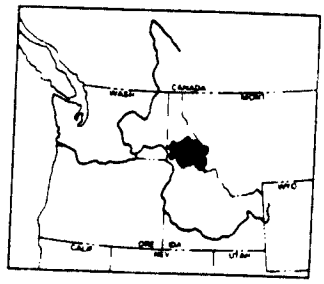
Snake River and Minor Tributaries - Idaho/Washington Border to Hells Canyon Dam

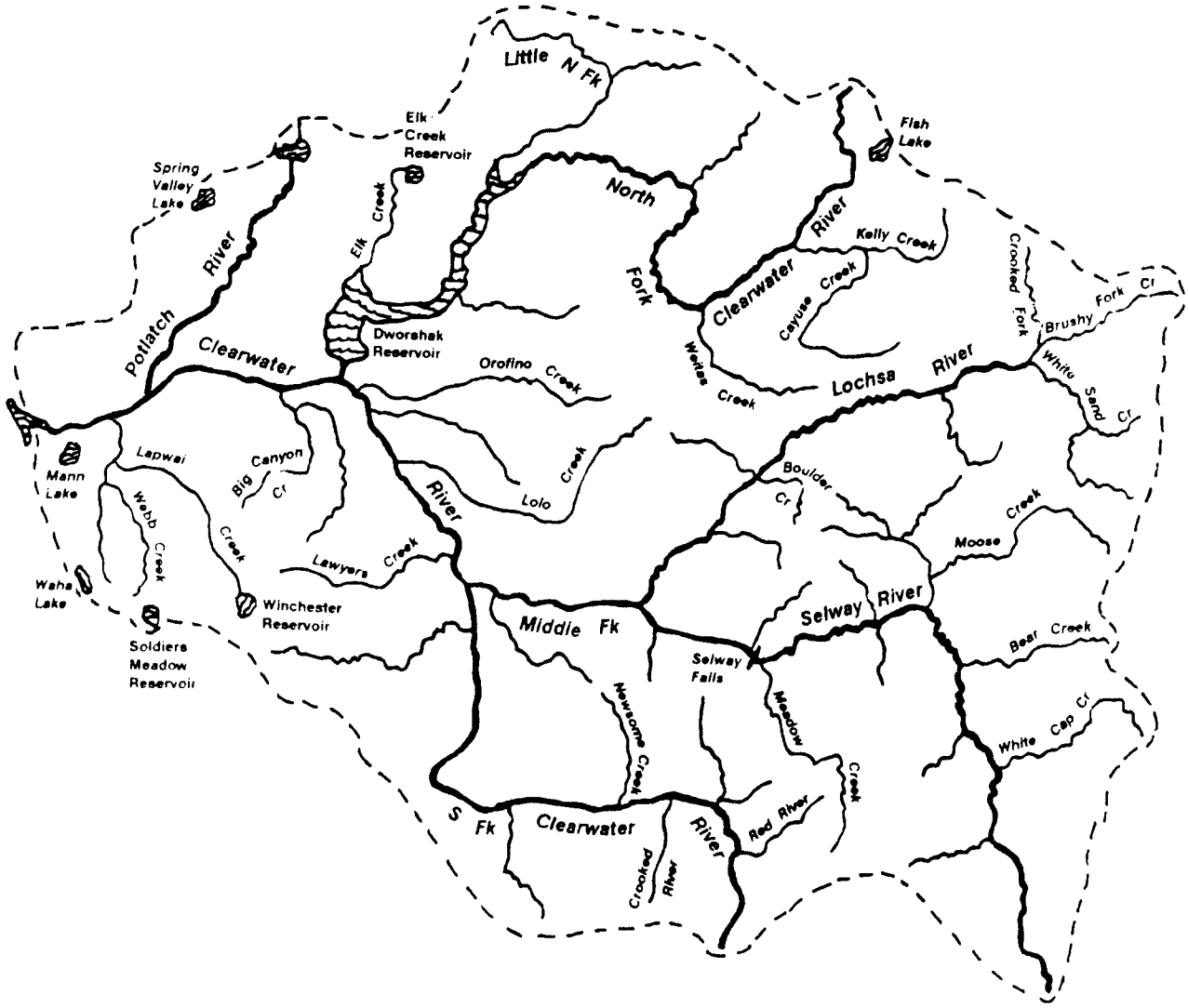
Water	Miles/acres	Fishery Type	Fishery Species present	Management	Management direction
Snake River from the Idaho/Washington border to Hells Canyon Dam, including minor Idaho tributaries	183/	Mixed/anadromous	Steelhead Chinook salmon	Anadromous	Provide harvest of hatchery-origin spring chinook salmon adults in the main stem when adequate escapement is predicted. Minimize impacts to naturally produced spring chinook salmon. Manage minor tributaries for natural production of steelhead. Coordinate fall chinook salmon management with lower Snake River managers.
			Smallmouth bass Black crappie White crappie Flathead catfish Channel catfish Whitefish Rainbow trout	General	Coordinate all management and regulations with adjoining states. Maintain and enhance warmwater fishery. Assess smallmouth bass population for possible regulation change to increase mean length of fish. Continue evaluation of channel catfish, including supplementation. Release an appropriate stock of hatchery rainbow fingerlings in Hells Canyon to provide 14-19" rainbow with catch rates of 1.0 fish/hr.
			Sturgeon	Preservation	Maintain fishery as nonconsumptive. Evaluate need for further fishing restrictions to reduce hooking mortality. Assess the need to restrict fishing by space &/or time to reduce conflicts during spawning.

FMPDRAIN

Alpine Lakes	32	Coldwater	Rainbow trout Cutthroat trout Brook trout Bull trout Grayling Golden trout	General	Provide 1.0 fish/hr catch rates. Develop management strategies for each lake. Stock only those lakes that do not support natural reproduction. Improve fish population structure in stunted brook trout lakes through predator introduction (brown trout, bull trout, etc.) or chemical rehabilitation. Evaluate public desire for trophy management for selected lakes.

Clearwater River Drainage





A. Overview

The Clearwater River originates in the Bitterroot mountain range on the Idaho-Montana border and flows westerly across the state to Lewiston where it joins the Snake River. The river drains approximately 9,640 square miles and ranges in elevation from nearly 9,000' msl to 725' msl. There are three major tributaries to the Clearwater River including the North Fork, the Middle Fork which originates at the confluence of the Lochsa and Selway rivers, and the South Fork. Mean annual discharge for the drainage between 1960 and 1980 measured 15,000 cfs with a range of 500 to 177,000 cfs.

The eastern half of the drainage is mainly national forest land, while the western half is largely private land including corporate timber holdings. There is also a scattering of state land in this area. The Nez Perce Indian Reservation makes up 13% of the drainage from approximately the South Fork Clearwater River to near Lewiston. Sixty-three miles of the main Clearwater and 11 miles of the South Fork are included in the Reservation. The entire drainage is part of the native American ceded lands.

Approximately 24 percent of the drainage in the Selway and portions of the Lochsa and South Fork Clearwater drainages are classified wilderness. The Middle Fork Clearwater, including the Lochsa and Selway rivers, is part of the National Wild and Scenic Rivers System. There is some remaining roadless area left in the Clearwater drainage that is not wilderness. Much of this unaltered area is found in the upper North Fork Clearwater River near Kelly and Weitas creeks and in the lower Selway and upper Lochsa drainages.

Fishery habitat ranges from pristine streams and rivers found in roadless areas and wilderness to heavily-silted and dredged waters found in logged, mined and farmed areas. Road construction, agriculture and silviculture are major sources of siltation. The South Fork Clearwater drainage has been heavily impacted by dredge and placer mining. Overgrazing has also contributed to loss of important riparian habitat. Fishery potential has been severely reduced in much of the impacted areas.

One of the most productive salmon and steelhead streams in the state was impounded and eliminated from natural production of anadromous fish by the construction of Dworshak Dam. Since construction of the dam, the lower end of the North Fork of the Clearwater has been exclusively devoted to artificial production of anadromous fish with both Dworshak National Fish Hatchery and Clearwater Fish Hatchery located near the mouth of the North Fork. In addition, Kooskia National Fish Hatchery, located at the mouth of Clear Creek, on the Middle Fork of the Clearwater, raises spring chinook and steelhead in conjunction with Dworshak. The Clearwater Fish Hatchery, due to be completed by 1995, will rear steelhead and chinook. This program includes three satellite ponds located at Crooked River, Red River, and at Powell on the Lochsa

which rear chinook. The Nez Perce Tribe is also developing plans for a hatchery production program which will utilize satellite ponds for rearing.

Anadromous management action in the Clearwater will emphasize maintaining existing natural spawning populations of chinook and steelhead and preserving good habitat quality. The main stems of the Clearwater, South Fork, North Fork, and lower Middle Fork will continue to be managed for exploitation of hatchery steelhead. Development of strategies to provide fishing opportunity on surplus hatchery chinook will also be emphasized. For further details, such as steelhead and chinook hatchery capacities, adult escapement goals for hatchery and natural production, and specific anadromous program objectives, refer to the IDFG 1991-95 Anadromous Plan which is published under separate cover and is available from the Department.

The drainage supports a myriad of fish and fishing opportunity. Major trout species include resident rainbow and cutthroat trout, bull trout, whitefish, kokanee, chinook salmon and steelhead. There are approximately 400 mountain lakes in the area which support a mixture of hatchery-supported and naturally reproducing populations of trout. Kokanee are the most abundant species found in 16,970-acre Dworshak Reservoir, the largest impoundment in the drainage. Smallmouth bass are found in Dworshak Reservoir and the main Clearwater River. The state record smallmouth bass was taken from Dworshak in 1982. It weighed 7 lb, 5.6 oz.

Fishing opportunity ranges from quality fisheries with gear and harvest restrictions on cutthroat trout to high-yield, consumptive fisheries for kokanee. The area also provides extensive angling opportunity for steelhead trout. Fishing for chinook salmon is anticipated as run sizes increase. The first salmon season since 1978 was held in the Clearwater in 1990.

There are ten lowland lakes and ponds in the area that are managed mostly for put-and-take fisheries utilizing catchable rainbow trout. Some of the waters support put-and-grow trout and kokanee fisheries resulting from fingerling releases. Warmwater species including largemouth bass, smallmouth bass, crappie, bluegill and bullheads are important fisheries.

B. Objectives and Programs

1. Objective: Maintain and improve fish habitat and water quality within the Clearwater drainage.

   Program: Continue working with land management agencies (Forest Service, Bureau of Land Management, State Department of Lands) and private land owners to inform, educate and assist with land management planning for protecting fish habitat and water quality. Emphasize the need for riparian habitat protection and enhancement. Encourage containment of sediment production areas, including old mining sites. Oppose land use activities that degrade quality of natural production areas.

2. Objective: Maintain a diversity of fishing opportunity in the Clearwater River drainage to meet angler demand.

   Program: Within the biological constraints of the fish resource, provide an array of lake and stream fishing opportunities including:

   a. High yield kokanee and crappie fisheries

   b. Yield fisheries on catchable and fingerling released trout

   c. Fishing (catch-and-release) for trophy-sized rainbow, cutthroat and steelhead trout

   d. Yield and trophy fisheries for smallmouth and largemouth bass

   e. Yield fisheries for brook, cutthroat and rainbow trout in mountain lakes

   f. Opportunities to harvest steelhead trout and chinook salmon when run size permits

3. Objective: Develop strategies including a funding source to construct a new reservoir in the Clearwater drainage to be managed as a trophy trout fishery.

   Program: One alternative is to work with Potlatch Corporation on location, design and cost sharing a dam and reservoir. Possible sites include the Deer Creek drainage near Headquarters.

4. Objective: Assess the need to protect wild/natural populations of juvenile steelhead in nursery streams. These fish often provide summer fishing opportunity in many streams.

   Program: Evaluate harvest rates of wild/natural juvenile steelhead in selected Clearwater tributaries to determine if protection is warranted. Possible protection strategies could include a limit on numbers and size (i.e., 3 trout; none under 8 inches.)

5. Objective: Increase fishing access.

   Program: As opportunities allow, acquire additional fishing access sites.

6. Objective: Maintain existing natural spawning populations of chinook and steelhead.

   Program: Work with the Nez Perce Tribe to develop hatchery fish release programs that preserve and protect genetic resources of naturally spawning chinook and steelhead populations. Mark hatchery smolts released into tributaries. Modify weir management to sustain natural populations.

7. Objective: Support anadromous objectives with Dworshak Reservoir flows.

   Program: Work with Corps of Engineers to provide flows from Dworshak Reservoir to maximize survival of migrating anadromous fish and evaluate effects on resident fisheries and ecology. Continue reservoir flow modification to support steelhead fishing, when possible.

DRAINAGE: Clearwater River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Management	Management direction
Winchester Lake	/85	Mixed	Rainbow trout Rbt x ctt hybrids Largemouth bass Bullheads	Put-and-take trout	Stock catchable and fingerling rainbow to maintain catch rate of 0.5 fish/hr. Support implementation of the enhancement plan for improving water quality and secure funding. Electric motors only water. Evaluate status of largemouth bass population.
Spring Valley Reservoir	/53	Mixed	Rainbow trout Largemouth bass Bluegill	Put-and-take trout	Stock catchable and fingerling rainbow to maintain catch rate of 0.5 fish/hr. Electric motors only water. Evaluate success of bluegill introductions. Assess affect of tiger muskie introductions on largemouth bass.
Mann Lake	/145	Mixed	Rainbow trout Largemouth bass Black crappie Bluegill Channel catfish	Put-and-take trout	Stock catchable and fingerling rainbow to maintain catch rate of 0.5 fish/hr. Electric motors only water. Evaluate success of bluegill introductions. Assess introduction of channel catfish.
Waha Lake	/94	Mixed	Kokanee salmon Smallmouth bass Rainbow trout	General	Discontinue rainbow stocking because of poor growth and condition. Assess the potential for developing a kokanee salmon fishery. Evaluate the success of Mysis shrimp introductions. Assess potential for a kokanee salmon predator. Develop plan for enhancing water quality. Evaluate status of smallmouth bass population.

FMPDRAIN

Soldiers Meadow Reservoir	/101	Coldwater	Rainbow trout Kokanee salmon	Put-and-take trout	Stock rainbow catchables and/or fingerlings as needed to maintain catch rate of 0.5 fish/hr. Evaluate kokanee salmon introduction.
Moose Creek Reservoir	/50	Mixed	Largemouth bass Rainbow trout Bluegill Black crappie Pumpkinseed	Put-and-take trout Trophy	Stock catchable rainbow to maintain catch rate of 0.5 fish/hr. Monitor largemouth bass population as a response to trophy regulation (2 over 18 in.). Electric motors only water. Assess the need for some vegetation control.
Elk Creek Reservoir	/81	Mixed	Rainbow trout Brook trout Smallmouth bass Largemouth bass Lahontan cutthroat trout	Put-and-take trout	Stock catchable rainbow to maintain catch rate of 0.5 fish/hr. Monitor success of introduced smallmouth & large-mouth bass populations. Evaluate the potential for other predator introductions. Evaluate introduction of Lahontan cutthroat.
Campbell's Pond	/7	Coldwater	Rainbow trout	Put-and-take trout	Stock catchable rainbow to maintain catch rate of 0.5 fish/hr. Evaluate fingerling releases.
Robinson's Pond	/2	Mixed	Rainbow trout Bullhead Pumpkinseed	Put-and-take trout	Stock catchable rainbow to maintain catch rate of 0.5 fish/hr. Consider rotenone treatment for removing stunted bullheads and nongame species.
Lewiston Levee Ponds	/12	Coldwater	Rainbow trout	Put-and-take trout	Stock catchable rainbow as needed.
Fish Lake (Cedars)	/117	Coldwater	Cutthroat trout Bull trout	Wild trout	Season opens 8/1 to protect outlet spawning cutthroat. Maintain as no motors water. Maintain or improve spawning habitat in the outlet stream.

FMPDRAIN

Steep Lake	/8	Coldwater	Golden trout	Wild trout	Season opens 8/1 to protect spawning golden trout. Assess potential for golden trout broodstock source.
Other alpine lakes	/4300	Coldwater	Cutthroat trout Rainbow trout Brook trout Bull trout Golden trout Grayling	General	Put-and-grow with salmonid fry to provide variety of species in backcountry areas. Develop management strategies for each lake to maintain catch rates of 0.5-1.0 fish/hr. Reduce or cease stocking of lakes with natural reproduction. Emphasize use of Westslope cutthroat in lakes that drain into the Selway and upper North Fork of the Clearwater River. Reintroduce grayling into acceptable waters.
White Sands Pond	/3	Coldwater	Rainbow trout	Put-and-take trout	Stock catchable rainbow to provide additional fishing opportunity in the Powell area.
Clearwater River from mouth to South Fork Clearwater River	75/	Mixed/anadromous	Steelhead Chinook salmon	Anadromous	Maintain diversity of angling opportunity with catch-and-release regulations and no motors waters, and maximize returns of hatchery fish to angler. Develop harvest opportunities to utilize surplus hatchery chinook salmon adults which minimize impacts to naturally produced fish.
			Rainbow trout Cutthroat trout Bull trout Whitefish Kokanee salmon Smallmouth bass	General	Evaluate trout strains suited for large river habitat. Allow salvage fishery for kokanee salmon lost through Dworshak Dam when abundance warrants. Maintain warmwater fishery as conditions will allow.

FMPDRAIN

Potlatch River and tributaries	55/	Mixed/anadromous	Steelhead Rainbow trout Brook trout Smallmouth bass	Anadromous General	Stock catchable rainbow where returns are adequate. Maintain warmwater fishery.
Lolo Creek and tributaries	86/	Coldwater/anadromous	Steelhead Chinook salmon Rainbow trout Cutthroat trout Whitefish Brook trout	Anadromous General	Stock steelhead fry, smolts and surplus Dworshak adults into Lolo Creek to enhance populations. Stock chinook salmon fry or smolts into Lolo Creek. Maintain or improve habitat quality.
Other mainstem Clearwater River tributaries	283/	Coldwater/anadromous	Steelhead Rainbow trout Whitefish Brook trout	Anadromous Put-and-take trout	Maintain or improve present habitat. Stock catchable rainbow in some tributaries to maintain catch rate of 0.5 fish/hr and adequate returns to the creel.
Middle Fork Clearwater River (from South Fork to Selway-Lochsa confluence)	23/	Coldwater/anadromous	Steelhead Chinook salmon Rainbow trout Cutthroat trout Bull trout Whitefish	Anadromous General	Continue harvest opportunity for hatchery steelhead up to mouth of Clear Creek. Develop strategies for harvesting surplus hatchery chinook salmon adults which minimize impacts to naturally produced chinook.
Clear Creek and tributaries	65/	Coldwater/anadromous	Chinook salmon Steelhead Rainbow trout Bull trout Cutthroat trout	Anadromous General	Develop guidelines to start releasing chinook salmon and steelhead adults above the Clear Creek weir for natural production. Maintain or improve habitat. Re-establish riparian vegetation to reduce water temperatures.
Other Middle Fork tributaries	32/	Coldwater/anadromous	Steelhead Rainbow trout Cutthroat trout Brook trout	Anadromous General	Maintain or improve present habitat for providing wild production at optimum potential.

DRAINAGE: North Fork Clearwater River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
North Fork from mouth to Dworshak Dam	1.4/	Coldwater/anadromous	Steelhead Chinook salmon	Anadromous	Maximize returns of hatchery steelhead to the angler. Allow harvest of chinook salmon when run size permits. Develop strategies for harvesting surplus hatchery chinook salmon adults.
			Rainbow trout Whitefish Kokanee salmon	General	Allow salvage fishery for kokanee salmon that are lost through the dam when abundance warrants.
Dworshak Reservoir (Dam to Grandad Bridge)	41/15440	Mixed	Kokanee salmon Rainbow trout Cutthroat trout Bull trout	General	Maintain a kokanee salmon population that will provide a 12+-inch fish at a catch rate of 0.7 fish/hr. Evaluate trout stains suited for the reservoir. Consider different trout or salmon species for providing a trophy fishery. Stock fingerling rainbow to maintain catch rates of 0.5 fish/hr. Assess return to the creel.
			Smallmouth bass Largemouth bass Black crappie	General	Enhance smallmouth bass fishery through regulation or enhanced forage production. Add shoreline structure to reservoir.
Dworshak Reservoir (continued) (Grandad Bridge to end of slack water)	12/1650	Mixed	Cutthroat trout Rainbow trout Bull trout	Wild trout	Season closes 9/10 to protect cutthroat trout that move down from upper tributaries in the fall. Trout limit restricted to protect cutthroat population. Enhance smallmouth bass fishery through regulation. Assess impacts of extending smallmouth bass fishery beyond 9/10.
			Kokanee salmon Whitefish Smallmouth bass	General	

FMPDRAIN

Little North Fork Clearwater, and tributaries from mouth to Foehl Creek	61/	Coldwater	Bull trout Cutthroat trout Rainbow trout Whitefish	Wild trout	Close season 9/10 to protect cutthroat trout. Trout limit is restricted. Evaluate the need to further restrict fish harvest for protection of cutthroat trout. Emphasize the need for more regulation enforcement. Maintain or improve present habitat.
			Kokanee salmon	Preservation	Maintain closure to protect spawning kokanee salmon.
Little North Fork Clearwater River and tributaries above and including Foehl Creek	56/	Coldwater	Rainbow trout Cutthroat trout Bull trout Whitefish	Wild trout	Maintain limited consumptive fishery supported by wild trout. Evaluate impacts of land management activities on habitat and fish populations. Strive to protect critical habitat and maintain low access fishing opportunity.
Alpine Lakes (15 in Little North Fork Clearwater River drainage)	/150	Coldwater	Cutthroat trout Rainbow trout Brook trout Golden trout Grayling	General	Continue maintenance stocking of trout fry to provide fisheries that are consistent with lake productivity and angling pressure. Emphasize use of westslope cutthroat trout for stocking most lakes. Reserve some lakes for specialty fish (golden trout and grayling) only. Determine where stunted brook trout lakes could be converted to more desirable fisheries with rotenone treatments and restocking, or utilize bull trout, lake trout, or splake to reduce brook trout densities and provide a trophy component to the fishery. Utilize a more intensive volunteer creel census program to evaluate if species selection and stocking rates are producing desired fisheries.

North Fork Clearwater from slackwater in Dworshak Reservoir upstream, including all tributaries except Kelly Creek	387/	Coldwater	Cutthroat trout Rainbow trout Bull trout Whitefish Brook trout	Wild trout	Harvest season closes 9/10 to protect cutthroat trout. Trout limit restricted. Winter whitefish fishery. Catch-and-release fishing from 9/11 to 10/10 to provide additional angling opportunity. Assess population status of bull trout in upper North Fork tributaries. Maintain bull trout habitat at 100% of potential.
			Kokanee salmon	Preservation	Maintain closure to protect spawning kokanee salmon.
Kelly Creek and tributaries	119/	Coldwater	Cutthroat trout Rainbow trout Bull trout Whitefish	Quality	Quality wild trout water managed as catch-and-release. Support roadless status for remaining watershed to maintain or improve present habitat.
			Kokanee salmon	Preservation	Maintain closure to protect spawning kokanee salmon.

DRAINAGE. South Fork Clearwater River

Water	Miles/acres	Fishery			Management direction
		Type	Species present	Management	
South Fork Fork Clearwater	65/	Mixed/anadromous	Steelhead Chinook salmon	Anadromous	Primary emphasis on hatchery steelhead spring fishery and summer fishery on residual steelhead smolts. Winter fishery to harvest underexploited whitefish population.
			Smallmouth bass Whitefish Rainbow trout Cutthroat trout Bull trout	General	
Ten Mile Creek and tributaries	20/	Coldwater/anadromous	Steelhead Chinook salmon	Anadromous	Maintain or improve present habitat. Manage for wild trout in unroaded areas. Restrict mining between the high water marks of Ten Mile Creek.
			Rainbow trout Cutthroat trout Bull trout Whitefish	Wild trout	
Newsome Creek and tributaries, Crooked River and tributaries, and Red River and tributaries	164/	Coldwater/anadromous	Steelhead Chinook salmon	Anadromous	Continue to release hatchery steelhead smolts in South Fork tributaries. Continue to release spring chinook salmon from rearing ponds. Maintain or improve present habitat.
			Bull trout Brook trout Cutthroat trout Whitefish	General	
Other South Fork Clearwater tributaries	114/	Coldwater/anadromous	Steelhead Chinook	Anadromous	Release hatchery chinook salmon and steelhead into selected tributaries. Maintain or improve present habitat.
			Cutthroat trout Bull trout Rainbow trout Brook trout Whitefish	Wild trout	

FMPDRAIN

DRAINAGE: Lochsa River

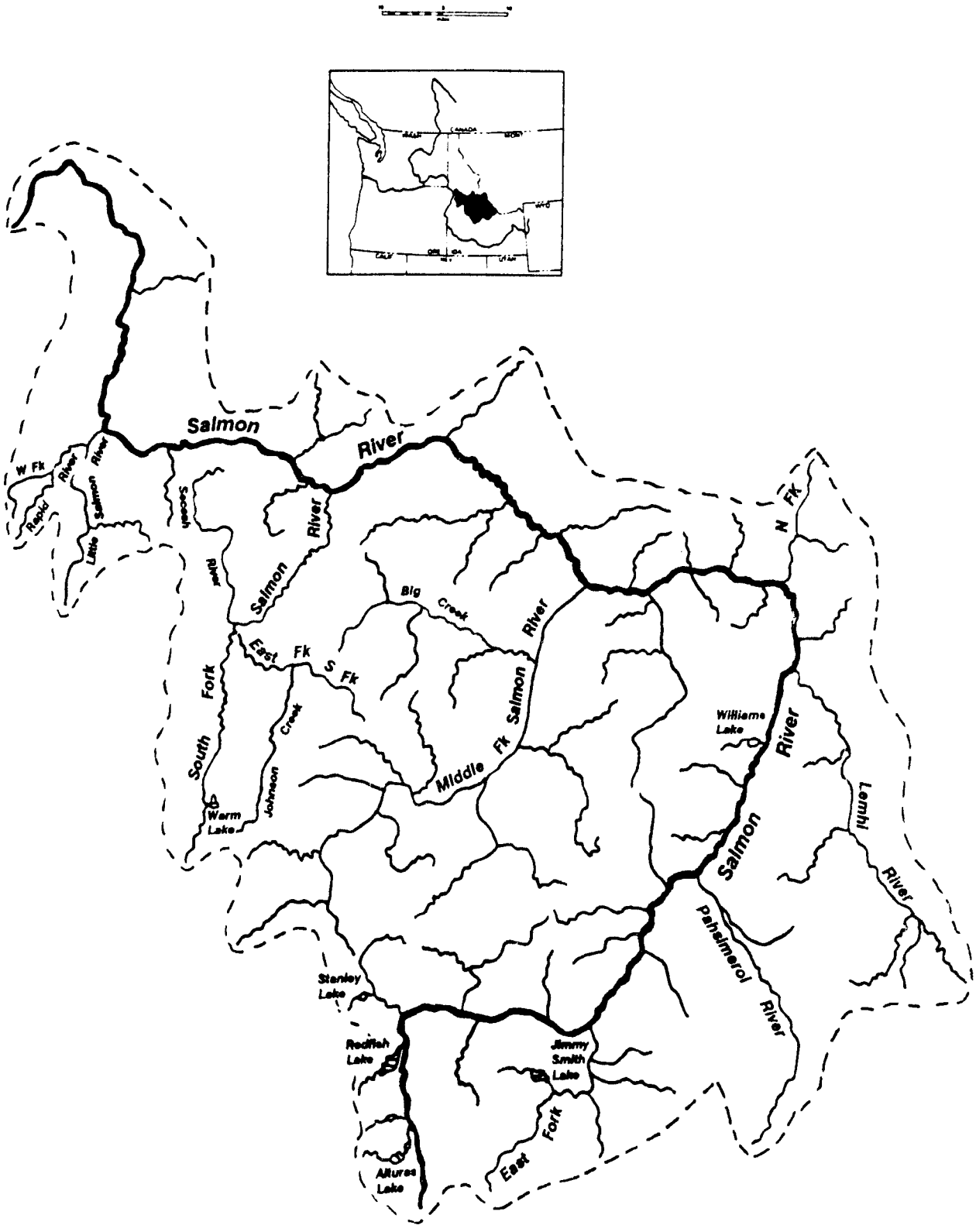
Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
Mainstem Lochsa River, mouth to Wilderness Gateway bridge (MP123)	217/	Coldwater/anadromous	Steelhead Chinook salmon Rainbow trout Cutthroat trout Bull trout Whitefish	Anadromous Put-and-take trout	During this planning period, do not supplement with steelhead allowing maintenance of native/natural gene pool. Stock with catchable rainbow to maintain catch rate of 0.25 fish/hr. Assess ability of the program to meet management objectives. Winter fishery to harvest underexploited white-fish populations.
Lochsa River tributaries below Wilderness Gateway bridge including Fish Creek	261/	Coldwater/anadromous	Steelhead Chinook salmon Rainbow trout Cutthroat trout Bull trout Whitefish Brook trout	Anadromous General	Maintain or improve present habitat. Support roadless status for remaining Fish Creek watershed to protect critical steelhead habitat.
Wilderness Gateway Bridge to Crooked Fork Creek/White Sand Creek confluence and Crooked Fork Creek from mouth to Brushy Fork Creek	44/	Coldwater/anadromous	Steelhead Chinook salmon Cutthroat trout Rainbow trout Bull trout Whitefish	Anadromous Quality	Develop harvest strategy to utilize surplus Powell Pond hatchery chinook salmon. Quality wild trout water managed as catch-and-release. Maintain or improve present habitat.

Lochsa River tributaries above Wilderness Gateway Bridge, including Crooked Fork Creek above Brushy Fork	Coldwater/anadromous	Steelhead Chinook salmon Cutthroat trout Rainbow trout Bull trout Whitefish	Preservation Wild trout	Open season 7/1 to allow protection of spawning trout and steelhead parr. Maintain or improve present habitat.

DRAINAGE: Selway River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
Selway River and tributaries, mouth to Meadow Creek Bridge	20/	Coldwater/anadromous	Steelhead Chinook salmon	Preservation	Maintain native, wild steelhead gene pool and do not release hatchery steelhead. Evaluate sustainability of existing naturally produced chinook salmon population and need for artificial production actions. Maintain or improve present habitat.
			Rainbow trout Cutthroat trout Bull trout	Put-and-take trout	Stock with catchable rainbow to maintain catch rate of 0.25 fish/hr. Assess ability of program to meet management objectives.
			Whitefish	General	Provide extra angling opportunity to harvest underexploited whitefish population.
Selway River from Meadow Creek bridge upstream	71/	Coldwater/anadromous	Steelhead Chinook salmon	Preservation Anadromous	Maintain native steelhead gene pool. No hatchery stocking. Evaluate sustainability of existing naturally produced chinook salmon population and need for artificial production action. Quality wild trout water managed as catch-and-release.
			Cutthroat trout Rainbow trout Bull trout Whitefish	Quality	
Selway River tributaries above Meadow Creek bridge		Coldwater/anadromous	Steelhead Chinook salmon	Preservation	Maintain native, wild steelhead gene pool and do not release hatchery steelhead. Evaluate sustainability of existing naturally produced chinook salmon population and need for artificial production actions. Open season 7/1 to allow protection of spawning trout and steelhead parr.
			Cutthroat trout Rainbow trout Bull trout Whitefish	Wild trout	

Salmon River Drainage



A. Overview

Horse Creek enters the Salmon River from the north side of the river 19? miles upstream from the confluence of the Salmon and Snake rivers. This reach of river is the migration corridor for spring and summer chinook, sockeye, and steelhead, as well as an overwintering area for adult steelhead and juvenile chinook and steelhead. It supports a myriad of recreational opportunities including rafting, jet boating and steelhead fishing. There is also fishing opportunity for rainbow trout, cutthroat trout, bull trout and smallmouth bass. Sturgeon are present in this reach of the river. Portions of the Salmon River between the mouth and Horse Creek are protected by wilderness and wild river status. The upper segment drains parts of the Frank Church River of No Return and Gospel Hump Wilderness areas.

The 53-mile section of river from the mouth to Hammer Creek is under consideration for classification in the Wild and Scenic Rivers System. This reach of river has limited access and provides for a quality steelhead fishing opportunity. White water boating is increasing in popularity. The Central Idaho Wilderness Act of 1980 prohibits mining activity in this river stretch.

The section of river from Hammer Creek to Long Tom Bar is heavily accessed. Highway 95 parallels 30 miles of the river from Whitebird upstream to Riggins. The river from Riggins upstream to Long Tom Bar is bounded by a secondary road.

There are 74 miles of unroaded river between Long Tom Bar and Horse Creek. This section of Salmon River is commonly referred to as the Salmon River canyon. This reach of river has limited access and is classified "wild" under the Wild and Scenic Rivers System. It supports an expanding use of jet boat traffic directed toward fall and spring steelhead fishing. Most of the commercial fishing outfitter services occur in this area.

Downstream from Long Tom Bar, naturally reproducing populations of chinook salmon exist in primarily Slate and Whitebird creeks. No chinook have been stocked in the lower Salmon tributaries, except the Little Salmon. (The Little Salmon River is discussed separately.) Spring chinook production in Slate and Whitebird creeks results from wild fish and perhaps strays from the Rapid River program.

The Nez Perce Tribe is developing plans for spring chinook rearing ponds and an adult trapping site in the Slate creek drainage on Forest Service (USFS) land. Hatchery construction is expected to begin within this planning period.

Several tributary streams in the Salmon River canyon are important producers of wild steelhead. These tributaries represent the largest and the only continguous production area for wild A-run steelhead in the Salmon River. Resident fisheries in these tributaries are supported

primarily by wild juvenile steelhead. Chamberlain Creek also supports a wild chinook production. Most of these tributaries have good to excellent habitat.

Anadromous management action in this river section will emphasize maintaining existing natural spawning populations of chinook and steelhead and preserving good habitat quality. Tributaries in the Salmon River canyon will continue to be managed for wild salmon and steelhead production. Maintenance of the genetic resources contained in the wild populations in this river section will be a top priority. The main stem Salmon will continue to be managed for exploitation of hatchery steelhead but consumptive harvest is not expected on naturally produced steelhead or chinook during the next five years. Wild adult steelhead will continue to provide opportunity for catch-and-release fishing.

For further details, such as steelhead and chinook adult escapement goals, hatchery capacities, and specific anadromous program objectives, refer to the IDFG 1991-95 Anadromous Plan, which is published under separate cover and is available from the Department.

There are no significant impoundments within the Salmon River drainage. The integrity of the drainage, including the diversity of fishing and recreational opportunity, is dependent on a free-flowing river. Legislation passed by Congress in 1989 prohibits the Federal Energy Regulatory Commission from issuing any licenses to develop new main stem hydropower projects in the unprotected portions of the Salmon River. Congressional intent also includes federally authorized projects.

B. Objectives and Programs

1. Objective: Maintain maximum potential for fishery and recreational values in the Salmon River from mouth to Horse Creek.

   Program: Support inclusion of the lower 53-mile reach of the Salmon River from the mouth to Hammer Creek into the Wild and Scenic Rivers System to promote maximum protection of the river corridor.

   Support a mineral withdrawal along the Salmon River corridor between Hammer and Vinegar creeks to ensure adequate riparian and water quality protection.

2. Objective: Maintain existing natural spawning populations of salmon and steelhead.

   Program: Allow natural production to sustain existing natural populations. Do not outplant hatchery steelhead and salmon into the main stem or tributaries, from French Creek upstream to the Middle Fork Salmon River, to preserve wild fish genetic resources. Limit hatchery outplanting in the rest of this section to support supplementation research and areas devoid of naturally produced anadromous fish.

3. Objective: Minimize harvest impacts to naturally produced salmon and steelhead.

   Program: Maintain fishing regulations designed to avoid excessive harvest of juvenile steelhead and evaluate impact of consumptive harvest of wild steelhead smolts. Implement regulation change if warranted.

4. Objective: Maintain and improve habitat quality of tributary production areas.

   Program: Oppose land use activities that further degrade the quality of natural production areas. Participate in allotment management plan review. Encourage implementation of grazing management plans which eliminate negative grazing impacts to fishery productivity and survival.

5. Objective: Increase fishing access.

   Program: Develop small outboard and float boat launch facilities where possible.

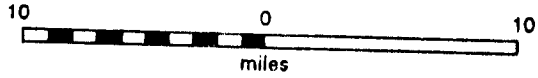
DRAINAGE: Salmon River - Mouth to Horse Creek

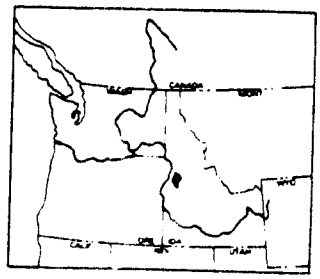
Water	Miles/acres	Fishery: Type	Fishery: Species present	Management	Management direction
From mouth to Little Salmon River, including tributaries (except Little Salmon River)	365/	Mixed/anadromous	Steelhead	Anadromous	Enhance steelhead fishing opportunity with smolt releases into Salmon River and selected tributaries. Maximize harvest of surplus hatchery steelhead in the Salmon River.
			Chinook salmon	Preservation	Manage for natural production of spring chinook salmon. Work with the Nez Perce Tribe to develop hatchery and natural production plans for Slate Creek. Support completion of USFS barrier removal projects in Whitebird and Slate creeks.
			Rainbow trout Bull trout Cutthroat trout Whitefish Smallmouth bass	General	Stock the mainstem with hatchery rainbow of an appropriate stock. Evaluate growth, condition, and return to the creel. Assess status of smallmouth bass population for possible regulation change to enhance mean length of fish.
			Sturgeon	Preservation	Maintain sturgeon fishery as nonconsumptive. Evaluate need for further fishing restrictions to reduce hooking mortality.
Tolo Lake	/20	Warmwater	Largemouth bass Black crappie	General	No motors water.

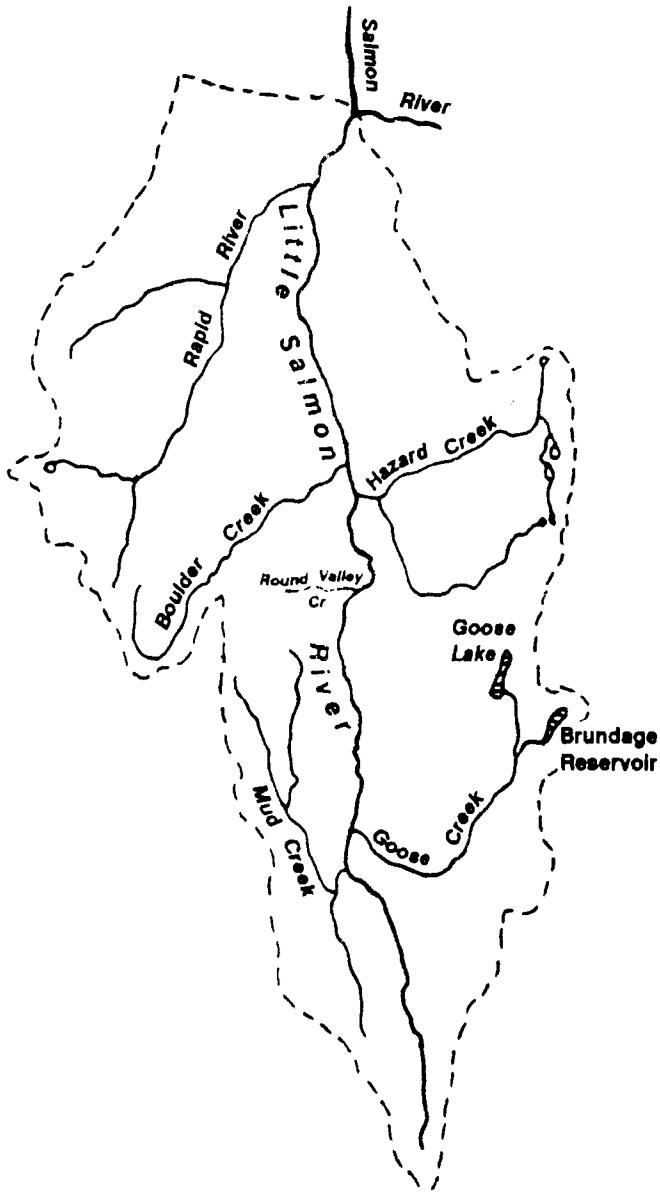
Grangeville Pond	/5	Coldwater	Brook trout	General	Develop public access to the pond.
From Little Salmon River to Horse	366/	Mixed/anadromous	Chinook salmon	Preservation	Maintain salmon harvest closure to maximize production of wild chinook salmon.
Creek			Steelhead	Anadromous	Enhance steelhead fishing opportunity with smolt releases into the Salmon River and selected tributaries. Improve angler access to the river. Support roadless status for the remaining Bargamin Creek watershed to protect critical steelhead spawning and rearing habitat.
			Rainbow trout Bull trout Cutthroat trout Whitefish	Wild trout	Maintain or improve present habitat quality. Evaluate population status of cutthroat and bull trout and develop regulations to enhance fishery in the long term.
			Sturgeon	Preservation	Maintain sturgeon fishery as nonconsumptive.
			Smallmouth bass	General	
Tributaries from Little Salmon River to Horse Creek except those listed below		Coldwater/anadromous	Steelhead Chinook salmon	Preservation	Maintain steelhead and chinook fishing closure. Correct erosion problems resulting from irrigation diversion in Chamberlain Creek.
Partridge Creek		Coldwater/anadromous	Steelhead Chinook salmon	Preservation	Supplement with hatchery steelhead if no naturally produced fish are present.
			Rainbow trout Bull trout Cutthroat trout Brook trout Whitefish	Wild trout	Evaluate population status of wild salmonids. Work with agencies to maintain pre-1989 fish habitat quality.

French Creek		Coldwater/anadromous	Steelhead Chinook salmon	Preservation	Evaluate juvenile and smolt releases. Supplement with hatchery fish if no naturally produced fish are present.
			Rainbow trout Bull trout Brook trout Cutthroat trout Whitefish	Wild trout	Evaluate population status of wild salmonids. Work with USFS to develop access management plan.
Alpine Lakes	/500	Coldwater	Rainbow trout Cutthroat trout Brook trout Grayling Golden trout Bull trout Rbt x ctt hybrid	General	Develop management strategies for each lake. Maintain a diversity of species and sizes. Stock lakes not having sufficient natural reproduction to maintain 1.0 fish/hr. Improve population structure in stunted brook trout lakes using predator introductions or chemical rehabilitation. Evaluate public desire for quality or trophy management for selected lakes.

Little Salmon River Drainage







LITTLE SALMON RIVER DRAINAGE

A. Overview

The Little Salmon River heads in the Meadows Valley in Adams County and flows northward to its confluence with the Salmon River at Riggins. Major tributaries include Goose Creek, Hazard Creek, Boulder Creek, and Rapid River. Major lakes and reservoirs include Fish (Mud) Lake, Goose Lake, Brundage Reservoir, and Hazard Lake. The drainage area is 516 square miles and includes elevations from 1,760' msl at the mouth to 9,000' in the Seven Devils Mountains and Hazard Creek drainages. Discharge at Riggins averages 854 cfs with extremes of 98 cfs to 12,600 cfs recorded in the past ten years.

Most of the drainage is forest lands, including wilderness and unroaded areas. There are 15,300 acres of irrigated agricultural lands, primarily hay meadows and pastures, in the drainage.

The Little Salmon River drainage from its mouth to and including Hazard Creek supports spring chinook salmon, steelhead trout, rainbow trout, cutthroat trout, bull trout, brook trout, mountain whitefish, and nongame species. Cascades prevent anadromous fish species from upstream migration beyond Round Valley Creek. Above Round Valley Creek, Little Salmon River is a low gradient, meandering stream with high gradient tributaries.

The Rapid River drainage is extremely important to Idaho's anadromous fish program. Upper Rapid River is classified as wilderness and this drainage provides essential, good quality spawning and rearing habitat for salmon and steelhead to maintain natural production. It also supplies high-quality water for Idaho Power Company's Rapid River Hatchery which spawns and rears spring chinook. A harvestable surplus of hatchery adult spring chinook salmon return to Rapid River in most years. These fish are utilized for treaty and nontreaty fisheries. Anadromous management in the Little Salmon River drainage emphasizes hatchery production to provide spring chinook for harvest as the first priority. Rapid River Hatchery has also supplied excess eggs for a number of programs outside of the drainage, such as the Clearwater River.

Little Salmon River steelhead plants are designed to provide harvest opportunity on hatchery steelhead in the main stem Salmon near Riggins and in the Little Salmon. It is the only Salmon River tributary open during steelhead season. For further details, such as steelhead and chinook adult escapement goals, hatchery capacities, and specific anadromous program objectives, refer to the IDFG 1991-95 Anadromous Plan, which is published under separate cover and is available from the Department.

The cascades passage barrier in the Little Salmon River at river mile 21 has been considered for removal in the Northwest Power Planning Council's Fish and Wildlife Program. However, because of the current emphasis on improving main stem Snake and Columbia migrant survival rates and the need to improve water and riparian quality above the barrier, its removal

will not be accomplished during this five-year period. Seek public input regarding anadromous and resident fish potentials and preference.

Fish Lake lies on a headwater tributary southeast of New Meadows. The Department owns the dam and most of the reservoir and has developed a brood stock of westslope cutthroat for egg-taking purposes. The westslope cutthroat is the native cutthroat for many Idaho waters and egg availability is scarce. Fish Lake should produce 400,000 to 500,000 eggs annually.

Goose and Hazard lakes are very popular recreation areas and provide fishing opportunity in high elevation settings for many anglers.

B. Objectives and Programs

1. Objective: Maximize harvest and harvest opportunity on hatchery-produced salmon and steelhead contingent upon achieving hatchery escapement needs.

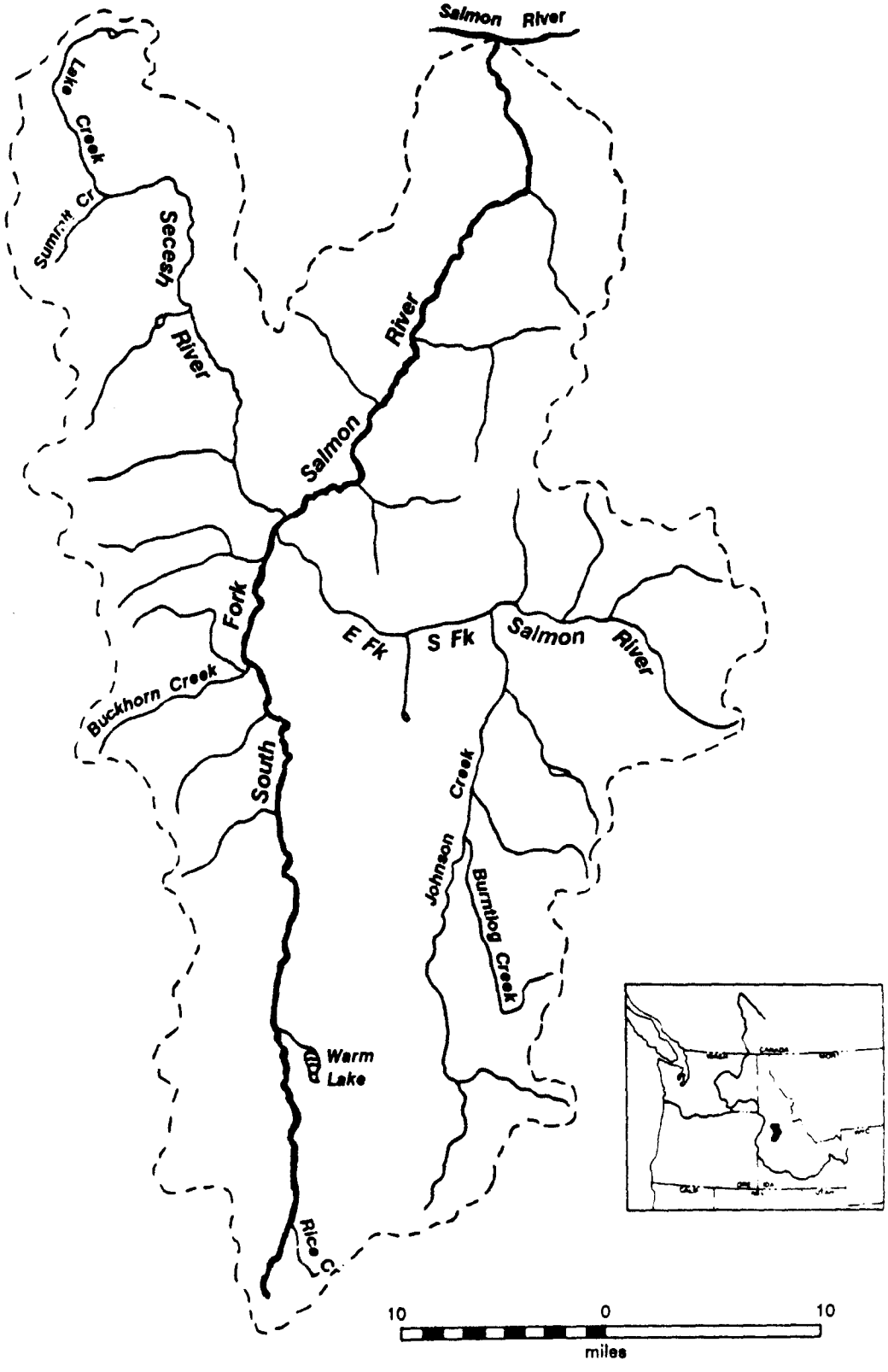
2. Program: Continue to evaluate adult salmon and steelhead harvest to develop seasons that ensure hatchery escapement needs are met, minimize surplus fish into the hatchery, and maximize the catch. Continue to ad-clip hatchery steelhead and harvest only marked fish. Structure nontreaty chinook harvest to ensure anglers an opportunity to harvest their share of the run surplus.

Little Salmon River and tributaries, Round Valley Creek to headwaters	89	Coldwater	Rainbow trout Bull trout Brook trout Cutthroat trout	Wild trout	Assess current status of salmonid populations through direct sampling. Pursue aggressive program of habitat rehabilitation with landowners and federal/state agencies. Improve water quality and riparian vegetation throughout this river section. Seek public input regarding desired fishing opportunity.
Fish (Mud) Lake	/30	Coldwater	Cutthroat trout	Preservation	Maintain system for broodstock rearing and egg-taking operation. No fishing permitted.
Brundage Reservoir	/270	Coldwater	Rainbow trout	Quality	Maintain quality trout fishery through annual supplementation with specific rainbow trout strains. Perform creel survey several years after institution of new regulations to monitor progress of fishery.
Goose Lake	/520	Coldwater	Rainbow trout Brook trout Cutthroat trout	General	Experiment with specific rainbow and cutthroat trout strains to improve fishery. Supplement with catchable trout.
Hazard Lake	/90	Coldwater	Brook trout Rainbow trout Cutthroat trout Rbt x ctt hybrids	General	Collect baseline fishery data to assess status of system. Develop improved trout fishery to enhance catch rates and sizes of fish.

Other alpine lakes (42)	/1000	Coldwater	Rainbow trout Cutthroat trout Goiden trout Brook trout Grayling Bull trout Hybrid trout	General	Maintenance stocking on a three-year rotational basis with salmonid fingerlings to provide species diversity. Collect baseline data on lakes in cooperation with Forest Service to improve fishing. Seek ways to rehabilitate or improve stunted brook trout lakes.

Salmon River Drainage

South Fork



SOUTH FORK SALMON RIVER DRAINAGE

A. Overview

The South Fork Salmon River (SFSR) drainage lies in central Idaho in Valley and Idaho counties. The drainage flows northerly through the Idaho batholith and enters the Salmon River at Mackay Bar. Elevations vary from 9,280' msl at North Loon Mountain to 2,166' msl at the mouth.

The land is characterized by extreme changes in elevation and aspect within short distances. Topography varies from steep canyon lands to meadows. The Idaho batholith soils consist largely of weathered granitic sands and fines and are sensitive to disturbance. Precipitation averages 32" annually, with major storm events occurring about every ten years.

Resident fish species, including rainbow trout, cutthroat trout, bull trout, mountain whitefish, brook trout, lake trout, kokanee, and numerous nongame fish species, occupy 515 miles of streams and 37 lakes. They provide popular fisheries for many anglers.

Principal tributaries to the SFSR are the Secesh River, the East Fork South Fork Salmon River (EFSFSR) and its tributary, Johnson Creek. Warm Lake is the largest lake, measuring 640 surface acres; all others are alpine lakes and range in size from 1 to 160 acres.

Anadromous fish species (chinook salmon, steelhead trout) have access to most of the drainage. Historically, the steelhead spawning run exceeded 3,000 fish. Current estimates are 500 to 800 spawners. The SFSR historically supported the largest summer chinook run in the state of Idaho. Salmon fishing was a major economic resource in the SFSR prior to 1965, when anglers harvested 1,700-4,000 salmon annually. Steelhead anglers harvested 750-800 fish per year. These runs have dwindled considerably since then, and run sizes are about one-tenth of their former abundance. The seasons were closed in 1965 for chinook and 1968 for steelhead and have not been reopened. The decrease in numbers of SFSR chinook and steelhead were caused by two major problems: (1) logging and road construction activities created unstable soil conditions in the SFSR that have damaged the aquatic habitat, and (2) serious fish passage problems and increased mortality were caused by construction of hydroelectric dams on the lower Snake and Columbia rivers.

The SFSR is one of only three drainages in the Columbia Basin that supports populations of wild, native steelhead classified as B-run. These fish are predominantly large steelhead which spend two or three years in the ocean, compared to the smaller A-run steelhead which inhabit much of the rest of the Salmon River drainage. Preservation of this native gene pool is a high priority.

Hatchery production of summer chinook began at McCall Fish Hatchery in 1980 as part of the mitigation for lower Snake River dams. However, no hatchery summer chinook have been outplanted into the Secesh River in order to preserve the native gene pool. For further details, such as steelhead and chinook adult escapement goals, hatchery capacities, and

specific anadromous program objectives, refer to the IDFG 1991-95 Anadromous Plan, which is published under separate cover and is available from the Department.

Resident fish species were also seriously impacted by aquatic habitat degradation. Additionally, cutthroat trout have been reduced from their former abundance by overharvest largely due to improved access to the area.

B. Objectives and Programs

1. Objective: Preserve genetic integrity of wild, native steelhead and summer chinook.

   Program: Do not outplant any hatchery steelhead into the SFSR or hatchery summer chinook into the Secesh. Manage hatchery-supplemented Salmon River steelhead and spring chinook stocks to minimize straying into the SFSR. Minimize straying of SFSR hatchery summer chinook into the Secesh.

2. Objective: Maintain existing natural spawning populations of salmon and steelhead.

   Program: Allow natural production to sustain existing naturally produced populations. Limit outplanting of hatchery summer chinook, other than direct hatchery releases, to support supplementation research. Modify weir management to sustain natural populations of summer chinook.

3. Objective: Maintain and improve habitat quality of main stem and tributary production areas.

   Program: Oppose land use activities that further degrade the quality of natural production areas. Participate in allotment management plan review. Encourage implementation of grazing management plans which eliminate negative grazing impacts to fishery productivity and survival. Participate in interagency mining oversight committees to review operating plans and work with regulatory agencies to require strict compliance with mining laws to protect water quality and fish populations. Develop monitoring programs for fish populations and fish habitat relative to mining activities, if needed. Continue to monitor and evaluate benefits from habitat projects.

DRAINAGE: South Fork Salmon River

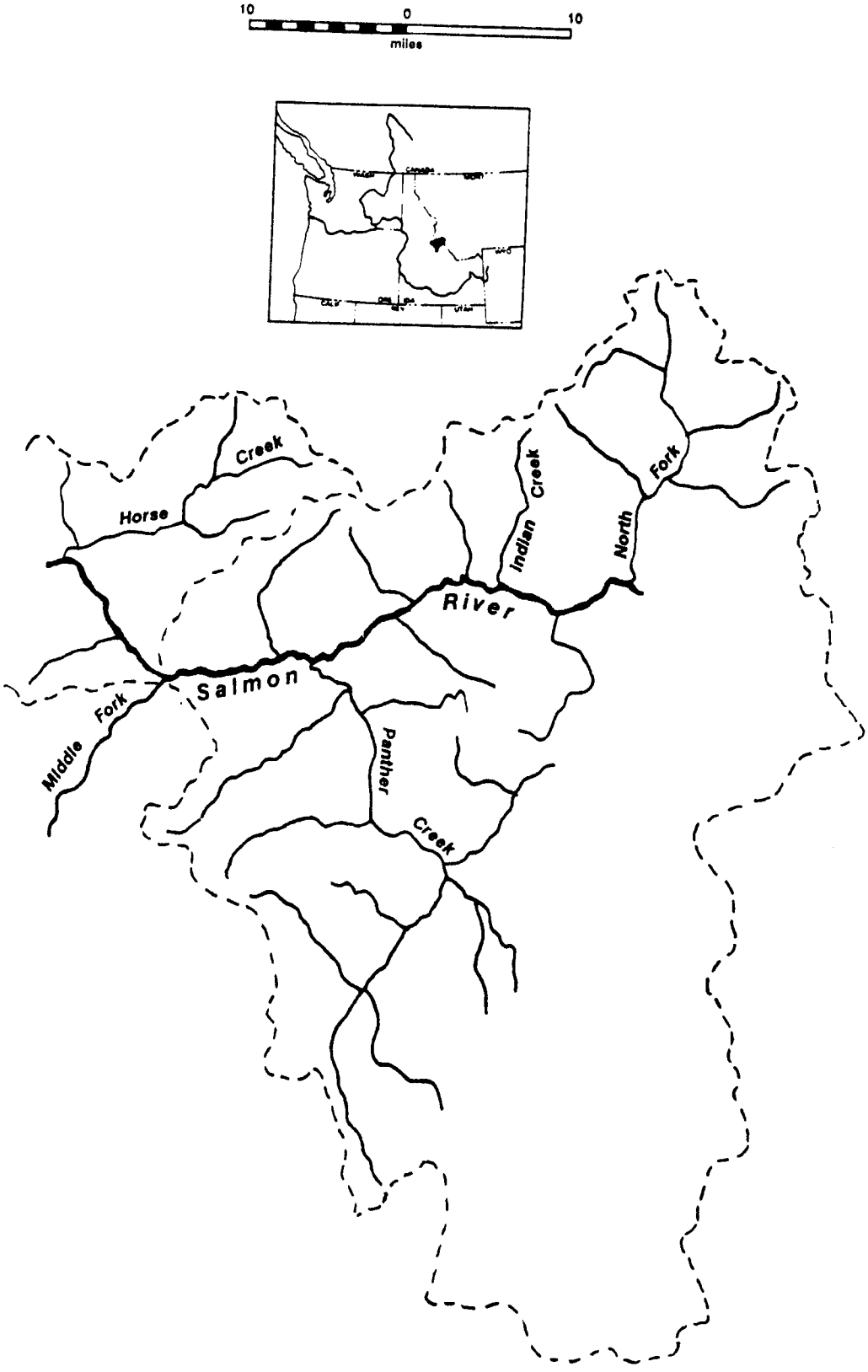
Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
South Fork from mouth to Secesh River	162/	Coldwater/anadromous	Chinook salmon Steelhead	Preservation	Restore maximum escapement of summer chinook salmon returning to hatchery trap and historic spawning areas. Improve aquatic habitat by discouraging activities which may degrade the environment further. Continue aggressive vigilance of proposed mining and roading activities. Restore wild-B steelhead runs to tributary and historic spawning areas.
			Cutthroat trout Rainbow trout Bull trout Whitefish	Wild trout	Enhance populations of wild trout through continued restrictive regulations. Evaluate hatchery supplementation with appropriate cutthroat stock.
South Fork from Secesh River to headwaters	120/	Coldwater/anadromous	Chinook salmon Steelhead	Preservation	Bypass one-third of summer chinook salmon captured at South Fork trap to naturally seed Stolle Meadows spawning area. Restore run of B-type steelhead returning to historic spawning areas.
			Cutthroat trout Rainbow trout Bull trout Whitefish	Wild Trout	Enhance populations of wild trout through continued restrictive regulations and possible introductions from wild broodstock.

Secesh River and tributaries	93/	Coldwater/anadromous	Chinook salmon Steelhead	Preservation	Restore anadromous fish runs returning to Secesh Meadows and Lake Creek. Preserve wild characteristics of anadromous populations. Continue aggressive stance against habitat degradation.
			Cutthroat trout Bull trout Rainbow trout Brook trout Whitefish	Preservation Wild trout	Enhance populations of wild trout through continued restrictive regulations and possible introductions from wild broodstock.
East Fork South Fork Salmon River and tributaries (excluding Johnson Creek and its tributaries)	86/	Coldwater/anadromous	Chinook salmon Steelhead	Preservation	Restore anadromous runs to historic spawning areas. Continue aggressive stance against habitat degradation.
			Cutthroat trout Rainbow trout Brook trout Bull trout Whitefish	Preservation Wild trout	Enhance populations of wild trout through continued restrictive regulations and possible introduction from wild broodstock. Limited catchable rainbow trout plants near high angler use areas.
Johnson Creek and tributaries	54/	Coldwater/anadromous	Chinook salmon Steelhead	Preservation	Restore anadromous fish runs to mainstem and tributary spawning areas. Monitor proposed road reconstruction to avoid habitat degradation.
			Cutthroat trout Bull trout Brook trout Rainbow trout Whitefish	Preservation Wild trout	Enhance populations of wild trout through continued restrictive regulations and possible wild broodstock introductions. Limited catchable rainbow trout plants near high angler use areas.

Warm Lake	/640	Coldwater	Rainbow trout Lake trout Brook trout Kokanee salmon	General	Maintain current fingerling and catchable rainbow trout stocking. Perform more intensive monitoring effort through creel survey and direct fish sampling. Develop management plan for lake system and tributaries with emphasis on wild/natural trout production of cutthroat, bull trout, and kokanee salmon.
Alpine Lakes (36 in South Fork Salmon River drainage)	/890	Coldwater	Rainbow trout Brook trout Cutthroat trout Arctic grayling	General/Trophy	Maintenance stocking with salmonid fry on a three-year rotation. Discontinue rainbow trout strains stocking and opt for sterile hybrids to reduce competition/hybridization with native cutthroat. Develop trophy lakes that have shown exceptional growth potential. Provide diverse opportunity for species and sizes. Collect baseline information on stocking success in cooperation with Forest Service.

Salmon River Drainage

Horse Creek to North Fork



SALMON RIVER DRAINAGE - HORSE CREEK TO NORTH FORK

A. Overview

The Salmon River drainage includes 14,100 square miles and flows 410 miles from its headwaters in Blaine County in south central Idaho to its confluence with the Snake River in Idaho County in northwestern Idaho. Upstream from the confluence of the Middle Fork, the Salmon River is lower gradient and it flows through open canyon and broad valleys. The portion from Horse Creek to North Fork is 50 miles long and is located entirely within Lemhi County. There is only a trail along the river from Horse Creek upstream to Corn Creek, but there is a road along the river for 46 miles from Corn Creek to the North Fork. There is a boat ramp at Corn Creek which receives heavy use from floaters during the summer months and jet boaters during the fall and spring steelhead seasons. Boats are the primary mode of access below Corn Creek.

The Salmon River is listed under the Wild and Scenic Rivers Act. From Vinegar Creek (near Riggins) to Corn Creek, the river is classified as "wild," and from Corn Creek to the North Fork, it is classified as "recreational."

From Horse Creek to the North Fork, the Salmon River has a long history of mining activity. Gold was discovered near Shoup in 1881 and a mining town quickly developed. Cobalt is a mining community on Panther Creek that once had a population of more than 500 people when the Blackbird Mine was operational.

Logging is also an important industry within this area but neither mining nor logging are as important as recreation. Fishing is an important recreational activity in this area and particularly steelhead fishing. Increasing numbers of steelhead anglers are fishing this portion of the river each year and it is anticipated that numbers will increase substantially during the next five years. Wild and natural steelhead migrate to this area in the early fall and overwinter prior to resuming their spawning migration in the spring. Since wild and hatchery stocks intermingle and wild stocks are consistently underescaped, harvest occurs on hatchery fish only (identified by adipose fin clips). The main stem Salmon will continue to be managed for exploitation of hatchery steelhead, but consumptive harvest is not expected on naturally produced steelhead or chinook during the next five years. Naturally produced steelhead will continue to provide significant opportunity for catch-and-release fishing in the Salmon River.

The Panther Creek drainage contains nearly 100 miles of streams and reportedly supported chinook runs of 2,000 spawners in addition to substantial runs of steelhead. Although habitat is in good condition, by the late 1960s, anadromous fish runs had declined due to poor water quality as a result of mine effluents. Little or no salmon or steelhead currently use Panther Creek for spawning or rearing. There are continuing efforts by the state of Idaho to secure funds to improve the water quality in this drainage.

The North Fork drainage contains about 60 miles of stream, some of which has been impacted by a variety of land-use activities such as mining and logging. It currently supports chinook and steelhead spawning and rearing. Other smaller tributaries, such as Indian, Colson, and Pine creeks, primarily supported steelhead spawning and rearing.

For further details, such as steelhead and chinook adult escapement goals, hatchery capacities, and specific anadromous program objectives, refer to the IDFG 1991-95 Anadromous Plan, which is published under separate cover and is available from the Department.

Small numbers of white sturgeon inhabit the river downstream from Horse Creek and may be present upstream. Limited habitat is available and, historically, sturgeon were present at least as far upstream as Salmon.

Westslope cutthroat trout emigrate from the MFSR to overwinter in this portion of the Salmon River.

Despite secondary roading in many of the tributary drainages, little fishing effort is expended for resident trout species in these areas. Also, resident trout populations are low in the main river during the summer months and, consequently, little fishing effort is expended during this period.

B. Objectives and Programs

1. Objective: Maintain existing natural spawning populations of salmon and steelhead.

   Program: Allow natural production to sustain existing naturally produced populations. Increase enforcement efforts to ensure compliance with differential harvest regulations to protect wild steelhead. Do not outplant hatchery steelhead and salmon into the main stem or tributaries, from Horse Creek upstream to the Middle Fork Salmon River, to preserve wild fish genetic resources. Limit hatchery outplanting in tributaries of the rest of this section to support supplementation research and Panther Creek, which is currently not supporting natural production. Other areas devoid of naturally produced salmon and steelhead would also be considered for outplanting hatchery fish.

2. Objective: Increase public awareness and acceptance of wild/natural steelhead management programs.

   Program: Increase public awareness of wild fish angling opportunity in wilderness setting. Encourage nonconsumptive use of wild steelhead resources.

3. Objective: Maintain and improve habitat quality of tributary production areas.

Program: Oppose land use activities that further degrade the quality of natural production areas. Participate in allotment management plan review. Encourage implementation of grazing management plans which eliminate negative grazing impacts to fishery productivity and survival. Participate in interagency mining oversight committees to review operating plans and work with regulatory agencies to require strict compliance with mining laws to protect water quality and fish populations. Develop monitoring programs for fish populations and fish habitat relative to mining activities, if needed. Encourage implementation of rehabilitation measures for Panther Creek drainage.

4. Objective: Correct passage problems (culverts and falls) which restrict anadromous fish access to spawning tributaries.

   Program: Cooperate with USFS in constructing fish passage improvement structures for culverts and improving passage around falls and high gradient areas. Identify and screen or repair irrigation diversions where needed.

5. Objective: Improve the quality of resident trout fishing in the main stem Salmon River during the summer months.

   Program: Continue efforts to find a suitable strain of rainbow trout for stocking into the river. Stock and evaluate alternate strains of subcatchable rainbow trout which will provide a fishery but not impact anadromous fish.

DRAINAGE: Salmon River: Horse Creek-North Fork

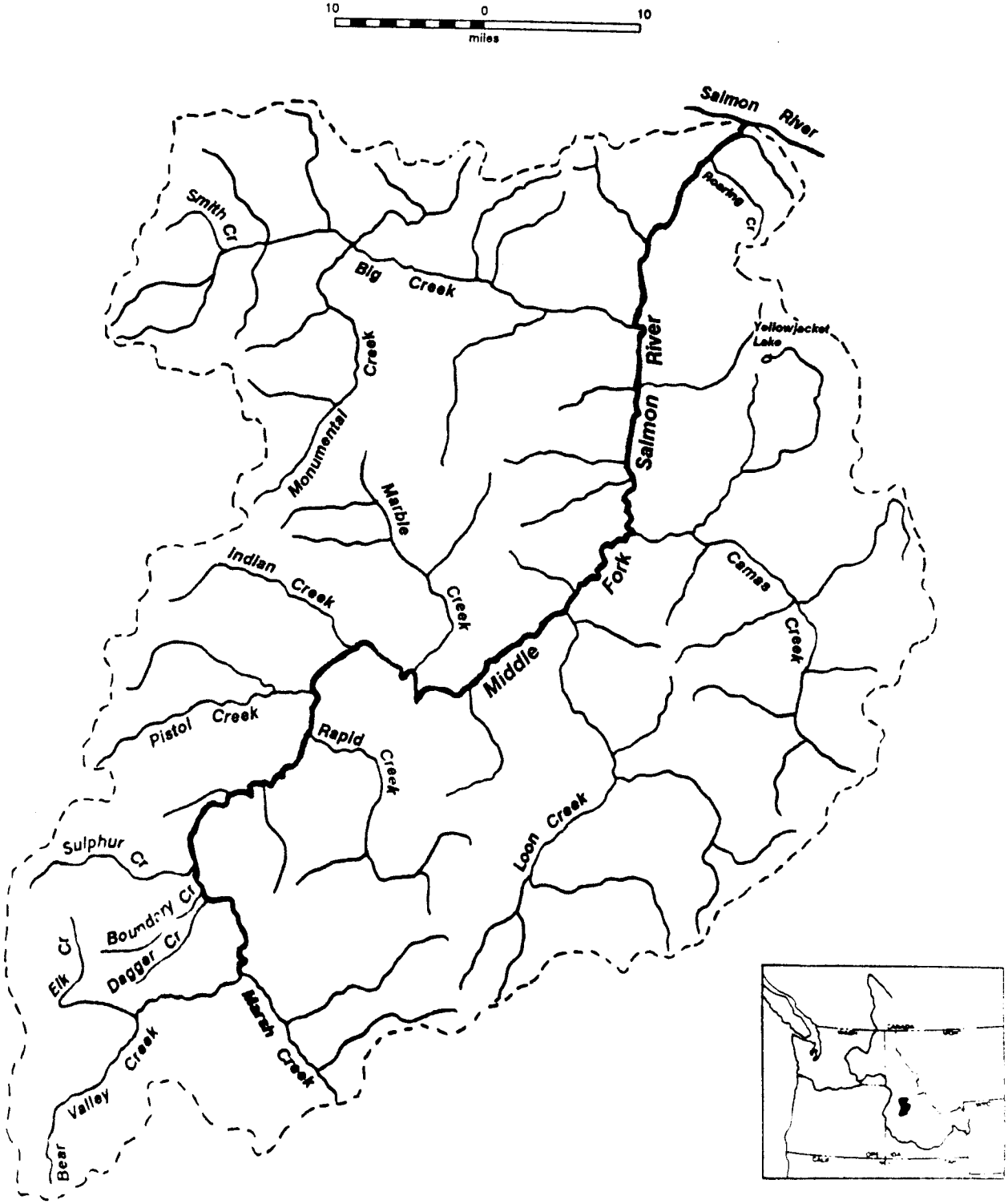
Water	Miles/acres	Fishery: Type	Fishery: Species present	Management	Management direction
From Horse Creek to North Fork	50/	Coldwater/anadromous	Wild/natural steelhead chinook salmon	Preservation	Maintain harvest closure until MFSR and upper Salmon River escapement goals are met.
			Hatchery steelhead	Anadromous	Provide maximum yield of fish surplus to escapement goals.
			Cutthroat trout	Preservation	Maintain winter closure to protect MFSR cutthroat which migrate to and overwinter in this area.
			Rainbow trout Bull trout Whitefish	General	Yield fishery during summer. Enhance fishery with appropriate strains of rainbow trout fingerlings if successful in other portions of river.
Tributaries from Horse Creek to North Fork (Except Horse Creek, Panther Creek, and North Fork)	150/	Coldwater/anadromous	Rainbow trout Bull trout Cutthroat Brook trout	Wild trout	Provide yield fishery supported by natural production.
			Steelhead Chinook salmon	Preservation	Maintain harvest closure in spawning tributaries. Stock appropriate streams with fry as available.
Horse Creek	19/	Coldwater/anadromous	Rainbow trout Cutthroat trout Bull trout Whitefish	Wild trout	Naturally supported yield fishery. Access restricted to trail or boat.
			Steelhead Chinook salmon	Preservation	Maintain harvest closure in spawning tributaries. No hatchery supplementation. Important spawning/rearing tributary for wild, A-strain steelhead.

Panther Creek	33/	Coldwater/anadromous	Steelhead Chinook salmon	Preservation	Maintain harvest closure in spawning tributaries. Stock with fry, smolts or adults as available. Develop harvest opportunities as adults return from outplants. Work with other agencies to clean up mining pollution from Blackbird Mine.
			Rainbow trout	Put-and-take trout	Provide put-and-take fishery above Copper Creek. Evaluate return to creel. Expand fishery to lower reaches as water quality improves.
North Fork Salmon Salmon River	22/	Coldwater/anadromous	Rainbow trout Cutthroat trout Bull trout Brook trout	Wild trout	Provide yield fishery supported by natural production.
			Steelhead Chinook salmon	Preservation	Maintain harvest closure in spawning tributaries. Stock with appropriate life stages as available.
Alpine Lakes	/233	Coldwater	Rainbow trout Cutthroat trout	General	Aerial stock selected lakes with fry on a three-year rotational basis.
Anderson Pond	/3	Coldwater	Rainbow trout	Put-and-take trout	Put-and-take fishery for catchable-sized hatchery rainbow.

EMPURA-N

Salmon River Drainage

Middle Fork



A. Overview

The Middle Fork Salmon River (MFSR) drains 2,830 square miles of central Idaho. The main river is classified as wild as part of the Wild and Scenic Rivers System, and most of the drainage is within the Frank Church River of No Return Wilderness Area. Prior to classification as wilderness, the Middle Fork drainage was included in the Idaho Primitive Area.

The topography in the Middle Fork drainage is extremely rugged and remote. Road access is limited to a single point on the main river at Dagger Falls and secondary roads to the upper ends of a few tributary streams. The principal means of access are aircraft, boat, and trail.

Except for some alpine lakes and a few small streams, the Middle Fork drainage contains only native species and fish stocks that have evolved there. Historically, a significant portion of the chinook salmon and steelhead trout in the Salmon River drainage were spawned and reared in the Middle Fork and tributaries.

Anadromous species include wild, indigenous spring and summer chinook salmon and summer steelhead. The MFSR is one of only three drainages in the Columbia Basin that supports a population of wild steelhead classified as B-run because they are predominantly large fish which spend two or three years in the ocean. Renewed efforts began in 1990 to collect fork-length information to better characterize MFSR steelhead populations. Both the chinook and steelhead of the MFSR are adapted to the long migration distances necessary for their perpetuation. Preservation of the indigenous gene pools is a high priority, as is rebuilding these runs. The key component to meeting this objective is improved Columbia and Snake River migration survival.

Although the Middle Fork supported a major chinook fishery, with annual harvest exceeding 2,000 fish in the late 1960s, nontreaty harvest has not been allowed for salmon and steelhead since 1978 because of very low run sizes. Middle Fork steelhead are caught incidentally during fisheries in the main stem Salmon River which target hatchery steelhead where they provide an exceptional catch-and-release opportunity for trophy class wild steelhead. Although harvest opportunity is not expected for salmon or steelhead in the Middle Fork in the next five years, the long-term goal is to provide low yield, quality fisheries on these native species. This goal is achievable only if improved juvenile migration survival through the Snake and Columbia hydroelectric system is attained. For further details, such as steelhead and chinook adult escapement goals and specific anadromous program objectives, refer to the IDFG 1991-95 Anadromous Plan, which is published under separate cover and is available from the Department.

Native, resident game species include bull and cutthroat trout, and mountain whitefish. The Middle Fork cutthroat trout population has

recently been identified as a pure westslope strain and unique to any other westslope strain yet identified throughout the current range.

There are no major dams in the Middle Fork drainage, and many of the streams are in pristine condition. Some tributary streams have been, and are being, altered by mining activity. Major mining sites and their access roads were not included in the wilderness area. Other tributaries are impacted by grazing allotments that cause stream bank and riparian vegetation damage.

B. Objectives and Programs

1. Objective: Preserve genetic integrity of wild native salmon, steelhead, and trout.

   Program: No hatchery fish will be stocked in the stream environments.

   Program: Manage hatchery supplemented Salmon River anadromous stocks to minimize straying into the Middle Fork.

   Program: Continue to not stock any hatchery fish into the stream environment.

   Program: Continue to work with other state and federal agencies to improve juvenile downstream and adult upstream passage to and from the MFSR.

2. Objective: Manage resident fisheries for low angler density fishing experiences and high catch rates and fish size.

   Program: Maintain catch-and-release regulations for westslope cutthroat trout in or near areas with vehicle or boat access.

   Program: Evaluate angler use and harvest impacts on fish size and numbers in areas having trail access only, which we manage with a three fish bag limit.

   Program: Employ trophy regulations for bull trout.

   Program: Maintain cutthroat harvest restrictions in the main Salmon River to protect adults which emigrate there to over winter. Determine adequacy of Horse Creek to North Fork boundary.

3. Objective: Maintain and improve habitat and water quality of key tributary fish production areas.

   Program: Work with Forest Service and use permittees to establish riparian vegetation objectives that annually provide at least eighty percent of the potential vegetation mass in the riparian zone for the spring runoff period in land management plans.

Program: Establish stream substrate objectives for sediment that would restore productivity of aquatic habitat. An objective of 28% surface sand and fines (or less) should be established in headwater spawning areas.

Program: Identify and screen irrigation diversions where needed.

Program: Continue to monitor fish benefits from habitat enhancement projects.

Program: Participate in interagency mining oversight committees to review operating plans and work with regulatory agencies to require strict compliance with mining laws to protect water quality and fish populations. Develop monitoring programs for fish populations and fish habitat relative to mining activities, if needed.

Program: Participate in grazing allotment management plan reviews. Encourage implementation of grazing management plans which eliminate negative grazing impacts to fishery productivity and survival.

4. Objective: Maximize recruitment of westslope cutthroat trout to the main river from tributaries.

   Program: Continue restrictive regulations in tributaries. Continue monitoring juvenile densities by snorkeling. Conduct a creel census to estimate tributary harvest.

5. Objective: Determine the relationship between densities of westslope cutthroat trout and angling in the MFSR under catch-and-release regulations. Current cutthroat densities are lower than those observed in past years.

   Program: Continue monitoring densities by snorkeling. Identify trends in angling effort and sources of angling mortality. Control with enforcement and restrictive regulations when and where possible.

6. Objective: Re-establish anadromous runs to the numbers necessary to fully utilize available spawning and rearing habitat.

   Program: Continue to work with other state and federal agencies to improve juvenile downstream and adult upstream passage to and from the MFSR. Regulate the Idaho anadromous sport harvest to maximize MFSR escapement.

7. Objective: Develop methodologies for making accurate estimates of anadromous spawning escapement to the MFSR.

   Program: Work with other agencies to initiate research aimed at making chinook and steelhead escapement estimates to the MFSR. Continue parr density monitoring and redd counts.

DRAINAGE: Middle Fork Salmon River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Management	Management direction
From mouth to Roaring Creek	4/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout	Preservation	Preservation of wild stocks. Provide catch-and-release opportunity. Season shortened to eliminate steelhead harassment.
			Steelhead Chinook salmon	Preservation	Preservation of wild stocks. Maintain closure until escapement goals are met.
			Whitefish	General	Maximize yield during period open for other species.
From Roaring Creek to Boundary Creek	92/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout	Preservation	Preservation of wild stocks. Provide catch-and-release opportunity.
			Steelhead Chinook salmon	Preservation	Preservation of wild stocks. Maintain closure until escapement goals are met.
			Whitefish	General	Maximize yield during period open for other species.
From Boundary Creek to Dagger Creek	1/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout Whitefish Chinook salmon Steelhead	Preservation	Maintain closure to prevent harassment and mortality of fish concentrated below falls.
From Dagger Creek upstream	15/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout Whitefish	Wild trout	Access limited to foot travel, effort light. Maximize yield of whitefish during period open for other species.
			Steelhead Chinook salmon	Preservation	Preservation of wild stocks. Maintain closure until escapement goals are met.

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Big Creek from Mouth to Smith Creek (wilderness boundary) and tributaries	35/	Coldwater/anadromous	Cutthroat trout Rainbow trout Brook trout Bull trout Whitefish	Quality	Catch-and-release for all species except allow general harvest on whitefish. Provide high catch rates and an old age population structure.
			Chinook salmon Steelhead	Preservation	Maintain harvest closure to preserve wild runs of anadromous salmonids.
Big Creek from Smith Creek to headwaters and tributaries	10/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout Brook trout Whitefish	Wild trout	
			Chinook salmon Steelhead	Preservation	Maintain harvest closure to protect spawning salmon and steelhead.
Camas Creek	24/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout Whitefish	Wild trout	Catch-and-release in lower 3.5 miles (to Yellowjacket Creek) to protect wild stocks from overharvest by MFSR floaters. Total seasonal fishery closure in upper area to protect spawning chinook salmon. Closed to harvest of adult chinook salmon and steelhead to protect wild stocks. Maximize yield of whitefish during period open for other species.
			Steelhead Chinook salmon	Preservation	
Indian Creek	15/	Coldwater/anadromous	Rainbow trout Cutthroat trout Bull trout Whitefish	Wild trout	Catch-and-release in lower 5.7 miles (to Tomahawk Creek) to protect wild stocks from overharvest by MFSR floaters. Closed to harvest of adult chinook salmon and steelhead to protect wild stocks. Maximize yield of whitefish during period open for other species.
			Steelhead Chinook	Preservation	

Loon Creek	25/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout Whitefish Chinook salmon Steelhead	Wild trout Preservation	Catch-and-release in lower 5.7 miles (to Cold Springs Creek) to protect wild stocks from overharvest by MFSR floaters. Closed to harvest of adult chinook salmon and steelhead to protect wild stocks. Maximize yields of whitefish during period open for other species.
Marble Creek	16/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout Whitefish Chinook salmon Steelhead	Wild trout Preservation	Catch-and-release in lower 2 miles (to Prospect Creek) to protect wild stocks from overharvest by MFSR floaters. Closed to harvest of adult chinook salmon and steelhead to protect wild stocks. Maximize yield of whitefish during period open for other species.
Pistol Creek	13.5/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout Whitefish Steelhead Chinook	Wild trout Preservation	Catch-and-release in lower 3.5 miles (to 45 Creek) to protect wild stocks from overharvest by MFSR floaters. Closed to harvest of adult chinook salmon and steelhead to protect wild stocks. Maximize yield of whitefish during period open for other species.
Sulphur Creek		Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout Steelhead Chinook salmon	Preservation Quality	Maintain catch and release regulation. Annually monitor fish populations and aquatic habitat conditions. Establish aquatic habitat objectives for sediment. Evaluate incidental take of bull trout under current regulations. Closed to harvest of adult chinook salmon and steelhead to protect wild stocks.

Tributaries downstream from Boundary Creek (except Big, Camas, Indian, Loon, Marble, Pistol, and Sulphur creeks)	200/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout Whitefish Steelhead Chinook salmon	Wild trout Preservation	Closed to harvest of adult chinook salmon and steelhead to protect wild stocks. Maximize yield of whitefish during period open for other species.
Capehorn, Beaver, Knapp creeks	28/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout Brook trout Whitefish Chinook salmon Steelhead	Wild trout Preservation	Naturally supported fishery with special closure to protect spawning chinook salmon. Closed to harvest of adult chinook salmon and steelhead to protect wild stocks. Maintain total fishery closure during chinook salmon spawning period.
Marsh Creek from mouth to Capehorn Creek	4/	Coldwater/anadromous	Cutthroat trout Rainbow trout Brook trout Bull trout Whitefish Steelhead Chinook salmon	Quality Preservation	Maintain catch-and-release to provide high maximized catch rates and quality size and protect MFSR brood stock. Closed to harvest of adult chinook salmon and steelhead to protect wild stocks.
Marsh Creek from Capehorn Creek upstream	4/	Coldwater/anadromous	Cutthroat trout Rainbow trout Brook trout Bull trout Whitefish Steelhead Chinook	Wild trout Preservation	Naturally supported fishery with special closure to protect spawning chinook salmon. Closed to harvest of adult chinook salmon and steelhead to protect wild stocks. Maintain total fishery closure during chinook salmon spawning period.

Bear Valley Creek		Coldwater/anadromous	Cutthroat trout Bull trout	Quality	Maintain catch-and-release regulation. Provide quality fishing experience for cutthroat and bull trout. Annually monitor fish populations and aquatic habitat conditions. Evaluate incidental take of bull trout under current regulations. Establish riparian vegetation objective.
			Steelhead Chinook	Preservation	Closed to harvest of adult chinook salmon and steelhead to protect wild stocks. Maintain total fishery closure during chinook salmon spawning period.
Josephus Lake	/7	Coldwater	Rainbow trout Cutthroat trout	General	Discontinue stocking catchable rainbow trout. Stock with westslope cutthroat trout.
Yellowjacket Lake	/5	Coldwater	Rainbow trout	General	Discontinue stocking catchable rainbow trout. Stock with westslope cutthroat trout.
Capehorn Lakes	/44	Coldwater	Rainbow trout Brook trout	General	Capehorn #2 (middle lake) stocked with catchable rainbow trout to provide fishery for scout camp. Large (upper) lake provides a brook trout fishery.
Alpine Lakes	/2,000	Coldwater	Cutthroat trout Rainbow trout Golden trout Brook trout Bull trout Grayling	General	Provide diversity of angling opportunity. Popular lakes with no brook trout, no reproduction, and low potential for winter kill are stocked with fry from a helicopter on a 3-year rotational basis. Stock no rainbow and only westslope subspecies of cutthroat trout to avoid genetic dilution of MFSR stocks. Begin evaluating success of program at popular lakes. Enhance fisheries in stunted brook trout lakes through renovation or introduction of predators.

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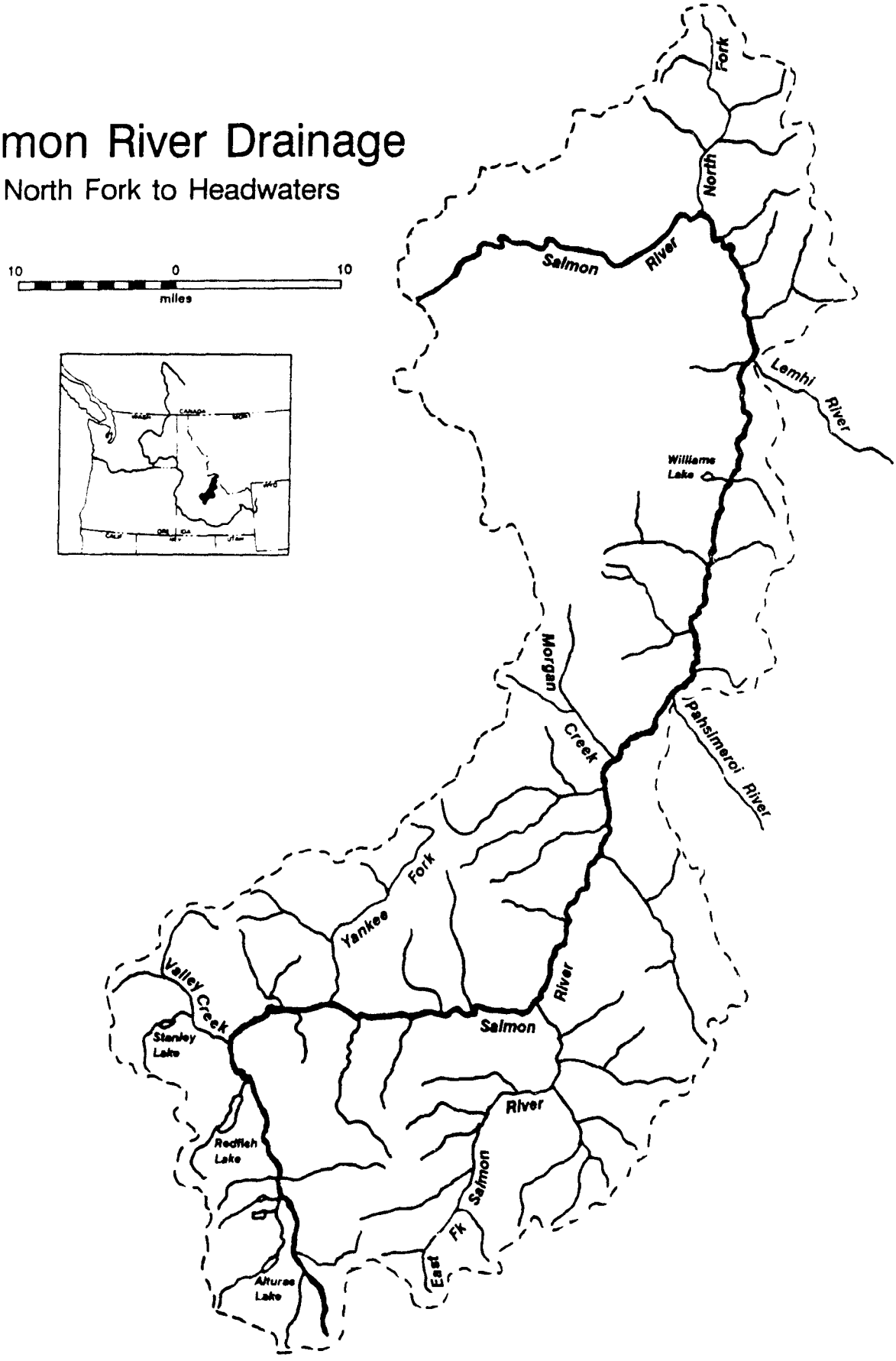
Salmon River Drainage

North Fork to Headwaters



A. Overview

The portion of the Salmon River between North Fork and the headwaters is 173 miles long and drains approximately 6,000 square miles. Highways 93 and 75 border the entire stretch of river. The headwaters area, upstream from Thompson Creek, is within the Sawtooth National Recreation Area (SNRA) which is administered by the USFS. Major tributaries include the Lemhi, Pahsimeroi, East Fork Salmon, and Yankee Fork Salmon rivers, which are reported separately following this section.

The drainage is characterized by mountainous terrain bisected by river valleys. Major mountain ranges include the Bitterroot Range along the Idaho/Montana border; the Lemhi Range, southwest of the Lemhi River; the Lost River Range, southwest of the Pahsimeroi River; the White Cloud Peaks, east of the upper Salmon River; and the Sawtooth Range within the Sawtooth Wilderness, west of the upper Salmon River. Numerous lakes with roaded access in the Stanley area provide significant recreational opportunity. They include Stanley, Redfish, Little Redfish, Yellowbelly, Pettit, Alturas and Perkins lakes. Also, hundreds of lakes within the Sawtooth Wilderness and White Cloud Peaks areas provide fishing opportunity in a secluded, wilderness setting for backpacking enthusiasts. Salmon, Challis and Stanley are the only population centers in the upper Salmon River drainage. Logging, mining, ranching and recreation are the major industries in the area.

Many recreationists are attracted to the scenic beauty and recreational opportunities of the SNRA. The granitic watershed yields few nutrients to the upper Salmon River and the large morraine lakes. Sterile waters and a short growing season render the lakes and streams incapable of producing the fish necessary to meet the demands of large numbers of anglers. Therefore, approximately 110,000 hatchery rainbow trout are stocked into popular waters in the upper Salmon River drainage. Early in the season the fishery is primarily supported by steelhead smolts.

Anadromous management action in the Salmon River from North Fork to the headwaters will emphasize maintaining existing natural spawning populations of chinook and steelhead and preserving good habitat quality. The main stem Salmon will continue to be managed for exploitation of hatchery steelhead, but consumptive harvest is not expected on naturally produced steelhead or chinook during the next five years. The reach of Salmon River from the East Fork to Yankee Fork contains good habitat for main stem spawning chinook. A substantial number of wild summer chinook spawn in the broad riffles near the mouth of Warm Spring Creek. Many of the Salmon River headwater tributaries are meandering meadow streams in a subalpine valley which are critical spawning and rearing areas for spring chinook.

At one time, significant runs of sockeye salmon returned to spawn along the shorelines and inlets of the large Stanley Basin lakes. In 1910, Sunbeam Dam was constructed across the Salmon River, just upstream from

Yankee Fork. Fish passage was improbable until a fish ladder was completed in 1920. Even then, fish passage was very limited. In 1934, the dam was breached and fish passage was restored. Sockeye runs continued at remnant levels but declined steadily. In 1987, the last trapping effort on Redfish Lake Creek captured only 16 adult fish. Redfish Lake, and possibly Alturas, are the only Stanley Basin lakes that support sockeye production since many of the other lakes were treated to eradicate nongame fish. After treatment, migration barriers were installed on the outlets to prevent recolonization. Both Redfish and Alturas lakes support kokanee populations, and recent evidence indicates that individuals in those populations do express anadromy and migrate downstream. Investigation will be continuing into sockeye and kokanee interaction and enhancement in these lakes.

Broodstock for hatchery salmon and steelhead stocked into this portion of the river are trapped in two places. A-run steelhead are trapped at Idaho Power Company's Pahsimeroi Hatchery and Sawtooth Hatchery, a Lower Snake River Compensation Project facility. Eggs are reared at steelhead hatcheries in the Hagerman Valley and smolts are trucked back to the upper Salmon River. Spring chinook are also trapped at Sawtooth Hatchery. Eggs are reared at the hatchery for release into the Salmon River. For further details, such as steelhead and chinook adult escapement goals, hatchery capacities, and specific anadromous program objectives, refer to the IDFG 1991-95 Anadromous Plan, which is published under separate cover and is available from the Department.

B. Objectives and Programs

1. Objective: Maintain existing natural spawning populations of salmon and steelhead.

   Program: Allow natural production to sustain existing naturally produced populations. Limit outplanting of hatchery fish, other than direct hatchery releases, to support supplementation research and areas devoid of naturally producing populations of salmon and steelhead. Use surplus hatchery chinook in the Yankee Fork and surplus hatchery steelhead in Yankee Fork and Panther Creek. Modify weir management to sustain and rebuild natural populations. Continue intensive smolt monitoring research to gain natural production and survival information.

2. Objective: Increase access and facilities for steelhead and salmon anglers.

   Program: Acquire additional public fishing access with purchases or easements, develop boat launches, parking sites and sanitation facilities.

3. Objective: Improve the quality of resident trout fishing in the main stem Salmon River during the summer months.

Program: Continue efforts to find a suitable strain of rainbow trout to stock into the river. Stock and evaluate alternate strains of sub-catchable rainbow trout which will provide a fishery without impacting anadromous fish.

4. Objective: Identify the production potential of the large Stanley Basin lakes.

   Program: Collect production index data for the major Stanley Basin lakes and incorporate into existing models to determine potential. Develop management plans.

5. Objective: Examine feasibility of reestablishing sockeye runs to historic areas.

   Program: Cooperate with and support efforts by other agencies to protect and enhance sockeye runs. Evaluate benefits and feasibility of lake fertilization to enhance kokanee/sockeye production.

6. Objective: Identify and propose solutions for possible sources of accelerated eutrophication in Williams Lake.

   Program: Work with local water and sewer district, homeowners association, land management agencies and water quality agencies to identify possible sources of nutrient enrichment. Develop plans for aeration or destratification.

7. Objective: Maintain and improve habitat quality of main stem and tributary production areas.

   Program: Oppose land use activities that further degrade the quality of natural production areas. Participate in allotment management plan review. Encourage implementation of grazing management plans which eliminate negative grazing impacts to fishery productivity and survival. Participate in interagency mining oversight committees to review operating plans and work with regulatory agencies to require strict compliance with mining laws to protect water quality and fish populations. Develop monitoring programs for fish populations and fish habitat relative to mining activities, if needed. Continue to monitor and evaluate benefits from habitat projects. Continue cooperation with the SNRA and local residents to place habitat structures in the river near Stanley to provide holding water for resident trout.

8. Objective: Provide fishing opportunity for wild trout in streams.

   Program: Stock westslope cutthroat trout into the Salmon River and tributaries above Hell Roaring Creek. Discontinue stocking other resident species, remove competing species if necessary, and

implement appropriate protective regulations. Develop sympatric populations of westslope cutthroat and steelhead trout.

9. Objective: Continue improving efficiency of catchable stocking in the Stanley area.

   Program: Increase stocking frequency in heavily used areas below Hell Roaring Creek; decrease or eliminate stocking in underutilized areas.

10. Objective: Improve anadromous juvenile and adult fish passage in the Salmon River.

    Program: Work with SNRA to alleviate passage problems in main river and Alturas Lake Creek due to irrigation diversions and dewatering. Identify and screen irrigation diversions, or repair screens, as needed.

DRAINAGE: Salmon River: North Fork-Headwaters

Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
From North Fork to East Fork	106/	Coldwater/anadromous	Rainbow trout Bull trout Whitefish	General	Provide yield fishery for naturally produced trout. Investigate feasibility of establishing a put-and-grow fishery for a temperature-tolerant strain of rainbow trout without impacting anadromous stocks. Maximize whitefish yield.
			Wild/natural Steelhead Chinook salmon	Preservation	Maintain harvest closure until escapement goals are met.
			Hatchery Steelhead	Anadromous	Provide maximum yield of fish surplus to escapement goals.
From East Fork to Sawtooth Fish Hatchery	41/	Coldwater/anadromous	Rainbow trout Bull trout Cutthroat trout Whitefish	Put-and-take trout	Maintain put-and-take fishery to support intensive effort during summer months. Fishery augmented by natural production and releases of steelhead smolts from Sawtooth Hatchery. Maximize whitefish yield. Maintain closure adjacent to hatchery. Maintain reduced season from Redfish Lake Creek upstream to hatchery closure to prevent harassment of steelhead adults and excessive harvest of newly released smolts.
			Wild/natural Steelhead Chinook salmon	Preservation	Maintain harvest closure until escapement goals are met.
			Hatchery Steelhead	Anadromous	Provide maximum yield of fish surplus to escapement goals. Trap sufficient numbers of hatchery chinook salmon and steelhead to provide for production

					needs. Continue to release adult chinook salmon and steelhead returning to Sawtooth Fish Hatchery above the weir for natural production.
From Sawtooth Fish Hatchery to Hell Roaring Creek	8/	Coldwater/anadromous	Rainbow trout Cutthroat trout Bull trout Whitefish	Put-and-take trout	Maintain put-and-take fishery to support intensive effort during summer months. Fishery augmented by natural production. Maximize whitefish yield.
			Steelhead Chinook salmon	Preservation	Maintain adult harvest closure until escapement goals are met.
From Hell Roaring Creek to headwaters and tributaries	17/	Coldwater/anadromous	Rainbow trout Cutthroat trout Brook trout Bull trout Whitefish	Wild trout	Eliminate catchable releases in tributaries (Beaver, Smiley, Pole and Frenchman creeks). Reestablish westslope cutthroat trout as appropriate stocks become available. Manage for reduced yield and natural production.
			Steelhead Chinook salmon	Preservation	Maintain adult harvest closure until escapement goals are met. Improve passage past irrigation ditches.
Tributaries between North Fork and Hell Roaring Creek (excluding Lemhi, Pahsimeroi, E. Fork, Yankee Fork rivers; Morgan and Valley creeks)	466/	Coldwater/anadromous	Rainbow trout Cutthroat trout Bull trout Brook trout Whitefish	Wild trout	Provide yield fishery for naturally produced trout. Maximize whitefish yield.
			Chinook salmon Steelhead	Preservation	Maintain closure in spawning tributaries.
Morgan Creek	18/	Coldwater/anadromous	Rainbow trout Cutthroat trout Bull trout Brook trout	Put-and-take trout	Provide put-and-take fishery supplemented by natural production. Evaluate return to creel and adjust stocking strategy if needed.
			Chinook salmon Steelhead	Preservation	Maintain closure in spawning tributaries.

Valley Creek from Mouth to Stanley Creek	5/	Coldwater/anadromous	Rainbow trout Bull trout Brook trout	Put-and-take trout	Provide put-and-take fishery supplemented by natural production.
			Steelhead Chinook salmon	Preservation	Maintain closure in spawning tributaries.
Valley Creek from Stanley Creek to Headwaters	16/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout Brook trout	Wild trout	Yield fishery provided by natural production. Maintain total fishery closure between Stanley Creek and East Fork during summer to protect spawning chinook salmon.
			Steelhead Chinook salmon	Preservation	Maintain closure in spawning tributaries.
Stanley Lake Creek below Stanley Lake	2/	Coldwater/anadromous	Rainbow trout	Put-and-take trout	Stock hatchery rainbow of catchable size to provide put-and-take fishery.
			Steelhead Chinook salmon	Preservation	Maintain closure in spawning tributaries.
Alturas Lake Creek (to Perkins Lake)	8/	Coldwater/anadromous	Cutthroat trout Rainbow trout Bull trout Brook trout	Wild trout	Yield fishery provided by natural production. Maintain closure to all fishing up to Cabin Creek Road during summer period to protect spawning chinook salmon. Improve passage past irrigation diversions. Maintain closure in spawning tributaries.
			Steelhead Chinook salmon	Preservation	
Lake Creek upstream from Williams Lake	5/	Coldwater	Rainbow trout	Wild trout	Maintain spring closure to protect rainbow spawners.
Fishhook Creek	8/	Coldwater	Bull trout	Preservation	Closed to all fishing to protect early arriving bull trout spawners.

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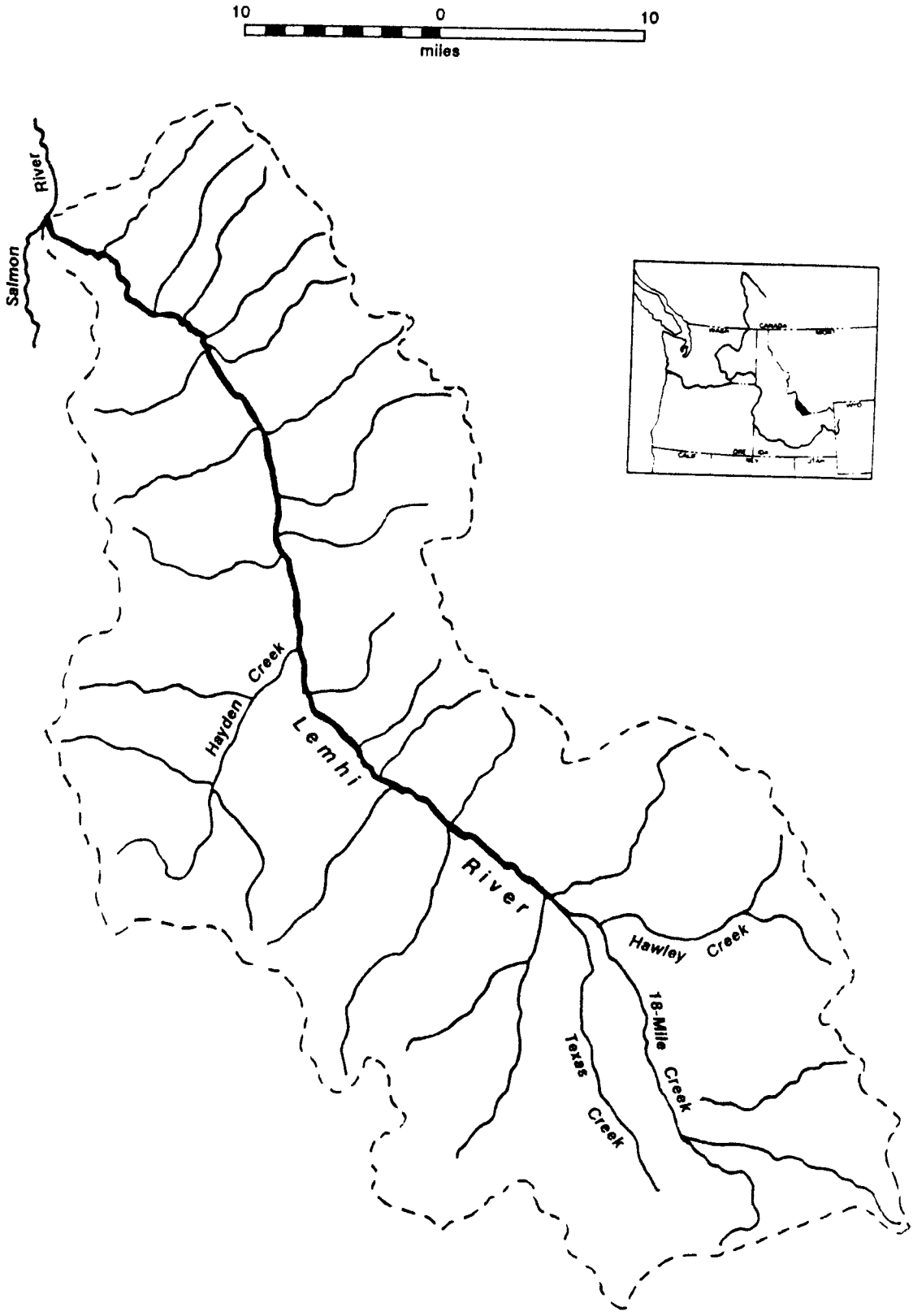
Williams Lake	/228	Coldwater	Rainbow trout Bull trout	General	Yield fishery supported by natural production. Work with other agencies, local sewer district and homeowners association to identify sources of nutrient loading and propose solutions. Enhance fishery accordingly. Develop management plan which includes plans for destratification or aeration.
Wallace Lake	/10	Coldwater	Rainbow trout	Put-and-take trout	Stock hatchery rainbow of catchable size to provide put-and-take fishery.
Iron Lake	/18	Coldwater	Rainbow trout	Put-and-take trout	Stock hatchery rainbow of catchable size to provide put-and-take fishery.
Mosquito Flat Reservoir	/37	Coldwater	Rainbow trout Brook trout	Put-and-take trout	Stock hatchery rainbow of catchable size to provide put-and-take fishery.
Bayhorse Lakes	/22	Coldwater	Rainbow trout	Put-and-take trout	Stock hatchery rainbow of catchable size to provide put-and-take fishery.
Stanley Lake	/182	Coldwater/anadromous	Rainbow trout Brook trout Lake trout Kokanee salmon	General	Continue stocking catchable rainbow trout. Discontinue stocking of lake trout. Enhance kokanee salmon populations. Investigate feasibility of predators. Provide yield fishery. Develop management plan.
			Sockeye salmon	Preservation	Support efforts to reestablish sockeye salmon population. Develop a sockeye salmon recovery plan.
Little Redfish Lake	/65	Coldwater	Rainbow trout Bull trout Kokanee salmon	General	Yield fishery provided by catchable rainbow trout with some natural production.

Redfish Lake	/1,502	Coldwater/anadromous	Rainbow trout Bull trout Kokanee salmon Sockeye salmon	General Preservation	Provide yield fishery with catchable rainbow trout and some natural production. Develop management plan. Support efforts to reestablish sockeye population. Develop a sockeye salmon recovery plan.
Yellowbelly Lake	/188	Coldwater	Cutthroat trout Brook trout Rainbow trout	Preservation	Stock with westslope cutthroat trout to develop a brood stock. Manage as a catch-and-release fishery.
Pettit Lake	/389	Coldwater	Rainbow trout Brook trout Cutthroat trout	General	Provide yield fishery with catchable rainbow trout and some natural production. Develop management plan.
Alturas Lake	/838	Coldwater/anadromous	Rainbow trout Bull trout Kokanee salmon Sockeye salmon	General Preservation	Provide yield fishery with catchable rainbow trout and some natural production. Develop management plan. Support efforts to reestablish sockeye salmon population. Develop a sockeye salmon recovery plan.
Perkins Lake	/51	Coldwater	Rainbow trout Bull trout Whitefish	General	Provide yield fishery with catchable rainbow trout and some natural production.
Alpine Lakes	/5,000	Coldwater	Rainbow trout Cutthroat trout Golden trout Brook trout Grayling	General	Provide diversity of angling opportunity. Provide yield fisheries in lakes where effort is relatively low and access is restricted to trails. Aerial stock fry in selected lakes every three years. Begin evaluating program. Enhance fisheries in lakes with stunted brook trout by renovation or introduction of bull trout, lake trout, splake, or other predators.

Lemhi River Drainage



A. Overview

The Lemhi River flows 56 miles from the confluence of Texas and Eighteenmile creeks to the Salmon River at river mile 258.5 at the city of Salmon. The river drains approximately 1,290 square miles and flows through a broad valley of fertile agricultural land between the Bitterroot and Lemhi mountain ranges. The valley includes more than 25,000 acres of land irrigated for hay production and grazing. The principal form of irrigation is flooding from an extensive system of ditches. All major ditches are screened and have bypass systems to prevent fish losses. The river is overappropriated for irrigation and is dewatered in the lower reach during low flow years which impedes adult and juvenile salmon and steelhead migration.

The drainage supports runs of both salmon and steelhead. The amount of spawning habitat has been reduced by stream alterations but is still significant, particularly in the upper reaches. From 1966 to 1982, a small hatchery was operated on Hayden Creek which tested the rearing of steelhead trout and chinook salmon in earthen ponds. This facility is no longer in use but has potential for producing chinook salmon.

Hatchery chinook have not been outplanted into this drainage in large numbers since 1982. The population has sustained itself through natural production. Steelhead have been outplanted annually through the 1980s. Over the next five years, anadromous management action in the Lemhi will emphasize maintaining existing natural spawning populations of chinook and steelhead. For further details, such as steelhead and chinook adult escapement goals and specific anadromous program objectives, refer to the IDFG 1991-95 Anadromous Plan, which is published under separate cover and is available from the Department.

Resident fish biomass is dominated by mountain whitefish but is also comprised of rainbow trout and rainbow-cutthroat hybrids. Hayden Creek, a major tributary, supports a spawning population of bull trout, as well as salmon and steelhead.

B. Objectives and Programs

1. Objective: Maintain existing natural spawning populations of salmon and steelhead.

   Program: Allow natural production to sustain existing naturally producing populations. Limit outplanting of hatchery fish to support supplementation research and areas devoid of naturally producing populations of salmon and steelhead.

2. Objective: Improve angler access to the Lemhi River.

   Program: Negotiate with landowners to establish fishing by permission, easements or purchases.

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3. Objective: Improve flows in lower river during peak irrigation season.

   Program: Investigate methods such as purchasing water rights, improved irrigation delivery systems, permanent headgates, stream channel improvements, etc.

4. Objective: Minimize loss of juvenile salmon and steelhead to irrigation diversions on streams.

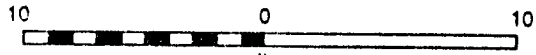
   Program: Evaluate the current screening program.

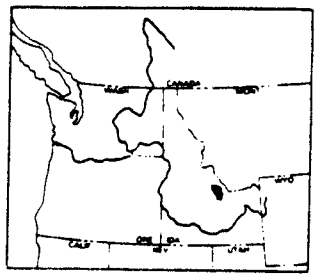
   Program: Accelerate replacement of old wiper screens with new roller drum screens. Install screens in remaining unscreened ditches, particularly in the Hayden Creek drainage.

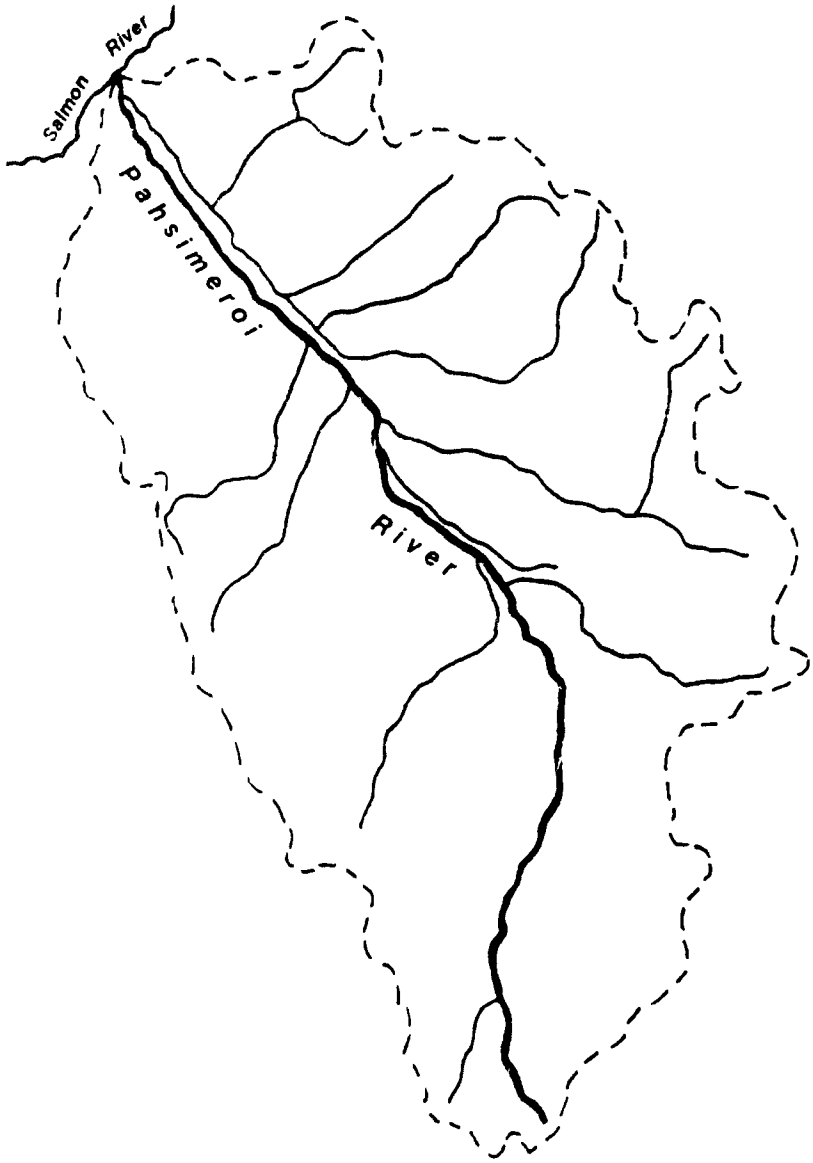
DRAINAGE Lemhi River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
Lemhi River and tributaries (except Hawley Creek)	558/	Coldwater/anadromous	Rainbow trout Cutthroat trout Bull trout Brook trout Whitefish	Wild trout	Provide yield fishery for naturally produced trout. Maximize whitefish yield.
			Steelhead Chinook salmon	Preservation	Maintain harvest closure.
Hawley Creek	5/	Coldwater	Rainbow trout Cutthroat trout	Put-and-take trout	Provide put-and-take fishery supplemented by natural reproduction.
Meadow Lake	/12	Coldwater	Rainbow trout	General	Provide put-and-take fishery.
Alpine Lakes	/421	Coldwater	Rainbow trout Cutthroat trout Brook Trout Grayling	General	Provide a diversity of angling opportunity. Aerial stock selected lakes with fry on a three-year rotational basis.

Pahsimeroi River Drainage







PAHSIMEROI RIVER DRAINAGE

A. Overview

The Pahsimeroi River flows 49 miles from the confluence of the East and West forks to the Salmon River at river mile 304. The drainage is approximately 845 square miles. Similar to the Lemhi River, the Pahsimeroi Valley is mostly under private ownership and heavily irrigated (particularly in the lower drainage) for hay and grazing. Most major tributaries are dewatered in the lower reaches during the irrigation season and are inaccessible to chinook for spawning.

The Pahsimeroi Valley lies between the Lemhi and Lost River mountain ranges. Water percolates through the broad, pervious alluvial fan in the upper valley and enters the river through ground water and springs lower in the valley. Therefore, productivity in the river is higher than most streams in the upper Salmon River drainage.

A hatchery on the Pahsimeroi River, owned and funded by Idaho Power Company and operated by the Department, traps and rears summer chinook salmon and also traps A-run steelhead which are reared at fish hatcheries in the Hagerman Valley. The hatchery was constructed and is operated as mitigation for lost anadromous production from the Hells Canyon dam complex. The adult steelhead returning to the Pahsimeroi Hatchery contribute significantly to the steelhead fishery in the upper Salmon River.

Anadromous management action in the Pahsimeroi will emphasize maintaining existing natural spawning populations of chinook and steelhead. For further details, such as steelhead and chinook adult escapement goals, hatchery capacities, and specific anadromous program objectives, refer to the IDFG 1991-95 Anadromous Plan, which is published under separate cover and is available from the Department.

Resident fish species include rainbow trout, brook trout, bull trout, whitefish, and cutthroat trout. Fish densities are large and growth is good.

B. Objectives and Programs

1. Objective: Maintain existing natural spawning populations of salmon and steelhead.

   Program: Allow natural production to sustain existing, naturally producing populations. Limit outplanting of hatchery fish, other than direct hatchery releases, to support supplementation research and areas devoid of naturally producing salmon and steelhead. Modify weir management to sustain natural populations.

2. Objective: Improve angler access to the Pahsimeroi River.

Program: Negotiate with landowners to establish fishing by permission, easements or purchases.

3. Objective: Minimize loss of juvenile salmon and steelhead to irrigation diversions on streams.

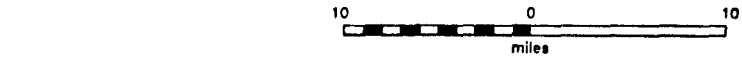
Program: Accelerate replacement of old wiper screens with new roller drum screens. Install screens in remaining unscreened ditches.

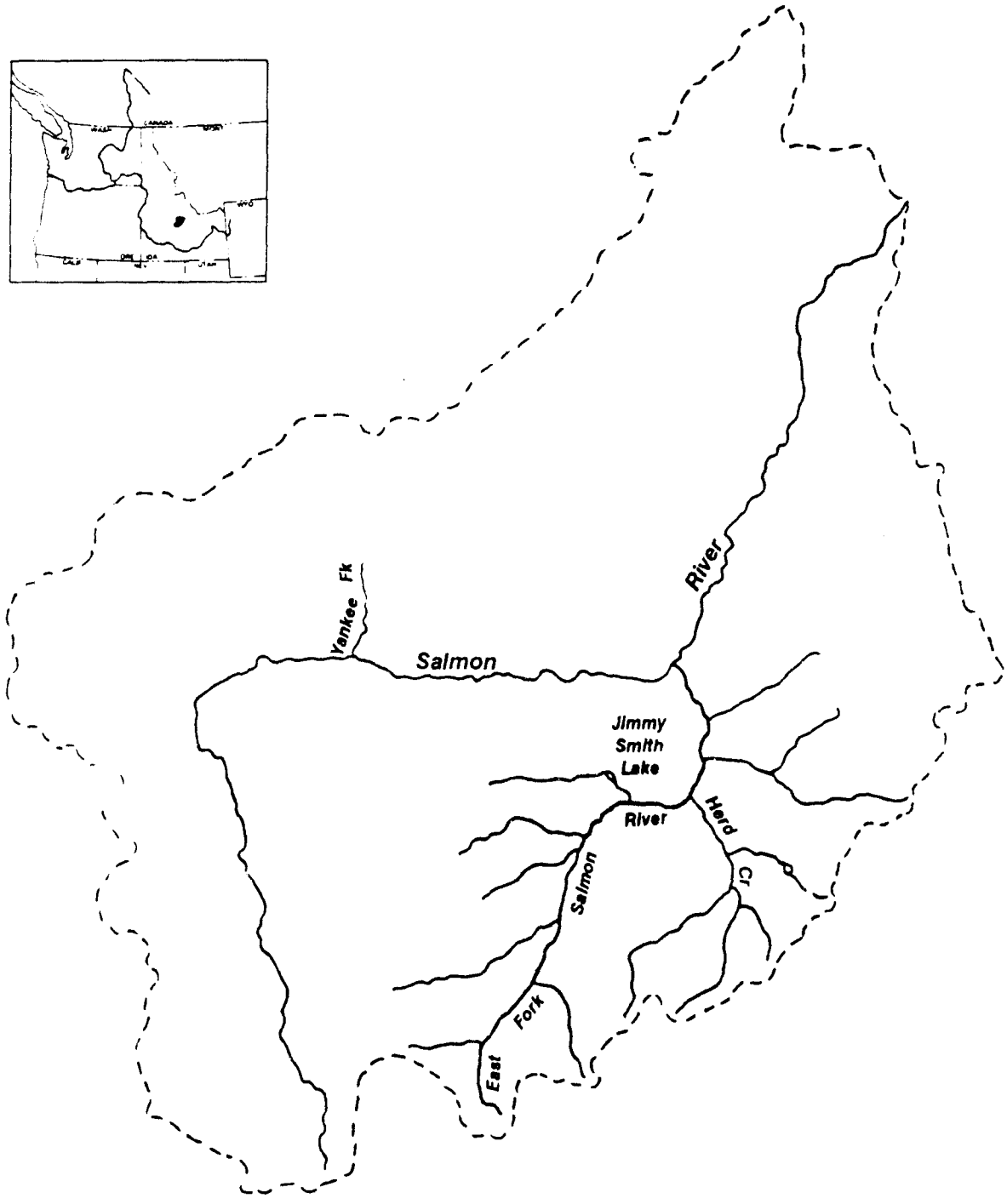
DRAINAGE: Pansimeroi River

Water	Miles/acres	Fishery			Management direction
		Type	Species present	Management	
Pansimeroi River and tributaries	276/	Coldwater/anadromous	Rainbow trout Cutthroat trout Brook trout Bull trout Whitefish	Wild trout	Provide yield fishery for naturally produced trout. Maximize whitefish yield.
			Steelhead Chinook salmon	Preservation	Maintain harvest closure to protect spawning fish. Trap sufficient numbers of hatchery chinook salmon and steelhead for production programs.

Salmon River Drainage

East Fork





A. Overview

The East Fork Salmon River flows 33 miles from the confluence of the South and West forks before entering the Salmon River at river mile 343. The drainage area is 540 square miles and includes the White Cloud Peaks to the east and the Boulder Mountains to the south. Water supply and quality in the upper drainage is excellent for fish spawning and rearing. In the lower drainage, the river bisects a zone of volcanic soils which are highly erosive. Lack of vegetative cover and livestock grazing in the riparian zone result in substantial sediment loads to the river, particularly during spring runoff.

The drainage supports runs of spring and summer chinook salmon and steelhead trout. The East Fork is one of the most important tributaries for salmon spawning and rearing in the upper Salmon River drainage. A trapping facility, constructed at approximately river mile 18 in 1984, collects spring chinook and steelhead as part of the Sawtooth Hatchery operation. Hatchery steelhead in this drainage are B-run fish originally from Dworshak National Fish Hatchery. For further details, such as steelhead and chinook adult escapement goals, hatchery capacities, and specific anadromous program objectives, refer to the IDFG 1991-95 Anadromous Plan, which is published under separate cover and is available from the Department.

B. Objectives and Programs

1. Objective: Maintain existing natural spawning populations of salmon and steelhead.

   Program: Allow natural production to sustain existing, naturally produced populations. Limit outplanting of hatchery fish, other than direct hatchery releases, to support supplementation research and areas devoid of naturally producing populations of salmon and steelhead. Modify weir management to sustain natural populations.

2. Objective: Maintain and improve fish habitat and water quality.

   Program: Oppose land use activities that further degrade the quality of natural production areas. Participate in allotment management plan review. Work with landowners, the Shoshone-Bannock Tribes, and land management agencies to improve grazing practices, fence riparian areas, and take other actions to reduce erosion and eliminate negative grazing impacts to fishery productivity and survival.

3. Objective: Improve anadromous juvenile and adult fish passage in the Salmon River.

   Program: Work with landowners to alleviate passage problems due to irrigation diversions. Identify and screen irrigation diversions, or repair screens, as needed.

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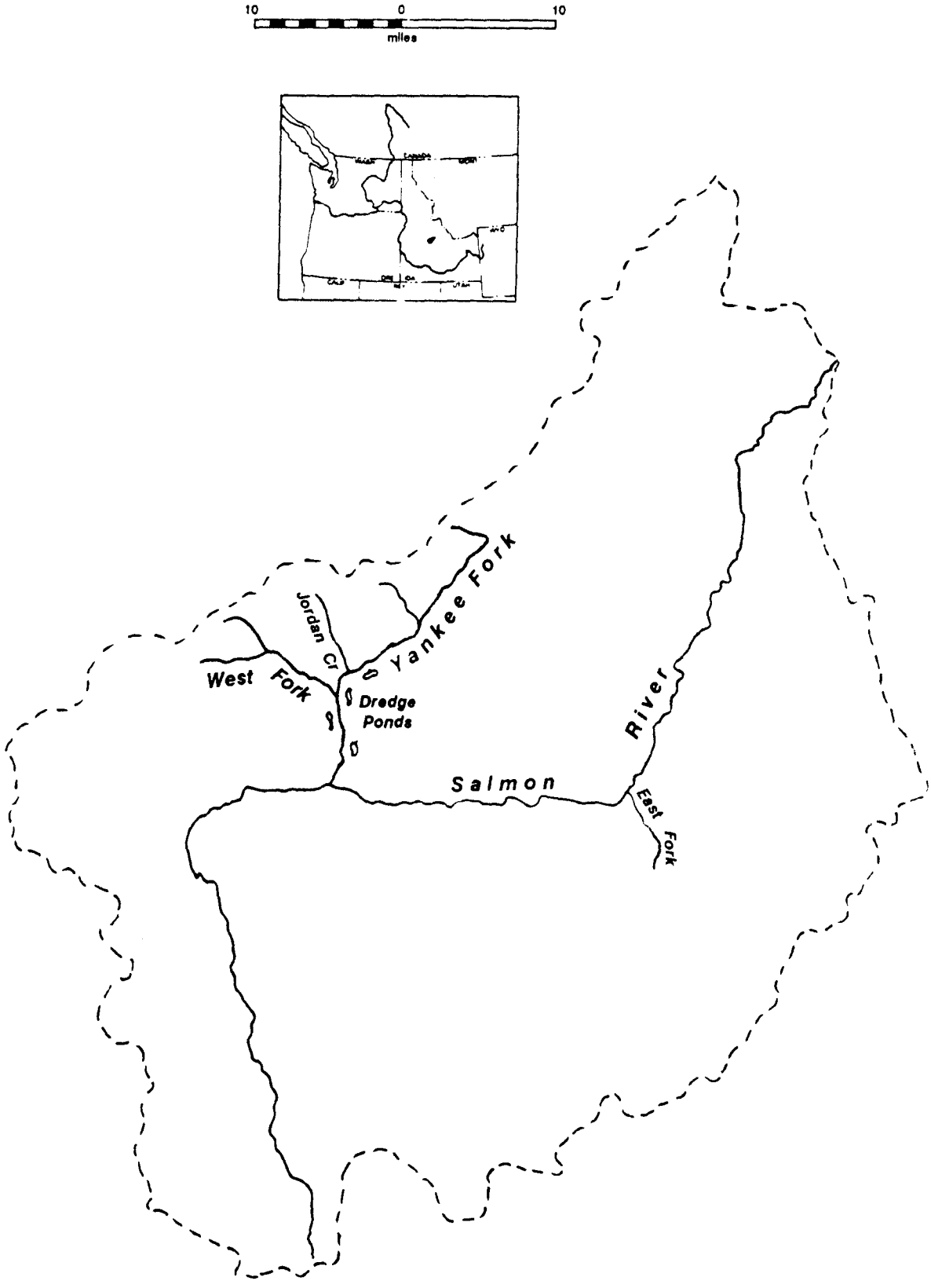
DRAINAGE: East Fork Salmon River

Water	Miles/acres	Fishery Type	Fishery Species present	Fishery Management	Management direction
East Fork Salmon River and tributaries	232/	Cold water/anadromous	Rainbow trout Cutthroat trout Bull trout Whitefish Steelhead Chinook salmon	Wild trout Preservation	Provide yield fishery for naturally produced trout. Maintain total seasonal fishery closure to protect chinook salmon spawners. Maintain harvest closure to protect spawning fish.
Jimmy Smith Lake	/62	Cold water	Rainbow trout	Wild trout	Provide yield fishery supported by natural production.

Salmon River Drainage

Yankee Fork



YANKEE FORK SALMON RIVER DRAINAGE

A. Overview

The Yankee Fork Salmon River flows 26 miles from its headwaters to the Salmon River at river mile 367.1. The drainage area is 195 square miles. Soils are primarily Idaho Batholith granitics which produce infertile streams.

Gold was discovered in the drainage in 1873 and the towns of Custer and Bonanza developed into thriving mining communities along the banks of the Yankee Fork. Until the late 1930s, gold was extracted by placer mining. In 1938 a large dredge was constructed and operated from 1939-1942 by the Silas Mason Company. After World War II the dredge was reactivated and operated until 1952. It was estimated that $11 million worth of gold was extracted (at market values effective at the time of mining) from approximately eight miles of Yankee Fork and Jordan Creek. Mining activity continues today throughout the drainage and particularly in the Jordan Creek drainage.

Secondary roads border the entire length of Jordan Creek and the Yankee Fork upstream to McKay Creek. The lower West Fork is accessible by road and the remainder of the stream is bordered by a trail.

Despite the extensive mining, Yankee Fork continues to support runs of chinook salmon and steelhead trout. Shoshone-Bannock tribal biologists have been augmenting the chinook population with hatchery juvenile releases from selected dredge ponds. Hatchery steelhead have also been outplanted into this drainage. Resident species include rainbow trout, bull trout and cutthroat trout. The dredge ponds and the lower Yankee Fork are stocked with catchable rainbow trout during the summer months.

For further details, such as steelhead and chinook adult escapement goals, hatchery capacities, and specific anadromous program objectives, refer to the IDFG 1991-95 Anadromous Plan, which is published under separate cover and is available from the Department.

B. Objectives and Programs

1. Objective: Develop hatchery-supported runs of salmon and steelhead capable of supporting harvest.

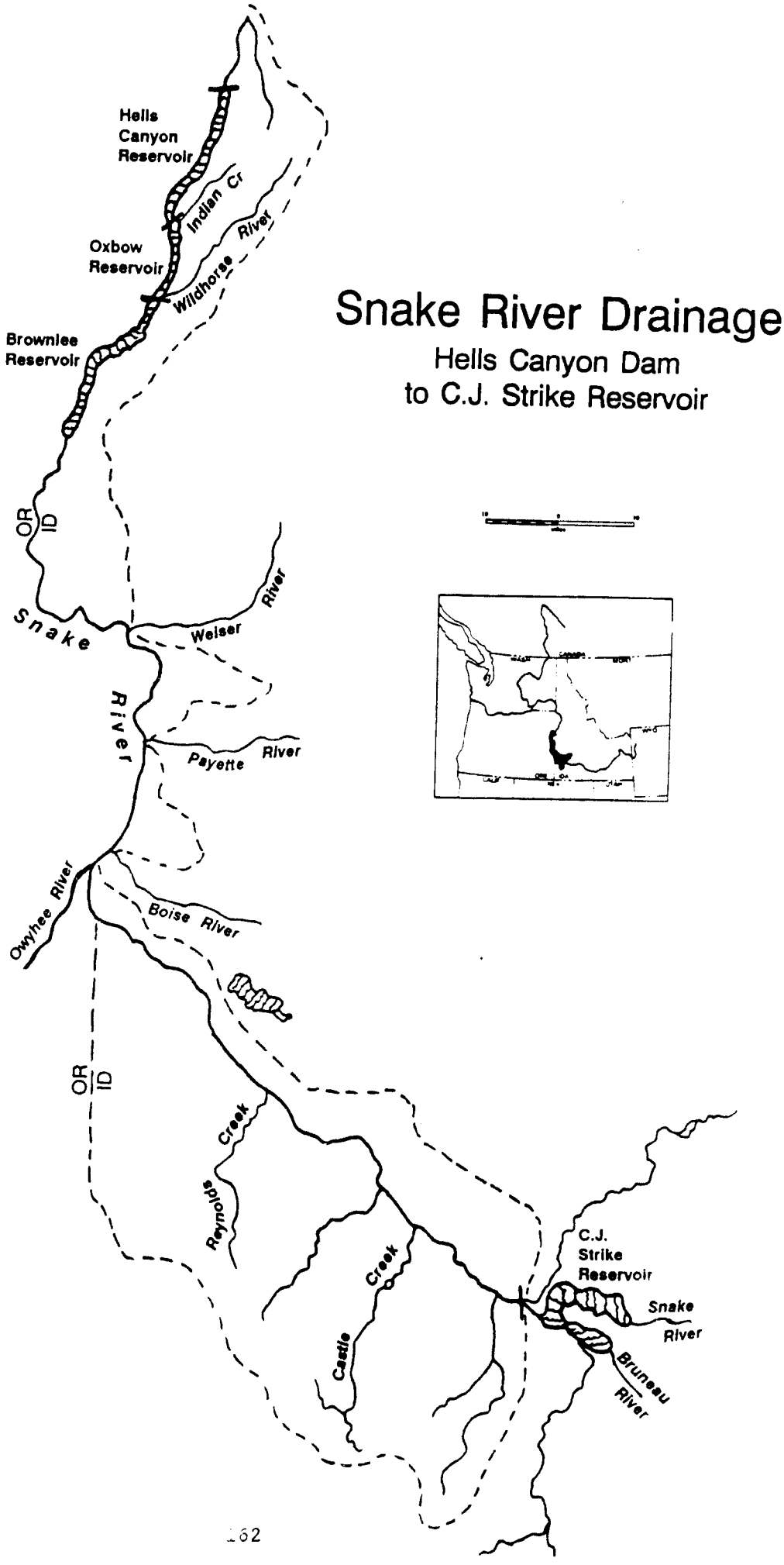
   Program: Outplant surplus hatchery chinook and steelhead into the Yankee Fork. Support efforts of the Shoshone-Bannock Tribes to augment chinook production and continue to use dredge ponds for final rearing and release of hatchery chinook. Coordinate fish outplants with the Shoshone-Bannock Tribes.

2. Objective: Maintain and improve fish habitat and water quality.

Program: Reduce impacts of mining activity to fish populations and habitat by continuing to work with agencies such as the U.S. Forest Service and Department of Water Resources, mining companies, and private consultants to provide adequate protective measures in licensing and permitting agreements.

DRAINAGE: Yankee Fork Salmon River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Management	Management direction
Yankee Fork Salmon River and tributaries	110/	Coldwater/anadromous	Rainbow trout Cutthroat trout Bull trout	Put-and-take trout	Provide put-and-take fishery supplemented by natural production.
			Chinook salmon Steelhead	Preservation	Supplement with hatchery releases. Develop harvest strategies.
Yankee Fork Dredge Ponds	/10	Coldwater/anadromous	Rainbow trout	Put-and-take trout	Provide put-and-take fishery. Increase stocking to provide additional harvest opportunity.
			Chinook salmon	Preservation	Shoshone-Bannock Tribal biologists have developed program for pond rearing chinook salmon.



Snake River Drainage

Hells Canyon Dam to C.J. Strike Reservoir

SNAKE RIVER DRAINAGE FROM HELLS CANYON DAM
to
C.J. STRIKE RESERVOIR

A. Overview

The Snake River between Hells Canyon Dam and the backwaters of C.J. Strike Reservoir has been greatly altered by impoundments and diversions. Within this reach of river, Idaho Power has constructed five major impoundments: Hells Canyon, Oxbow, Brownlee, Swan Falls, and C.J. Strike. These five reservoirs impound 111 miles of river with a total of 27,400 surface acres of water. There is 154 miles of flowing water remaining within this reach. The Snake River impoundments between Hells Canyon Dam and the State Highway 51 bridge support populations of warmwater and coldwater game fish.

Major tributaries to the Snake River between Hells Canyon Dam and C.J. Strike Reservoir include the Weiser, Payette, Malheur, Boise, Owyhee, and Bruneau rivers. The Malheur is entirely in Oregon and will not be discussed in this plan. The other major tributaries are covered separately in this plan under the major headings of Weiser River Drainage, Payette River Drainage, Boise River Drainage, Owyhee River Drainage, and Bruneau River Drainage.

Minor or small tributaries to the Snake River within this planning section flow from the Seven Devil Mountains, Cuddy Mountains, Hitt Mountains, and the Owyhee Mountains. Streams draining the semi-arid Owyhee Mountains flow through deep, rugged canyons; many flow intermittent during the warm summer months. The remaining small tributaries drain high elevation, mountainous terrain. These streams are all typically steep gradient, boulder strewn with small, deep pools. All small tributaries to the Snake River, which are capable of supporting fish, contain native redband trout (interior rainbow trout).

From Brownlee Reservoir upstream to Walters Ferry, the Snake River flows through a broad, flat plain with low gradient, few rapids or riffles, and many large islands. This section of river supports a diversity of warmwater game species, including smallmouth bass, channel catfish, largemouth bass, crappie, bluegill, sunfish, and flathead catfish. From Walters Ferry upstream to Swan Falls Dam, the Snake River flows through a narrow canyon with boulder strewn rapids and large, deep pools. The primary fishery upstream from Walters Ferry consists of smallmouth bass, channel catfish, and white sturgeon.

All minor tributaries to the Snake River and impoundments within this reach support populations of the native redband subspecies of rainbow trout. This subspecies will be given management priority to protect wild stocks from overharvest and habitat degradation.

B. Objectives and Programs

1. Objective: Provide a diversity of smallmouth bass fishing experiences within the river and main stem impoundments.

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Program: Evaluate regulation alternatives and public support for special regulations that would increase catch rates for larger size classes of bass in Brownlee, Oxbow and/or Hells Canyon reservoirs.

Program: From C.J. Strike to Swan Falls assess need for special regulations to maintain catch rates for large bass.

Program: Assess current growth and condition of smallmouth bass. If warranted, identify a suitable prey fish species and seek interstate approval for introduction to the Snake River from C.J. Strike Reservoir downstream to Brownlee Reservoir to enhance growth and production of smallmouth bass.

2. Objective: Enhance fisheries for largemouth in reservoirs with suitable adult habitat that are limited by juvenile recruitment.

Program: Evaluate stocking of sublegal largemouth bass at a rate of one per acre in waters that have adult habitat but are recruitment limited.

Program: Enhance spawning and rearing habitat for largemouth bass by constructing dikes, islands, and windbreaks to allow vegetation to grow in protected areas.

3. Objective: Increase abundance of sturgeon.

Program: Pending evaluation of hatchery fish contribution and impact in the Bliss reach release juveniles into free flowing sectors of the Snake River between C.J. Strike and Brownlee.

Program: Monitor catch rates through volunteer report cards and conduct mark, recapture, population estimate studies to determine abundance of sturgeon.

4. Objective: Assess angler use and harvest and trout stocking program success on both Oxbow and Hells Canyon reservoirs.

Program: Perform roving creel surveys on both systems to gather these data to assist in management decisions. These data will allow the Department to refine fish stocking plans, evaluate bass fishery under current minimum size limit, assess angler satisfaction, and evaluate angler desire for trophy bass management.

5. Objective: Determine fish densities and habitat condition status of major tributaries to Oxbow and Hells Canyon reservoirs such as Wildhorse River and Indian Creek.

Program: Survey these drainages to document current status of wild salmonids present and condition of habitats so the Department can better manage these resources and offer appropriate and accurate responses to proposed land management activities of private, state and federal entities.

DRAINAGE: Snake River - Hells Canyon Dam to C.J. Strike Reservoir

Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
Hells Canyon Reservoir		Mixed/anadromous	Steelhead	Anadromous	Maintain limited fishery with hatchery steelhead.
			Rainbow trout Smallmouth bass Largemouth bass Channel catfish Bluegill Crappie Yellow perch Bullhead Kokanee salmon	General	Stock with kokanee salmon. Stock additional trout as fall subcatchables. Maintain catch rates for warmwater fish at a minimum of 1.0 fish/hr. Perform creel survey to assess angler satisfaction and effectiveness of trout and kokanee salmon stocking.
Oxbow Reservoir		Mixed	Rainbow trout Smallmouth bass Largemouth bass Bluegill Crappie Yellow perch Bullhead	General	Increase trout stocking using subcatchables. Maintain catch rates for warmwater fish at a minimum of 1.0 fish/hr. Perform creel survey to assess angler exploitation and effectiveness of trout stocking. Evaluate potential regulation alternatives and public desires for trophy bass management.
Tributaries including Wildhorse River and Indian Creek	110/	Coldwater	Rainbow/redband trout Bull trout Brook trout	Wild trout	Maintain 0.5 fish/hr. catch rate on naturally produced trout. Inventory these drainages to assess fish densities and habitat condition. Redband subspecies of rainbow trout will receive management priority to prevent overharvest and habitat degradation.

[illegible]	35/15 000	[illegible]	Smallmouth bass Largemouth bass	Quality	Evaluate regulation alternatives and public desire for implementation of regulations that will enhance the opportunities to catch large bass and reduce the number of small bass in the fishery with limited harvest. Conduct experimental stocking of 8- to 10-inch largemouth bass and evaluate contribution to fishery and cost effectiveness. Seek mitigation for turbine losses of game fish. Develop cooperative management agreement with Oregon and Idaho Power Company to share in stocking of rainbow trout at a rate of 10 catchables/acre and 50 fingerlings/acre (kamloops). Seek reduction of drawdown for flood control in January, February, and March and confine drawdown to April and May to enhance resident fisheries and flows for migrating juvenile anadromous fish. Document current bass growth and condition and need for additional forage. If warranted, propose for interstate approval and introduce new forage.
			Bluegill Black crappie White crappie Yellow perch Bullhead Rainbow trout Channel catfish	General	
			Sturgeon	Preservation	
Snake River from Brownlee Reservoir to Swan Falls Dam	12 1/	Mixed	Largemouth bass Smallmouth bass Channel catfish Flathead catfish Bluegill Black crappie White crappie Yellow perch Bullhead Pumpkinseed	General	Document current bass and catfish growth and condition and assess need for additional forage. If warranted, propose for interstate approval and introduce new forage. Determine if fishery is recruitment limited.

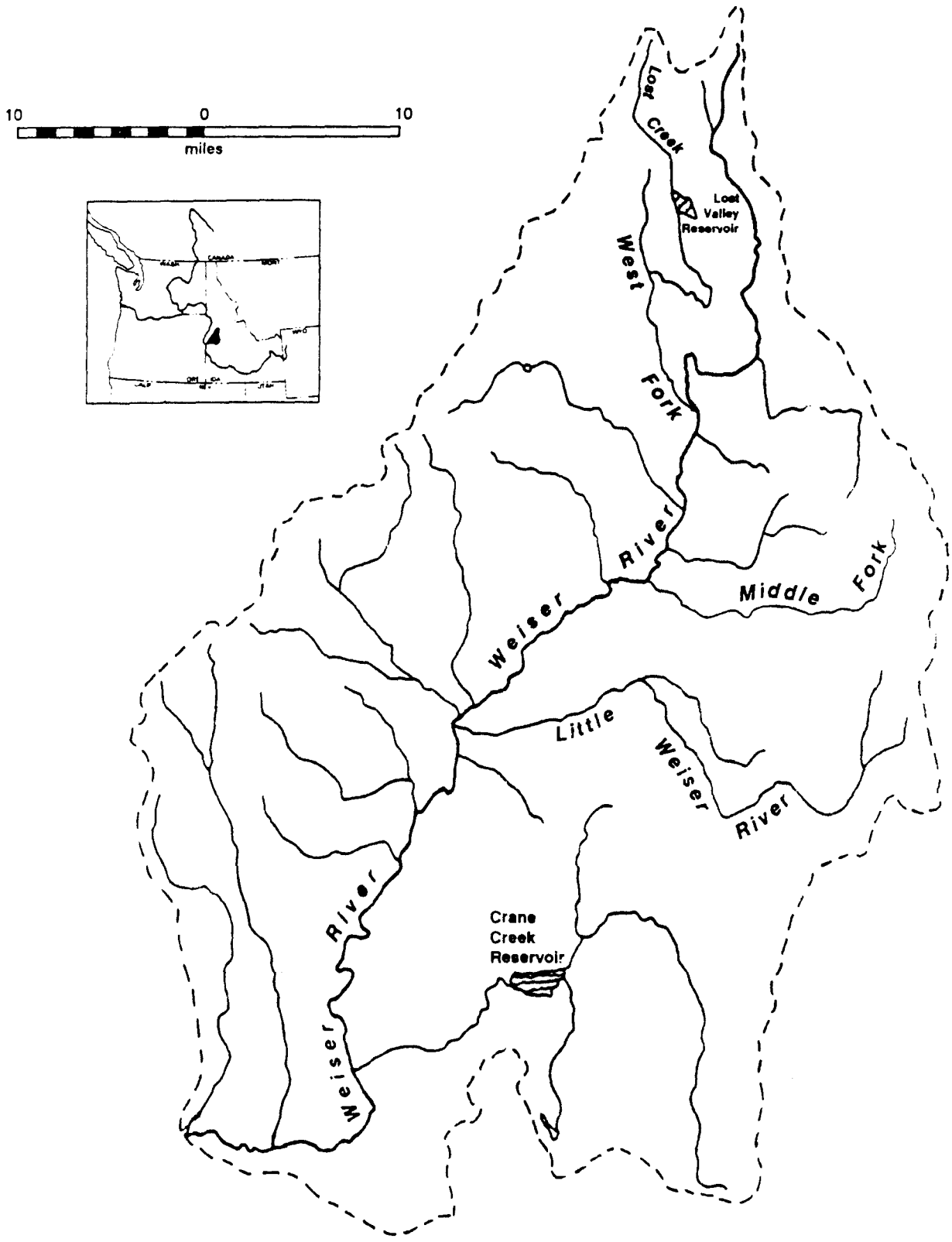
EMPDRAIN

			Rainbow trout Whitefish	General	Assess size structure and distribution of sturgeon population. Enhance sturgeon fishing through stocking of hatchery-reared juvenile sturgeon in area between Homedale and Swan Falls Dam. Provide terminal known stock fishery for excess hatchery steelhead adults. Enhance trout fishery by stocking fingerlings in Swan Falls Reservoir (Kamloops).
			Sturgeon	Preservation	
Reynolds Creek	25/	Coldwater	Rainbow trout	Wild Trout	Improve production of native redband trout by seeking improved range and riparian management through BLM planning process. Develop a reservoir in this drainage to supply a quality fishery for large trout.
Swan Falls Reservoir	/900	Mixed	Largemouth bass Smallmouth bass Bullhead Yellow perch Bluegill Channel catfish Rainbow trout	General	Develop a trout fishery by stocking with large brown trout fingerlings and rainbow trout fingerlings in early spring. Seek upstream migrant passage facilities on Swan Falls Dam through relicensing procedures.
Castle Creek	41/	Mixed	Rainbow trout Black crappie	Wild Trout General	Develop a reservoir in the lower reach of Castle Creek to enhance resident trout and crappie fishery and to augment flows for juvenile anadromous fish migrants. Manage headwaters for low yield, low participation fishery on native redband trout by seeking improved range and riparian management through BLM planning process.

			Largemouth bass Smallmouth bass Channel catfish Bullhead Flathead catfish Black crappie White crappie Bluegill Pumpkinseed Warmouth Yellow perch Rainbow trout Whitefish	General	Enhance smallmouth bass fishery by introduction of suitable prey species and seeking modification of extreme peaking and flow fluctuations below C.J. Strike Dam. Maintain high catch rates for large bass. Assess size structure and distribution of sturgeon population between C.J. Strike Dam and Swan Falls Reservoir. Provide terminal known-stock fishery for excess hatchery steelhead adults from October through March.
			Sturgeon	Preservation	
C.J. Strike Reservoir	/7,500	Mixed	Largemouth bass Smallmouth bass Channel catfish Bluegill Yellow perch Pumpkinseed Bullhead White crappie Black crappie Warmouth Rainbow trout Whitefish	General	Conduct experimental stocking of 8- to 10-inch largemouth bass and evaluate contribution to fishery and cost effectiveness. Enhance channel catfish annual stocking. Supplement populations of largemouth bass and channel catfish with pond-reared fish (Cottonwood Campground pond). Monitor Crayfish population to assess impacts of commercial fishery. Add habitat to enhance reproduction of bass and catfish.
			Sturgeon	Preservation	Support a year-round trout fishery by annually stocking fingerlings (30/acre) and catchable rainbow trout (10/acre). Seek mitigation for turbine losses.
Crane Falls Lake	/84	Mixed	Largemouth bass	Trophy	Evaluate trophy regulations in place and response in size of bass and catch rates. Reduce bluegill and pumpkinseed population by drawing down the lake during spawning
			Bluegill Pumpkinseed Black crappie	General	

			Bullhead Rainbow trout		season and increase predation. Maintain suitable water quality pumping the lake down for a minimum period of three weeks.
Cove Arm Reservoir	'76	Mixed	Largemouth bass Bluegill Pumpkinseed Black crappie Bullhead Rainbow trout	General	Investigate opportunity to enhance warmwater fish habitat. Stock with catchables (20/acre) to support a year-round trout fishery.

Weiser River Drainage



A. Overview

The Weiser River Basin lies in southwestern Idaho. It drains from the Seven Devils Mountains on the north and west, the Cuddy Mountains to the west, and the West Mountains to the east. The drainage flows in a southwesterly direction of about 112 miles where it drains into the Snake River near the City of Weiser. Elevations in the drainage vary from 8,000 feet in the mountains to 2,090 feet at Weiser. The Weiser River drains a basin area of 1,660 square miles, primarily in low, rolling foothills dissected by many small streams. It has an average annual runoff of 742,000 acre-feet of water. Most of the runoff comes during the spring, with extremely low flows during the remainder of the year.

The Weiser River has no main stem storage reservoirs. Private irrigation districts have constructed four reservoirs on tributary streams. Those reservoirs, Lost Valley, C. Ben Ross, Crane Creek, and Manns Creek, have a total storage capacity of about 83,000 acre-feet of water. All were constructed to provide irrigation benefits, and typically fill during the high spring runoff period and become extremely low in the late summer and early fall. In extremely dry years, such as 1977, Crane Creek, C. Ben Ross, and Lost Valley have gone dry. The Idaho Department of Fish and Game and the Idaho Department of Water Resources are proposing the development of a large dam and reservoir at the Galloway Dam site which is crucial to the future of Idaho's anadromous fisheries and would enhance resident fisheries. This structure will provide benefits for flood control and anadromous fish migration flows. Manns Creek, C. Ben Ross, and Crane Creek reservoirs are best suited for production of warmwater game species. Manns Creek offers limited potential for rainbow trout. All three support populations of largemouth bass and crappie. Crane Creek Reservoir contains excellent numbers of white crappie. Lost Valley Reservoir at times is an excellent rainbow trout fishery but has a history of problems associate with stunted yellow perch. It was chemically reclaimed in 1985 and 1990.

From the mouth of the Weiser River upstream to Galloway Dam, the river supports a marginal warmwater fishery. Low summer flows and poor water quality limit fishery production in this section of river. From Galloway Dam upstream to Cambridge, the river supports a limited fishery of rainbow trout and smallmouth bass. Upstream from Cambridge, rainbow trout and mountain whitefish dominate the fishery. Tributaries to the Weiser River which have not been adversely impacted by poor agricultural practices or stream alterations support excellent populations of native rainbow/redband trout. The redband trout is thought to be a unique subspecies of rainbow trout and will be managed for racial preservation with no hatchery influence in important drainages.

B. Objectives and Programs

1. Objective: Obtain stream resource maintenance flows to enhance the severely reduced fish populations.

   Program: Quantify and apply for minimum stream flows where unallocated flows are available.

   Program: Work with Soil Conservation Service, Idaho Department of Health and Welfare, and landowners to utilize more efficient irrigation systems.

   Program: Seek maintenance flows which could be made available by the construction of Galloway Dam.

2. Objective: Improve methods to control flooding and erosion.

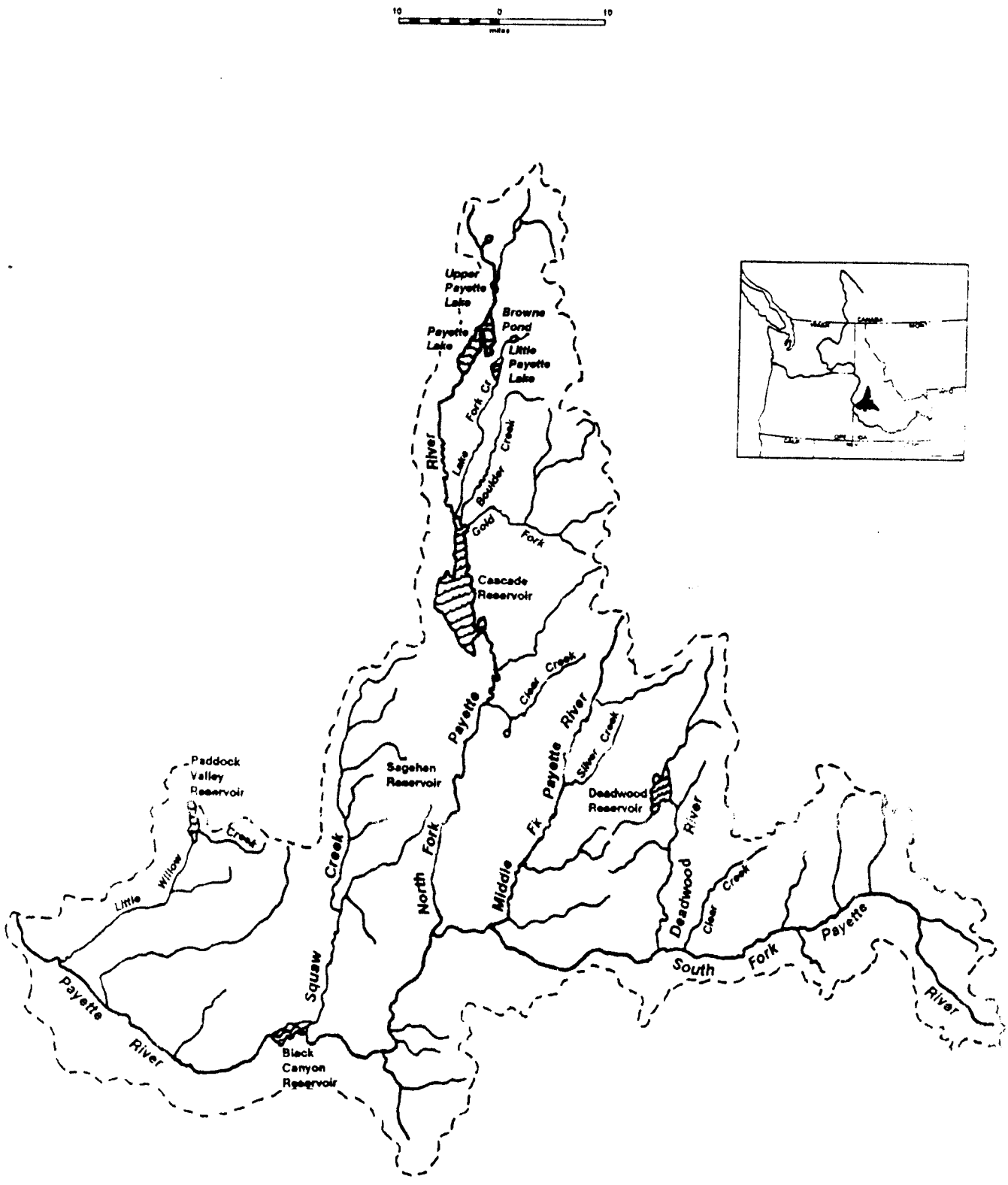
   Program: Work with Soil Conservation Service, Idaho Department of Health and Welfare, and Idaho Department of Water Resources to have environmentally acceptable methods used for stream channel alterations and riparian vegetation removals.

DRAINAGE: Weiser River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Management	Management direction
Weiser River from mouth to Little Weiser River	36/	Mixed	Smallmouth bass Channel catfish Rainbow trout Whitefish	General	Seek development of Galloway Dam and Reservoir to enhance the resident fisheries from Midvale to Weiser and to augment juvenile anadromous fish migrant flows.
Mainstem from mouth of Little Weiser River upstream and tributaries not listed below	196/	Mixed	Rainbow/redband trout Brook trout Bull trout Smallmouth bass Brown trout Whitefish	Wild trout	Maintain 0.5 fish/hr catch rates on naturally produced trout. Continue stocking of brown trout to establish a self-reproducing population. Redband subspecies will be managed for racial preservation and limiting hatchery rainbow stocking. Maintain spawning season closure.
Little Weiser River and tributaries	62/	Coldwater	Rainbow/redband trout Brook trout Bull trout Whitefish	Wild trout	Maintain 0.5 fish/hr catch rates on naturally produced trout. Redband subspecies will be managed for racial preservation by limiting hatchery rainbow stocking. Maintain spawning season closure.
Middle Fork Weiser River and tributaries	28/	Coldwater	Rainbow/redband trout Brook trout Bull trout Whitefish	Wild trout	Maintain 0.5 fish/hr catch rates on rainbow trout, both naturally produced and hatchery fish. Continue limited hatchery plantings on Middle Fork near campgrounds only. Redband subspecies will receive priority management.

West Fork Weiser River and tributaries	36/	Coldwater	Rainbow/redband trout Brook trout Bull trout Whitefish	Wild trout	Maintain 0.5 fish/hr catch rates on naturally produced trout. Redband subspecies will be managed for racial preservation by limiting hatchery rainbow stocking. Maintain spawning season closure.
Mann Creek Reservoir (Spangler Reservoir)	/281	Mixed	Largemouth bass Black crappie Rainbow trout	General	Evaluate current fishery and angler satisfaction.
Crane Creek Reservoir	/2200	Mixed	Largemouth bass Bullhead White crappie Cutthroat trout	General	Seek minimum pool through Galloway project. Provide additional angling opportunity by stocking reservoir with Lahontan cutthroat to increase predation on prey species.
C. Ben Ross Reservoir	/1353	Mixed	Largemouth bass Bluegill Crappie Bullhead Rainbow trout	General	Evaluate past introductions of bluegill. Evaluate the feasibility of constructing habitat structures.
Lost Valley Reservoir	/1633	Coldwater	Rainbow trout Brook trout Yellow perch	General	Chemically eradicate in fall 1991. Maintain 0.5-1.0 fish/hr catch rates on 10-16" rainbow trout from annual fingerling and catchable rainbow plants. Expect overpopulation of yellow perch on a 5-6 year cycle, and chemically eradicate the reservoir when the perch population retards trout growth or becomes a serious nuisance to anglers.

Payette River Drainage



A. Overview

The Payette River Basin lies in southwestern Idaho. Its headwaters originate in the Sawtooth and Salmon River mountains at elevations over 10,000 feet. The drainage flows in a southwesterly direction for over 175 miles where it empties into the Snake River near Payette at an elevation of 2,125 feet. The Payette River Basin comprises about 3,240 square miles.

Principal tributaries are the North and South Forks of the Payette River. The North Fork drains about 950 square miles and the South Fork about 1,200 square miles. The Payette River has an average annual discharge into the Snake River of 2,192,000 acre-feet of water. Historically, the drainage has had ample water to meet demands. Irrigation accounts for the largest water use, with about 160,000 acres of irrigated farmland. This system also provides water for recreation, hydroelectric generation, mining, and logging. The drainage is comprised of primarily granitic soils which are highly erosive.

Due to the wide range in elevation, the Payette River has a variety of fish and fish habitats. Salmon and steelhead were eliminated in the drainage by Black Canyon Dam. From its mouth upstream to Black Canyon Dam, the river supports a mixed fishery for coldwater and warmwater species. Mountain whitefish make up the bulk of game fish in this section of river, with smallmouth bass, largemouth bass, channel catfish, black crappie, rainbow trout, and brown trout making significant contributions. Upstream from Black Canyon Dam, the gradient of the river increases with coldwater species increasing in abundance. The South Fork of the Payette River supports excellent populations of wild rainbow trout and is one of the more popular recreation rivers in the region. The North Fork of the Payette River has been severely altered by railroad and highway construction and provides only a marginal fishery for salmonids. However, in unaltered sections such as the Cabarton reach, the North Fork is very productive for salmonids.

There are five major impoundments in the Payette basin, Black Canyon, Sagehen, Paddock, Cascade, and Deadwood, and several small impoundments and natural lakes with increased storage, such as big Payette Lake. Impoundments in the Payette basin primarily serve irrigation needs with flood control and recreation providing additional benefits. Black Canyon, on the main stem, provides only marginal fish habitat. Sand from upstream land disturbances has covered most habitat. Paddock Reservoir, on Big Willow Creek, has one of the better populations of black crappie in the state and a good fishery for largemouth bass. Cascade Reservoir on the North Fork is one of the most heavily fished waters in the state. Anglers fishing Cascade have the opportunity to harvest an abundance of yellow perch, coho salmon, and rainbow trout. Deadwood Reservoir provides a popular fishery for kokanee and cutthroat trout.

Alpine lakes within the Payette River drainage provide anglers with a variety of fishing opportunity. Rainbow trout, cutthroat trout, rainbow x cutthroat hybrids, golden trout, and arctic grayling are all stocked in alpine lakes within the drainage. Brook trout are also present in a number of lakes, but in many cases have stunted and alternative management may be warrented. There are a total of 178 alpine lakes in the Payette drainage. Many of these lakes are too small to support a fishery. The Department presently stocks 90 of the alpine lakes in the Payette River system. A number of alpine lakes in the Payette River drainage have self-sustaining populations.

B. Objectives and Programs

1. Objective: Provide a diversity of fishing opportunities within the Payette River drainage.

Program: Zone the stream areas to concentrate hatchery catchable stocking in locations where the highest return-to-creel will occur.

Program: Manage for wild trout where habitat and fish populations will sustain an acceptable fishery.

Program: Manage for increased catch rates and size in selected stream reaches using quality trout regulations.

Program: Stock appropriate strains of trout in natural production areas to better utilize the rearing capacity and provide larger and more desirable fish.

Program: Stock adult steelhead directly downstream from Black Canyon Dam as these fish are available.

Program: Increase warm water angling by acquiring access to ponds in the Lower Payette River drainage. Stock private ponds for rearing warmwater fish to stock into state waters.

Program: Improve land-use management through working with federal, state, and private land owners on proper land uses to increase soil stability in the drainage.

2. Objective: Assess the potential for securing stream maintenance flows to protect fisheries on the North Fork Payette River, Little Fork Creek, and other tributaries.

Program: Gather needed biological and economic information for the Idaho Water Resources Board to justify pursuing stream maintenance flows for fish and wildlife protection.

DRAINAGE: Payette River

Water	Miles/acres	Fishery			Management direction
		Type	Species present	Management	
Mouth to Black Canyon Dam	72/	Mixed	Smallmouth bass Channel catfish Largemouth bass Black crappie Flathead catfish Bullhead catfish Bluegill Yellow perch Pumpkinseed Whitefish Rainbow trout Brown trout	General	Put-and-take with catchable rainbow and steelhead directly below Black Canyon Dam. Evaluate catch and growth rates of smallmouth bass and channel catfish.
Black Canyon Reservoir	/1100	Warmwater	Largemouth bass Black crappie Bullhead catfish Bluegill Channel catfish	General	Conduct experimental stocking of sub-adult warmwater species and evaluate contribution to fishery and cost-effectiveness.
Black Canyon to Middle Fork, and South Fork to Deadwood River	107/	Coldwater	Rainbow trout Whitefish Cutthroat trout Bull trout	Wild trout	Maintain as a non-stocking, native fishery. Evaluate fish and habitat semi-annually by visual and snorkeling techniques.
Emmett Airport and Star Lane Ponds	/4	Mixed	Largemouth bass Bullhead Bluegill Pumpkinseed Channel catfish Rainbow trout	General	Add prey species as stocks become overpopulated. Site selective rotenoning to reduce spawning and success. Add appropriate stocks of fish to provide an increased fishery.

[illegible]	/1300	Warmwater	Largemouth bass Black crappie Bullhead Bluegill	General	When possible add additional structure for bass and bluegill nursery and growth habitat. As appropriate strains of trout are available, create a coldwater fishery to compliment the warmwater fishes. Evaluate past introduction establishment of bluegill.
Warmwater, lowland ponds and reservoirs	/200	Warmwater	Largemouth bass Bluegill Pumpkinseed Bullhead Smallmouth bass Channel catfish Black crappie	General	Maintain warmwater populations to use for maximum local fishing. Use "stunted" stocks for introduction into new water. Conduct spot treatments with rotenone to reduce populations.
Squaw Creek and Willow Creek	71/	Mixed	Rainbow trout Bullhead catfish	Put-and-take trout	Put-and-take rainbow. Maintain native stocks. Inventory for limiting factors on wild fish to evaluate reduction of nongame fish by rotenoning.
Sagehen Reservoir	/160	Coldwater	Rainbow trout	Put-and-take trout	Put-and-take with hatchery catchables. Inventory tributary stream to develop a management plan for the natural spawning stocks.
NF Payette River, Banks to Smiths Ferry, including tributaries	78/	Coldwater	Rainbow trout Whitefish Coho salmon	Wild trout	Manage for wild trout. Maintain catch rate of 0.5 fish/hr. Inventory to assess status of wild rainbow trout fishery. Seek to improve angler access with land management agencies.
NF Payette River from Smiths Ferry to Cascade Dam, including tributaries	74/	Coldwater	Rainbow trout Coho salmon Yellow perch Brown trout Whitefish Bullhead	Wild trout	Manage for wild trout. Maintain catch rate of 0.5 fish/hr. Inventory to assess status of wild rainbow trout fishery and study option for special regulations in Cabarton reach if warranted. Encourage land management

					agencies to leave Cabarton reach unroaded to protect wild trout.
NF Payette River Tamarack Falls Bridge to Lardo Dam	24/	Coldwater	Rainbow trout Brown trout Whitefish Brook trout Kokanee salmon	Put-and-take trout	Seek to establish a naturally reproducing trout population. Pursue establishment of stream maintenance flow through Water Resource Board. Work with landowners and land management agencies to provide riparian habitat protection,
NF Payette River from Payette Lake to headwaters, including Fisher Creek and other tributaries	34/	Coldwater	Rainbow trout Brook trout Whitefish Kokanee salmon Pennask rainbow trout Cutthroat trout	Put-and-take trout Wild trout	Concentrate supplemental hatchery trout in high angler use areas. Continue stocking westslope cutthroat and Pennask rainbow trout in river to establish self-sustaining population. Enhance spawning habitat for kokanee salmon to improve survival of embryos if warranted. Maintain spawning season closure for kokanee salmon. Pursue establishment of stream maintenance flow through Water Resource Board.
Gold Fork Creek and tributaries	49/	Coldwater	Rainbow trout Brook trout Kokanee salmon	Put-and-take trout	Concentrate supplemental hatchery trout in high angler use areas. Improve natural trout production in drainage. Assess opportunity to seek habitat improvements in drainage by contacting private landowners and land management agencies. Investigate feasibility of providing fish passage over the Gold Fork irrigation diversion dam.
Lake Fork Creek, from mouth to Little Payette Lake, including tributaries	37/	Coldwater	Rainbow trout Kokanee salmon Coho salmon Brook trout	Wild trout	Pursue establishment of stream maintenance flow through Water Resources Board to provide quality trout stream fishery. Screen major irrigation ditches to prevent fish

					loss through canals. Develop coho salmon spawning run up system and establish egg-take facility for Cascade Reservoir fishery. Assess fish losses occurring in mainstem Lake Irrigation District canal and laterals through biological sampling. Support Lake Irrigation District Canal Company's plans to modify parts of canal system to improve water delivery efficiency. If surplus water is available after reconstruction, pursue establishment of stream maintenance flow. Screen canals found to cause significant fish losses.
Lake Fork Creek from Little Payette Lake to Brown's Pond		Coldwater	Rainbow trout Kokanee salmon	Trophy	Manage for natural trout production to Little Payette. Maintain trophy regulations to enhance size of trout. Allow kokanee salmon harvest.
Lake Fork Creek from Brown's Pond to headwaters		Coldwater	Rainbow trout Brook trout	Put-and-take trout	Concentrate supplemental hatchery trout in high angler use areas. Evaluate return to creel and adjust stocking strategy as needed.
Boulder Creek and tributaries	17/	Coldwater	Rainbow trout Brook trout	Put-and-take trout	Concentrate supplemental hatchery trout in high angler use areas. Enhance natural trout production in drainage. Work with landowners and land management agencies to improve fish habitat.
Valley County ponds	/1247	Coldwater	Rainbow trout Cutthroat trout	General	Develop diversity and increase fishing opportunity for trout in area ponds by working with landowners to allow public access.

Horsethief Reservoir	/1279	Coldwater	Rainbow trout Rbt x ctt hybrids Brook trout Brown trout Yellow perch	General	Maintain as a hatchery-supported fishery due to high angler use and excellent access. Keep year-round season due to public support. Stock trout species and strains that continue to provide good return rates. Monitor perch population and take appropriate management action to reduce or eliminate perch if necessary. Utilize fingerling plants augmented with catchable rainbow prior to the general opener. Stock large fingerling brown trout to provide diversity and a large fish component to the harvest.
Brush Lake		Coldwater	Rainbow trout Cutthroat trout Rbt x ctt hybrids	Trophy	Monitor success of trophy trout regulations established in 1990 and revise if necessary.
Louie Lake		Coldwater	Rainbow trout Cutthroat trout Rbt x ctt hybrids	Trophy	Monitor success of trophy trout regulations established in 1990 and revise if necessary.
All other alpine lakes	/1386	Coldwater	Rainbow trout Grayling Brook trout Cutthroat trout Brown trout Rbt x ctt hybrids	General	Stock with fingerling salmonids to provide diverse fishing opportunity in backcountry areas. Stock most lakes on a three-year rotation. Provide catch rates of at least 0.5 fish/hr. Explore feasibility of rehabilitating stunted brook trout lakes through stocking predator species or chemical treatments. Work cooperatively with Forest Service on all projects.
Cascade Reservoir	/28300	Mixed	Rainbow trout Brown trout Kokanee salmon Coho salmon Yellow perch	General	Maintain catch rates for 8-inch or larger perch at 1.0-2.0 fish/hr and for trout at 0.5 fish/hr. Increase annual trout stocking using catchable and fall subcatchable rainbow trout.

FMPDRAIN

			Smallmouth bass Channel catfish Black crappie		Improve tributary habitat condition and access for natural trout production. Continue strong support for water quality improvement studies and encourage timely implementation. Creel surveys will be done to assess angler use and harvest and assist in evaluating and refining trout stocking policy if needed. Stock catchable rainbow trout at 5/AC and fingerlings at 20/AC. Initiate a two- to three-year creel survey at Cascade Reservoir to document angler use and harvest and to follow hatchery trout through fishery to assess return rates. This will allow the Department to best fit stocking program to the reservoir to enhance fishing success and opportunity. Assess the potential for significant angler use pattern changes and water quality problems at Cascade Reservoir associated with the proposed Val Bois Resort near Poison Creek on the west side of the reservoir. Coordinate with the developer and the land management agencies involved with the resort and request adequate mitigation of foreseen impacts. Evaluate smallmouth bass, channel catfish and black crappie population status and potential.
Little Payette Lake	/1450	Mixed	Rainbow trout Smallmouth Kokanee salmon	Trophy	Maintain high quality of trophy trout fishery and catch rate of at least 0.5 fish/hr. Refine regulations if warranted to provide large trout for anglers. Monitor nongame fish populations and chemically eradicate

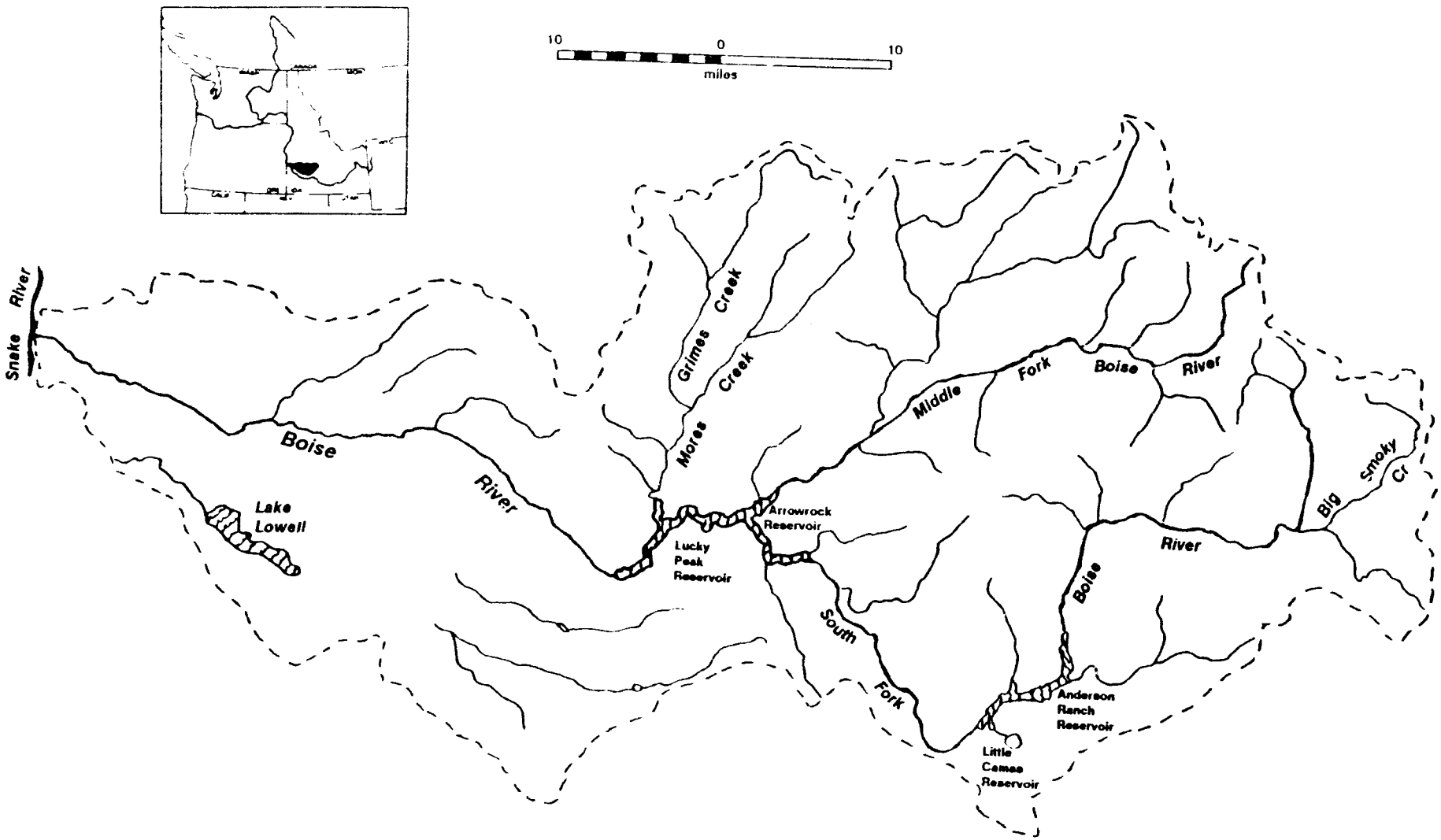
					if biologically warranted. Allow harvest of kokanee salmon. Monitor smallmouth bass population.
Upper Payette Lake	/400	Coldwater	Rainbow trout Brook trout	General	Maintain as hatchery-supported system due to high catch rate and excellent return rate. Explore feasibility of alternative species management through chemical rehabilitation or other means. Maintain catch rate of at least 0.5 fish/hr.
Payette Lake	/5337	Coldwater	Rainbow trout Cutthroat trout Kokanee salmon Lake trout	General	Maintain average kokanee salmon size at 10-12 inches through population manipulation. Seek to improve survival rate of annual hatchery kokanee salmon plants. Protect adult kokanee salmon in North Fork Payette River during spawning. Continue stocking westslope cutthroat trout to develop self-sustaining shoreline fishery. Monitor lake trout population and maintain as trophy fish component. Use hatchery rainbow trout to supplement existing fishery in high angler use areas only. Employ net pen rearing techniques to enhance the survival of westslope cutthroat trout and Pennask rainbow trout plants. Provide overall catch rate for salmonids of 0.3 fish/hr. Encourage wise land management use in adjacent watersheds to maintain high water quality.
Middle Fork Payette River to Silver Creek and up Silver Creek to above Warmsprings Plunge and Bridge	23/	Coldwater	Rainbow trout Cutthroat trout Whitefish Brook trout Bull trout	Put-and-take trout	Put-and-take with catchable rainbow. Evaluate fishery on a tri-year basis using common data base and established snorkeling transects.

FMPDRAIN

[illegible] Payette [illegible] Silver Creek and above bridge directly above Silver Creek Plunge	35/	Coldwater	Rainbow trout Cutthroat trout Whitefish Brook trout Bull trout	Wild trout	Non-stocking, retain as a native fishery. Evaluate fishery on a tri-year basis using common data base and established snorkeling transects.
Deadwood River from mouth to Deadwood Dam, including tributaries	30/	Coldwater	Rainbow trout Bull trout Whitefish	Wild trout	Maintain population of wild trout with new access. Evaluate limit restrictions.
Deadwood Reservoir	/3,000	Coldwater	Kokanee salmon Cutthroat trout Rainbow trout Fall chinook salmon Brook trout Whitefish Bull trout	General	Manage kokanee salmon fishery to yield four-year-old spawners with mean length that exceeds 14 inches by controlling age class and number of spawners using natural spawning areas. Establish self-sustaining population of westslope cutthroat by allowing spring spawning fish to ascend migration barrier. Construct portable passage facility that can be dropped in stoplog slots for spring migration and replaced with stoplogs in fall.
South Fork Payette River from Deadwood River to Helende, including tributaries	125/	Coldwater	Cutthroat trout Brook trout Whitefish Bull trout	Put-and-take trout	Put-and-take hatchery catchable.
South Fork Payette River from Helende to headwaters, including tributaries	41/	Coldwater	Cutthroat trout Brook trout Whitefish Bull trout	Wild Trout	Non-stocking native fishery. Request and monitor public response. Evaluate return-to-creel if public requests hatchery catchable program. Monitor mountain lake stocking with two- to three-year stocking cycles. Visit lakes to determine effectiveness of

					stocking and public pressure. Evaluate fishery and substrate on a tri- or bi-weekly basis using common data base methodology and establish snorkeling transects.
Clear Creek	22/	Coldwater	Rainbow trout Bull trout Whitefish	Put-and-take trout	Put-and-take fishery with catchable rainbow in lower ten miles. Evaluate effects of 1989 fires by established common data base methodology.
Bull Trout Lake	/90	Coldwater	Brook trout Bull trout Rainbow trout Kokanee salmon Atlantic salmon	Quality	Manage kokanee salmon for maximizing prey population for bull trout and landlocked salmon by stocking with appropriate stock. Provide quality fishing opportunities in attractive scenic setting. Discontinue stocking of catchable rainbow and reduce brook trout numbers with migration barriers on outlet and tributaries. Stock Atlantic salmon, bull trout, and kokanee salmon to obtain proper balance between predator and prey. Allow kokanee salmon and bull trout to escape to natural spawning areas. Set fishing regulations to emphasize high catch rates and low yield or harvest of large fish.

Boise River Drainage



21. BOISE RIVER DRAINAGE

A. Overview

The Boise River basin lies in southwestern Idaho and contains about 4,100 square miles of land. The headwaters of the Boise River originate in the Sawtooth Mountains at elevations in excess of 10,000 ft. It flows in a westerly direction for about 200 miles before emptying into the Snake River near Parma at an elevation of 2,100 ft. Major tributaries to the Boise River include the North Fork Boise River (382 square miles), the South Fork Boise River (1,314 square miles) and Mores Creek (426 square miles). This basin has an average annual runoff of 2,005,000 acre-feet of water.

The Boise River has three major instream impoundments, Anderson Ranch, Arrowrock and Lucky Peak Reservoirs, and one large off-stream impoundment, Lake Lowell. The four large reservoirs have a combined storage capacity of 2,276,940 acre-feet of water. The Boise River reservoirs supply water storage for irrigation flood control, recreation, hydropower and instream flows.

Because of the wide range in elevations, geographic features and water uses, the Boise River has a great variety of habitat types and fish species. The drainage includes the major population center in the state, has over 250,000 acres of irrigated cropland and some of Idaho's earliest mining, logging and hydroelectric developments. Man caused impacts have severely degraded most habitats over a long period of time creating severe limitation on fishery productivities.

From the mouth of the Boise River upstream to Star, low summer flows and poor water quality limit fishery production. This section of river supports a fair fishery for largemouth bass, smallmouth bass and channel catfish. From Star upstream to Lucky Peak Dam, the river changes from a warmwater to a coldwater fishery. Mountain whitefish make up the bulk of the game fish biomass, with hatchery reared rainbow trout, wild rainbow trout and fingerling brown trout plants supporting the bulk of the fishing pressure. Upstream from Lucky Peak and Arrowrock reservoirs, rivers and streams contain excellent populations of wild rainbow trout, mountain whitefish and bull trout. Brook trout, redband trout and cutthroat trout occur in some tributary streams. Due to the heavy angling pressure exerted on these streams, catchable-size hatchery rainbow trout supplement wild populations in selected heavy use areas of the streams except for the South Fork Boise River between Arrowrock Reservoir and Anderson Ranch Dam.

The South Fork Boise River between Arrowrock Reservoir and Anderson Ranch Dam was the first designated quality trout stream segment in southwestern Idaho. Wild rainbow trout and mountain whitefish make up the majority of the fish caught in the South Fork. The rainbow trout fishery there is managed with limit, size, and tackle restrictions. In 1978, anglers caught an estimated 19,150 rainbow trout and released 18,059

(94 percent). In 1988, anglers caught an estimated 18,400 rainbow trout and released 99 percent.

A 1988 creel survey of the South Fork Boise River between Featherville and Big Smokey Creek estimated effort at 228 hours/km. Hatchery rainbow trout made up over 80% of fish checked in anglers creels but the overall return total creel rate was only 21%, indicating hatchery fish need to be more efficiently utilized.

Popular reservoir fishing within the Boise River drainage exists at Lake Lowell, Lucky Peak, Arrowrock, Anderson Ranch and Little Camas. The Lake Lowell fishery consists primarily of largemouth bass, smallmouth bass, yellow perch, black crappie, bullhead, bluegill, and channel catfish. Lucky Peak and Anderson Ranch reservoirs provide "two-story" fisheries with smallmouth bass occupying the warm, inshore waters and rainbow trout and kokanee dominating the cold, mid-water fishery. The rainbow trout fishery in these reservoirs depends heavily on stocked catchable or fingerling size fish. Little Camas and Arrowrock reservoirs also provide excellent fishing for rainbow trout stocked as catchables and/or fingerlings. Neither of these two reservoirs has a conservation pool and both have a history of total water evacuation.

Good spawning conditions in tributary streams provide a continuous supply of kokanee in Anderson Ranch Reservoir, but maintenance stocking is required in Lucky Peak and Arrowrock. At Anderson Ranch Reservoir, one of the more popular kokanee fisheries in southern Idaho, anglers harvested an estimated 40,000+ kokanee in 1979 and 34,000 in 1985. Kokanee populations in the reservoir have fluctuated significantly from 1983 through 1989 due to extreme high and low water conditions in the drainage. Ongoing studies of kokanee populations are being used to develop models to reduce population fluctuations through stocking in low number years. Fall chinook salmon will be used to crop excess kokanee numbers and to provide a trophy fishery.

Alpine lakes within the Boise River drainage provide anglers with a variety of fishing opportunity. Rainbow, cutthroat and brook trout are abundant with lesser numbers of golden trout. There are 224 alpine lakes in the Boise drainage. Most of these lakes are too small to support a fishery. The Department presently stocks 68 of the alpine lakes in the Boise River system.

B. Objectives and Programs

1. Objective: Provide a diversity of fishing opportunities within the Boise River drainage.

   Program: Zone the stream areas to concentrate hatchery catchable stocking in the locations where the highest return to the creel will occur.

   Program: Manage for wild trout where habitat and fish populations will sustain acceptable fisheries.

Program: Manage for increase catch rates and fish size in selected stream reaches with quality and trophy trout regulations.

Program: Stock appropriate strains of trout in natural production areas to better utilize the rearing capacity and provide larger and more desirable fish.

Program: Manage warmwater fisheries to provide a wide variety of sizes and species readily available to the large population of the Treasure Valley area.

2. Objective: Seek better land management practices that significantly improve fishery habitats.

Program: Provide sediment objectives/standards to land management agencies where sediment is the limiting factor in aquatic habitats.

Program: Provide riparian vegetation objectives to land management agencies where grazing, development, or other activities have degraded riparian zones.

3. Objective: Monitor effects of land management activities, fishery regulations, and other fishery management activities on fish habitat and fish populations.

Program: Collect common data base information on habitat and fish populations throughout the Boise River drainage.

Program: Examine changes and trends in common data base information and attempt to determine causes for any changes that are noted.

4. Objective: Seek improved reservoir management and stream flows.

Program: Pursue development of a minimum pool in Arrowrock Reservoir.

Program: Study water management at Lake Lowell to determine the relationship between fish production and water levels.

Water	Miles/acres	Fishery: Type	Fishery: Species present	Management	Management direction
Mouth to Star	34/	Mixed	Rainbow trout Whitefish Largemouth bass Smallmouth bass Channel catfish Black crappie	General	Work with state and federal regulatory agencies to improve water quality and habitat condition. Evaluate and stock with fingerling brown trout and catchable rainbows (vicinity of Caldwell, fall and winter).
Star to Eagle Road	7/	Coldwater	Rainbow trout Whitefish Brown trout	Put-and-take trout	Work with state and federal regulatory agencies to improve water quality and habitat condition. Stock with fingerling brown trout catchables (year-round) to supply.
Eagle Road to Head of Eagle Island	1/	Coldwater	Rainbow trout Whitefish Brown trout	Trophy	Manage both channels for high catch rates (3/hr) on large fish. Stock with large trout that are salvaged from other waters. Improve access to both channels.
Head of Eagle Island to Barber Dam	17/	Coldwater	Rainbow trout Steelhead Brown trout Whitefish	Put-and-take trout	Work with regulatory agencies to enhance habitat. Stock with fingerling brown trout and adult steelhead seasonally. Stock catchable rainbow year-round. Screen diversions to prevent loss of large fish. Manage for high density of anglers.
Barber Dam to Lucky Peak	4/	Coldwater	Rainbow trout Brown trout Whitefish	General	Evaluate potential trophy trout management. Stock with predatory trout, bull trout, brown trout, and rainbow trout that would be collected from other waters. Work with Bureau of Reclamation to screen large diversions.

Boise River Drains	92/	Coldwater	Rainbow trout Brown trout Whitefish	General	Work with communities and regulatory agencies to improve water quality and habitat conditions. Improve angler access. Stock with fingerling brown trout and catchable rainbow.
Loggers Creek	2/	Coldwater	Rainbow trout Brown trout Whitefish	Quality	Work with city and developers to manage for high catchables and minimum size.
Middle Fork Boise River from Arrowrock Reservoir to North Fork Boise River	11/	Coldwater	Rainbow trout Bull trout Whitefish	Put-and-take trout	Stock with catchable rainbow following high-water period until Labor Day.
From North Fork to Atlanta Power Dam	32/	Coldwater	Rainbow trout Bull trout Cutthroat trout Whitefish Brook trout	Quality	Manage for high catch rates on wild fish.
From Atlanta Power Dam to Sawtooth Wilderness Boundary	4/	Coldwater	Rainbow trout Bull trout Cutthroat trout Whitefish Brook trout	Put-and-take trout	Stock with catchable rainbow following high-water period until Labor Day.
Upstream of Sawtooth Wilderness boundary and all tributaries	30/	Coldwater	Rainbow trout Bull trout Cutthroat trout Whitefish Brook trout	Wild trout	Manage for high catch rates and low angler densities. Manage for wild fish.
South Fork Boise River from Arrowrock Reservoir to Danskin Bridge	18/	Coldwater	Rainbow trout Whitefish Bull trout	Trophy	Work with Forest Service to preserve low density angling experience. Manage for high catch rates for large fish.
South Fork Boise River from Danskin to Anderson Ranch Dam	10/	Coldwater	Rainbow trout Whitefish Bull trout	Trophy	Work with Forest Service to restrict boating at lower flows. Manage for high catch rates for large fish.

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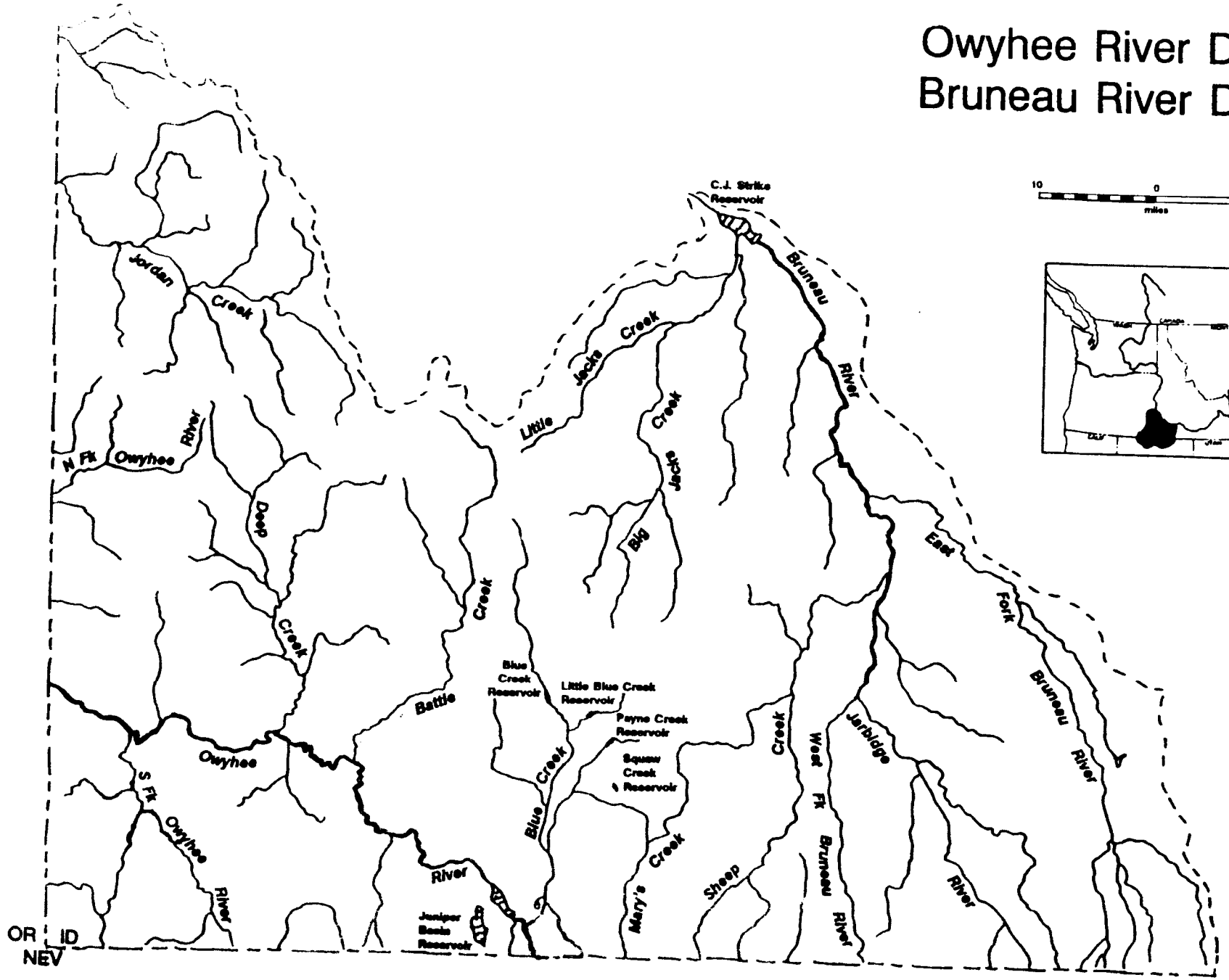
South Fork Boise River from Anderson Ranch Reservoir to Pine Bridge	3/	Coldwater	Fall chinook salmon Rainbow trout Kokanee salmon Bull trout Mountain whitefish	General	Annual river closure to protect spawning kokanee salmon to trap site. Monitor fall chinook salmon runs, target fish for harvest. 0.5 fish/hr.
South Fork Boise River from Pine Bridge to headwaters	3/	Coldwater	Rainbow trout Bull trout Mountain whitefish Kokanee salmon	Put-and-take trout General	Good quality habitat with wild trout potential. High accessibility and campgrounds give potential for hatchery return rates of >30%. Consider use of regulation allowing harvest of adipose-fin-clipped fish only, or zoning areas for wild trout. Evaluate to allow wild stocks to rebuild and maintain harvest opportunity on catchable rainbow. Maintain catch rates of 0.5 fish/hr.
Big Smoky Creek from mouth to Calf Creek	4/	Coldwater	Rainbow trout Bull trout Mountain whitefish Kokanee salmon	Put-and-take trout General	Good quality habitat with wild trout potential. High accessibility gives potential for >30% return on fish. Consider evaluation of adipose fin regulation to allow wild stocks to rebuild and maintain harvest opportunity on catchable rainbow. 0.5 fish/hr.
Big Smoky Creek from Calf Creek to headwaters	15/	Coldwater	Rainbow trout Bull trout Mountain whitefish	Wild trout	Evaluate social and biological potential for quality management. Emphasize bull trout, self-sustaining rainbow populations. Maintain limited harvest opportunity. 1.0 fish/hr.
Little Smoky Creek	20/	Coldwater	Rainbow trout Bull trout	Put-and-take trout Wild trout	Evaluate hatchery program. 0.7 fish/hr.
All other streams in South Fork Boise River drainage upstream from Anderson Ranch Reservoir FMPDRAIN	27/	Coldwater	Rainbow trout Bull trout Mountain whitefish	Wild trout	Investigate potentially unique redband trout and ensure survival. Maintain naturally reproducing populations and harvest opportunity. 0.7 fish/hr.

North Fork Boise River mouth to Rabbit Creek	7/	Coldwater	Rainbow trout Bull trout Whitefish	Wild Trout	Manage for high catch rates (3/hr) and low angler densities.
Rabbit Creek to Deer Park (Hunter Creek)	13/	Coldwater	Rainbow trout Bull trout Whitefish	Put-and-take trout	Manage for high yield and moderate angler densities.
Deer Park to headwaters and all tributaries	41/	Coldwater	Rainbow trout Bull trout Whitefish	Wild trout	Manage for high catch rates (3/hr) and low angler densities
Lucky Peak Reservoir	/2,850	Mixed	Smallmouth bass Yellow perch Rainbow trout Kokanee Bull trout Whitefish	General	Evaluate status of smallmouth bass fishery. Provide an attractive kokanee salmon fishery for large fish by managing spawning escapement at Mores Creek weir to select four (4) four-year-old spawners and by stocking fingerling kokanee salmon in Mores Creek arm at levels that will return spawners to the weir at a mean length of 16 inches or greater. Investigate feasibility of providing a trout fishery by stocking large numbers of fingerling rainbow in Lucky Peak Reservoir to avoid excessive competition for plankton and jeopardizing quality of kokanee salmon fishery. Continue to stock catchable rainbow.
Arrowrock Reservoir	/4,000	Mixed	Smallmouth bass Yellow perch Rainbow trout Bull trout Whitefish	General	Seek minimum pool through Federal Government. Stock annually with fingerling rainbow.
Lake Lowell	/10,000	Mixed	Largemouth bass Smallmouth bass Channel catfish Bluegill Yellow perch	Quality General	Evaluate loss of fish through Lowline Canal. Determine angler use and harvest rates. Manage bass with primary emphasis on quality fishery. Complete evaluation of current trout

			Black crappie Pumpkinseed Rainbow trout Cutthroat trout		stocking and continue to stock annually with catchable rainbow and fingerling Lahontan cutthroat, if warranted.
Anderson Ranch Reservoir	/4,742	Mixed	Rainbow trout Bull trout Mountain whitefish Kokanee salmon Fall chinook salmon Yellow perch Smallmouth bass	General	Emphasize kokanee salmon. Continue developing model to evaluate potential. Goal of 1.0 kokanee/hr. with mean size of 12-14 inches if productivity allows. Monitor fall chinook salmon to determine appropriate stocking levels. Evaluate experimental stocking of trout strains. Improve trout fishing through hatchery program and public awareness. 0.4 trout/hr. Maintain smallmouth to diversify fishing opportunity.
Little Camas Reservoir	/1,455	Mixed	Rainbow trout Smallmouth bass	General	Assess use of fall fingerling plants to improve carryover in low water years. Continue exception to bass length limit. 0.5 fish/hr.
Featherville Dredge Ponds	/3	Coldwater	Rainbow trout	Put-and-take trout	Continue stocking hatchery rainbow. Increase numbers to provide 1.0 fish/hr.
Big Trinity Lake	/12	Coldwater	Rainbow trout	Put-and-take trout	Accessible by road. Stock annually with catchables. Assess potential for using fall fingerlings to maintain fishery. 0.7 fish/hr.
Little Trinity Lake	/3	Coldwater	Rainbow trout	General	Investigate potential for managing as a quality fishery using fingerling plants. 1.0 fish/hr.
Other alpine lakes	/801	Coldwater	Rainbow trout Cutthroat trout Golden trout Brook trout	General	Put-and-grow for trout and char. Consider use of bull trout to develop trophy aspect in some waters. 0.5-1.0 fish/hr.

Owyhee River Drainage
Bruneau River Drainage



22. OWYHEE RIVER DRAINAGE, BRUNEAU RIVER DRAINAGE, AND MINOR TRIBUTARIES SOUTH OF SNAKE RIVER

A. Overview

The Owyhee River and Bruneau River basins lie in southwestern Idaho, southeastern Oregon and northern Nevada. This basin encompasses approximately 11,340 square miles of semi-arid high desert country, of which about 8,000 square miles lies within Idaho. In the higher bench lands of the Bruneau and Owyhee, the rivers and their tributaries flow through deeply incised canyons. Elevations in the Owyhee drainage range from 8,100' in the Owyhee Mountains to 2,400' at the Snake River. The Owyhee River has an annual average discharge of 661,500 acre-feet of water at the Oregon/Idaho border. Elevations in the Bruneau drainage range from over 10,000 feet in the Jarbidge Mountains to 2,455 feet at the mouth. The Bruneau River has an annual average discharge of 292,000 acre-feet of water.

Most of the Owyhee River drainage contains excellent populations of redband trout. A BLM resource inventory identified redband trout in 23 of 27 perennial streams and 7 of 15 intermittent streams. Due to the unique qualities of this fish and the inaccessibility of the Owyhee drainage, this entire drainage will be managed for racial preservation. Lahontan cutthroat trout have been introduced into several reservoirs near Riddle.

No cutthroat trout are present in the Bruneau River drainage, but bull trout and rainbow trout are found in good numbers. Also, populations of redband trout, which is a unique stock of fish, are found in the Bruneau River and some tributaries (above the mouth of the Jarbidge River), including Big Jacks and Little Jacks creeks. From the mouth of the Bruneau River upstream to the hot springs, the water quality is not suitable to support coldwater species. Significant angling pressure occurs on the more accessible streams of the Bruneau River drainage, but pressure is extremely light on most of the relatively inaccessible streams. The main Jarbidge River downstream from its confluence with the East Fork, and the Bruneau River are utilized for float trips.

The Bruneau River, West Fork, lower East Fork, lower Sheep Creek, and Jarbidge River have been recommended for National Wild Rivers status. Any fish stocking that would change or impact native species should be deferred.

Future public access to rivers and streams in the Bruneau River drainage may be significantly reduced if the U.S. Air Force expands the Saylor Creek Bombing Range. Livestock grazing on some tributary streams has impacted fish habitat, and efforts should be made to work with landowners and land management agencies to improve habitat.

B. Objectives and Programs

1. Objective: Manage stream and reservoir fisheries to preserve the genetic integrity of native desert redband trout.

   Program: Stock other species of fish only in reservoirs that will not pose a threat to preserving redbands and do not stock streams with species that would interbreed or compete with redbands.

   Program: Restock streams with depleted populations where habitat conditions have been restored with redbands by collecting fish or eggs from adjacent areas that contain native redband trout.

   Program: Develop a brood stock reservoir for redband trout to annually produce fingerlings that could be used for stocking reservoirs and streams in this area.

2. Objective: Work cooperatively with state and federal land management agencies and grazing permittees to improve riparian and aquatic habitats.

   Program: Establish riparian vegetation objectives in management plans that annually provide eighty percent of the potential, riparian vegetation mass to be in place prior to high flows occurring.

   Program: Monitor stations on major tributaries of the Owyhee and Bruneau river systems to determine trends in riparian conditions, aquatic habitat, and fish production.

3. Objective: Increase reservoir fishing opportunities.

   Program: Seek opportunities to construct new fishing reservoirs in cooperation with federal, state, and private landowners.

   Program: Seek cooperative agreements with private landowners to gain access to existing reservoirs.

   Program: Restock reservoirs with appropriate stocks of fish when drought conditions cause fish kills or de-watering.

   Program: Renovate reservoirs with rough fish populations that limit the fishery.

DRAINAGE: Owyhee River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Management	Management direction
Owyhee River (downstream of the South Fork), including tributaries	239/	Mixed	Smallmouth bass Rainbow trout	General	Maintain high catch rates for large size. Monitor fishery to determine for restrictive regulations. Evaluate current growth, size and age structure, and exploitation. Evaluate potential response to special regulations and public desire for quality management. If appropriate, impose quality trout and bass regulation.
North Fork Owyhee River, including tributaries	61/	Coldwater	Rainbow trout	Wild trout	Evaluate potential response to special regulations and public desire for quality management. If appropriate, impose quality trout and bass regulation.
South Fork Owyhee River, including tributaries	95/	Mixed	Smallmouth bass Rainbow trout	General	Maintain high catch rates for large size. Monitor fishery to determine need for restrictive regulations. Evaluate current growth, size and age structure, and exploitation. Evaluate potential response to special regulations and public desire for quality management. If appropriate, impose quality trout and bass regulation. Work with Nevada Fish and Game to avoid stocking trout that pose a threat to the future of redband trout.

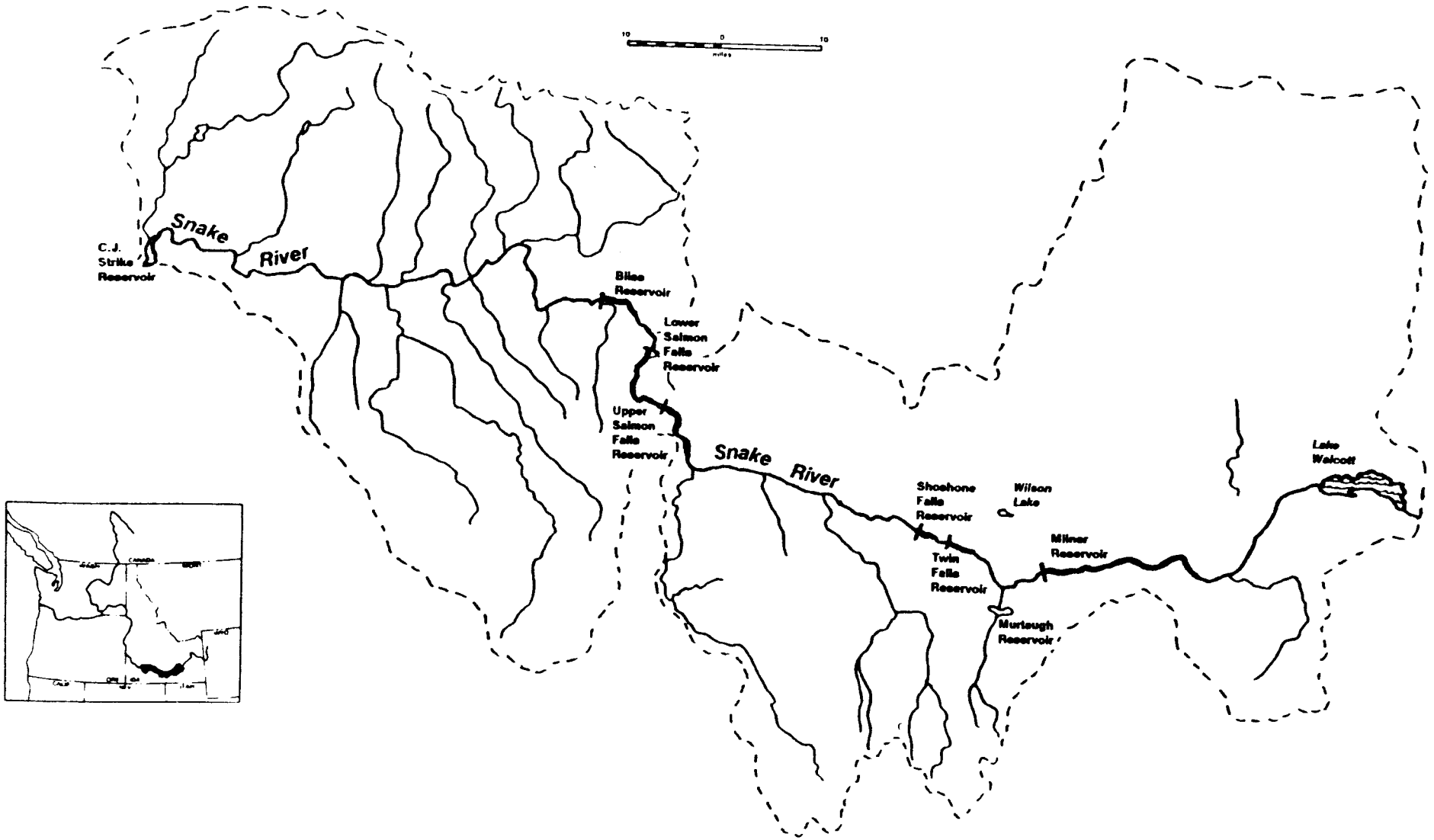
[illegible]	[illegible]	[illegible]	Smallmouth bass Rainbow trout	General	Evaluate current growth, size, and age structure and exploitation. Evaluate potential response to special regulations and public desire for quality management. If appropriate, impose quality trout and bass regulation. Manage for preservation of redband trout.
Deep Creek, including tributaries	142/	Coldwater	Rainbow trout	Wild trout	Evaluate current growth, size and age structure, and exploitation. Evaluate potential response to special regulations and public desire for quality management. If appropriate, impose quality trout and bass regulation.
Battle Creek, including tributaries	103/	Coldwater	Rainbow trout	Wild trout	Evaluate current growth, size and age structure, and exploitation. Evaluate potential response to special regulations and public desire for quality management. If appropriate impose quality trout and bass regulation.
Blue Creek, including tributaries	139/	Coldwater	Rainbow trout Cutthroat trout	Wild trout	Investigate feasibility of treating drainage above reservoir to eliminate squawfish. Manage drainage from Blue Creek Reservoir downstream to Riddle Ranch for Lahontan cutthroat.
Juniper Basin Reservoir	/200	Warmwater	White crappie	General	Work with BLM to excavate a deeper area to carryover fish during low water periods. Stock with white crappie and restock after low water years.

Blue Creek Reservoir	/131	Coldwater	Rainbow trout	General	Stock with redband trout following low water years. Manage for preservation of redband trout from Blue Creek Reservoir upstream. Sample periodically.
Little Blue Creek Reservoir	/188	Coldwater	Cutthroat trout	Trophy	Manage for brood stock source of Lake Lenore strain of Lahontan cutthroat. Allow a minimum of 25 pair of mature spawners to ascend Little Blue Creek to naturally spawn in the inlet stream. Seek better management of cattle grazing to improve riparian vegetation to 80% of potential.
Grasmere Reservoir	/213	Coldwater	Rainbow trout Cutthroat trout	General	Sample periodically.
Mary's Creek Reservoir (Snow Creek Reservoir)	/120	Coldwater	Rainbow trout	General	Treat and restock with redband trout, shiners, and freshwater shrimp.
Shoofly Reservoir	/85	Coldwater	Cutthroat trout	Trophy	Manage as a broodstock lake for Lahontan cutthroat. Manage for harvest of trophy trout. Stock annually with Lake Lenore strain of Lahontan cutthroat fingerlings. Sample periodically.
Bybee Reservoir	/70	Coldwater	Cutthroat trout	General	Stock annually with Lake Lenore strain of Lahontan cutthroat fingerlings. Sample periodically.
Payne Creek Reservoir	/55	Coldwater	Cutthroat trout	General	Stock annually with Lahontan cutthroat. Sample periodically.
Squaw Creek Reservoir	/80	Mixed	Rainbow trout Largemouth bass	General	Investigate treatment of reservoir and reservoir upstream on Duck Valley Indian Reservation to eliminate squawfish. Stock annually with redband trout fingerlings. Eliminate largemouth bass with treatment

Water	Miles/acres	Fishery Type	Species present	Management	Management direction
Bruneau River (mouth to upper diversion dam)	10/	Warmwater	Smallmouth bass Channel catfish	General	Manage for smallmouth bass and channel catfish fishery. Study water temperatures.
Bruneau River from upper diversion dam to West Fork, including tributaries (except below)	314/	Coldwater	Redband/rainbow trout Bull trout Whitefish	Wild trout	Manage for Redband trout and bull trout. Access limited by deeply incised canyon. Work with BLM and private land owners to improve riparian habitat.
East Fork Bruneau River (Clover Creek) and tributaries	165/	Coldwater	Redband/rainbow trout Bull trout Brook trout Mountain whitefish	Wild trout	Maintain wild trout populations and investigate status of bull trout. 1.0 fish/hr. Work to improve riparian habitats.
Sheep Creek (including Mary's Creek)	143/	Coldwater	Redband/rainbow trout	Wild trout	Stock redband trout in headwaters area.
West Fork Bruneau River and tributaries	103/	Coldwater	Redband/rainbow trout Bull trout Whitefish	Wild Trout	Manage for native redband trout and bull trout and work with Nevada Fish and Game to eliminate stocking of trout that would threaten future of redband trout. Evaluate current growth, size and age structure, and exploitation. Evaluate potential response to special regulations and public desire for quality management. If appropriate, impose quality regulation.
Jarbidge River and tributaries	87/	Coldwater	Bull trout Redband/rainbow trout Mountain whitefish	Wild trout	Maintain wild populations of native trout. Monitor bull trout population to determine if more restrictive regulations are needed. Catch rate of 1.0 fish/hr.

Snake River Drainage

C.J. Strike Reservoir to Lake Walcott



23. MAIN SNAKE RIVER - C.J. STRIKE RESERVOIR TO LAKE WALCOTT

A. Overview

With the exception of spawning areas, trout habitat in the main Snake River is good throughout most of the free-flowing reaches between C.J. Strike Reservoir and Lake Walcott. It is especially good in the section between Milner Dam and King Hill, where large amounts of spring flow are discharged into the Snake River from the Snake River Plain aquifer. An approximate average discharge of 5,900 cfs (4.3 million acre-feet/year) flows from these springs along the north bank of the Snake River. These springs include eleven of the sixty five springs in the United States which have an average discharge exceeding 100 cfs. Water quality from these springs has been excellent but continuing development of the springs by commercial fish farmers is lowering water quality in the river. Trophy size trout are caught in portions of the Snake River, such as the areas below Minidoka Dam and upper Salmon Falls Dam. Species of trout present are rainbow, brown, cutthroat, and rainbow x cutthroat hybrids. The cutthroat and rainbow x cutthroat hybrids are found mainly in the area between Milner Dam and Twin Falls Dam, an area seriously impacted by low flows during the irrigation season. Many of these hybrid trout attain large sizes, some reaching weights of over six pounds. Vinyard Creek, an aquifer spring entering the Snake River on the north side just above Twin Falls, is the major spawning area for cutthroat and the rainbow x cutthroat hybrid trout.

Many of the minor tributary streams entering the Snake River also contain good trout habitat and support good populations of wild trout, primarily rainbow. Some of the streams, especially the springs, are utilized for spawning by trout from the Snake River.

The main Snake River contains seven reservoirs which are suitable in varying degrees for trout; Bliss, Upper and Lower Salmon Falls, Shoshone Falls, Twin Falls, Milner and Lake Walcott. The trout fishery in Lower Salmon Falls Reservoir is the best of the six reservoirs with the fishery being supported by releases of hatchery rainbow trout. During extreme high water years in the Snake River, flushing action may reduce reservoir productivity and cause stocked fish to emigrate from Snake River reservoirs. Many of the smaller lakes, ponds and reservoirs close to the Snake River are also highly suitable for rainbow trout.

White sturgeon are found in varying numbers throughout the Snake River from Shoshone Falls downstream. The best sturgeon population, however, occurs in the free flowing river section between Bliss Dam and C.J. Strike Reservoir, where they are successfully reproducing. Recent studies have shown sturgeon grow at a rapid rate in this area with some reaching lengths of over 9 ft. Angler interest in this species is high and they are regarded as exceptionally desirable, even though the fishery is on a catch-and-release basis. With the development of sturgeon culture techniques using native broodstock, populations can be enhanced in free-flowing areas between Shoshone Falls and Bliss Dam.

Areas with warmwater fisheries are fairly numerous in the main Snake River and minor tributary drainages, but a great demand exists for more waters of this type in the populated portions of the drainage. Major warmwater species present in the Snake River and surrounding waters are largemouth and smallmouth bass, bluegill, brown bullhead, channel catfish and yellow perch. Channel catfish plantings were made almost annually in the main Snake River in this area between 1965 and 1972. Periodic plantings have been made in the Snake River and nearby waters since 1972 and self-sustaining populations have become established between Bliss Dam and C.J. Strike Reservoir. Emerald Lake near Burley has been stocked with channel catfish fry for a number of years and the plantings are showing great promise. Growth of these fish has been good and a 20 pound channel cat was caught in May of 1982. Bullhead angling is excellent in Wilson Lake where the fish reach sizes over 2 pounds. Good populations of largemouth and smallmouth bass are found in impoundments on the Snake River, and some waters in the Hagerman area produce good angling for large bluegill.

Numerous major hydropower facilities, which would seriously jeopardize the existing trout and sturgeon fisheries, have been proposed on the main Snake River in this area. Hydropower facilities proposed on tributary streams would also have impacts on trout fisheries by reducing access for spawning trout and reduced stream flows.

The Snake River has the greatest potential for increasing angler opportunity of any major water in the southern portion of Idaho. Lack of flows, especially during irrigation season, apparently deteriorating water quality, and loss of spawning areas appear to be the factors most significantly affecting fish populations in the Snake River. Should water become available, every effort should be made to improve summer flows.

DRAINAGE: Main Snake River and minor tributaries - C.J. Strike Reservoir to Lake Walcott

Water	Miles/acres	Fishery			Management direction
		Type	Species present	Management	
Snake River from Loveridge Bridge to Bliss Dam	47.3/	Mixed	Sturgeon Rainbow trout Brown trout Whitefish Channel catfish Smallmouth bass Largemouth bass Yellow perch	Preservation General	Maintain catch-and-release regulation on sturgeon unless studies indicate otherwise. Emphasize high quality sturgeon fishery and habitat protection. Investigate potential of fingerling stocking to improve trout fishery. Determine if stocking is necessary to maintain fishery for catfish. Improve angler access.
Bliss Reservoir	5.0/625	Warmwater	Largemouth bass Smallmouth bass Channel catfish Black crappie	General	Investigate feasibility of other warmwater species in reservoir.
Backwaters of Bliss Pool to Lower Salmon Falls Dam	8.0/	Mixed	Sturgeon Rainbow trout Brown trout Whitefish Channel catfish Smallmouth bass Largemouth bass Yellow perch	Preservation Trophy General	Maintain catch-and-release regulation on sturgeon unless studies indicate otherwise. Stock sturgeon from experimental program to improve sturgeon fishing opportunity and evaluate. Investigate potential of stocking fingerlings or subcatchable trout to improve trout fishing. Consider experimenting with other strains or species of trout. Evaluate potential for quality or trophy fishery and implement a program if socially and biologically acceptable.

FMPDRAIN

Lower Salmon Falls Reservoir	[illegible]/423	Mixed	Rainbow trout Largemouth bass Channel catfish Black crappie Bluegill	General	Continue annual rainbow stockings in the Bell Rapids area. Consider use of other strains or species. Study feasibility and stock if studies so indicate. Evaluate potential for quality or trophy fishery and implement program if socially and biologically acceptable.
Upper Salmon Falls Reservoir	5.0/648	Mixed	Rainbow trout Largemouth bass Smallmouth bass Channel catfish	General	Investigate potential for improving fishery stocking fingerling and catchable trout.
Backwaters of Upper Salmon Falls Reservoir to Shoshone Falls, also flowing water between upper and lower Salmon Falls dams	30.4/	Mixed	Sturgeon Rainbow trout Brown trout Whitefish Channel catfish Largemouth bass Smallmouth bass Yellow perch	Preservation General	Maintain catch-and-release regulation on sturgeon unless studies indicate otherwise. Stock juvenile sturgeon to improve populations over entire reach. Maintain Dolman Rapids as large-size trout water. Strongly oppose proposed hydropower projects which may jeopardize fisheries. Investigate potential for improving trout fishery with fingerling plants. Stock channel catfish to improve warmwater opportunities. Improve access. Work to improve summer flows.
Shoshone Falls Reservoir	1.2/60	Mixed	Rainbow trout Cutthroat trout Smallmouth bass	General	Investigate potential of catchable rainbows to provide fishery in high-turnover reservoir. Consider stocking smallmouth bass.
Backwaters of Shoshone Falls Reservoir to Twin Falls Dam	1.0/	Mixed	Rainbow trout Cutthroat trout Smallmouth bass	General	Manage as a yield fishery with approximate catch rate of 0.5 fish/hr.

Twin Falls Reservoir	1.6/36	Coldwater	Cutthroat trout Rainbow trout Rbt x ctt hybrid	General	Emphasize protection of native cutthroat and rbt x ctt hybrid populations. Evaluate need for restrictive regulations. Oppose any project which would increase size of reservoir. Manage as a unit with reach upstream to Murtaugh Bridge.
Backwaters of Twin Falls Reservoir to Murtaugh Bridge	11.6/	Coldwater	Cutthroat trout Rbt x ctt hybrid Rainbow trout	General	Stock fingerling cutthroat if necessary to improve recruitment. Emphasize maintenance of trophy fishery. 0.5 fish/hr. Evaluate potential for improved trout management with special regulations. Evaluate potential for developing smallmouth bass fishery. Work to improve summer flows.
Murtaugh Bridge to Milner Dam	8.5/	Coldwater	Cutthroat trout Rainbow trout	General	Work on improving habitat through improved flow management. Evaluate potential for spawning in Dry Creek. Determine need for hatchery program in IPC bypass reach. Maintain catch rate of 0.5 fish/hr.
Milner Reservoir	22.0/3000	Warmwater	Smallmouth bass Largemouth bass Channel catfish	General	Emphasize establishment of self-sustaining warmwater fish species. Increase stockings of smallmouth bass. Channel or blue catfish, yellow perch, bluegill, and possibly other suitable species of warmwater fish will be stocked as available. Improve warmwater fish habitat by placing cover structures on reservoir bottom.

Backwaters of Milner Reservoir to Minidoka Dam	5.1/	Coldwater	Cutthroat trout Rainbow trout Brown trout	General	Use fingerling program to improve recruitment. Stocking in Lake Walcott may need to be increased to improve downstream fishery. Maintain catch rate of 0.5 fish/hr. Work to improve flow management.
Lake Walcott (Minidoka Reservoir)	14.0/11,850	Mixed	Rainbow trout Cutthroat trout Yellow perch Brown bullhead Smallmouth bass Largemouth bass	General	Stock both fingerling and catchable rainbow on an annual basis. Stock with 500,000 Henrys Lake cutthroat trout fall fingerlings and monitor success. Monitor bass populations and adjust management direction to conform with findings. Stock crappie and evaluate.
Billingsley Creek from mouth to Tupper Grade Crossing	5.5/	Coldwater	Rainbow trout Brown trout	General	Evaluate annual stocking of brown trout fry. Oppose future commercial fish rearing operations. Place necessary requirements on any proposed hydropower projects to protect fisheries and wildlife values. Maintain catch rate of approximately 0.5 trout/hr.
Billingsley Creek from Tupper Grade Crossing to Vader Grade	2.5/	Coldwater	Rainbow trout Brown trout	Trophy	Manage as high-quality trophy fishery. Maintain catch rate of approximately 1.0 trout/hr. Fly fishing only as condition of free public access.
Billingsley Creek from Vader Grade Crossing to headwaters	1.0/	Coldwater	Rainbow Trout	Wild trout	Maintain catch rate of approximately 1.0 trout/hr.

Riley Creek	2.5/	Coldwater	Rainbow trout	Put-and-take trout	Maintain catch rate of 1.0 fish/hr. Regular stocking in impoundment and lower reach of creek.
Deep Creek, mouth to Twin Falls Highline Canal	15/	Coldwater	Rainbow trout	General	Manage as yield fishery. Maintain satisfactory instream flow. Stock fingerlings to improve catch rates to 0.7 fish/hr.
Mud Creek	6/	Coldwater	Rainbow trout	General	Maintain adequate minimum instream flows.
Cedar Draw Creek, from mouth to Twin Falls Highline Canal	12/	Coldwater	Rainbow trout Brown trout	General	Continue assistance with state and federal personnel on clean water project on stream. Maintain adequate minimum instream flows and other environmental protection at proposed hydro sites and fish hatcheries.
Cedar Draw Creek, from Highline Canal to headwaters	2/	Coldwater	Rainbow trout Brown trout	General	Continue assistance on ongoing clean water project. Stock brown trout fingerlings to establish populations.
Perrine Coulee	2/	Coldwater	Rainbow trout	Put-and-take trout	Put-and-take for rainbow trout. 0.7 fish/hr.
All other streams in drainage except Salmon Falls, Rock, and Goose creeks and Raft River drainages	166/	Mixed	Rainbow trout Cutthroat trout Rbt x ctt hybrid Brown trout Redband trout Smallmouth bass Largemouth bass Bluegill	General	Manage for yield fishery. Evaluate potential of areas for put-and-take fisheries.

FMPDRAIN

Canals	[illegible]	Coldwater	Rainbow trout	Put-and-take trout	Identify canal reaches with angler access and suitable holding water for stocking catchable trout. Stock and evaluate.
Sand Dunes Lakes	[illegible]	Warmwater	Largemouth bass Channel catfish Bluegill	Trophy General	Make periodic stockings of channel and/or blue catfish to increase numbers. Identify site for and develop trophy bass water. Cooperate with State Parks in promoting fishery. Maintain water levels with pumping program.
Blair Trail Diversion Reservoir	/13	Mixed	Rainbow trout Bluegill	Put-and-take trout	Put-and-take fishery. Evaluate potential for fingerling plants. Consider stocking largemouth bass.
Morrow Reservoir	/60	Warmwater	Largemouth bass Bluegill Brown bullhead Black crappie	General	Manage as yield fishery.
Pioneer (Clover Creek) Reservoir	/220	Warmwater	Largemouth bass Bluegill Bullhead	General	Rotenone reservoir and portions of tributaries to eliminate extremely high carp populations. Use drawdown to manage bluegill populations. Develop boat access. Investigate methods to increase capacity.
Bray Lake	/204	Mixed	Rainbow trout Cutthroat trout Channel catfish	General	Experimental stocking with indigenous Redband trout from Dry Creek and Lahontan cutthroat trout. Introduce forage such as mountain suckers. Evaluate potential for trophy fishery. Monitor existing channel catfish introduction to determine if program is worthwhile.

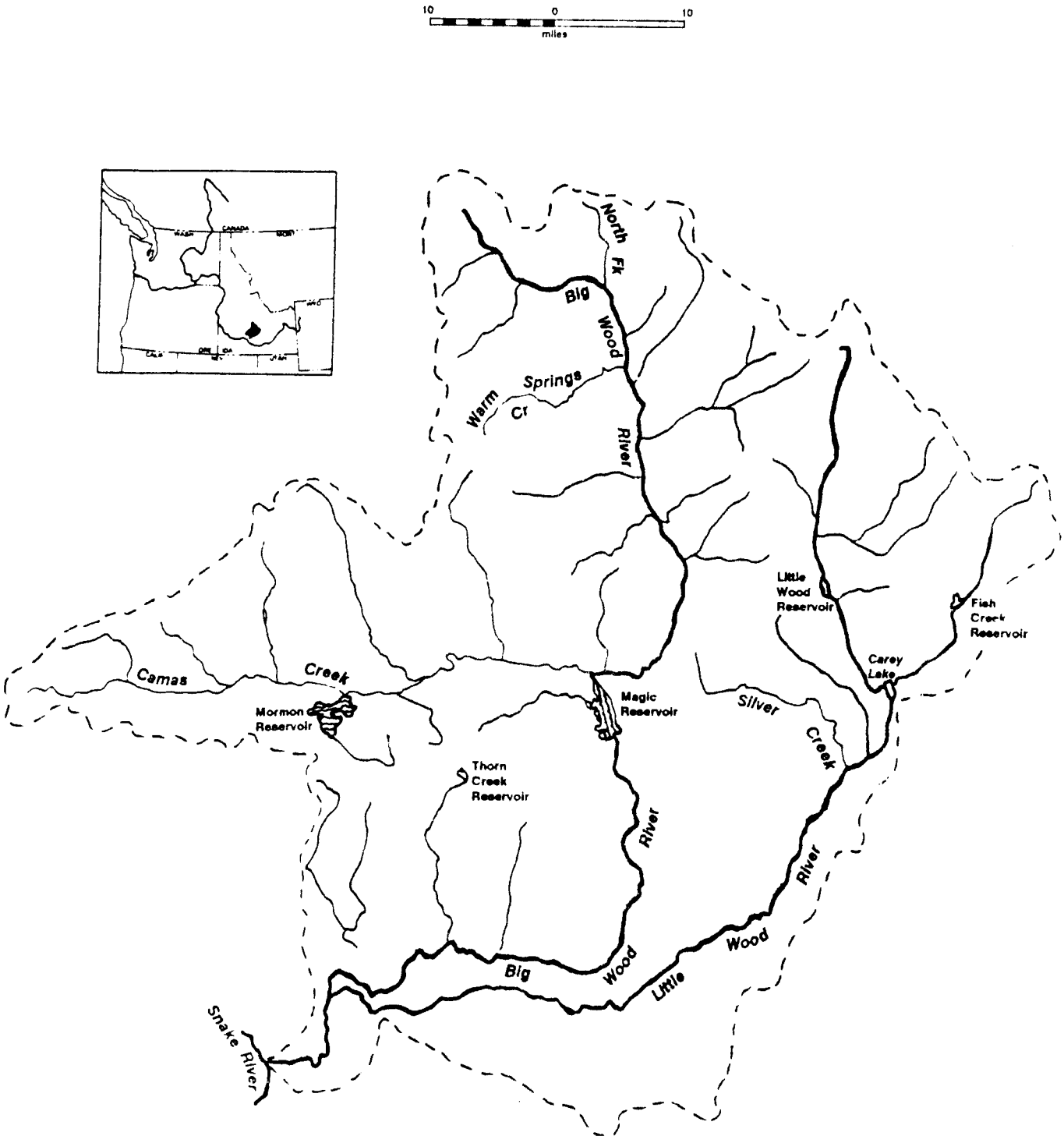
Frank Oster Lakes, effluent lagoon and Riley Creek impoundments	/30	Mixed	Rainbow trout	Put-and-take trout	Seasons established around waterfowl needs. No motors water. Maintain catch rate of 0.7 fish/hr. with catchable rainbow.
			Largemouth bass Bluegill	General	Seasons established around waterfowl needs. No motors water
All other lakes & ponds on Hagerman WMA	/35	Mixed	Rainbow trout	Put-and-take trout	Seasons will run from 7/1 to 10/31. No motors water. Continue dredging operation to improve habitat in cooperation with land management personnel. Maintain catch rate of approximately 0.5 fish/hr. Maintain July 1 opener.
			Largemouth bass Bluegill Channel catfish	General	Continue dredging operations to improve habitat. Improve bluegill spawning habitat. No motors water. Maintain July 1 opener. Consider West Highway Pond for improved water quality and trophy bass.
Sumner Gravel Ponds	/10	Mixed	Rainbow trout Largemouth bass Bluegill	Put-and-take trout General	Secure access. Monitor fishery and consider other species introductions.
Niagara Springs WMA Ponds	/8	Coldwater	Rainbow trout	Wild trout	Explore potential for creating quality or trophy fishing opportunity. Manage for catch rates of 1.0 fish/hr.
Crystal Lake	/8	Coldwater	Rainbow trout	Put-and-take trout	Put-and-take for 1.0 fish/hr. catch rate. Continue cooperative program with Clear Springs Trout Co. to stock fish.
Scott Pond	/1	Coldwater	Rainbow trout	Put-and-take trout	Consider developing self-sustaining brook trout population. Plant catchable rainbow on an annual basis. Enlarge existing pond area for trout if funds are available.

Sherkel Lake	/100	Mixed	Rainbow trout Largemouth bass Bluegill	Put-and-take trout General	Put-and-take for rainbow trout. Evaluate stocking program. Work to improve bass/bluegill fishery. Consider smallmouth bass introduction.
Murtaugh Reservoir	/827	Warmwater	Channel catfish Yellow perch Brown bullhead	General	Low winter pool limits fishery potential. Consider developing seasonal fishery using catchable-sized warmwater fish stocked during irrigation season, on experimental basis.
Wilson Lake	/484	Warmwater	Brown bullhead Yellow perch Channel catfish Largemouth bass	General	Experimentally stock channel and/or blue catfish in lake periodically and evaluate. Continue to emphasize high quality bullhead angling in the lake. Consider other introductions, including tiger muskie, smallmouth bass, and bluegill.
Emerald Lake	/30	Mixed	Rainbow trout Channel catfish Largemouth bass Bluegill	Put-and-take trout General	Stock regularly with hatchery rainbow as needed to maintain catch rate of approximately 0.7 fish/hr.
Freedom Park Pond	/1	Coldwater	Rainbow trout	Put-and-take trout	Put-and-take fishery for rainbows. 0.7 fish/hr.
Box Canyon Springs	1.2/	Coldwater	Rainbow trout	Wild trout	Preserve unique aesthetic qualities of stream. Maintain adequate instream flow for aquatic life and riparian habitat. Maintain very high standards for protection of stream environment which could be impacted by a proposed hydropower project and/or fish hatchery developments. Catch rates of 1.0 fish/hr.

FMPDRAIN

Banbury Springs	1.2	Coldwater	Rainbow trout Brown trout	Wild trout	Preserve unique aesthetic qualities of of area and oppose development which would adversely impact area. Manage on a wild trout basis, with approximate catch rate of 1.0 fish/hr. Maintain adequate instream flow in all stream channels. Preserve Shoshone sculpin.
All other aquifer springs in Gooding County	1C/	Coldwater	Rainbow trout	General	Manage as yield fishery. Maintain catch rate of approximately 1.0 fish/hr. Preserve quality of undeveloped aquifer springs.
Devil's Corral Springs	1/	Coldwater	Rainbow trout	Wild trout	Preserve aesthetic qualities of area. Catch rates of 1.0 fish/hr.
Vinyard Creek	0.5/	Coldwater	Cutthroat trout Rainbow trout Rbt x ctt hybrid	Wild trout	Preserve unique aesthetic qualities of area. Work with appropriate agencies and private landowners to eliminate irrigation water from lower portion of creek. Strongly oppose any development of trails into area. Protect unique population of cutthroat and hybrid trout which spawn and rear in stream. Strongly oppose any project which would raise height of Twin Falls Dam and inundate Vinyard Creek. Manage for 1.0 fish/hr; change regulations if necessary.
All other aquifer springs in Jerome County	0.2/	Coldwater	Rainbow trout	Wild trout	Manage as yield fishery.

Big Wood River Drainage



24. BIG WOOD RIVER DRAINAGE

A. Overview

The Wood River basin has a drainage area of over 2,990 square miles. Major drainages in the Wood River system are the Big Wood and Little Wood rivers. At its lower end, the Big Wood River is also known as Malad River. Flows from the Wood River drainage are controlled for irrigation and flood control by four major reservoirs: Magic, Little Wood River, Fish Creek and Mormon. Approximately 144,000 acres are irrigated from reservoir storage and other diversions. Recent hydroelectric power developments are currently in operation at Magic Dam, Little Wood River Dam, the confluence of the Big Wood and Little Wood rivers, the Little Wood near Shoshone and the Malad River dams. Additional hydropower facilities are proposed for the Malad River near the Malad Gorge State Park.

This drainage contains the most productive trout streams, lake and reservoir habitat in south central Idaho. Nearly all the major rivers, streams, lakes, reservoirs and ponds are suitable for trout. Rainbow trout are the most important game fish species in the drainage, but the lower Little Wood River and lower Silver Creek support excellent brown trout populations, and portions of the drainage sustain high populations of brook trout. Brown trout have established wild populations in the Big Wood River in the section from the backwaters of Magic Reservoir to about Stanton Crossing, and significant and steadily increasing numbers of brown trout are now found in the reservoir. No significant populations of wild trout are found in any of the major reservoirs of the drainage, and the trout fisheries are largely dependent on annual plantings of hatchery fish. Trout fisheries in the larger reservoirs are normally maintained by fingerling planting but receive catchable plants following droughts or heavy drawdown periods. Wild trout populations varying from fair to excellent are found in most of the streams in the drainage. Excellent populations of wild trophy rainbow trout are found in the Big Wood River between Magic Dam and the Richfield Canal and in Silver Creek and its main tributaries. During good water years, trophy rainbow trout are produced in Richfield Canal. The Big Wood River from Hailey to Ketchum has the potential to produce trophy rainbow trout with restrictive fishing regulations. Both wild and hatchery brown trout (fry and fingerling plants) reach trophy size in the lower Little Wood River and lower Silver Creek. Wild trout populations are supplemented with catchable rainbow trout plants in portions of several heavily fished streams. Loss of habitat from floodplain development, irrigation diversions, livestock grazing, and hydropower development has negatively impacted fish populations.

Good populations of warmwater game fish are found in many waters of the Wood River drainage, mainly in reservoirs, lakes and ponds. The principal warmwater fish species present are yellow perch, largemouth and smallmouth bass and bluegill.

Angler pressure is very high in portions of the drainage. One of the most intensely fished stream sections in the area is the Big Wood River between Gimlet and the mouth of Prairie Creek. An increasing demand by anglers for more trophy fisheries has led to establishing more restrictive regulations on the Big Wood River and Silver Creek. Magic Reservoir is the largest reservoir in the drainage and receives the highest angler pressure of any water in Region 4.

There are 16 alpine lakes which support fish in this drainage. These lakes are all relatively productive and most of them support high quality rainbow trout and cutthroat trout angling. The lakes are normally stocked by helicopter every third year under a cooperative agreement with USFS. Experimental grayling plants have been made in one alpine lake in the drainage and have done very well. Baker Lake has been selected as a broodstock lake for golden trout and is managed with a catch and release regulation.

DRAINAGE: Big Wood River

Water	Miles/acres	Fishery			Management direction
		Type	Species present	Management	
Big Wood (Malad) River, from mouth to I-84 bridge	3/	Mixed	Rainbow trout Smallmouth bass	Wild trout General	Wild trout populations. Maintain catch rates at 0.7 fish/hr. Consider stocking Idaho Power impoundments. Oppose further hydropower development.
Big Wood River, from I-84 bridge to Richfield Canal Diversion	60/	Mixed	Rainbow trout Smallmouth bass	Put-and-take trout General	Evaluate use of hatchery rainbow trout to improve catch rates to 0.5 fish/hr. Evaluate potential of hydro mitigation ponds for put-and-take fishery. Maintain smallmouth bass fishery.
Big Wood River, from Richfield Canal diversion upstream to Magic Dam	3/	Coldwater	Rainbow trout Brown trout	General	Maintain trophy size of fish and achieve catch rates of 0.7 fish/hr. Change management if fishery not maintained under current conditions. Work to maintain minimum flow for fish survival.
Big Wood River, from Magic Reservoir upstream to Glendale diversion	14/	Coldwater	Rainbow trout Brown trout Brook trout	General	Investigate potential for year round flow in Bypass Canal to reduce losses and establish year-round habitat. Establish catch rate goals based on ability to get year-round water.
Big Wood River, from Glendale diversion upstream to Mile 122 bridge on Hwy. 75	12/	Coldwater	Rainbow trout Mountain whitefish Brook trout	Quality	Improve habitat and river stability using native woody material where possible. Oppose further flood plain development. Catch rate goal of 1.0 fish/hr. Evaluate new regulations.

Big Wood River, from Mile 102 bridge on Hwy. 75 upstream to mouth of North Fork	14/	Coldwater	Rainbow trout Mountain whitefish Brook trout	Trophy	Wild trout water, catch-and-release. Improve habitat and river stability using native woody material where possible. Oppose further floodplain development. Maintain catch rate 1.0 fish/hr. Evaluate new regulations.
Big Wood River, from mouth of N.F. to headwaters	16/	Coldwater	Rainbow trout Brook trout Mountain whitefish	Put-and-take trout	Yield fishery for wild and hatchery trout and whitefish. Maintain catch rate of 0.7 fish/hr.
Trail Creek mouth to Wilson Cr.	9/	Coldwater	Rainbow trout Brook trout	Put-and-take trout	Stock with catchable rainbow trout to provide catch rates of 0.7 fish/hr. Work to provide fish passage for Big Wood River spawners.
Warm Springs Creek, mouth to Rooks Cr. campground	11/	Coldwater	Rainbow trout Brook trout	Put-and-take trout	Stock with catchable rainbow trout to provide catch rates of 0.7 fish/hr.
Richfield Canal	14/	Coldwater	Rainbow trout	General	Stock fish in low water years to provide fishery. 0.5 fish/hr.
Magic Reservoir	/3776	Mixed	Rainbow trout Brown trout Kokanee salmon Yellow perch	General	Emphasize rainbow trout fishery with large annual fingerling rainbow stockings and limited catchable rainbow stockings after extreme drawdowns. Maintain overall catch rate of 1.0 trout/hr. on opening weekend of general season and 0.5 trout/hr. through remaining season. Stock kokanee salmon and evaluate performance.
Little Wood River, from mouth to Shoshone	18/	Warmwater	Smallmouth bass	General	Maintain as smallmouth bass fishery with catch rate of 0.5 fish/hr.

Little Wood River from Gooding to Dietrich diversion dam	17/	Coldwater	Rainbow trout Brown trout	Put-and-take trout	Stock hatchery rainbow trout in potential high use areas to increase opportunity. Work to provide year-round flows for this reach.
Little Wood River from Dietrich diversion dam to downstream boundary of Bear Track Williams State Recreation Area	10/	Coldwater	Rainbow trout Brown trout	General	Brown and rainbow trout fishery with catch rate of 0.7 trout/hr. Make supplemental plantings of brown trout as needed and evaluate. Develop habitat improvement program in conjunction with BLM. Reverse declining trend of rainbow trout. Experimentally stock redband trout and evaluate performance.
Little Wood River through Bear Track Williams State Recreation Area	3/	Coldwater	Rainbow trout Brown trout	Trophy	Quality brown and rainbow trout fishery with catch rate of 1.0 fish/hr. Fly fishing only, catch-and-release basis as an access stipulation. Improve riparian conditions.
Little Wood River from upper boundary Bear Track Williams State Recreation Area to mouth of Silver Creek	4/	Coldwater	Rainbow trout Brown trout	General	Brown and rainbow trout fishery with catch rate of 0.7 fish/hr. Make supplemental stockings of brown trout fry as needed and evaluate. Develop habitat improvement program in conjunction with BLM. Reverse declining trend of rainbow trout.
Little Wood River, from mouth of Silver Creek to canal diversions north of Carey	13/	Coldwater	Rainbow trout Brown trout	General	Support proposed instream flow through area to improve fishery.
Little Wood River, from canal diversions to dam	3/	Coldwater	Rainbow trout Brown trout	Put-and-take trout	Stock hatchery rainbows to provide fishery and evaluate. Work for year-round flow downstream to diversions.

Little Wood River, from Little Wood Reservoir upstream to second bridge	2/	Coldwater	Rainbow trout	Put-and-take trout	Evaluate stocking program in high use area at campground.
Little Wood River, from second bridge above Little Wood Reservoir to headwaters	20/	Coldwater	Rainbow trout Brook trout	Wild trout	Maintain wild trout fishery with catch rates of 1.0 fish/hr.
Little Wood River Reservoir	/575	Coldwater	Rainbow trout	General	Maintain fishery with fingerling rainbow stocking with supplemental catchable rainbow stockings after heavy drawdown years. Maintain catch rate of 1.0 fish/hr. for ice fishery and 0.5 fish/hr. in general season.
Fish Creek Reservoir	/516	Coldwater	Rainbow Trout	General	Maintain basic fishery with fingerling rainbow stockings and supplemental catchable plantings after extreme drawdowns or as determined desirable. Maintain catch rate of 1.5 fish/hr. for ice fishery and 0.5 fish/hr. during general season. Stock kokanee salmon and evaluate.
Carey Lake	/200	Warmwater	Largemouth bass Bluegill Yellow perch Brown bullhead	General	Yield warmwater fishery. Conduct fish population and limnological studies of lake to aid in assessing fisheries and to determine management direction. Cooperate with lands to maintain adequate water volume to prevent winterkill.
Lava Lake	/20	Coldwater	Rainbow trout	Put-and-take trout	Evaluate potential for improving fishery with fingerling stocking and restrictive regulations.

FMPDRAIN

Silver Creek, from mouth upstream to County road bridge near Picabo	14/	Coldwater	Rainbow trout Brown trout	Wild trout	Wild trout fishery with average catch rate of 0.7 fish/hr. Maintain or improve rainbow trout population. Improve riparian habitat.
Silver Creek, from County road bridge north of Picabo to Hwy. 20 bridge at milepost 187	6/	Coldwater	Rainbow trout Brown trout Mountain whitefish	Quality	Catch rate of 1.0 fish/hr. Improve riparian habitat.
Silver Creek and tributaries upstream Hwy. 20 bridge at milepost 187 Bridge and Sullivan L. within Nature Conservancy property	8.5/	Coldwater	Rainbow trout Brown trout Mountain whitefish	Trophy	Catch-and-release. Fly fishing only on Nature Conservancy as access stipulation. Maintain catch rate of 1.0 fish/hr.
Stalker Creek from public fishing portion of Nature Conservancy property upstream (including tributaries)	10/	Coldwater	Rainbow trout Brook trout Brown trout	Wild trout	Catch rates of 1.0 fish/hr. Inform landowners/developers of need for maintaining habitat.
Loving Creek, from Nature Conservancy boundary upstream to headwater, except Hayspur Hatchery grounds	3/	Coldwater	Rainbow trout Brook trout Brown trout	General	Maintain catch rate of 0.7 fish/hr.
Loving Creek, Hayspur Hatchery grounds	1/	Coldwater	Rainbow trout Brown trout Brook trout	Trophy	Divert stream into historic channel below brood pond and develop habitat for trophy fishery. Catch rates of 1.0 fish/hr. Revise management if stream project unfeasible.
Gavers Lagoon	/1	Coldwater	Rainbow trout	Put-and-take trout	Stock with catchable rainbow trout and occasional broodstock culls. Provide catch rate of 1.0 fish/hr.

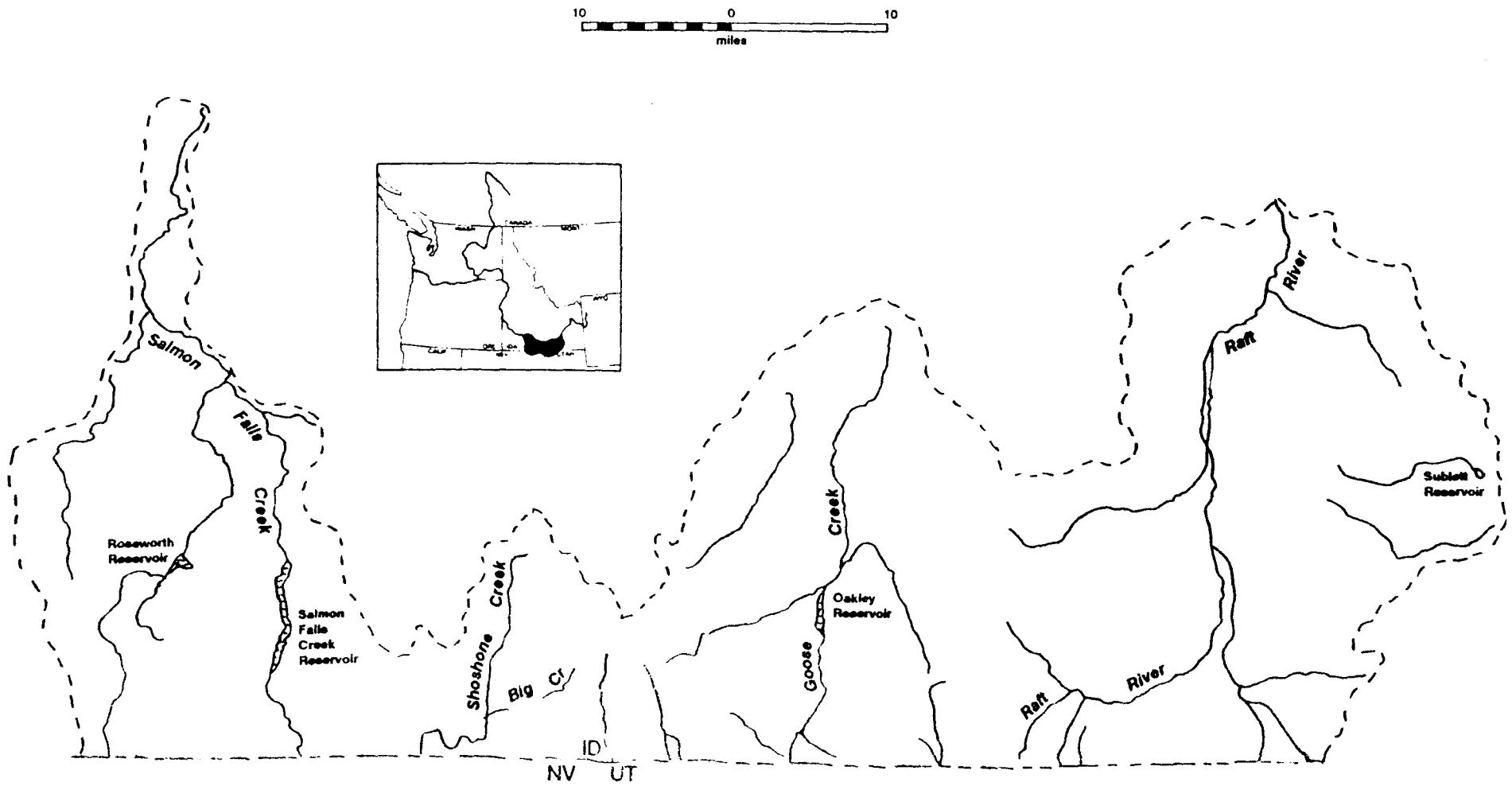
FMPDRAIN

Grove Creek	5/	Coldwater	Rainbow trout Brook trout Brown trout	Wild trout	Catch rate of 0.7 fish/hr.
Camas Creek	50/	Coldwater	Rainbow trout Brown trout	General	Investigate potential for fishery development. Improve habitat where feasible to increase carrying capacity.
Mormon Reservoir	/2700	Mixed	Rainbow trout Yellow perch	General	Experimentally stock cutthroat and rbt x ctt hybrids to increase catch rates to 0.5 trout/hr. Stock brown trout as available. Work to acquire minimum pool.
Thorn Creek Reservoir	/126	Coldwater	Rainbow trout	General	Cooperate with BLM to improve carryover of water and fish in low water years. 0.7 fish/hr.
Irving Reservoir	/95	Mixed	Largemouth bass Bluegill Rainbow trout	General	Supplement warmwater fishery with put-and-take rainbow fishery. Consider use of tiger muskies to utilize forage species. Assess fisheries and chemically eradicate and restock if studies so indicate. Investigate use of water level management to control vegetation and carp reproduction.
All other streams in Big Wood River drainage	265/	Coldwater	Rainbow trout Brook trout Brown trout	Wild trout	Maintain or improve existing habitat to increase carrying capacity for resident fish and spawning and rearing of migratory fish. 1.0 fish/hr. where habitat is suitable.
Baker Lake	/10	Coldwater	Golden trout	Preservation	State golden trout broodstock lake. Maintain fishing opportunity on catch-and-release basis.

Lower Box Canyon Lake	/5	Coldwater	Brook trout Brown trout	General	Evaluate brown trout introductions.
All other alpine lakes (total of 14--2 in Little Wood River drainage and 12 in Big Wood River drainage	/80	Coldwater	Cutthroat trout Rainbow trout Grayling Brook trout	General	Maintain diverse angling opportunity by stocking different lakes with different species. Investigate potential for stocking bull trout as a large predator on stunted brook trout populations. Stock every three years in cooperation with USFS to provide catch rates of 0.7 fish/hr.

Salmon Falls Creek, Goose Creek, Raft River

and other drainages of the Snake River



SALMON FALLS CREEK, GOOSE CREEK, ROCK CREEK AND RAFT RIVER DRAINAGES

A. Overview

There are four major drainages south of the Snake River between C.J. Strike Reservoir and Massacre Rocks - Raft River, Goose Creek, Rock Creek and Salmon Falls Creek. The four drainages have a combined drainage area of over 6,870 square miles. Three major reservoirs; Oakley, Salmon Falls Creek and Roseworth, and one minor reservoir, Sublett, store water for irrigation and flood control. These reservoirs all support trout fisheries varying from fair to excellent. Sublett has excellent trout reproduction in tributary streams.

All of these drainages have streams which support good wild trout populations. Species found in different portions of the area are rainbow, cutthroat, brown and brook trout. Populations of native cutthroat trout are found in the Raft River and Goose Creek drainages. Native cutthroat trout populations in some areas have been declining as a result of land uses degrading habitat and introduction of other species, particularly rainbow trout. Programs for maintaining or improving existing cutthroat trout populations and restoring remnant populations will be emphasized.

Beaver ponds furnish much valuable trout habitat on many of the smaller streams of the Raft River and Goose Creek drainages. Large portions of streams in the Raft River, Goose Creek and Salmon Falls Creek drainages have been degraded by overgrazing and poor land use practices in past years.

The lower portions of Shoshone Creek and its tributaries were chemically eradicated in 1972 to reduce nongame fish populations in cooperation with Nevada Department of Wildlife. Rainbow, brown and cutthroat trout were then reestablished in the area.

Salmon Falls Creek Reservoir was completed in 1912 and until the spring of 1984 was considered a closed system. As a result, it has received plantings of many species of fish through the years. Record snows in the drainage caused the reservoir to fill and spill for the first time in the spring of 1984. No evidence has been found to indicate that any fish survived the spill below the reservoir. It currently has a greater variety of game fish species than any other reservoir in the area. Game species currently in the reservoir are rainbow trout, brown trout, chinook salmon, coho salmon, kokanee, yellow perch, black crappie, channel catfish, smallmouth bass and walleye. Salmonids are maintained by hatchery stocking. Walleye and chinook salmon are the two most recent additions and both species have done well. With the addition of walleye, numbers of nongame fish have declined and an additional forage species, the spottail shiner, has been introduced to supplement the forage base.

The walleye fishery in Salmon Falls Creek Reservoir has been extremely well received and is very popular with a large segment of anglers. A creel census undertaken on the reservoir in the summer of 1983 indicated approximately 1,400 walleye were taken by anglers and the number taken per year has been steadily increasing. Some walleye in the reservoir are now reaching trophy sizes, with the current state record being a 15 pound 9 ounce fish caught in 1987. Trout fishing remains good with the stocking of larger catchable rainbow trout instead of fingerings.

Angling pressure varies considerably throughout the drainages. It is high on Roseworth, Sublett and Salmon Falls Creek reservoirs, but is relatively light on streams in the Salmon Falls Creek and Raft River drainages. Easily accessible streams in the Goose Creek and Rock Creek drainages receive very high use.

There are four alpine lakes which support game fish in the Raft River drainage: the Independence Lakes on Independence Mountain near Oakley and Lake Cleveland on Mount Harrison. The Independence Lakes have good cutthroat trout populations which result from fry plantings. Lake Cleveland is accessible by road and the fishery is maintained by catchable rainbow trout stockings.

DRAINAGE: Salmon Falls Creek, Rock Creek, Goose Creek and Raft River drainages

Water	Miles/acres	Fishery			Management direction
		Type	Species present	Management	
Salmon Falls Creek from mouth to Balanced Rock Park	26/	Mixed	Rainbow trout Brown trout Smallmouth bass	Put-and-take trout	Stock catchable rainbows at Balanced Rock Park. Maintain catch rate of 0.7 fish/hr.
Salmon Falls Creek from Balanced Rock to Salmon Falls Creek Dam	18/	Mixed	Rainbow trout Brown trout Smallmouth bass	General	Maintain wild trout fishery and catch rate of 0.5 fish/hr.
From backwaters of Salmon Falls Creek Reservoir to Nevada border	7/	Mixed	Rainbow trout Brown trout Smallmouth bass Walleye	General	Maintain wild trout fishery. Maintain catch rate of 0.5 fish/hr.
Shoshone Creek from Nevada border to mouth of Big Creek	10/	Coldwater	Rainbow trout Brown trout Cutthroat trout	Wild trout	Maintain catch rate of 0.5 fish/hr.
Shoshone Creek, from mouth of Big Creek to headwaters	12/	Coldwater	Rainbow trout	Wild trout	Work with USFS & BLM to improve habitat through grazing and beaver management. Catch rate of 0.5 fish/hr.
Big Creek from mouth to headwaters	14/	Coldwater	Rainbow trout Brown trout	Wild trout	Maintain catch rate of 0.5 fish/hr.

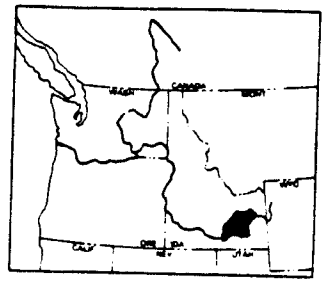
All other streams in Salmon Falls Creek drainage	57/	Coldwater	Rainbow trout Cutthroat trout	Wild trout	Evaluate need for harvest restrictions to maintain native trout where present. Maintain catch rate of 1.0 trout/hr.
Salmon Falls Creek Reservoir	/3400	Mixed	Rainbow trout Kokanee salmon Chinook salmon Walleye Yellow perch Smallmouth bass Black crappie	General	Emphasize species diversity. Stock kokanee salmon, chinook salmon, and catchable rainbow trout. Catch rate of 0.5 fish/hr. on salmonids. Monitor effect of walleye on forage fish species.
Roseworth Reservoir (Cedar Creek Reservoir)	/1500	Coldwater	Rainbow trout	General	Emphasize rainbow trout in reservoir. Improve carryover with fall fingerling plants. 0.5 fish/hr.
Rock Creek, from mouth to Twin Falls Highline Canal	21/	Coldwater	Rainbow trout Brown trout	Put-and-take trout	Continue cooperation with IDHW, SCS and TFSCD on ongoing Rock Creek rural clean water project. Continue annual brown trout stockings. Continue stocking hatchery rainbow at high-use sites. Assure adequate minimum instream flows and other environmental protection at hydro sites. Work to improve fish passage. Experiment with rainbow trout fingerlings to improve catch rates to 0.7 fish/hr. Year-round season. Stock steelhead as excess adults are available.
Rock Creek, and tributaries from Twin Falls Highline Canal to headwaters	15/	Coldwater	Rainbow trout Brown trout	Put-and-take trout	Continue cooperation on Rock Creek rural clean water project. Improve to approximately 0.7 fish/hr.

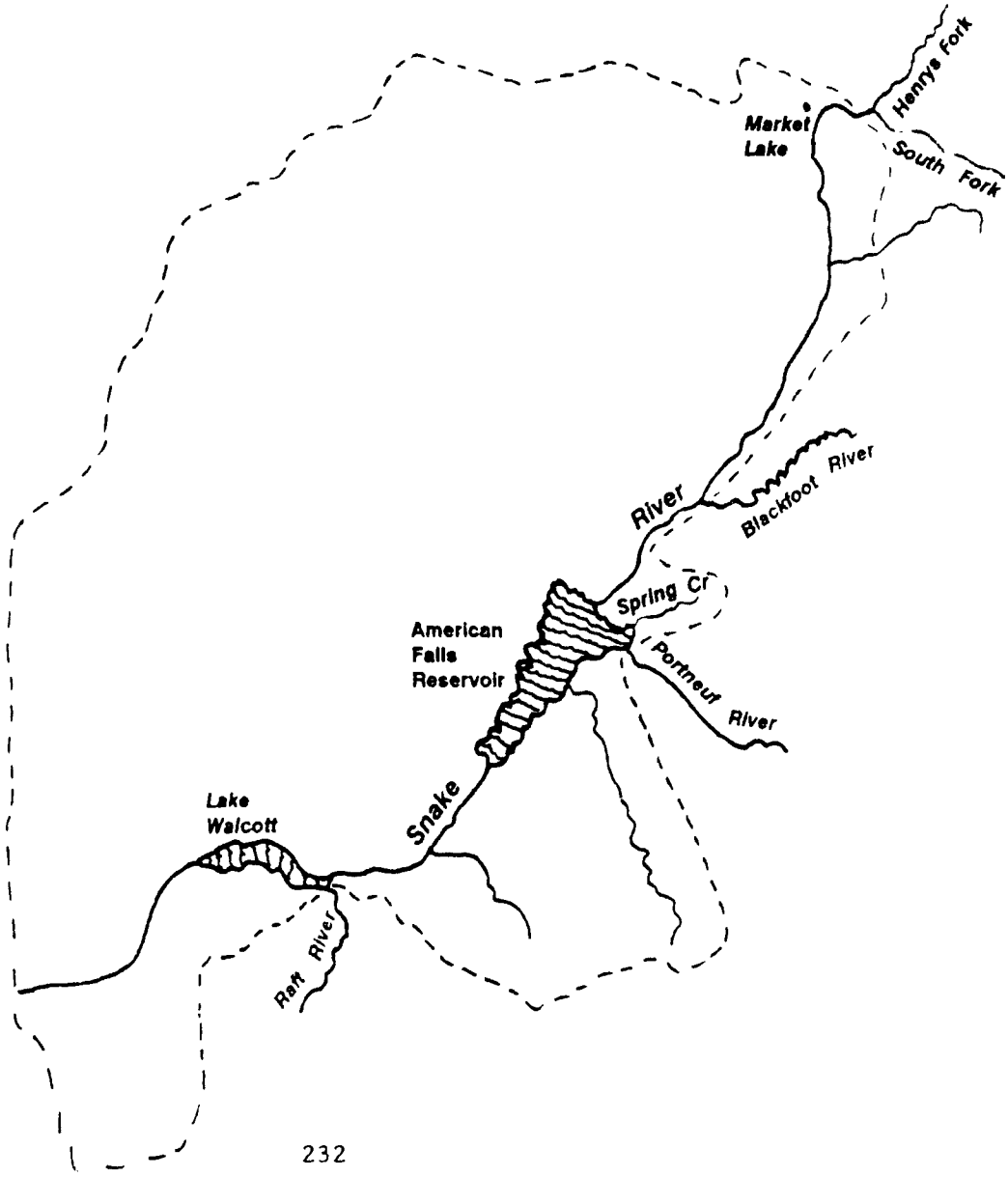
Goose Creek from Oakley Reservoir to headwaters (within Idaho)	44/	Coldwater	Cutthroat trout Rainbow trout	Wild trout	Improve quality of cutthroat fishery. Improve catch rate to 1.0 fish/hr.
Big Cottonwood Creek from Walls Ranch to headwaters	15/	Coldwater	Cutthroat trout	Wild trout	Place emphasis on cutthroat and preservation of stream habitat. Strongly oppose additional road or trail construction along stream. Maintain catch rate of 1.0 fish/hr.
Oakley Reservoir	/1350	Mixed	Rainbow trout Cutthroat trout Channel catfish Yellow perch Walleye Smallmouth bass	General	Maintain catch rate of 0.5 trout/hr. Stock cutthroat trout fingerlings. Stock smallmouth bass and continue channel catfish stockings. Continue to stock walleye through 1991 and monitor.
Tributaries to Sublett Reservoir	30/	Coldwater	Cutthroat trout Brown trout Rainbow trout	Wild trout	Manage as wild trout fishery with emphasis on preservation of stream qualities for spawning and rearing. Emphasis on native cutthroat trout. Continue cooperation with USFS and Sublett Irrigation District to maintain riparian vegetation and protect stream habitat. Maintain catch rate of 1.0 fish/hr.
Sublett Reservoir	/113	Coldwater	Cutthroat trout Rainbow trout Brown trout Kokanee salmon	General	Stock with fall fingerling cutthroat. Closely monitor spawning runs of rainbow, cutthroat, and brown trout for spawning success. Experiment with kokanee salmon and evaluate. Maintain close cooperation and coordination with Sublett Irrigation District to assure public access. Catch rate of 0.5 fish/hr.

Cassia Creek from [illegible]	5/	Coldwater	Rainbow trout Brook trout	Put-and-take trout	Stock and evaluate return to creel. 0.7 fish/hr.
Other streams in Raft River and Goose Creek drainages	361/	Coldwater	Cutthroat trout Rainbow trout Brook trout	Wild trout	Emphasize protection of native cutthroat in streams where present. Maintain catch rate of 1.0 trout/hr. Evaluate streams for reintroduction of native cutthroat. Emphasize harvest opportunity for brook trout. Work with landowners and land management agencies to improve habitat.
Independence Lakes #1,2,3	/32	Coldwater	Cutthroat trout Grayling	General	Stock trout every three years and grayling as available in Independence #2. Catch rates of 0.7 fish/hr. Support USFS policy of non-motorized access only.
Lake Cleveland	/6	Coldwater	Rainbow trout Cutthroat trout	Put-and-take trout	Accessible by road. Stock annually with hatchery rainbow and cutthroat trout fingerlings. Evaluate fingerling plants. Catch rates of 0.7 fish/hr.

Snake River Drainage

Lake Walcott to Confluence of South Fork and Henrys Fork





SNAKE RIVER

Lake Walcott to Confluence of South Fork and Henrys Fork

A. Overview

The Snake River from Massacre Rocks upstream to the confluence of the North (Henrys) and South forks encompasses a variety of habitat types. This section extends approximately 125 miles, of which approximately 20 miles is flooded by American Falls Reservoir.

The six miles of river from Eagle Rock upstream to American Falls Dam is considered a Class 1 trout stream. An estimated 58,000 hours of fishing occurs in this reach, rainbow harvest during the fishing season is estimated at 22,000 fish. This section is also noted for trophy size trout; numerous fish are taken in the five-to-ten pound class.

Trout planted in American Falls Reservoir annually migrate downstream in mid-summer because the reservoir becomes too warm and lacks sufficient oxygen. Reservoir releases in mid-summer result in high temperatures and low oxygen in the tailrace. Winter storage of water in the reservoir reduces river flows, placing additional stress on trout.

American Falls Reservoir covers 56,000 surface acres and has a usable storage of 1.7 million acre-feet. It is a popular fishing reservoir, with an estimated 26,000 rainbow harvested and 125,000 hours fishing during the season. The reservoir is stocked annually with catchable trout in the early spring and growth is significant. Most trout range in size from one to two pounds and virtually all are of hatchery origin. Use of fall-stocked fingerling will be evaluated in 1990-91 and research information now being collected will be used with public input to develop a long-term management plan. In addition, the reservoir contains a dense population of nongame fish, primarily suckers, carp, and chubs.

The Snake River from the backwaters of American Falls Reservoir upstream to Tilden Bridge, a distance of approximately 20 miles, is a Class 1 stream. The stream in this area is somewhat inaccessible because of private land along the river and limited access through the Fort Hall Indian Reservation. Numerous springs arise on the reservation in the area known as the Bottoms located near the upper end of American Falls Reservoir and between the Portneuf River on the south and the Snake River on the north. The springs produce approximately 2,000,000 acre-feet of water annually, more than enough to fill American Falls Reservoir. The two best-known springs in this area are Clear Creek and Spring Creek, both Class 1 waters for 7 miles and 11 miles, respectively. These springs contain rainbow trout, brown trout and mountain whitefish.

The Snake River from Tilden Bridge upstream to the Gem State Power Plant spans 37 river miles and is characterized by low unstable banks of small river rock. Water is diverted from the river at numerous points in this reach. During the irrigation season and early fall, river flows are low due to irrigation diversions and upstream water storage. Recent research (1987, 1988) documented catch rates of 0.08 to 0.25 trout/hour between American Falls Reservoir and the Gem State Hydro project. Hatchery rainbow comprised the majority of the catch, however, large wild rainbow, brown and cutthroat trout are caught in this reach also. Research recommends increased supplemental stocking of fingerling brown and cutthroat trout to capitalize on high growth rates in this recruitment limited river reach.

Access to the river in this section is poor due to the predominance of private land ownership. Most access is by boat. Additional access for boat, bank and wade anglers would enhance the value of this fishery.

Reservoirs and ponds along the Snake River in this area include Springfield Reservoir, McTucker Ponds and Rose Pond. Springfield Reservoir covers 66 surface acres and is primarily operated as an irrigation diversion facility. This reservoir is annually stocked with catchable-size hatchery rainbow trout; it receives heavy fishing pressure and is open to fishing all year. McTucker Ponds are three small gravel pits covering ten surface acres, located near the upper end of American Falls Reservoir. These ponds are opened to year-round fishing. Annually planted with catchable-size trout, they also contain largemouth bass and bluegill. Rose Pond is located north of Blackfoot and contains rainbow trout, perch, bluegill and largemouth bass.

The Snake River from the Gem State project to the outflow of the upper Idaho Falls Power Plant is essentially a put and take hatchery rainbow trout fishery. Both the Department and the City of Idaho Falls stock this reach with hatchery catchable rainbow trout. In 1987, hatchery rainbow trout comprised 58% of the trout harvest followed by cutthroat (24%), wild rainbow (11%) and brown trout (7%). The hydro power impoundments in this section block upstream migration of spawning brown and cutthroat trout and provide less productive trout habitat than run of the river reaches. This section will be managed for optimum return to the creel of catchable rainbow trout.

The remainder of the upper Snake River from the Idaho Falls Upper Power Plant to the confluence of the Henrys Fork and South Fork (30 miles) produces occasional catches of large rainbow and cutthroat trout. Brown trout are also caught in this reach. No hatchery stocking occurs in this reach of river. The fishery in this area has declined since the Teton Dam failure due to silt deposition and loss of habitat. Little improvement has been noted in recent years. Because of hatchery space limitations and very poor return to the creel in this fishery, this river

reach will not receive catchable hatchery trout. We will attempt to supplement natural production with fingerling brown and cutthroat trout as our hatchery production allows.

Reservoirs and ponds along the Snake River in this area supporting fisheries include Roberts Gravel Pond and Market Lake, both of which are owned by the Department. Roberts Gravel Pond covers 35 surface acres and contains yellow perch, rainbow trout, largemouth bass, channel catfish, bluegill and bullhead. It is managed as a mixed fishery, and good catches of yellow perch occur seasonally. Aeration during winter periods has offset past winterkills in Roberts Gravel Pond. Market Lake contains rainbow trout, yellow perch, bullhead, largemouth bass and chubs. Several unnamed gravel pits and sloughs along the Snake River contain some yellow perch. Their fishery value is unknown.

The Snake River from American Falls Reservoir to the confluence of the Henrys Fork and South Fork has undergone much change in trout habitat quality that limits our ability to provide improvements in quality and quantity of trout angling opportunity. Alternate species management may provide the best and most cost effective means to improve fishing in this portion of the river. Smallmouth bass especially perform well in this type of river habitat. Experience in similar river reaches in Idaho and Oregon has shown that smallmouth bass are compatible with both resident and anadromous salmonids. The Department has introduced smallmouth bass in the Idaho Falls area impoundments and will pursue the possibility of introducing smallmouth bass in waters on Shoshone-Bannock tribal lands near American Falls Reservoir to provide increased diversity of angling opportunity.

Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
Snake River from eastern boundary of Minidoka Wildlife Refuge to Eagle Rock	8/	Coldwater	Rainbow trout Brown trout	General	Determine if this reach should be included in the management plan that will be developed for the following reach. Assess status of the fishery.
Snake River from Eagle Rock to American Falls Dam	7/	Coldwater	Rainbow trout Brown trout Cutthroat trout	Put-and-take trout Quality	Evaluate exploitation and size and age structure of summer harvest. Develop a fishery management plan for the reach consistent with research findings and public input.
American Falls Reservoir	/56,000	Mixed	Rainbow trout Cutthroat trout Yellow perch Black crappie	Put-and-take trout	Develop a fishery management plan using research findings and public input. Evaluate Lahontan Cutthroat fingerling program and pursue introduction of smallmouth bass with Shoshone/Bannock Tribe.
Rock Creek and tributaries	55/	Coldwater	Cutthroat trout Rainbow trout	Quality General	Evaluate potential for hatchery-supported segment below Rockland, and in the East Fork. Develop angler access. Work with other agencies to minimize grazing impacts.
Springfield Lake	/66	Coldwater	Rainbow trout	Put-and-take trout	Evaluate growth of fingerling, potential for kokanee salmon introduction, and return to creel on catchable rainbow trout.
McTucker Ponds	/10	Mixed	Rainbow trout Bluegill Largemouth bass Yellow perch	Put-and-take trout General	Conduct fisheries inventory and address questions about current management.

Rose Pond	/5	Mixed	Rainbow trout Largemouth bass Yellow perch	Put-and-take trout Quality	Estimate return to creel and angling pressure to evaluate current stocking rate.
American Falls Reservoir to Gem State Dam	57/	Coldwater	Cutthroat trout Brown trout Rainbow trout Whitefish	Quality Wild Trout General	Area 6 cutthroat trout restricted harvest. Increase angler/boat access. Increase catch rate for all trout to 0.5 fish/hr. Rely on natural recruitment with supplemental stocking of cutthroat trout fingerlings. Pursue possibilities for smallmouth bass introduction. Evaluate brown trout fingerling introduction. Consider development of a hatchery-supported zone.
Gem State Dam to outflow of Idaho Falls upper power plant	12/	Coldwater	Rainbow trout Brown trout Whitefish Cutthroat trout	Put-and-take trout Wild trout General Quality	Maintain catch rate for all trout to 0.3 fish/hr. Supplemental stocking of 26,000 catchable rainbow trout/year. Monitor smallmouth bass introductions.
Idaho Falls upper power plant to South Fork	39/	Coldwater	Cutthroat trout Brown trout Rainbow trout Whitefish	Quality Wild trout General	Area 6 cutthroat trout restricted harvest. Improve angler boat access. Increase catch rate for all trout to 0.5 fish/hr. Rely on natural recruitment with experimental supplemental stocking of cutthroat and brown trout fingerlings. Monitor smallmouth bass introductions.
Roberts Gravel Pond	/35	Mixed	Rainbow trout Largemouth bass Yellow perch Bluegill Channel catfish Bullhead Grass carp	General	Improve habitat to increase harvest Catchable rainbow trout stocked in spring and fall. Annual release of channel catfish. Manage aquatic vegetation with grass carp.

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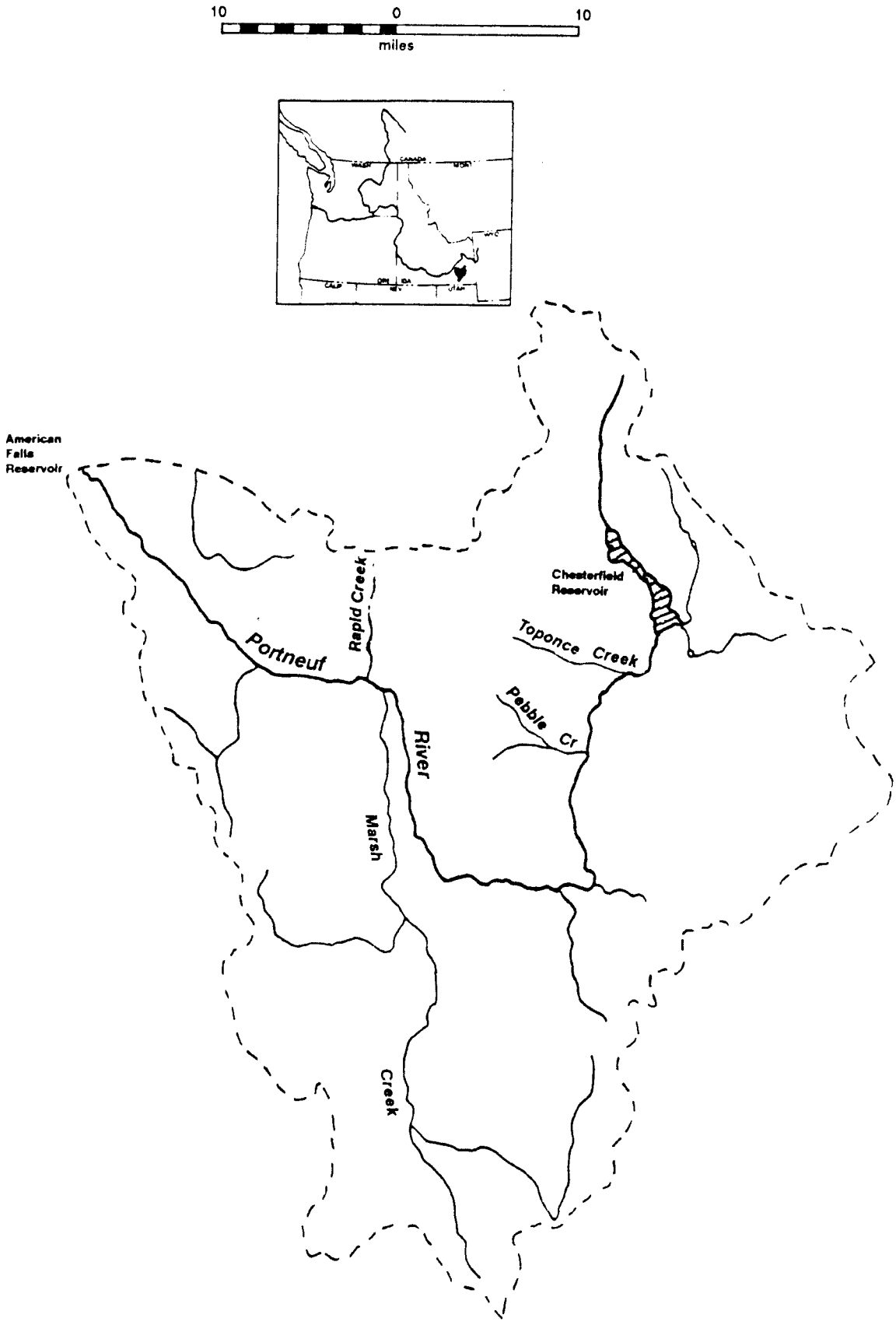
Market Lake	/545	Warmwater	Yellow perch Largemouth bass Bullhead	General	Work with waterfowl water management to maintain warmwater fishery.
Spring Creek, Taylor Bannock, Jim and Texas sloughs	33/	Coldwater	Rainbow trout Cutthroat trout	General Quality	Put-and-grow fishery. Maintain catch rates of 0.5 fish/hr. Conduct spot creel checks to assess catch rate, effort, and size. Increase supplementation with cutthroat and rainbow trout fingerlings. Catchable rainbow trout planting continued until fingerling program establishes.

Portneuf River Drainage



PORTNEUF RIVER DRAINAGE

A. Overview

The Portneuf River and tributaries total 297 miles of stream, and drain nearly 1,300 square miles. In addition, there are four irrigation storage reservoirs in the drainage covering 1,705 acres.

The Portneuf River headwaters upstream from Chesterfield Reservoir on the Fort Hall Indian Reservation and terminates in American Falls Reservoir. From American Falls Reservoir upstream to Pocatello the river receives considerable spring water and contains populations of wild rainbow trout. The reach from Pocatello upstream to Marsh Creek contains very few trout, receives very little fishing pressure, and is severely impacted by sediment. From the confluence of Marsh Creek upstream to the Portneuf/Marsh Valley Canal diversion, silt conditions are less severe, but low flows caused by irrigation diversions adversely affect the populations of wild brown trout, the main game species in this area.

Conditions improve from the Portneuf/Marsh Valley diversion upstream to Lava Hot Springs, this area contains 94% wild rainbow trout, 5% brown trout, and 1% hatchery rainbow and cutthroat. The 16 miles from Lava Hot Springs upstream to Chesterfield Road (Kelly Road) bridge once supported an excellent wild rainbow trout population and was a very popular fishery. An estimated 7,000 anglers fished 17,300 hours and caught 3,000 wild rainbow, 4,200 hatchery rainbow and 900 cutthroat in this area during 1979. Sampling in this area indicates the trout population was made up of 69% wild rainbow, 19% hatchery rainbow, and 12% cutthroat.

Harvest of wild trout on the river declined in the late 1980s to a few hundred fish annually, and is currently so low that restrictive regulations would be ineffective. The Department is currently involved in a cooperative effort to correct sediment problems in the Portneuf-Marsh Valley Canal. This reach was identified as contributing most heavily to sediment-loading impacts in the river below.

This 10-mile reach upstream from the Chesterfield (Kelly) Road bridge to Chesterfield Reservoir has been extensively damaged by stream channel alterations and contains few trout. From Chesterfield Reservoir upstream, the river is small, has significant beaver activity and is heavily impacted by cattle. This area and the river near American Falls Reservoir is within the boundaries of the Fort Hall Indian Reservation.

An independent steering group was formed in 1990 to address the sediment problem caused by the canal. A river mechanics specialist, Don Reichmuth, was brought in to make an interpretation of the problem and propose a solution. The following actions have been proposed:

1. Develop a written conceptual plan to eliminate head cutting in the canal, which is the source of massive sediment production.

2. Seek available funds for implementation. Sources include the Soil Conservation Service, Division of Environmental Quality (H&W), office of Senator Symms.

3. Work with land owners to improve riparian habitat conditions.

4. Pursue purchase of key riparian and upland lands in the drainage for habitat protection.

Major tributaries to the Portneuf River include Mink, Marsh, Rapid, Dempsey, Pebble, and Toponce creeks. They may serve as spawning areas for trout from the Portneuf River and nursery areas for fluvial trout, however, trout movement and the importance of these tributaries to the river is unknown.

Four irrigation reservoirs are located in this drainage; Hawkins, Wiregrass, Chesterfield, and Twenty-four Mile. The lack of suitable spawning areas and annual irrigation drawdown precludes the development of any type of wild trout fisheries in these waters. Catchable and fingerling trout are released in spring and fall respectively. Trout grow rapidly and a high percentage are caught the first season. Some carryover occurs if water levels are favorable, and fish are caught at much larger size (1-2 lbs.) the next year. Chesterfield Reservoir was renovated in fall 1988 and produced rainbow exceeding 5 pounds by fall 1989.

The Highway Pond near Pocatello currently contain no water and provides no angling opportunity. It was planted annually with hatchery trout which grew well and were harvested at a high rate. Due to the proximity of this pit to Pocatello and its past notoriety for producing large trout, it has been slated for deepening by Bannock County and the Department to provide a perpetual urban fishery.

DRAINAGE: Portneuf River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
Portneuf River from American Falls Reservoir to Marsh Creek, including Marsh Creek	20/	Coldwater	Rainbow trout Brown trout Cutthroat trout	General Quality	Investigate potential of urban "hatchery-supported" river fishery in vicinity of highway pond. Also, consider developing "inner city" canal fisheries on Pocatello Creek.
Portneuf River from Marsh Creek to Marsh Valley Canal Diversion	20/	Coldwater	Brown trout Rainbow trout Cutthroat trout	General Quality	Investigate access development to river through "Indian Rocks State Park". Evaluate potential for brown trout fingerling releases or hatchery rainbow supported zone in this area.
Hawkins Reservoir	/40	Coldwater	Rainbow trout Brook trout	General	Evaluate effectiveness of fingerling program.
Wiregrass Reservoir	/6	Coldwater	Rainbow trout	Put-and-take trout	Estimate return to creel to evaluate stocking rates.
Portneuf River from Marsh Valley Canal To Lava Hot Springs	7/	Coldwater	Rainbow trout Brown trout Cutthroat trout	Put-and-take trout Quality	Work on access permits with Lava Chamber of Commerce and landowners. Limit hatchery zone to upper 3 miles near Lava.
Rapid Creek		Coldwater	Cutthroat trout	Quality	Evaluate potential for hatchery rainbow management zone.
Portneuf River from Lava Hot Springs to Broxon Road	6/	Coldwater	Rainbow trout Brown trout Cutthroat trout	Put-and-take trout Quality	Develop additional public access areas.

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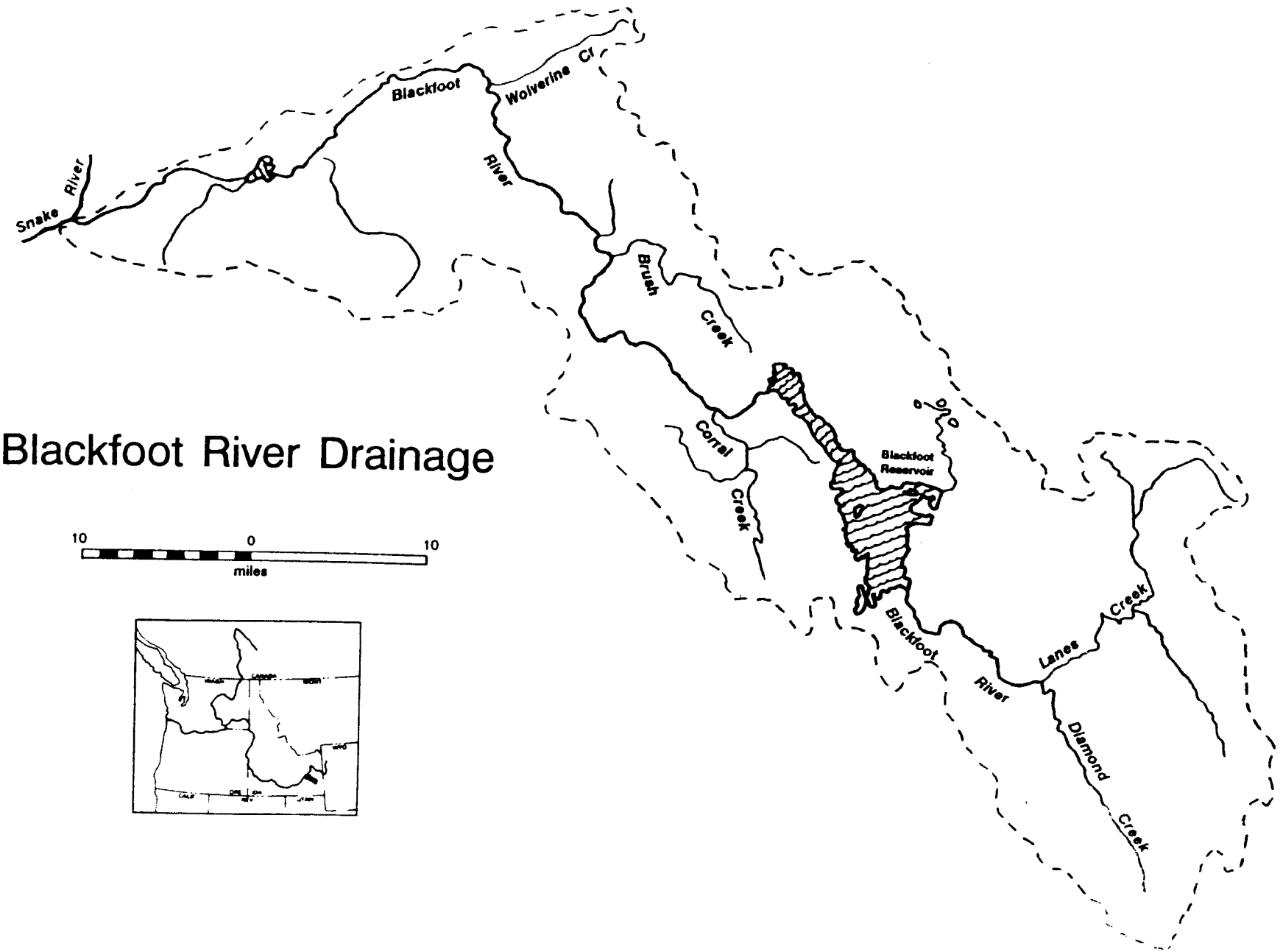
Portneuf River from Brown Road to Kelly Road Bridge	8/	Coldwater	Rainbow trout Cutthroat trout	Wild trout Quality	Reduce sediment problems via upstream habitat improvement in canal and tributaries. Consider quality regulations for rainbow if water quality improves.
Portneuf River from Kelly Road Bridge to Chesterfield Reservoir	9/	Coldwater	Rainbow trout Cutthroat trout	General Quality	Large scale Stream Bank Stabilization needed.
Chesterfield Reservoir	/1600	Mixed	Cutthroat trout Rainbow trout Rbt x ctt hybrids Brown trout Kokanee salmon	General	Evaluate effectiveness of fingerling stocking programs and monitor trout growth and rough fish abundance to determine if future renovation is necessary.
Portneuf River above Chesterfield Reservoir		Coldwater	Rainbow trout Cutthroat trout	General	Managed by the Shoshone-Bannock Tribe.
Pebble Creek	10/	Coldwater	Cutthroat trout Rainbow trout	Quality	Continue habitat improvement project with Forest Service to improve riparian habitat.
Toponce Creek	12/	Coldwater	Cutthroat trout Rainbow trout	Quality General	Work with landowner on the lower reach to consolidate stream channel and remove irrigation barriers to fish passage.
24-Mile Reservoir	/44	Coldwater	Rbt x ctt hybrids Brook trout	Trophy General	Evaluate growth of fingerling and effectiveness of trophy regulations.

Blackfoot River Drainage



BLACKFOOT RIVER AND TRIBUTARIES

A. Overview

The Blackfoot River and tributaries total 346 miles covering 734 surface acres. Blackfoot Reservoir covers 19,000 surface acres and contains 313,000 acre-feet of water at capacity. The Blackfoot River is the reservoir's major tributary and has a mean annual flow of 168 cfs. The river upstream from the reservoir extends 35 miles to its origin at the confluence of Lane and Diamond creeks.

Habitat conditions generally are fair in the upper river and tributaries, with a few notable exceptions due to livestock grazing and irrigation diversions. One of the largest phosphate ore reserves in the United States is located in this drainage. Environmental problems associated with phosphate mining have been minimal to date.

Most trout caught downstream from Blackfoot Reservoir have escaped from the reservoir or are hatchery rainbow planted directly into the river. Mountain whitefish are the dominant game-fish species in river section downstream from Wolverine Creek. Department personnel will be working with biologists from the Shoshone Bannock tribes to obtain minimum flows for the river, especially during winter.

Trout harvest from Blackfoot Reservoir varies from 46% to 80% hatchery rainbow with the balance being composed of hatchery Bear Lake and Wild Yellowstone cutthroat. Wild cutthroat make up about 90% of the catch from the river and tributaries upstream from Slug Creek.

The Blackfoot River, its tributaries, and the Blackfoot Reservoir serve integral roles in the life history and ecology of wild cutthroat trout. Mature cutthroat from the reservoir ascend the river in April and May and enter upper tributaries to spawn in late May and June. Progeny rear in the tributaries for varying periods up to two years. Most juvenile cutthroat return to Blackfoot Reservoir after rearing one, two, or three years in the streams. They stay in the reservoir until ready to start the spawning cycle.

Studies completed on the reservoir and river indicated the wild cutthroat population was being over exploited. Size and numbers of cutthroat caught had decreased significantly prior to 1985. Regulations to offset this decline were implemented in 1985 but were ineffective. An evaluation of the cutthroat population made in 1988 showed that the river fishery had completely collapsed.

In 1983 stocking of Bear Lake cutthroat was started in Blackfoot Reservoir. These fish are reared for one year in the hatchery prior to release as 5" fingerlings. Cutthroat are treated with morpholine in Grace Hatchery before being released, and are planted in the Little

Blackfoot River at its mouth. The stream is also treated with morpholine to attract fish at the time of spawning. This planting location and morpholine treatment was an attempt to maintain the separate strains of cutthroat.

A major management planning effort was initiated in 1988 for the entire Upper Blackfoot System. Wild cutthroat must now be released in the reservoir and only 2 cutthroat over 18" per day can be taken on the river. No bait fishing is allowed on the river upstream from the reservoir. Computer modeling to simulate the wild trout population indicated that 12-15 years will be required under these regulations before the wild cutthroat fishery is restored to 1959-60 levels.

Part of the management plan also deals with hatchery programs for the reservoir. Stocking of fingerling Bear Lake cutthroat will continue at 250-300,000 annually in the main Blackfoot River. A new "floating weir" type trap has been constructed there to collect Bear Lake cutthroat for spawning and keep them out of the Upper Blackfoot system.

Hatchery rainbow have typically been stocked in spring and summer at 80,000 per year, but the emphasis is now shifting to fingerling stocking. The target release has been set at 2,000,000 rainbow annually and will be evaluated in 1991, 1992 and 1993.

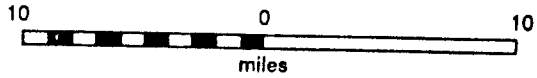
Dike Lake (35 surface acres) was created by a dike across one of the bays of Blackfoot Reservoir to prevent a seepage water loss. It is extremely productive and know for rapid growth rates of stocked trout. During the winter months, vegetation in the water decays, resulting in oxygen depletion and in most years, a complete fish kill. Past attempts to prevent this winterkill have been unsuccessful, but new aeration technology will be used and evaluated in 1991 in an attempt to hold trout through the winter.

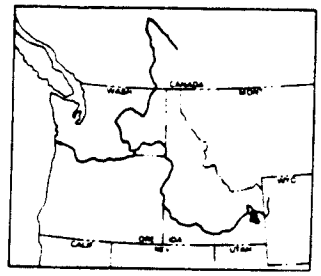
DRAINAGE: Blackfoot River

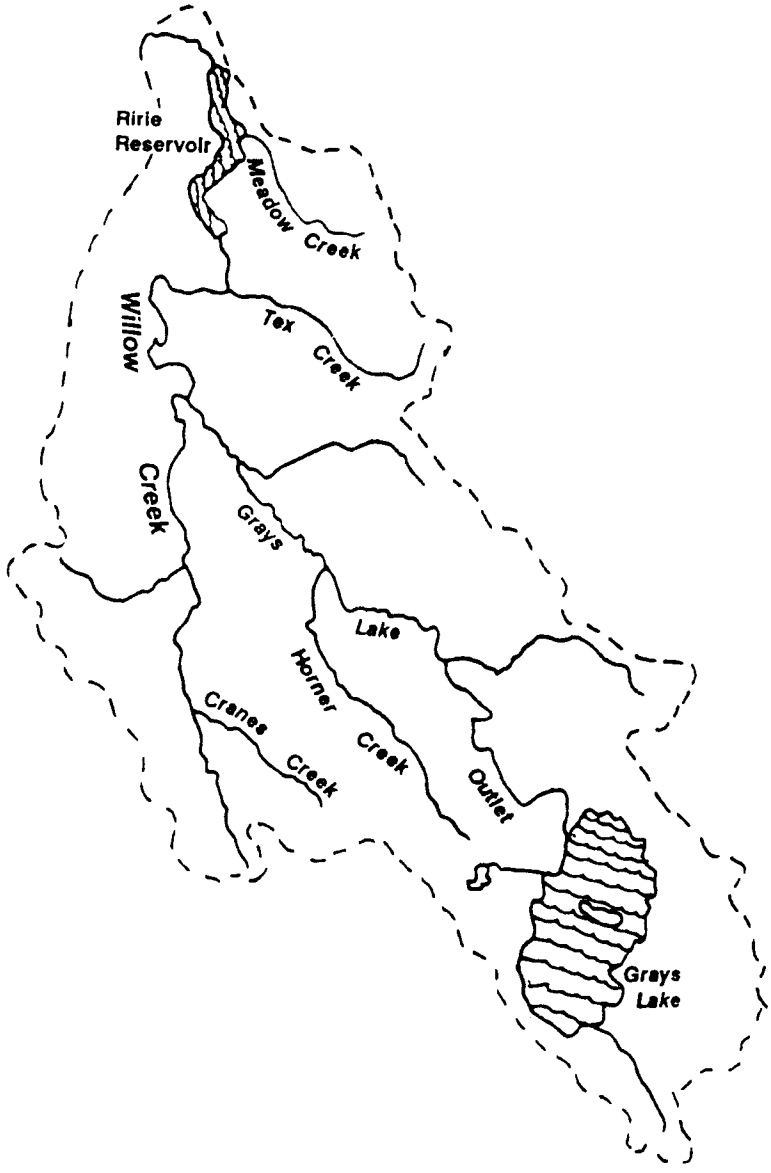
Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
Blackfoot River from mouth to equalizing reservoir	14/	Coldwater	Rainbow trout Whitefish Cutthroat trout	General Quality	Evaluate potential for access development and future urban hatchery fishery from equalizing reservoir to Highway 91 bridge.
Blackfoot River from equalizing reservoir to Wolverine Creek	18/	Coldwater	Rainbow trout Whitefish Cutthroat trout	General Quality	Assess population status for evaluation of current program (may have hatchery potential). Work with federal agencies and farmers to curb heavy sediment loads from upstream sediment sources.
Blackfoot River from Wolverine Creek to Rawlins Creek	14/	Coldwater	Rainbow trout Whitefish Cutthroat trout	General Quality	Evaluate potential for fall fingerling releases (cutthroat), following flow reductions. Assess potential for habitat improvement using large drop structures, etc.
Rawlins and Brush creeks (lower 3 miles)	3/	Coldwater	Rainbow trout Brook trout Cutthroat trout	Put-and-take trout Quality	Develop hatchery zone and signs for lower 3 miles of Rawlins and Brush creeks. Work with landowners on access agreements.
Rawlins and Brush creeks (above hatchery zone)	9/	Coldwater	Rainbow trout Brook trout Cutthroat trout	Wild trout Quality	Assess status of the fishery.
Blackfoot River from Rawlins Creek to Cutthroat Campground	11/	Coldwater	Rainbow trout Cutthroat trout	General Quality	Work with BIA to secure adequate winter flows.

Blackfoot River from Cutthroat Campground to Government Dam	[illegible]	Coldwater	Rainbow trout Brook trout Cutthroat trout	Put-and-take trout Quality	Work with BIA to secure adequate winter flows. Assess fishery potential with better flows.
Corral Creek		Coldwater	Rainbow trout Brook trout	Put-and-take trout	Evaluate return to creel and pressure.
Other Blackfoot River tributaries from mouth to Government Dam		Coldwater	Rainbow trout Cutthroat trout	General Quality	Evaluate status of current fisheries.
Blackfoot Reservoir and tributaries	19,000	Coldwater	Rainbow trout Cutthroat trout -Bear Lake -Yellowstone	Put-and-take trout General Trophy	See Upper Blackfoot System Fishery Management Plan.
Dike Lake	35	Coldwater	Rainbow trout	Put-and-take trout	Evaluate effectiveness of water aeration and potential for trophy management.
Blackfoot River and tributaries above reservoir	60/	Coldwater	Rainbow trout Brook trout Cutthroat trout	General Trophy	Stock rainbow in lower 2-3 miles of river to provide additional harvest opportunity during recovery. Develop angler access throughout drainage. Work on habitat improvement, particularly on upper valley tributaries. See Upper Blackfoot System Fishery Management Plan.

Willow Creek Drainage







A. Overview

Major tributaries to Willow Creek are Grays Lake Outlet and Cranes, Meadow and Tex creeks. Since 1924, up to 20,000 acre-feet of water a year has been diverted from the Willow Creek drainage to Blackfoot Reservoir through Clark's Cut Canal. The construction of Ririe Dam, a rock-face, earth-filled structure, was completed by the Corp of Engineers in 1976. The reservoir has a total capacity of 80,540 acre-feet and a surface area of 1,470 acres. Water is diverted for irrigation of about 7,300 acres upstream from Ririe Reservoir, but as yet the storage in Ririe is unobligated. The reservoir is drawn down to 35,000 acre-feet annually by November 1 to provide winter flow storage.

The 20 miles of Willow Creek below Ririe Dam is controlled for irrigation and flood control. This segment of Willow Creek is annually dewatered to keep ice buildup from causing floods near Idaho Falls. Maintaining a wild fishery in this area is only feasible with minimum year long releases below Ririe Reservoir although numerous trout from irrigation ditches which flow into Willow Creek via the South Fork Snake River provide a seasonal fishery. Prior to dewatering lower Willow Creek in 1976, the catch rate was 0.44 trout/hour with 10,500 hours (5,600 angler days) of effort annually. Catch rates declined to 0.33 trout/hour and 3,000 hours of effort in 1980. Game fish found in this area are primarily cutthroat and brown trout. Lesser numbers of rainbow and whitefish are also present.

A 400 yard long portion of Willow Creek flows through Highland Park within Idaho Falls. This area has marginal water quality during summer months and is dewatered during the winter time. However, the area is suitable for development as a short-term fishing area to support activities such as fishing clinics, free fishing day, etc. The area needs a water control structure on the west side of the park.

Ririe Reservoir has developed into a very popular fishery only 20 miles from Idaho Falls. It supports one of the most intensive salmonid reservoir fisheries in Idaho. Angler use was 80,000 hours with a catch rate of 0.75 trout/hour in 1989. This fishery is supported primarily through hatchery releases of rainbow trout and coho salmon. Minor catches of cutthroat and brown trout are also made. Steep banks and limited access restrict bank fishermen to 35% of the effort. Kokanee will be substitute for coho salmon in 1990 due to disease in coho brood stock and lack of coho recruitment into the fishery as two and one half year old fish. Smallmouth bass were introduced into Ririe Reservoir from 1984 to 1986. Self reproducing populations have developed from the original introductions. The smallmouth fishery should continue to expand in Ririe Reservoir during the early 1990s as naturally reproduced fish begin to contribute to angler catch.

The 95 miles of streams in the drainage of Willow Creek above Ririe Reservoir are mainly in narrow canyons and contain important wild cutthroat populations. Water flows vary from extremes of several thousand second-feet during runoff to a few second-feet in late summer and winter in Willow Creek. Dry land farming and grazing practices have denuded riparian vegetation within the upper watershed. As a result, ground water inflow is virtually nonexistent within the lower portion of this area. Water temperature varies widely, daily and seasonally. Turbidity is high during the late winter and spring runoff and generally remains so until mid-summer. The Soil Conservation Service has identified the Willow Creek drainage as one of the most serious (ten worst) soil erosion areas in the United States. A water quality program has been initiated to reduce loss of topsoils and improve the water quality of Willow Creek above Ririe Dam. Riparian habitat improvement through improved grazing management is a high priority on both state and private lands.

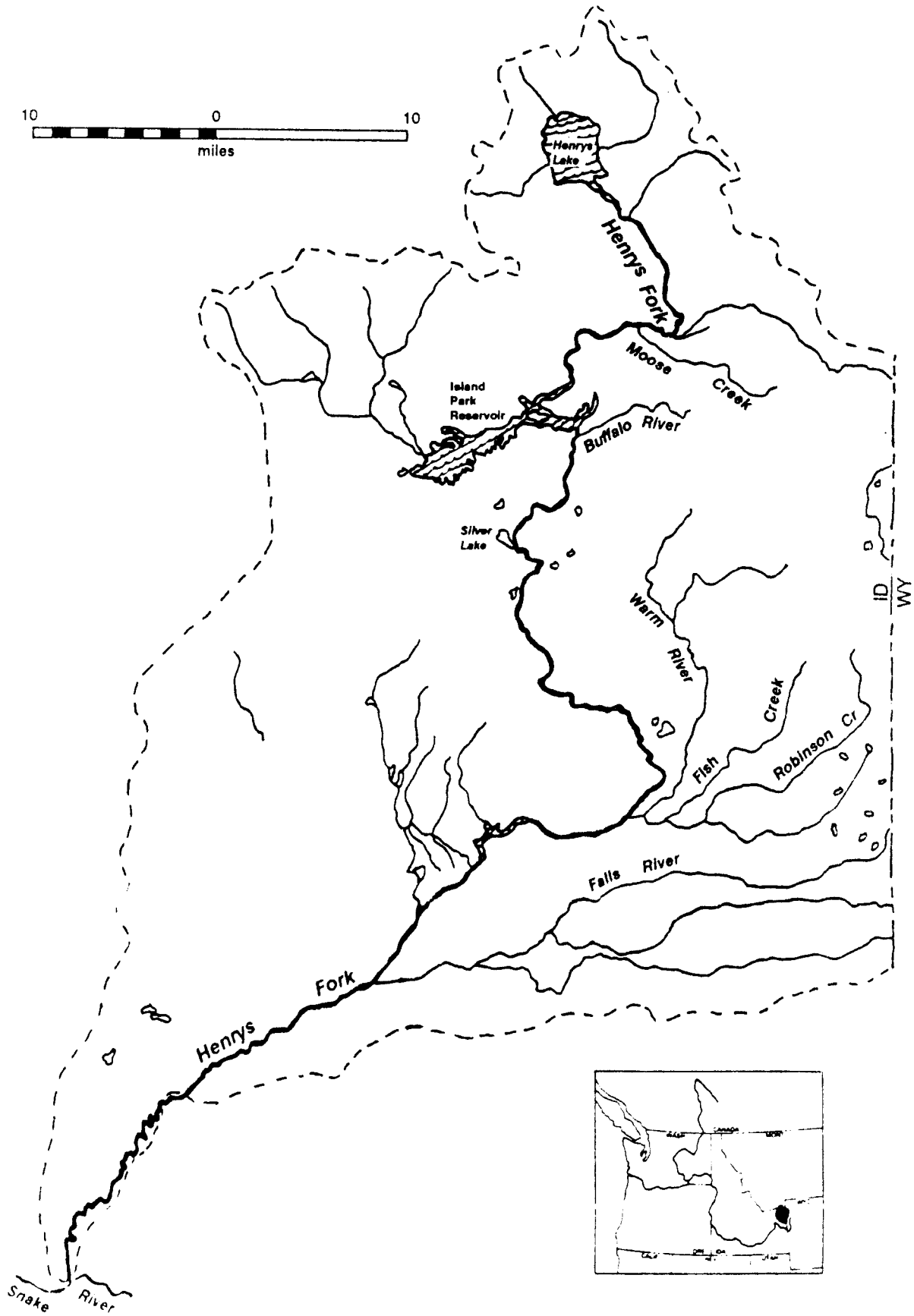
Cutthroat in the mainstem areas of Willow Creek and Grays Lake Outlet are dependent on downstream movement from tributary spawning and nursery areas. Most tributaries of Willow Creek contain wild populations of cutthroat, brown or brook trout. Native cutthroat trout populations are presently depressed in the drainage although viable. Overharvest of cutthroat is contributing to the decline of this species. Angler catch and effort information available for this area shows catch rates of 0.8 fish/hour and effort of 60,000 hours in 1984. Cutthroat and brown trout presently dominate the catch in tributaries with hatchery catchable rainbow found in areas of road access where they are stocked. No wild rainbow have been found in the Willow Creek drainage. Beginning in 1990, an Area 6 restricted harvest regulation was enacted for cutthroat in rivers and streams. The limit is 2 cutthroat or cutthroat hybrids, all fish between 8 and 16 inches must be released. This regulation should begin to restore cutthroat populations in the Willow Creek system above Ririe Reservoir by 1992 with major increases in numbers and size of cutthroat by 1995.

DRAINAGE: Willow Creek

Water	Miles/acres	Fishery: Type	Fishery: Species present	Management	Management direction
Willow Creek in Idaho Falls	0.25/	Coldwater	Rainbow trout	Put-and-take trout	Seasonal releases of catchable rainbow for fishing clinics and free fishing day.
Willow Creek from Eagle Rock Canal to Ririe Dam	5/	Coldwater	Rainbow trout Cutthroat trout Brown trout	General	Area annually dewatered. Low priority fishery unless year-round flows negotiated with Bureau of Reclamation.
Ririe Reservoir	/1,470	Mixed	Rainbow trout Cutthroat trout Kokanee salmon Brown trout Smallmouth bass	Put-and-take trout General	Put-and-grow fishery supplemented with catchable releases for rainbow. Put-and-grow kokanee salmon fishery. Maintain catch rates of 0.6 fish/hr with lengths 10" to 12". Review cutthroat reservoir harvest status as stream populations rebuild. Reservoir harvest may limit stream recovery. Manage bass under general statewide bass limits. Monitor populations.
Willow Creek and Grays Lake Outlet above Ririe Reservoir	80/	Coldwater	Cutthroat trout Rainbow trout Brown trout	Quality Put-and-take trout	Restore wild populations of native cutthroat through restricted harvest regulations. Put-and-grow brown trout fishery. Put-and-take rainbows during interim cutthroat recovery. Catch rates of 1.0 fish/hr.
All other tributaries	83/	Coldwater	Cutthroat trout Brown trout Brook trout	Quality Wild trout	Restore wild populations of native cutthroat through restricted harvest regulations and delayed season openers. Catch rates of 1.0 fish/hr. Naturally reproducing populations of brown or brook trout occur in specific tributaries and provide fishery diversity.

FMPDRAIN

Henrys Fork Snake River Drainage



A. Overview

The Henrys Fork drainage provides one of the most important rainbow trout fisheries in the state in terms of habitat, fish populations and angler use. Important tributaries include Teton, Fall, Warm and Buffalo rivers. Island Park Reservoir is an important component of the Henrys Fork fishery. The Teton River is discussed as a separate drainage.

The Henrys Fork Snake River below St. Anthony suffers from impacts of irrigation and low flows which limit salmonid populations. The habitat below the confluence of the Teton River is severely degraded as a result of the Teton Dam failure and flood in 1976. Creel census of five miles of the lower Henrys Fork in 1980 revealed catch rates of 0.15 fish/hour for cutthroat and whitefish.

Electrofishing surveys in 1988 and 1989 have documented a population of large cutthroat trout which apparently recruit from the Teton River. The Area 6 restricted cutthroat harvest regulation will increase survival and recruitment of wild cutthroat trout from the Teton River into this river reach. Together with supplemental stocking of cutthroat and brown trout fingerlings, the lower Henrys Fork should provide catch rates of 0.3 fish/hour or more.

The Henrys Fork above St. Anthony to Big Springs attracts fishermen from throughout the nation. A major part of the fishing pressure is from tourists traveling to Yellowstone National Park. Annual angler use and harvest along this segment has been well documented at 175,000 hours of effort, with catch rates of 1.25 fish/hour in 1976. Wild rainbow comprised 53% of the catch; hatchery rainbow trout 19% and brook trout 16%. Native cutthroat occurred in only 1% of the creels checked. Hybrids (rainbow-cutthroat) and whitefish made up the remaining 12%, although whitefish are the most numerous game fish present.

Management of the Henrys Fork from St. Anthony to Island Park Dam will emphasize wild, natural populations without hatchery supplementation. This section of river is currently producing good numbers of wild rainbow and some brown and cutthroat trout. Whitefish are very abundant. Monitoring will continue, especially below Ashton Reservoir to ensure maintenance of current catch rates of 1.0 fish/hour or better. The Henrys Fork from Riverside Campground to Island Park Reservoir supports a world famous wild rainbow trout fishery. This reach will remain a trophy fishery, managed under catch and release regulations. Ashton Reservoir will be managed for a yield fishery under general regulations.

Island Park Reservoir is a widely fluctuating irrigation reservoir with a mean surface of 8,400 acres. It provides an important reservoir fishery for rainbow, coho and kokanee, with catch rates of 0.6 fish/hour.

Drought conditions in 1987 and 1988 caused severe drawdowns of Island Park Reservoir which flushed significant numbers of trout, coho and kokanee out of the reservoir. The fishery has also been affected by limits to the availability of hatchery catchable rainbow trout and fingerling rainbow trout at optimum release times. The result of these constraints on the Island Park Reservoir fishery has been a decline in catch rates and angler satisfaction. Spring spawned rainbow trout fingerlings are ideal for fall release to provide catchable size fish the following summer, but are currently unavailable in adequate numbers. Sources should be developed by 1992. Cutthroat fingerlings could also be produced for optimum fall release in Island Park Reservoir, but public concern has been expressed about the impact of cutthroat on the Henrys Fork rainbow trout below the reservoir. Supplemental stocking of cutthroat fingerlings in Island Park Reservoir will remain an option pending further evaluation of public attitudes about their use in the reservoir. In the interim, fall spawned rainbow trout fingerlings will be utilized for spring and fall release in the reservoir. Kokanee salmon stocking will be increased to make up the loss of future coho salmon releases due to disease constraints.

From Island Park Reservoir upstream to Henrys Lake, the Henrys Fork provides a yield fishery supported by natural production and supplemented by hatchery catchable rainbow trout.

Henrys Lake outlet is a low gradient stream section which flows through an intensively used, privately owned cattle grazing area. Angler effort is concentrated below Henrys Lake Dam downstream to Highway 20. Trout emigration from Henrys Lake supports the majority of angler harvest. Cutthroat spawning in the three miles below Henrys Lake Dam is very obvious, with extensive angler pressure during the early weeks of the season. Low winter stream flows result in dewatering in the upper section of Henrys Lake Outlet. Opportunities to negotiate minimum stream flows and fence protective riparian zones will be pursued.

Henrys Lake is a shallow, highly productive lake covering 6,500 acres in the headwaters of the Henrys Fork. It has a long history of supporting an extensive sport fishery for large, native cutthroat trout. Since 1924, hatchery operations at the lake have taken cutthroat eggs for use in maintaining cutthroat trout fisheries in many areas of the state, including Henrys Lake.

Henrys Lake has been managed as a trophy trout water since 1976, utilizing cutthroat-rainbow hybrids. Catch rate goals are 0.7 fish/hour with management goals having a catch rate of about 0.45 fish/hour for cutthroat, 0.15 fish/hour for hybrid and 0.10 fish/hour for brook trout. Size goals are 20% of hybrids over 20 inches, 10% cutthroat over 20 inches and 5% of brook trout over 18 inches. Henrys Lake produces large brook trout including the state record of 7.2 lbs. Cutthroat trout provide the majority of the catch, and good populations of pure strain cutthroat are necessary so that adequate eggs are available to produce rainbow x cutthroat hybrids. Declines in cutthroat stocks due to low

water flows in the tributaries from 1977 to 1981 caused drastic declines in the spawning runs, which restricted the hybrid program at that time. A two-fish limit was instituted in 1980 to protect reduced populations of cutthroat. Since 1981, cooperative agreements between the Department, the Henrys Lake Foundation and area ranchers have improved riparian and instream spawning and rearing habitat through protective fencing of spawning tributaries of Henrys Lake. Fish losses to irrigation ditches have also been reduced by cooperative diversion screening projects. These activities will continue during the next five years on Duck Creek, Howard Creek, Targhee Creek and Kelly Springs.

From 1981 through 1984, emphasis on hatchery cutthroat enhancement provided cutthroat releases of 2,000,000 or more fry annually. By 1984, cutthroat populations had dramatically increased with a total catch rate of 1.7 fish/hour and 163,000 hours of effort. Increased densities of cutthroat may depress growth rates, thereby threatening the trophy management goals of Henrys Lake. During 1981 to 1984, hybrid and brook trout enhancement goals were not consistently met, resulting in declining catch rates of hybrids and brook trout. Beginning in 1985, cutthroat stocking was reduced to 1,000,000 per year with increased stocking of hybrid and brook trout production. Emphasis was targeted on producing a consistent number of larger hybrid fingerlings with further experimentation on sterilized hybrid crosses. Enhancement for brook trout is targeted for the Temiscamie strain depending on availability.

Stockings of cutthroat-rainbow hybrids were increased to approximately 250,000 per year. Hybrids in 1987 provided 34% of the catch, exceeding the management target of 20% of the Henrys Lake catch. Hybrid contribution to the catch is expected to continue to increase. Hybrid releases will be monitored and adjusted to protect Henrys Lake cutthroat trout stock integrity. Research of a sterilized hybrid program is ongoing, but due to be completed by 1991. A decision will be made during this five year planning period to keep or drop sterile hybrids from the Henrys Lake program.

Warm River is a major tributary to Henrys Fork. Warm River base flow is provided by large springs six miles upstream from its confluence with Henrys Fork. It has large sections of good spawning gravel and fairly constant temperatures which make it ideal for trout spawning. Rainbow and brown trout migrate from Henrys Fork to spawn in Warm River during spring and fall, respectively. Due to the lack of spawning habitat in Henrys Fork between Ashton Dam and Mesa Falls, Warm River is critical to the maintenance of wild rainbow and brown trout populations for this section of Henrys Fork. The Warm River brown trout population will be evaluated to determine the need for protection of spawning populations.

Angler use and harvest in Warm River during 1984 equaled 8,000 hours of effort and 1.1 fish/hour. Hatchery catchable rainbow made up the majority of the harvest.

Falls River is the largest Henrys Fork tributary. Falls River supports an excellent wild rainbow trout fishery with catch rates of 1.0 fish/hour or better. Cutthroat trout and cutthroat-rainbow hybrids make up an incidental portion of the catch, but are expected to contribute more under the Area 6 cutthroat trout enhancement regulation. There is little recent information on the Falls River fishery. A cursory creel and fish population survey was started in 1989 and will be completed in 1990. Although the lower four miles of the river is annually degraded by dewatering and does not support a viable wild trout fishery, the remainder of the drainage is in excellent condition. Conant Creek, tributary to Falls River will be investigated for potential enhancement as a spawning and rearing area for Falls River.

DRAINAGE: Henrys Fork Snake River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
Mouth to St. Anthony	30/	Coldwater	Rainbow trout Brown trout Whitefish Cutthroat trout	General Quality	Area 6 cutthroat trout restricted harvest. Manage for cutthroat trout below Teton River. Supplement natural production with fingerling cutthroat and brown trout.
St. Anthony to Fritz Bridge	10/	Coldwater	Rainbow trout Brown trout Whitefish	Wild trout General	Manage as a fishery supported by natural production. Maintain catch rate of 1.0 fish/hr. Monitor to prevent overharvest of trout.
Fritz Bridge to Ashton Dam	3/	Coldwater	Rainbow trout Brown trout Whitefish	Wild trout General	Spawning season closure for rainbow trout. No motors.
Ashton Dam to U.S. 20 Bridge	4/400	Coldwater	Rainbow trout Brown trout Kokanee salmon Whitefish	Put-and-take trout Wild trout General	Stock catchable rainbow trout to maintain catch rates of 1.0 fish/hr. Kokanee salmon are downstream drift from Island Park Reservoir.
U.S. 20 Bridge to Lower Mesa Falls	25/	Coldwater	Rainbow trout Brown trout Whitefish	Wild trout General	Maintain wild population of rainbow trout to provide 12-inch average size and overall catch rate of 1.0 fish/hr. Investigate potential for quality management.
Lower Mesa Falls to Riverside Campground	12/	Coldwater	Rainbow trout Brook trout Whitefish	Wild trout General	Maintain 1.0 fish/hr catch rate for trout.

Riverside Campground to Island Park Dam except Harriman State Park	9/	Coldwater	Rainbow trout Whitefish	Trophy General	Catch and release to maintain catch rate above 1.0 fish/hr for wild rainbow trout, with 5% of population over 18".
Harriman State Park	8/	Coldwater	Rainbow trout Whitefish	Trophy General	Fly fishing only as access stipulation. Short season for waterfowl protection. Catch-and-release to produce trophy fish and protect spawning population. Maintain catch rate above 1.0 fish/hr.
Island Park Reservoir (up to McCrea Bridge)	/8,400	Coldwater	Rainbow trout Cutthroat trout Rbt x ctt hybrids Brook trout Kokanee salmon Coho salmon Whitefish	General	Put-and-grow fishery for rainbow, cutthroat and rbt x ctt hybrid trout, coho and kokanee salmon. Supplemental rainbow catchable stockings. Maintain catch rate of 0.6 fish/hr. Use alternate species to utilize nongame forage fish.
Tributaries to Island Park Reservoir	45/	Coldwater	Rainbow trout Cutthroat trout Brook trout	Wild trout Quality General	Maintain present fisheries with catch rate of 0.8 fish/hr. Habitat improvement needed in tributaries. Area 6 cutthroat trout restricted harvest.
McCrea Bridge to Henrys Lake Outlet	9/	Coldwater	Rainbow trout Cutthroat trout Rbt x ctt hybrids Brook trout Whitefish	Put-and-take trout Quality General	Area 6 cutthroat trout restricted harvest. Put-and-take fishery on catchable rainbow trout. Maintain catch rates of 0.7 fish/hr.
Henrys Lake Outlet to Big Springs	2/	Coldwater	Rainbow trout Cutthroat trout Brook trout Whitefish	Preservation	Spawning, rearing, and fish observation area.

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Henrys Lake Outlet	12/	Coldwater	Cutthroat trout Rbt x ctt hybrids Rainbow trout Brook trout Whitefish	Quality General	Close spawning area below dam to protect spawners and redds. Maintain wild trout populations to provide catch rates of 1.0 fish/hr. Develop information signs on spawning and life history. Minimum flow agreement and habitat improvement needed.
Henrys Lake	/6,500	Coldwater	Cutthroat trout Rbt x ctt hybrids Brook trout	Trophy	Population maintenance stocking. Manage to produce catch rates of 0.7 fish/hr with 0.45 cutthroat trout/hr, 0.15 hybrid trout/hr, and 0.10 brook trout/hr. Seasons and limits regulated to protect spawners and produce large fish.
Henrys Lake Tributaries	13/	Coldwater	Cutthroat trout Brook trout	Quality Wild trout	Area 6 cutthroat trout restricted harvest. Manage for spawning and rearing of cutthroat and brook trout. Seek remedies to dewatering, continue irrigation ditch screening, and riparian fencing program.
Falls River and tributaries	76/	Coldwater	Rainbow trout Brook trout Whitefish Cutthroat trout	Wild trout General Quality	Area 6 cutthroat trout restricted harvest. Improve stream flows and habitat. Improve fish passage. Maintain catch rates at 1.0 fish/hr.
Warm River and tributaries except Robinson Creek	92/	Coldwater	Rainbow trout Brook trout Whitefish Brown trout Cutthroat trout	General Wild trout Quality	Area 6 cutthroat trout restricted harvest. Maintain wild trout population. Monitor to prevent overharvest. Supplemental put-and-take fishery in heavily fished areas of Warm River. Maintain catch rates of 1.0 fish/hr. Increase utilization of brook trout in tributaries.

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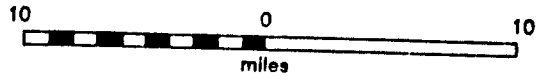
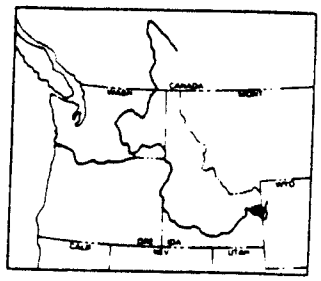
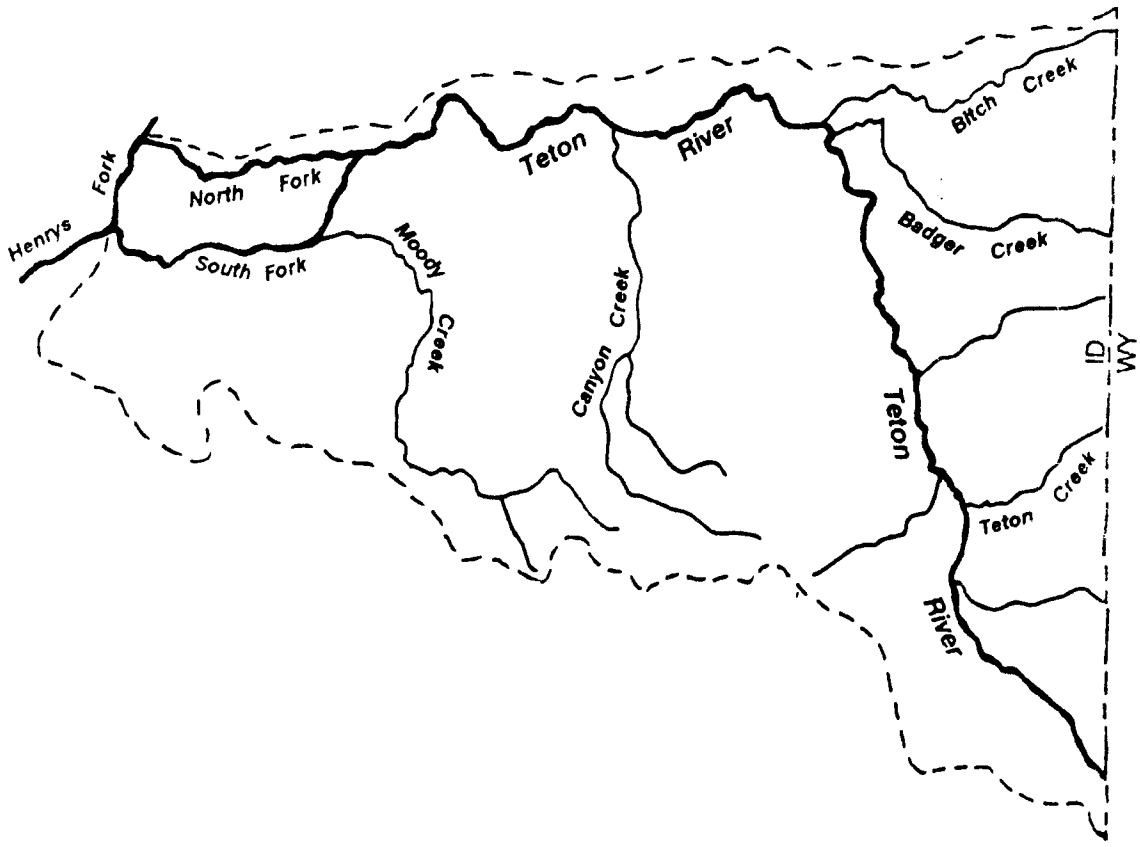
Warm River from mouth of Robinson Creek to Highway 47 Bridge	0.2/	Coldwater	Rainbow trout Brown trout Brook trout Whitefish	Preservation	Spawning, rearing, and fish obsevation area.
Robinson Creek and tributaries	91/	Coldwater	Rainbow trout Brook trout Whitefish Brown trout Cutthroat trout	General Wild trout Quality	Area 6 cutthroat trout restricted harvest. Maintain wild trout population. Monitor to protect brown trout population. Encourage increased utilization of brook trout.
Buffalo River and tributaries	50/	Coldwater	Rainbow trout Brook trout Cutthroat trout	General Quality	Maintain wild populations to produce catch rates of 0.7 fish/hr. Area 6 cutthroat trout restricted harvest for Henrys Fork rainbow trout.
Moose Creek and tributaries	6/	Coldwater	Rainbow trout Brook trout Kokanee salmon	General Preservation	Season restriction to protect kokanee salmon spawning in Island Park Reservoir.
Sand Creek WMA	/167	Coldwater	Rainbow trout Cutthroat trout Brook trout	General	Put-and-grow fishery for rainbow and cutthroat trout. Maintain catch rate of 0.5 fish/hr. Investigate introductions of largemouth bass and bluegill.
Silver and Golden Lakes	/220	Coldwater	Rainbow trout Brook trout	Preservation	Administrative closure by Harriman State Park to protect waterfowl and natural features.
Other lakes and Ponds	/345	Coldwater	Rainbow trout Cutthroat trout Brook trout Grayling	General	Maintain present fisheries with catch rate of 0.8 fish/hr. Supplemental stocking of rainbow, cutthroat trout fingerlings. Investigate suitability for warmwater species.

Teton River Drainage







A. Overview

The Teton River originates on the west slope of the Teton Mountains and drains 890 square miles to its confluence with the Henrys Fork near St. Anthony. Prior to the construction and collapse of the Teton Dam in 1976, the river supported a self-sustaining native cutthroat trout fishery with a 1975 overall catch rate of 1.42 fish/hour. Cutthroat were in the highest concentration below the dam (57%) followed by the canyon (31%) and upper valley (22%). Wild and hatchery rainbow trout, brook trout and whitefish are other game fish present.

In 1988, the Teton River Fishery Enhancement Plan was implemented to improve habitat lost in both the flood and in gradual, cumulative changes from land use practices. Objectives are to 1) rehabilitate habitat so cutthroat can become self-sustaining; 2) increase catch rate to 1.0 fish/hour from the 0.75 fish/hour observed in 1980.

During the four year implementation of the project, several activities are ongoing to accomplish these objectives. Cooperative fencing and pasture management agreements with landowners are being used to protect and improve riparian habitat in tributaries and river sections. Revegetation and tree revetments will speed recovery and reduce sediment. Fish passage problems in Trail Creek, Moody Creek and at canal diversions are being resolved. More bank and boat angler access is being provided through negotiated easements and new or improved boat ramp facilities.

In the 1990-1991 regulation cycle, all cutthroat between 8 and 16 inches will be protected under the Area 6 cutthroat slot limit. In 1988, 93% of the cutthroat harvested in the Teton River were within this window. Annual cutthroat fingerling stocking in excess of 1,000,000 fish between 1984 and 1986 boosted overall catch rate to 1.03 fish/hour in 1988, although catch rate was 0.48 below the dam. These plants have artificially maintained the cutthroat fishery. Cutthroat fingerling plants have been reduced to 150,000 marked fish annually and will be monitored for movement and return to the fishery. In the interim, catchable rainbow will be stocked in the valley to augment yield. These fish returned to the creel at 36% in 1988. However, below the dam they returned at only 3%, and stocking in this reach has been discontinued. Wild rainbow trout provide an important component of the trout catch throughout the Teton River drainage. In the upper valley reach of the river, large wild rainbow trout over 3 lbs are frequently caught. These fish will be monitored along with cutthroat trout to ensure they are not overharvested and continue to provide good size and catch rates.

FMPNRTVS

Habitat protection and enhancement, improved access to spawning and rearing habitat, and regulation that protect cutthroat through one spawning season before recruiting to the harvest will increase cutthroat numbers, size and catch rates, thus improving angler satisfaction. The Department will monitor the success of these activities while continuing to improve spawning and rearing habitat in the drainage.

DRAINAGE: Teton River

Water	Miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
North and South Forks, mouth to Felt Dam	78/	Coldwater	Cutthroat trout Rainbow trout Whitefish	Quality Wild trout General	Area 6 cutthroat trout restricted harvest. 25,000 marked cutthroat fingerlings stocked annually in canyon section, monitor return to creel. Improve access near dam and forks. Improve habitat and access where possible and feasible. Improve catch rate to 1.0 fish/hr.
Felt Dam to Trail Creek	21.7/	Coldwater	Cutthroat trout Rainbow trout Brook trout Whitefish	Quality Wild trout General	Area 6 cutthroat trout restricted harvest. Stock 125,000 marked cutthroat fingerlings annually, monitor movement and return to creel. Improve cutthroat catch to 1.0 fish/hr. Improve overall catch rate to 1.5 fish/hr. Supplement with hatchery rainbow keep bonus brook trout limit. Improve habitat.
Teton, Trail, Bitch, Badger, Moody, Canyon creeks	27/	Coldwater	Cutthroat trout Rainbow trout Brook trout Whitefish	Quality Wild trout General	Area 6 cutthroat trout restricted harvest. Close Teton Creek until July 1 - spawning closure. Improve/maintain catch rates to 1.0 fish/hr. Protect or improve habitat, improve spawner access where necessary.
All other tributaries	84/	Coldwater	Cutthroat trout Brook trout	Quality General	Area 6 cutthroat restricted harvest. Improve/maintain catch rates to 1.0 fish/hr. Protect and/or improve habitat.
Packsaddle Lake	/4	Coldwater	Cutthroat trout	General	Maintain fingerling plants every three years. Monitor catch, size on incidental basis.

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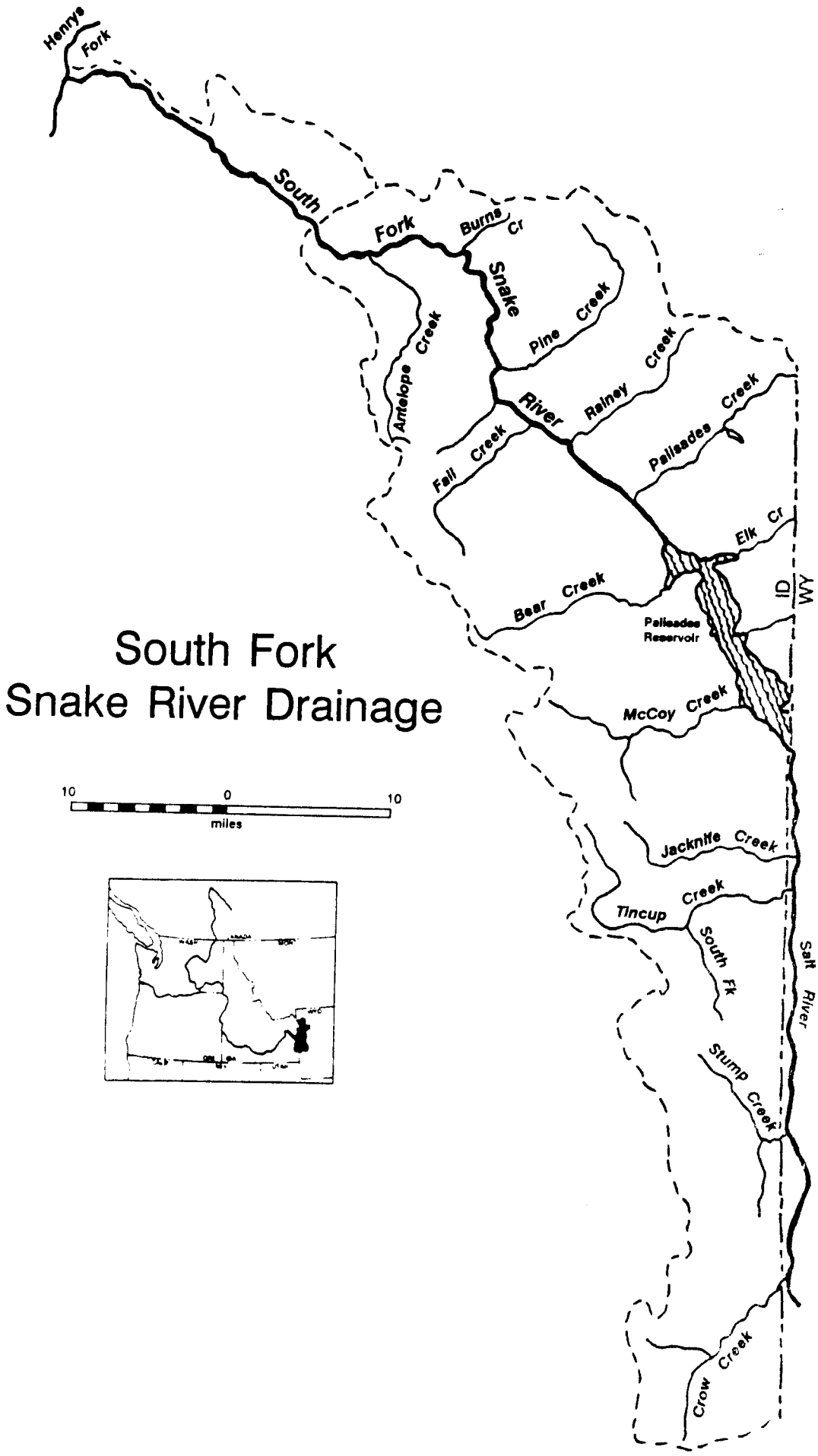
Henrys Fork
South Fork
Burns Cr
Snake River
Pine Creek
Antelope Creek
Rainey Creek
Palisades Creek
Fall Creek
Elk Cr
ID
WY
Bear Creek
Palisades Reservoir
McCoy Creek
Jackknife Creek
Tincup Creek
South Fk
Salt River
Stump Creek
Crow Creek
South Fork
Snake River Drainage
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SOUTH FORK SNAKE RIVER DRAINAGE

A. Overview

The South Fork Snake River drainage includes the mainstem and tributaries from its confluence with the Henrys Fork upstream to the Idaho-Wyoming State boundary. This management drainage area includes Palisades Reservoir and its tributaries and Salt River tributaries which originate in Idaho (including Tincup, Stump and Crow creeks).

The South Fork Snake River has been called Idaho's most unique riparian ecosystem containing the largest continuous cottonwood ecosystem in the state. The South Fork provides habitat for nine nesting bald eagle pairs and up to 100 wintering birds. The U.S. Fish and Wildlife Service considers this river section to be the most important fish and wildlife habitat in the state of Idaho.

In the South Fork Snake River and tributaries below Palisades Dam, wild cutthroat support 90% of the catch. Cutthroat below the dam are a mixture of both fine-spotted and Yellowstone cutthroat. Fishing effort on the South Fork below Palisades Dam was 25,000 angler days with a catch rate of 0.53 game fish/hour in 1981. Brown trout provide only a small portion of the catch (9%) but offer the opportunity to catch a trophy fish. The present state record of 26.6 lbs was caught from this river.

Special regulations restricting harvest of cutthroat trout were enacted upstream of Heise Measuring Cable to Irwin (1984) and to Palisades Dam (1988). Increased cutthroat numbers and fish size in these areas resulted in a 300% increase in fishing effort by 1989. Based on regulation success, an Area 6 rivers and streams restricted cutthroat harvest was enacted for the lower South Fork and all tributaries beginning in 1990. Expected cutthroat population recovery throughout the South Fork drainage should begin to redistribute angler effort by 1992.

Mountain whitefish are the most abundant game fish in the drainage but are not extensively utilized by fishermen. Through the adoption of fishing contest regulations in 1989, the Department and sportsman groups will sponsor whitefish derbies to enhance angler awareness and utilization of whitefish.

Habitat in the South Fork mainstem is generally in good condition. Winter flow releases, regulated to manage Palisades Reservoir storage, have resulted in significant dewatering of secondary channels of the South Fork. The dewatering causes major losses of juvenile salmonids. Dewatering during the late 1980s resulted in reduction of cutthroat populations which will temporarily offset gains made through harvest regulation. A multiagency study will be completed by 1992 to define minimum flow releases at Palisades Dam. Implementation of a minimum stream flow will enhance long-term population stability.

The lower 20 miles of the river is impacted by low water during late fall and winter due to irrigation diversions and reduced flows from Palisades Reservoir irrigation storage. Loss of fish from the river to these irrigation diversions often creates good seasonal fisheries. One such canal, an old side channel of the river called the Dry Bed, utilized as a feeder canal, is 20 miles in length and provides adequate habitat to support a fishery. Dewatering of the Dry Bed annually in the spring for headgate maintenance results in a loss of fish and a salvage season is in effect.

Palisades Reservoir contains primarily the fine-spotted Snake River cutthroat of which 85% caught are hatchery fish from the Jackson National Fish Hatchery. Palisades is open year-round providing fishing opportunity for bank, boat and ice fishermen. Fishing effort was 43,000 angler days during 1980. Brown trout provide only 6% of the catch in the reservoir, but they do provide the opportunity to catch trophy-size fish. Lake trout and kokanee have been introduced, but only small natural populations have developed. Large fluctuation in water levels (up to 80 ft) may affect these open water species. Jackson National Fish Hatchery (JNFH) is not currently producing a cutthroat product capable of meeting the management goal of 0.5 fish/hour. Beginning in 1991, JNFH will switch to a spring brood stock for release in early July. The result of this change will be monitored in 1992 and 1993. If we cannot attain management goals, alternative species will be considered for introduction.

Tributary streams to the South Fork and Salt River are in need of population restoration through screening of diversions and grazing management for riparian restoration. Screening will be implemented by 1991 on Palisades Creek. Rainey Creek will remain a priority for solving fish losses to irrigation diversions and dewatering. Improved grazing management of the majority of the Forest Service riparian allotments will be necessary to restore stream habitat.

Salt River (Wyoming) tributaries which originate in Idaho include Tincup, Stump and Crow creeks. These tributaries will be managed for restricted cutthroat harvest to restore populations. Fisheries interaction between the Salt River and its tributaries and Palisades Reservoir is not clearly understood. Idaho will cooperate with Wyoming to define fish movements to better manage this system.

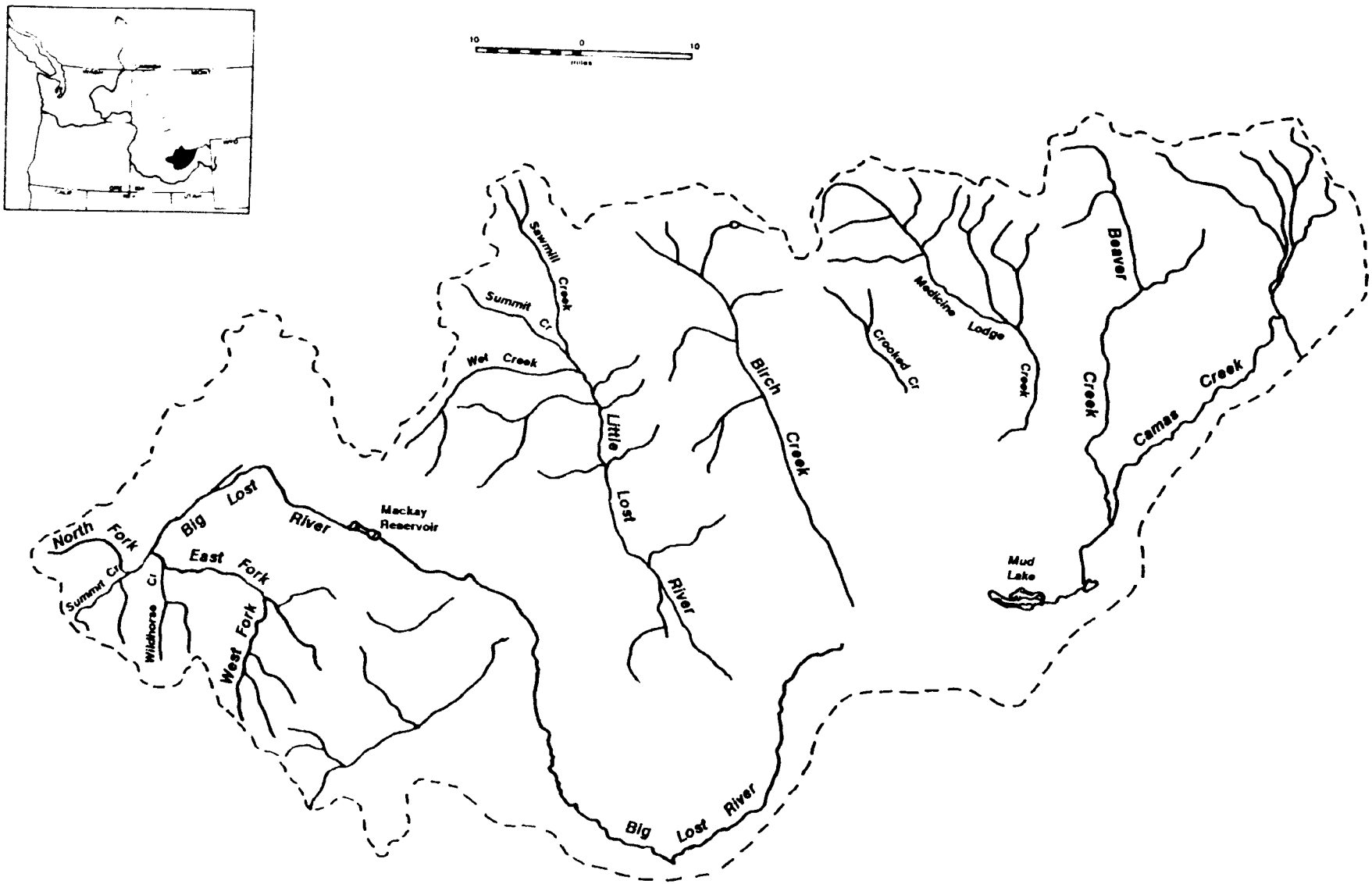
DRAINAGE: South Fork Snake River

Water	Miles/acres	Fishery			Management direction
		Type	Species present	Management	
Mouth to Heise	22.8/	Coldwater	Cutthroat trout Brown trout Rainbow trout Whitefish	Quality Wild trout General	Area 6 cutthroat restricted harvest. Catch rates of 0.7 fish/hr. Screening of irrigation canals to prevent fish losses is a priority if funding can be secured. Emphasize whitefish harvest. Brown trout catch rates of 0.1 fish/hr.
Heise to Palisades Dam	40.2/	Coldwater	Cutthroat trout Brown trout Rainbow trout Whitefish	Quality Wild trout General	Area 6 cutthroat restricted harvest. Catch rates of 1.0 fish/hr with 5% to 10% larger than 16" in population. Brown trout catch rates of 0.1 fish/hr. Emphasize whitefish harvest.
Dry Bed Canal	32/	Coldwater	Cutthroat trout Rainbow trout Brown trout Whitefish	Not protected in canals. General	Put-and-grow fishery with rainbow trout below Lewisville. Brown trout, cutthroat trout, and whitefish recruitment from South Fork. April salvage season Lewisville to Ririe. Minimize dewatering through agreements with irrigation districts.
Burns, Pine, Rainey Pritchard and Palisades creeks	38/	Coldwater	Cutthroat trout	Quality	Area 6 restricted cutthroat harvest regulations. Selected late tributary openers. Restore cutthroat populations. Catch rate of 1.0 fish/hr. Enhance stream habitat and cutthroat trout survival with riparian livestock management and diversion screening.

McCoy Creek and tributaries	35/	Coldwater	Cutthroat trout Brown trout	Quality General	Habitat protection from mine impacts. Evaluate response to slot limit in 5-6 years.
Tincup Creek from Idaho line to Highway 34 Bridge	12/	Coldwater	Cutthroat trout Brown trout	Quality General	Stock fall spawning hatchery rainbow in segment heavily altered by road construction. Evaluate returns.
Tincup Creek from Highway 34 Bridge to Headwater	8/	Coldwater	Cutthroat trout Brown trout	Quality Wild trout	Maintain "semi-primitive" access to the fishery. Develop hatchery rainbow management zone and evaluate returns.
Stump Creek and tributaries	12/	Coldwater	Cutthroat trout Brown trout Brook trout	Quality General	Work with federal agencies on habitat rehabilitation. Develop hatchery rainbow management zone and evaluate returns.
Crow Creek and tributaries	25/	Coldwater	Cutthroat trout Brown trout	Quality General	Investigate development of quality brown trout fishery in Sage Creek in conjunction with habitat improvement. Develop hatchery rainbow management zone and evaluate returns.
Jacknife Creek and tributaries	12/	Coldwater	Cutthroat trout Brown trout	Quality General	Assess needs for Habitat Improvement Program.
All other tributaries	354/	Coldwater	Cutthroat trout	Quality	Area 6 restricted cutthroat harvest regulations. Enhance habitat with riparian livestock management.

Palisades Reservoir	/16,150	Coldwater	Cutthroat trout Brown trout Lake trout Kokanee salmon	Put-and-take trout Wild trout General	Put-and-grow fishery for cutthroat. Only fine-spotted Snake River cutthroat will be stocked through 1993. Evaluate fine-spot suitability for attaining catch rate goal of 0.5 fish/hr. Evaluate alternate species/strains if catch rate not attained. Maintain average size of cutthroat of 14". Brown trout are all wild fish. Evaluate lake trout for discontinued stocking based on angler success and predation on game species. Remnant kokanee salmon population in Big Elk Creek.
Upper and Lower Palisades Lakes	/16	Coldwater	Cutthroat trout	Wild trout	Maintain catch rate of 0.6 fish/hr.

Sinks Drainages



A. Overview

The Sinks drainages include the Big Lost and Little Lost rivers, Birch, Camas, Beaver and Medicine Lodge creeks drainages, all of which sink into the upper Snake River Plain aquifer. Rainbow trout, of generally small size, are the predominant fish throughout the drainages, except for some headwaters and a few minor tributaries where brook trout are dominant. Native bull trout and cutthroat are maintaining fishable populations in some limited areas. Whitefish are found only in the Big Lost drainage. Stream quality and fish populations vary from excellent to poor where streams alternately intersect and perch above the groundwater table or enter irrigation ditches. Streams become marginal where they flow into the Snake River Plain due to diversion and freeze out. Where groundwater inflow is lacking, wintertime air temperatures often cause streams to become icebound and leave their channels. Severe habitat degradation has occurred to most streams due to past and/or present grazing practices on private and public range land. Natural flood events have also severely impacted some drainages, such as Wildhorse Creek in the Big Lost River Drainage.

Irrigation diversions often dewater the lower segment of most drainages. Productivity is generally high due to large amounts of groundwater input. Stream improvement structures, to restore losses of riparian habitat due to grazing, on lower Birch Creek and Summit Creek (Little Lost River drainage) have provided 100% to 400% increases in trout populations.

Drought conditions since 1987 have impacted many of the smaller headwater tributaries in the Sinks Drainages. With a return to normal snowpack years the Department will consider supplemental hatchery releases on a case by case basis where fish populations have been impacted. This may include those drainages managed for wild trout.

1. Big Lost River

The Big Lost River is the largest of the sinks drainages. Included in the drainage is Mackay Reservoir. Major tributaries include Antelope, Summit and Wildhorse creeks and the East, West and North forks of the Lost River. Estimated fishing effort in 1986 was 11,500 angler days for the drainage above Mackay Reservoir with 11,900 angler days in 1984 fished on the reservoir.

Mackay Reservoir, built in 1916, is a widely fluctuating irrigation supply reservoir having a maximum capacity of 44,500 acre-feet and a minimum pool of 125 acre-feet. Pool levels below 4,600 acre-feet occur about every three years, causing flushing of most trout and kokanee through the outlet structure of the dam into the Big Lost. This results in a poor fishery the following year in the reservoir and makes it impossible to manage Mackay Reservoir for a wild trout

fishery. Catch rates for Mackay Reservoir averaged 0.4 fish/hour during summer 1983 with 35,000 hours of fishing effort. During the winter ice fishery at Mackay Reservoir, January and February 1984, catch rate averaged 0.7 fish/hour with 10,800 hours fished. Hatchery rainbow comprised the majority of fish caught with some brook trout, kokanee and wild rainbow present.

The 60 miles of Big Lost River below Mackay Reservoir has been extensively modified by numerous irrigation diversions and channelization for flood control which has destroyed about 25% of the channel. Drought conditions have affected the Sinks drainages from 1987 through 1990. During this period, water storage and natural stream flows did not meet irrigation demand which resulted in extensive development of wells in the area from Mackay to the Idaho National Engineering Laboratory boundary. Well development combined with lower natural flows has reduced or eliminated most salmonid populations downstream from the Moore Diversion. Even in years of normal precipitation, restoration of any fishery is questionable due to lowering of the water table.

From Moore Diversion to Mackay Reservoir, the Lost River supports wild rainbow, brook trout and whitefish populations. Fish from Mackay Reservoir produce an excellent fishery immediately downstream of Mackay Dam. Large numbers of fish are lost annually to irrigation canals.

The Big Lost River from Mackay Reservoir upstream to Chilly Bridge is annually dewatered for irrigation and has suffered from long-term stream alteration activity. From Chilly Bridge upstream, the river and tributaries support wild rainbow, brook trout and whitefish populations. From Bartlett Point Road upstream to the West Fork-East Fork Confluence, the mainstem and East Fork of the Big Lost River have been under restricted harvest for rainbow trout since 1988. Evaluation of the existing regulation (3 under 12 inches, 1 over 20 inches, no bait) needs to be completed by the 1992 regulation cycle. Lost River tributaries, with the exception of Wildhorse Creek, are productive for small brook and rainbow trout. Supplemental stocking of catchable rainbow will continue in Wildhorse Creek and other high use sections of the North, East and West forks of the Big Lost.

2. Little Lost River

The Little Lost River drainage contains primarily wild rainbow, although brook trout are abundant in headwater areas. Viable populations of native bull trout are present in Sawmill Creek and the upper Little Lost River. Creel checks show catch rates averaging 1.2 to 1.3 trout/hour over the last five years. The Little Lost River has been managed on wild trout production since 1983.

3. Birch Creek

Estimated effort for Birch Creek was 25,400 hours, with a catch rate of 2.3 fish/hour in 1982. The high catch rate was affected by the large number of small (less than 150 mm) rainbow released by anglers. In 1987, catch rates averaged 1.5 fish/hour. Birch Creek is primarily a hatchery catchable fishery although a creel census during 1982 indicated a 46% wild rainbow contribution.

4. Medicine Lodge Creek

Estimated effort for Medicine Lodge Creek was 3,700 hours with a catch rate of 1.1 fish/hour in 1987. Estimated effort for the Medicine Lodge drainage was 5,300 hours with a catch rate of 1.1 trout/hour during 1982. Effort and catch rates were lower than those observed during 1963 (11,000 hours fished with 1.4 fish/hour). Rainbow trout comprised 94% of the fish harvest during 1982. Electrofishing of the Medicine Lodge drainage in 1981 showed good populations of cutthroat and brook trout present in several tributaries, although wild rainbow trout were the dominant species. The Medicine Lodge drainage has been managed on wild trout production since 1983.

5. Camas Creek

The Camas Creek drainage includes Mud Lake, Beaver and Camas creeks as important waters. Good populations of wild rainbow and brook trout exist in most streams in the headwater areas. Brown trout fingerling releases have provided a limited fishery for larger trout in Camas Creek. Water conditions limit trout populations in the lower ends of these streams. Native cutthroat trout are found in minor numbers in headwater areas. Little comprehensive angler use and harvest information is available on streams in the Camas Creek drainage. Creel surveys show catch rates averaging 0.86 trout/hour and ranging up to 1.8 trout/hour in some tributaries during the last five years.

Mud Lake originally contained large numbers of cutthroat trout. Presently, it supports a warmwater fishery with yellow perch, largemouth bass, bluegill, brown bullhead and black crappie. Nongame fish are still abundant with Utah chubs and Utah suckers the major species. The lake supports a few hatchery rainbow trout which move down out of Camas Creek, but the high summer temperatures, fluctuating water levels and low winter dissolved oxygen have greatly decreased the suitability for trout. High spring water levels during 1984 through 1986 improved the perch and bass populations in the lake, and angler use and harvest increased from 1982 through 1986. However, perch populations dropped dramatically after 1988 and effort also declined.

In 1988, introductions of tiger muskie were made into Mud Lake to create a trophy fishery while utilizing the nongame biomass available in the lake. Tiger muskies are sterile hybrids, northern pike and muskellunge, and will be managed through fingerling releases every three years. Bluegill were introduced from 1983-1985. While some natural reproduction exists, no major population has developed. From 1987-1989 black crappie introductions were made into Mud Lake to try to create a self-sustaining population. Evaluation of these releases will be completed in 1990.

Mud Lake has lacked a cold water fishery since water management changes in the early 1960s impacted Camas Creek and Mud Lake water quality. Experimental introductions of Lahonton cutthroat began in 1990 to evaluate this subspecies potential under existing high alkalinity and temperature conditions.

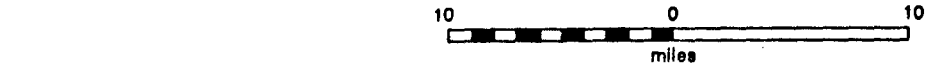
DRAINAGE: Sinks - Big and Little Lost rivers, Birch, Medicine Lodge and Camas creeks

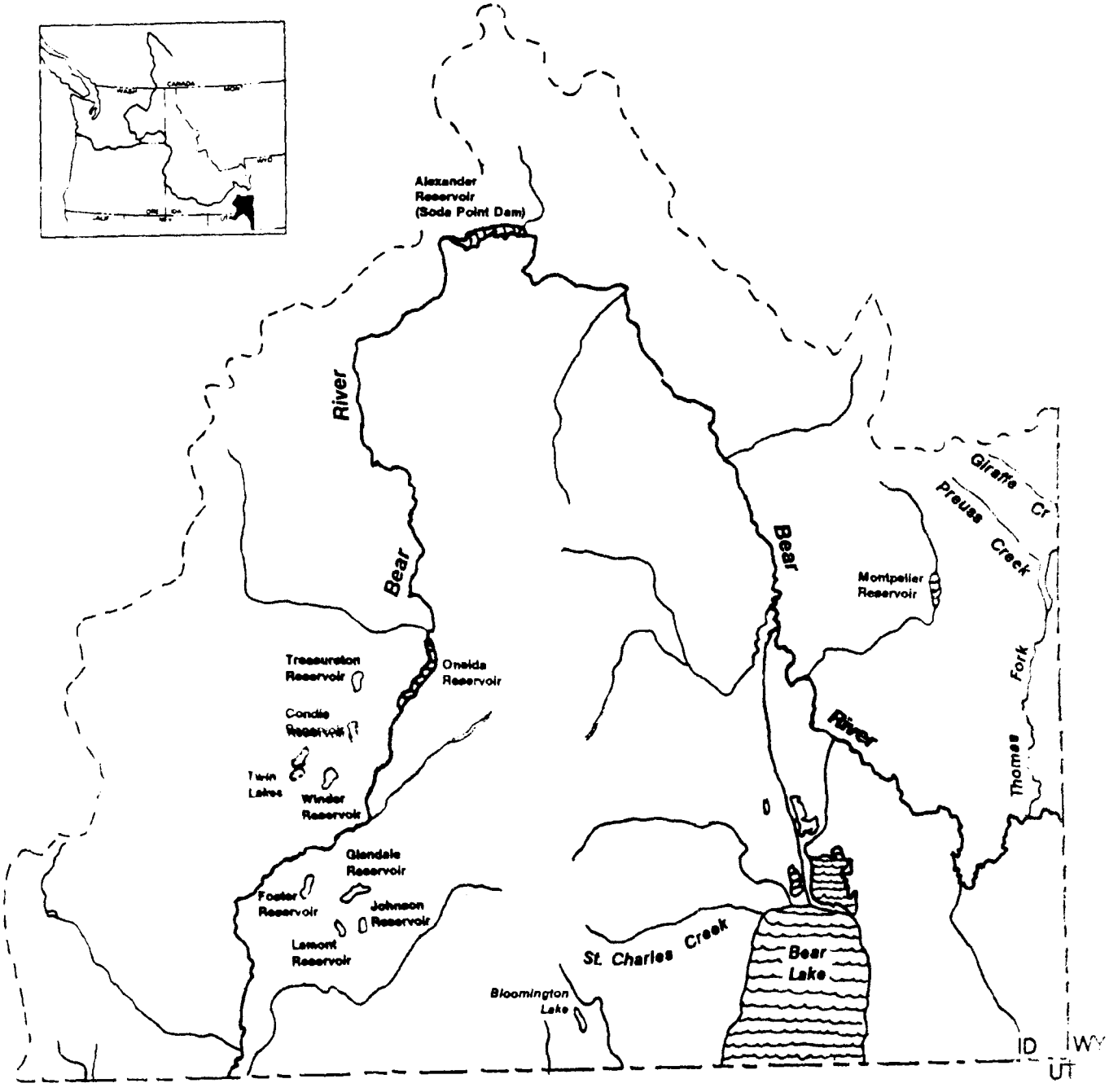
Water	Miles/acres	Fishery			Management direction
		Type	Species present	Management	
Big Lost River to Idaho National Engineering Laboratory (INEL) boundary	5/	Coldwater	Rainbow trout Brook trout Whitefish	Closed	All access and fishing closed by INEL. System annually dewatered with questionable long-term potential.
INEL boundary to Moore Diversion	22/	Coldwater	Rainbow trout Brook trout Whitefish	General	System annually dewatered. Ground and surface waters are over-appropriated. Questionable long-term potential.
Moore Diversion to Mackay Dam	20/	Coldwater	Rainbow trout Brook trout Whitefish	Wild trout General	Maintain wild trout populations. Supplement with put-and-take fishery in areas of high effort to maintain catch rates of 1.0 fish/hr. Evaluate returns of catchable rainbow. Winter whitefish season.
Mackay Reservoir	/1,000	Coldwater	Rainbow trout Brook trout Kokanee salmon	Put-and-take trout General	Put-and-take and put-and-grow fishery for rainbow. Manage for catch rate of 0.5 fish/hr. Shift production to late fall fingerling to maximize growth under annual drawdown management.
Mackay Reservoir to Chilly Bridge	15/	Coldwater	Rainbow trout Brook trout	General	Dewatered through diversions and natural sinks.
Chilly Bridge upstream to West Fork	45/	Coldwater	Rainbow trout Brook trout Whitefish	Quality General	Restricted harvest regulations for rainbow trout from Bartlett Point Road to East Fork-West Fork confluence. Catch rates of 1.0 fish/hr. Winter whitefish season. Evaluate quality trout regulations on rainbow trout.

Tributaries: including North Fork, West Fork, Upper East Fork, Wildhorse, and Summit creeks	232/	Coldwater	Rainbow trout Brook trout Whitefish Grayling	Put-and-take trout General	Maintain wild populations of trout to produce catch rates of 1.2 fish/hr. Use supplemental put-and-take stocking in areas of high use. Evaluate potential of experimental releases of grayling to initiate population in Wildhorse Creek.
Little Lost River and tributaries	110/	Coldwater	Rainbow trout Bull trout Brook trout	Wild trout General	Maintain wild populations of rainbow, brook, and bull trout to provide catch rates of 1.2 fish/hr. Manage bull trout population under statewide regulation directives.
Birch Creek and tributaries	32/	Coldwater	Rainbow trout Brook trout	Put-and-take trout General	Put and take fishery to supplement wild populations. Maintain catch rates of 1.0 fish/hr.
Medicine Lodge Creek and tributaries	64/	Coldwater	Rainbow trout Brook trout Cutthroat trout	Wild trout General Quality	Maintain populations of wild trout. Area 6 restricted harvest for cutthroat trout. Catch rates of 1.0 fish/hr.
Mud Lake	/7,000	Warmwater	Yellow perch Largemouth bass Black crappie Bluegill Tiger muskie Lahontan cutthroat	General	Provide warmwater fishery primarily supported by perch. Experimental stocking of Lahontan cutthroat for viability of coldwater fishery. Stock tiger muskies every three years to provide trophy fishery.
Camas Creek from Mud Lake to Camas National Wildlife Refuge	4.5/	Coldwater	Rainbow trout	Put-and-take trout	Put-and-take fishery to provide spring catch rates of 0.5 fish/hr. Spring release only due to poor water quality. Evaluate return to creel of catchable trout.
Camas National Wildlife Refuge (Camas Creek and ponds)	9/600	Warmwater	Yellow perch Largemouth bass	Closed	Closed for waterfowl sanctuary. Evaluate fishery in refuge waters and develop plan to allow limited angler entry.

Remainder of Camas Creek and tributaries	70/	Coldwater	Rainbow trout Brook trout Brown trout	Wild trout General	Maintain present wild trout to provide catch rates of 1.0 fish/hr. Put-and-grow fishery for browns. Evaluate removal of stunted brook trout population in limited areas.
Beaver Creek from mouth to Spencer	22/	Coldwater	Rainbow trout Brook trout Cutthroat trout	Wild trout General Quality	Dewatered annually.
Beaver Creek and tributaries above Spencer	18/	Coldwater	Rainbow trout Brook trout Cutthroat trout	Put-and-take trout General Quality	Provide catch rates of 1.2 fish/hr on wild fish. Supplement with put-and-take stocking in areas of high use.
Alpine Lakes	/290	Coldwater	Rainbow trout Cutthroat trout Brook trout Golden trout Grayling Rbt x ctt hybrids	General	Maintain present fishery by use of hatchery fry where needed. Expand use of golden trout and grayling to meet public demand in suitable lakes. Identify lakes to receive golden trout. These lakes should receive no supplemental stocking with alternate species. Utilize new data to adjust stocking rates and frequency to correspond to lake size, productivity, natural production and public use.

Bear River Drainage





BEAR RIVER AND TRIBUTARIES

A. Overview

The Bear River and its major tributary streams comprise 524 river miles and a number of irrigation storage reservoirs in the drainage. Bear Lake, the largest lake in the drainage, covers 70,000 surface acres, 32,000 in Idaho.

Habitat for trout in the Bear River is marginal due to high irrigation flows in summer and inadequate flows during the winter. Power facilities have been detrimental to fishing because reservoirs associated with them have rapid turn over and are vertically unstable. In addition, some plants, such as Utah Power and Light's (UPL) Soda Point and Oneida Narrows facilities peak power which severely fluctuates water levels in the river below. The river receives the heaviest fishing pressure downstream from the Alexander and Oneida dams and in the Black Canyon area. Harvest in these areas is primarily hatchery rainbow trout.

Main tributaries to the Bear River include the Malad and Cub rivers, Thomas Fork, Bloomington, Paris, Montpelier, Georgetown, Eight-Mile, Williams, and Cottonwood creeks. St. Charles Creek is a major spawning stream for cutthroat from Bear Lake. Headwater tributaries of Thomas Fork Creek contain populations of the unique Bonneville cutthroat, and the upper ten miles of the Cub River contains wild trout populations and receives heavy fishing pressure.

Most tributaries to the Bear River support populations of wild trout, either rainbow, cutthroat, or eastern brook. Highest concentrations of trout are found in the middle and upstream sections. Trout in the lower sections are affected by low summer flows resulting from irrigation demands. Catchable rainbow trout are planted in accessible steams where habitat conditions and returns are favorable.

A number of irrigation reservoirs support game-fish populations in the Bear River drainage. If year-to-year water levels are sufficient, they are stocked with hatchery rainbow trout. In addition, a high percentage contain spiny-rayed game fish such as bluegill, yellow perch and largemouth bass. Collectively, these reservoirs provide a significant amount of regional fishing opportunity. However, little is known regarding the returns to creel of stocked trout or the overall contribution of spiny-rayed fishes.

Bear Lake historically contained populations of cutthroat trout which matured at a large size. Due to overfishing, irrigation diversion and other factors, this population was reduced to a low level. In cooperation with the Utah Department of Natural Resources, a joint cutthroat enhancement project is being conducted at Bear Lake. This project entails taking eggs from mature fish which ascend St. Charles and Swan creeks, rearing young fish in a hatchery for one year, then releasing them back in Bear Lake. In addition, Bear Lake contains four other species of endemic fish.

DRAINAGE: Bear River

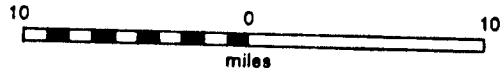
Water	Miles/acres	Fishery			Management direction
		Type	Species present	Management	
Bear River from Utah stateline to Red Rocks	30/	Mixed	Whitefish Channel catfish Rainbow trout	General	Encourage additional use. Assess status and public awareness of channel catfish population near Preston and consider additional supplementation if necessary. If hydropower project built at Red Rocks, continue to seek stable regime and develop a more intensive salmonid fishery with better access.
Bear River from Red Rocks to Oneida Dam	2.5/	Coldwater	Rainbow trout Walleye Whitefish	Put-and-take trout General	Will need to shift to reservoir management if hydro project built.
Oneida Narrows Reservoir	/500	Mixed	Rainbow trout Yellow perch Walleye Sauger	General	Evaluate Sauger and Osage River walleye introductions. Evaluate forage base and stocking success.
Bear River from Oneida Narrows Reservoir headwaters to Black Canyon	/25	Mixed	Rainbow trout Walleye Whitefish Sauger	General	Evaluate return to creel of hatchery rainbow and adjust stocking rates if necessary.
Condie Reservoir	/117	Mixed	Rainbow trout Largemouth bass Yellow perch Bluegill	Trophy General	Evaluate effectiveness of trophy regulations and fingerling trout stocking program.

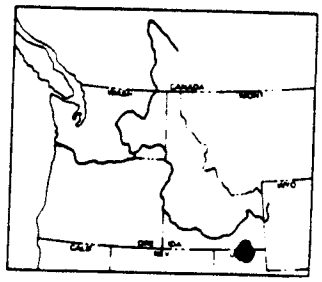
Foster Reservoir	/146	Mixed	Rainbow trout Yellow perch Largemouth bass	Put-and-take trout General	Obtain historical drawdown information to determine potential for future management using fingerlings.
Glendale Reservoir	/230	Mixed	Rainbow trout Cutthroat trout Bluegill Largemouth bass Black crappie	Put-and-take trout General	Evaluate survival of recent crappie introduction (1988). Obtain historical drawdown information to determine potential for future management using fingerlings.
Johnson Reservoir	/50	Mixed	Rainbow trout Yellow perch Largemouth bass	Put-and-take trout General	Obtain historical drawdown information to determine potential for future management using fingerlings.
Lamont Reservoir	/92	Mixed	Rainbow trout Largemouth bass Bluegill Kokanee salmon	Put-and-take trout General	Evaluate success of bluegill introduction (1989) and kok nee salmon stocking. Obtain historical drawdown information to determine potential for future management using fingerlings.
Nash Reservoir	/13	Mixed	Yellow perch Largemouth bass	General	General fishery assessment.
Oxford Reservoir	/20	Warmwater	Largemouth bass Bluegill	General	General fishery assessment.
Treasureton Reservoir	/143	Coldwater	Rainbow trout Rbt x ctt hybrids	Put-and-take trout	Evaluate growth of fingerling and catchable rainbow, monitor fishery, and assess fishery and future treatment.
Twin Lakes Reservoir	/446	Mixed	Rainbow trout Largemouth bass Bluegill Tiger muskie Rbt x ctt hybrids	Put-and-take trout General	Assess current fishery status for all game fishes. Evaluate social and biological need for renovation. Evaluate growth of fingerling.

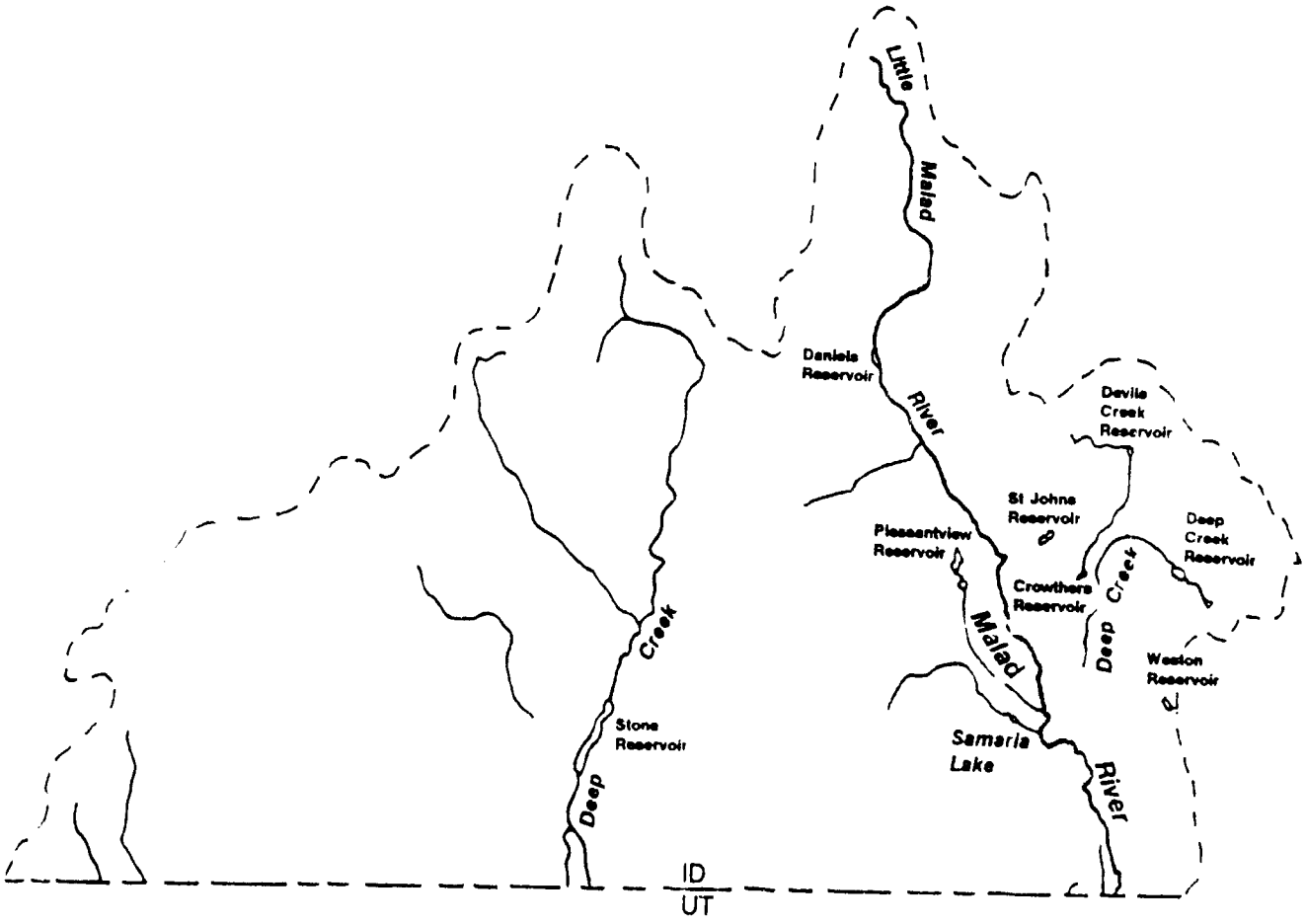
Winder Reservoir	/94	Mixed	Rainbow trout Largemouth bass Bluegill Green sunfish Rbt x ctt hybrids	Put-and-take trout General	Obtain historic drawdown information to evaluate use of fingerlings in the future. Assess growth and survival of fingerlings already stocked.
Bear River from Black Canyon to Soda Point Dam	11/	Mixed	Rainbow trout Cutthroat trout Whitefish Smallmouth bass	Put-and-take trout Quality General	Evaluate return on catchable rainbow and use information from Utah Power and Light IFIM study (1990) to reevaluate potential for new management.
Alexander Reservoir	/1,165	Mixed	Rainbow trout Cutthroat trout Yellow perch Bluegill Black crappie White crappie Channel catfish	Put-and-take trout General	Develop habitat program with local angler group and Utah Power and Light. Evaluate catchable rainbow stocking and channel catfish releases.
Bear River from Alexander Reservoir to Bear Lake	79/	Coldwater	Rainbow trout Cutthroat trout Whitefish	Put-and-take trout Quality General	Evaluate return on catchable rainbow.
Montpelier Reservoir	/120	Coldwater	Rainbow trout Yellow perch	Put-and-take trout General	Evaluate status of trout growth, etc., to assess need for future treatment. Monitor growth of illegally stocked perch.
Bloomington Lake	/10	Coldwater	Cutthroat trout	General	Evaluate current fishery.
Little Valley Reservoir	/60	Coldwater	Rainbow trout Cutthroat trout	Put-and-take trout General	Evaluate success of stocking of Bear Lake cutthroat fingerlings.
Bear River tributaries	44/	Coldwater	Rainbow trout Cutthroat trout Brook trout Brown trout	Put-and-take trout Quality General	Evaluate return to creel of catchable rainbow trout and also fingerling brown trout program.

Bear Lake tributaries	206/	Coldwater	Rainbow trout Whitefish Brook trout Cutthroat trout	General Quality	Correct problems with passage, diversions, and low stream flows in St. Charles and Fish Haven creeks. Rebuild wild cutthroat population using information from graduate research study.
Bear Lake	/79,000	Coldwater	Cutthroat trout Lake trout Cisco Whitefish	General	Develop long-term management plan to reestablish wild cutthroat population and monitor forage species to assess potential for future exotic predator management.
Thomas Fork Creek		Coldwater	Cutthroat	Quality	Participate in SCS habitat improvement program.
Preuss Creek		Coldwater	Cutthroat	Preservation	Monitor Bonneville cutthroat population response to grazing impacts. Participate in development of new allotment management plan.
Dry Creek		Coldwater	Cutthroat	Preservation	Monitor Bonneville cutthroat population response to grazing impacts. Participate in development of new allotment management plan.
Giraffe Creek		Coldwater	Cutthroat	Preservation	Monitor Bonneville cutthroat population response to grazing impacts. Participate in development of new allotment management plan.

Malad River Drainage







A. Overview

Streams in the Malad River drainage total 83 miles and cover 86 surface acres. The river's main stream is characterized by high silt, low water temperatures, and poor trout populations. These conditions restrict the expansion of present fisheries.

Reservoirs in the drainage cover 814 surface acres, and are used for irrigation water storage. They are drawn down during the irrigation season and refilled in the winter and spring. Two reservoirs, Daniels and Devils Creek, have minimum pools for fish, which are incorporated as part of the project. If water quality and quantity is adequate, the reservoirs are planted annually with hatchery rainbow trout. Populations of spiny-rayed fishes occur in all but one. A new shift to fingerling stocking will be evaluated in this planning cycle. Collectively, these reservoirs provide significant fishing opportunity. Little is known, however, about harvest or fishing pressure.

Daniels Reservoir was historically managed as a trophy trout fishery with a two-fish limit. Following treatment for Utah suckers, Daniels was stocked with rainbow-cutthroat hybrids and Lahontan cutthroat. Trophy regulations are now in effect on the cutthroat.

Stone Reservoir is located on Deep Creek in Curlew Valley approximately 6 miles north of Snowville, Utah. It has good rainbow trout, black crappie, and largemouth bass populations. Carp numbers are also high and are used by the irrigation company to control vegetation.

DRAINAGE: Malad River

Water	miles/acres	Fishery: Type	Fishery: Species present	Fishery: Management	Management direction
Malad River, from Utah border upstream	/9/	Coldwater	Rainbow trout Bullhead Cutthroat trout	General Quality	Evaluate potential for "hatchery-supported" zone.
Malad River tributaries	/5/	Coldwater	Rainbow trout Cutthroat trout	General Quality	Assess populations in Little Malad River and evaluate for "hatchery-supported" zone.
Daniels Reservoir	/375	Coldwater	Rainbow trout Rbt x ctt hybrids Lahontan cutthroat trout	Put-and-take trout General Trophy	Evaluate effectiveness of fingerling stocking programs and trophy regulation. Monitor sucker population to determine if future renovation is necessary.
Deep Creek Reservoir	/174	Mixed	Rainbow trout Cutthroat trout Largemouth bass	Put-and-take trout General	Develop "wild/natural" regulation for wild cutthroat population under new year-round season.
Devils Creek Reservoir	/148	Coldwater	Rainbow trout Cutthroat trout Kokanee salmon	Put-and-take trout General	Develop "wild/natural" regulation for wild cutthroat population. Evaluate survival of kokanee salmon.
Pleasantview Reservoir	/39	Mixed	Rainbow trout Kokanee salmon Tiger muskie Largemouth bass Black crappie	Put-and-take trout General	Evaluate survival of kokanee salmon and tiger muskie.
Samaria Lake	/10	Warmwater	Largemouth bass Green sunfish	General	General fishery assessment.

FMPDRAIN

Crowthers Reservoir	/40	Mixed	Rainbow trout Yellow perch Largemouth bass	Put-and-take trout General	Evaluate returns of catchable rainbow and angler use.
St. Johns Reservoir	/35	Mixed	Rainbow trout Largemouth bass Bluegill	Put-and-take trout Trophy General	Evaluate effectiveness of trophy regulations.
Weston Reservoir	/82	Mixed	Rainbow trout Largemouth bass Yellow perch Bluegill	Put-and-take trout General	General fishery assessment. Improve angler access.
Stone Reservoir (Curlew Valley)	/30	Mixed	Rainbow trout Black crappie Largemouth bass	General	Assess fishery status, evaluate suitability for Lahontan cutthroat fingerling program. Provide catch rate of 0.5 fish/hr.

Appendix 1. A list of Idaho fishes and their distribution by drainage.

Family		Species		Drainage[1]								
Common name	Scientific name	Common name	Scientific name	Origin[2]	K	P	S	Pa	Sb	Sa	B	I
Lamprey	Petromyzontidae	Pacific lamprey	Lampetra tridentata	N		X			X			
Sturgeon	Acipenseridae	White sturgeon	Acipenser transmontanus	N	X				X	X[I]		
Trout	Salmonidae	Bear Lake whitefish	Prosopium abyssicola	N								X
		Pygmy whitefish	Prosopium coulteri	N		X						
		Bonneville cisco	Prosopium gemmiferum	N								X
		Bonneville whitefish	Prosopium spilonotus	N								X
		Mountain whitefish	Prosopium williamsoni	N	X	X	X		X	X	X	X
		Lake whitefish	Coregonus clupeaformes	I		X						
		Coho salmon	Oncorhynchus kisutch	I					X	X		
		Sockeye salmon	Oncorhynchus nerka	N					X			
		Kokanee salmon	Oncorhynchus nerka	N	X	X	X		X	X[I]		X[I]
		Chinook salmon	Oncorhynchus tshawytscna	N			X[I]		X			
		Golden trout	Oncorhynchus aguabonita	I	X		X		X	X		X
		Cutthroat trout	Oncorhynchus clarki									
		Westslope	Oncorhynchus clarki lewisi	N	X	X	X		X			
		Yellowstone	Oncorhynchus clarki bouvieri	N					X	X		X
		Bonneville	Oncorhynchus clarki utah	N							X	
		Bear Lake	Oncorhynchus clarki ssp.	N						X[I]	X	
		Finespotted (Snake River)	Oncorhynchus clarki ssp.	N						X		
		Lahontan	Oncorhynchus clarki henshawi	I					X	X		X
		Rainbow trout	Oncorhynchus mykiss	N	X	X[I]	X	X	X	X[I]	X[I]	X[I]
		Redband trout	Oncorhynchus mykiss ssp.	N					X			
		Brown trout	Salmo trutta	I		X	X		X	X	X	
		Atlantic salmon	Salmo salar	I					X			
		Blueback trout	Salvelinus alpinus oquassa	I					X			
		Brook trout	Salvelinus fontinalis	I	X	X	X	X	X	X	X	X
		Bull trout	Salvelinus confluentus	N	X	X	X		X			X
		Lake trout	Salvelinus namaycush	I		X			X	X	X	
		Arctic grayling	Thymallus arcticus	I	X		X		X	X		X

Family		Species			Drainage[1]							
Common name	Scientific name	Common name	Scientific name	Origin[2]	K	P	S	Pa	Sb	Sa	B	I
Pike	Esocidae	Northern pike	Esox lucius	I		X	X					
		Tiger muskie	Esox lucius x masquinongy	I	X	X	X		X		X	X
Minnow	Cyprinidae	Chiselmouth	Acrocheilus alutaceus	N					X			
		Goldfish	Carassius auratus	I					X			X
		Lake chub	Couesius plumbeus	N	X							
		Carp	Cyprinus carpio	I				X	X	X	X	
		Grass Carp	Ctenopharyngodon idella	I					X	X		
		Utah chub	Gila atraria	N					X	X	X	X
		Tui chub	Gila bicolor	I					X			
		Leatherside chub	Gila copei	N					X	X	X	
		Peamouth	Mylocheilus caurinus	N	X	X	X		X			
		Fathead minnow	Pimephales promelas	I						X		
		Northern squawfish	Ptychocheilus oregonensis	N	X	X	X	X	X			
		Longnose dace	Rhinichthys cataractae	N	X	X	X	X	X	X	X	X
		Leopard dace	Rhinichthys falcatus	N					X			
		Speckled dace	Rhinichthys osculus	N			X	X	X	X	X	X
		Redside shiner	Richardsonius balteatus	N	X	X	X	X	X	X	X	X
		Tench	Tinca tinca	I		X	X					
		Spottail shiner	Notropis hudsonius	I					X	X	X	
Sucker	Catostomidae	Utah sucker	Catostomus ardens	N						X	X	X
		Longnose sucker	Catostomus catostomus	N	X	X	X					
		Bridgelip sucker	Catostomus columbianus	N			X	X	X			
		Bluehead sucker	Catostomus discobolus	N						X	X	
		Largescale sucker	Catostomus macrocheilus	N	X	X	X	X	X			
		Mountain sucker	Catostomus platyrhynchus	N					X	X	X	
Catfish	Ictaluridae	Black bullhead	Ictalurus melas	I			X		X			
		Brown bullhead	Ictalurus nebulosus	I	X	X	X	X	X	X	X	
		Channel catfish	Ictalurus punctatus	I	X	X	X		X	X	X	
		Tadpole madtom	Noturus gyrinus	I					X			
		Flathead catfish	Pylodictis olivaris	I					X			
		Blue catfish	Ictalurus furcatus	I					X	X		
Trout-perch	Percopsidae	Sand roller	Percopsis transmontana	N					X			
Cod	Gadidae	Burbot (ling)	Lota lota	N	X							

Family		Species			Drainage[1]							
Common name	Scientific name	Common name	Scientific name	Origin[2]	K	P	S	Pa	Sb	Sa	B	I
Livebearer	Poeciliidae	Mosquitofish	Gambusia affinis	I						X	X	
		Guppy	Poecilia reticulata	I[3]							X	X
		Swordtail	Xiphorus helleri	I[3]							X	X
		Platy	Xiphorus sp	I[3]							X	X
Sunfish	Centrarchidae	Green sunfish	Lepomis cyanellus	I							X	
		Pumpkinseed	Lepomis gibbosus	I	X	X	X	X	X	X		
		Warmouth	Lepomis gulosus	I					X			
		Bluegill	Lepomis macrochirus	I	X	X	X	X	X	X	X	
		Smallmouth bass	Micropterus dolomieui	I		X	X		X	X	X	
		Largemouth bass	Micropterus salmoides	I	X	X	X	X	X	X	X	
		Black crappie	Pomoxis nigromaculatus	I	X	X	X	X	X	X	X	X
		White crappie	Pomoxis annularis	I					X			
Perch	Percidae	Yellow perch	Perca flavescens	I	X	X	X		X	X	X	X
		Walleye	Stizostedion vitreum	I					X		X	
		Sauger	Stizostedion canadense	I							X	
Sculpin	Cottidae	Mottled sculpin	Cottus bairdi	N					X	X	X	
		Piute sculpin	Cottus beldingi	N					X	X	X	
		Slimy sculpin	Cottus cognatus	N	X	X			X			
		Shorthead sculpin	Cottus confusus	N			X		X			X
		Bear Lake sculpin	Cottus extensus	N							X	
		Shoshone sculpin	Cottus greenei	N					X			
		Wood River sculpin	Cottus leiopomus	N					X			
		Torrent sculpin	Cottus rhotheus	N	X	X	X	X	X			
Cichlids[3]	Cichlidae	Java talapia	Talapia mossabica	I[3]					X			
		Zill's talapia	Talapia zillii	I[3]					X			
		Convict cichlid	Cichlasoma nigrofaciatum	I[3]					X			
Loaches	Cobitidae	Oriental weatherfish	Misgurnus anguillicaudatus	I					X			
Shad	Clupeidae	American shad	Alosa sapidissima	I					X			

[1]K=Kootenai River drainage, P=Pend Oreille River drainage, S=Spokane River drainage, Pa=Palouse River drainage, Sb=Snake River below Shoshone Falls, Sa=Snake River above Shoshone Falls, B=Bear River drainages, and I=Independent drainages.

[2]N=native and I=introduced.

[3]Confined to geothermal waters.

TO LEARN MORE

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600 S. Walnut St.
Boise, ID 83707 334-3791

Region 1
2320 Government Way
Coeur d'Alene, ID 83814 765-3111

Region 2
1540 Warner Ave.
Lewiston, ID 83501 743-6502

Region 3
109 W. 44th St.
Boise, ID 83714 327-7025

Region 3
Subregional Office
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McCall, ID 83637 634-8137

Region 4
868 E. Main
Jerome, ID 83338 324-4350

Region 5
1345 Barton Rd.
Pocatello, ID 83204 232-4703

Region 6
1515 Lincoln Rd.
Idaho Falls, ID 83401 525-7290

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