Volume 125
Article 9

Statewide Technical Assistance

JOB PERFORMANCE REPORT
PROJECT FW-7-R-5

Subproject I, Job No. 1: Fisheries Program Coordination and Supervision
Subproject I, Job No. 2: Statewide Quantity Investigation
Subproject I, Job No. 3: Statewide Responsive Management
Subproject II, Job No. 1: Panhandle Region Technical Assistance
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Subproject II, Job No. 3: Southwest Region Technical Assistance
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Subproject II, Job No. 5: Southeast Region Technical Assistance
Subproject II, Job No. 6: Upper Snake Region Technical Assistance

PERIOD COVERED: July 1, 1998 to June 30, 1999

BY

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JOB PERFORMANCE REPORT

State of:	**Idaho**	**Name:**	**STATEWIDE TECHNICAL ASSISTANCE**
Project:	**FW-7-R-5**	**Title:**	**Statewide Supervision and Coordination**
Subproject:	**1**	**Job No.:**	**1**

Period Covered: **July 1, 1998 to June 30, 1999**

ABSTRACT

During the contract period we participated in relicensing efforts by Idaho Power Company (IPC), Washington Water Power (WWP), and PacifiCorp. We also provided biological information to the Federal Energy Regulatory Commission (FERC) for other hydroelectric activities in Idaho.

We have coordinated efforts by the state of Idaho to implement the Idaho Conservation strategy for bull trout. We have also become participants in the federal process to draft the bull trout recovery plan, as directed by the Endangered Species Act (ESA).

Idaho Department of Fish and Game (IDFG) staff have provided assistance to state, federal, and private interests that have proposed activities that may alter aquatic habitats.

Author:

Will Reid
Fishery Program Coordinator

OBJECTIVES

To supervise, coordinate, and ensure consistent application of policy for IDFG activities regarding water quality, water quantity, aquatic habitat alterations, hydropower licensing by the FERC, mitigation to aquatic habitats for the federal hydropower system in Idaho, and conservation of aquatic habitats.

To provide technical assistance to the executive and legislative branches of state government, federal regulatory agencies, and private interests on aquatic fish and wildlife habitat needs.

METHODS

The Federal Power Act and the Public Utility Regulatory Policies Act, as amended, directs the FERC to give equal consideration to hydro and non-hydro interests. It also directs hydropower license applicants to consult with fish and wildlife agencies concerning the impact of a hydropower proposal on fish and wildlife and appropriate terms and conditions for licenses to adequately and equitably protect, mitigate damages to, and enhance fish and wildlife. IDFG personnel respond to consultation requests from hydropower proponents through a tiered process. Initial requests for consultation by an applicant are directed to the appropriate regional IDFG office. When a proposed hydroelectric project would effect multiple regions, the IDFG central office coordinates consultation activities. All correspondence to the FERC regarding mandatory terms and conditions or recommendations for license articles are coordinated by the IDFG central office. Based on the best scientific information available, the IDFG will recommend to the FERC measures which will protect, mitigate, or enhance fish and wildlife habitats. Lacking current data, IDFG will cooperate with the license applicant to design studies which will assist the resource agencies and the FERC decision-making process.

Idaho Code states that it is the policy of the state that all fish and wildlife belong to the state and that all fish and wildlife shall be managed in a manner that will protect, preserve, and perpetuate fish and wildlife for the citizens of Idaho and others as permitted by law. Idaho Code further established the Idaho Fish and Game Commission and the IDFG to administer the policy. However, Idaho Code does not give the IDFG or the Idaho Fish and Game Commission any regulatory authority over modifications to, or management of, fish and wildlife habitats. As such, the IDFG serves as a consultation agency to state and federal land management agencies and to private interests proposing activities which might effect fish and wildlife habitat. Consultation comments provided by the IDFG focus only on impacts to fish and wildlife habitats and the ability of the IDFG to protect, preserve, perpetuate, and manage the fish and wildlife resources in Idaho.

RESULTS

Federal Energy Regulatory Commission

During the contract period activities related to the issuance of licenses for hydroelectric generation in Idaho concentrated on the relicensing of IPC projects on the Snake River, Washington Water Power (Avista) projects on the Clark Fork River, and PacifiCorp projects on the Bear River.

IPC has submitted license applications to the FERC for facilities at Upper Salmon Falls (FERC No. 2777), Lower Salmon Falls (FERC No.2061), Bliss (FERC No. 1975), and Shoshone Falls (FERC No. 2778). IPC submitted a license application for C.J. Strike (FERC No. 2055) for review and comment. At the Hells Canyon Complex IPC has coordinated relicensing activities through a collaborative team (CT) process. The license for the Swan Falls hydro (FERC No. 503) on the Snake River will not expire until 2010.

Negotiations to reach settlement at Upper Salmon Falls (FERC No. 2777), Lower Salmon Falls (FERC No.2061), Bliss (FERC No. 1975), and Shoshone Falls (FERC No. 2778) became stalled during January of 1999. Lacking settlement we have cooperated with IPC in the formal FERC licensing process. FERC has ordered IPC to conduct additional studies or provide additional information which would allow FERC to determine approriate mitigation or enhancement measures. No attempt has been made by either IPC or the agency to reach settlement at C.J. Strike (FERC No. 2055), and the FERC has ordered IPC to provide additonal information to address agency concerns.

At the urging of non-governmental organizations, IPC initiated a "collaborative" process for the relicensing of the Hells Canyon Complex (Brownlee, Oxbow, and Hells Canyon). The collaborative team has identified issues and designed studies to resolve identified issues. IPC initiated the collaborative designed studies which will address water quality, resident native fish, resident exotic fish, anadromous fish protection and reintroduction, and wildlife habitats between Swan Falls Dam and the mouth of the Salmon River. At the technical level, the collaborative process has worked well. Studies are on-going with agencies providing review and assistance. At the administrative level, the CT process has come to a standstill.

WWP operates hydro-electric facilities on the Clark Fork River at Cabinet Gorge (FERC No. 2058) and Noxon Rapids (FERC No. 1075). These projects are located in Montana but influence fish and wildlife resources in Idaho at Pend Oreille Lake and the lower Clark Fork River before entering Pend Oreille Lake. The FERC license held by WWP for these projects will expire in 1999. WWP utilizes a collaborative process to resolve resource issues and developed a collabortive Environmental Impact Statement. WWP completed the collaborative process during the contract period and has reached a settlement agreement with all parties. WWP will now focus on implementation of mitigation measures or completion of mitigation studies.

On the Bear River in Eastern Idaho, PacifiCorp operates three hydroelectric facilities at Soda (FERC No. 20), Oneida (FERC No. 472), and Grace Cove (FERC No. 10245). The FERC license for those projects will expire in 1999. IDFG participated in study design and in conducting studies to identify potential PM&E measures. However, IDFG currently has concerns over study methodology and interpretation of results. Issues on the Bear River include instream flows for fish and wildlife, water quality, and habitat for Bonneville cutthroat trout which has been determined to be threatened by the USFWS under the ESA.

During the contract period agencies came to terms with Atlanta Power for the issuance of a new license at Kirby Dam (FERC No. 11506). Kirby Dam was first built in 1907 to generate hydropower for mines in the Atlanta Mining District. The dam collapsed in 1991 and left the City of Atlanta without power. The U.S. Forest Service rebuilt Kirby Dam to prevent toxic chemicals from entering the Middle Fork of the Boise River. Agencies removed objection to construction of power generation at the dam when the owner agreed to subordinate water rights to a fish ladder that would permit passage of bull trout.

Conservation Planning

The United States Fish and Wildlife Service (USFWS) has classified bull trout (*Salvelinus confluentus)* as "threatened" under the ESA. As mandated by the ESA, the USFWS has formed a bull trout recovery team which will draft a federal bull trout recovery plan. Participants on the federal recovery team include the USFWS and representatives from Washington, Montana, Oregon, and Idaho fish and wildlife agencies. Idaho efforts during this contract period have focused on using state prepared problem assessments and incorporating them into recovery unit chapters for the federal plan.

Idaho Fish and Game staff continue to work with the Idaho Department of Water Resources (IDWR) to evaluate the usefulness of recharging the Snake Plain Aquifer with surface waters from the Snake River. IDFG has provided IDWR with information on water needs of fish and wildlife resources in the Snake River.

JOB PERFORMANCE REPORT

State of:	**Idaho**	**Name:**	**FISHERY PROGRAM COORDINATION**
Project:	**FW-7-R-5**	**Title:**	**Water Quantity Investigations**
Subproject:	**1**	**Job No.:**	**2**

Period Covered: **July 1, 1998 to June 30, 1999**

ABSTRACT

During the project period, Idaho Department of Fish and Game (IDFG) personnel supported instream flow applications on the Priest, Bruneau, and Jarbidge rivers. The Priest River application was approved, but the Idaho Water Resource Board withdrew the applications for the Bruneau and Jarbidge rivers. Applications for the North Fork Payette, North Fork Clearwater and Little North Fork Clearwater rivers, Kelly, Cayuse, and Billingsley creeks also have been filed. No action has been taken on these applications to date. I provided proof of beneficial use documentation for the Warm River instream flow water right permit and completed analysis of instream flow data collected on the Weiser River in 1997. I also continued as the IDFG representative to the Instream Flow Council.

I continued to represent IDFG in the ongoing Snake River Basin Adjudication (SRBA). The SRBA Court ruled on several issues involving federal reserve water right claims filed by the U.S. Forest Service, U.S. Fish and Wildlife Service (USFWS), and the Nez Perce Tribe. The decisions are not expected to adversely affect IDFG water right claims. Partial decrees have been issued for a number of IDFG water rights. To date, approximately one-half of the total claims filed in the adjudication have received partial decrees.

Author:

Cindy Robertson
Fishery Staff Biologist

OBJECTIVES

To prepare recommendations for instream flow water rights for selected streams statewide; to coordinate to IDFG participation in the Snake River Basin Adjudication; to solicit and provide IDFG comments on water quantity issues that may impact fish, wildlife, and aquatic habitat.

RESULTS

Instream Flow Program

Northern Idaho Rivers

In 1998, IDFG provided testimony in support of the instream flow application for the lower Priest River from East River downstream to the confluence with the Pend Oreille River. The recommended flow regime is 1,500 cfs from April 1 to June 30; 700 cfs from July 1 to July 31; 300 cfs from August 1 to October 31; and 700 cfs from November 1 to March 31. The priority date for the approved water right is October 22, 1997. The purpose of the right is to protect fish and wildlife habitat, aquatic life, and recreational values. Game fish species present in the Priest River below Priest Lake include rainbow trout, cutthroat trout, brook trout, brown trout, bull trout, mountain whitefish, and largemouth bass. People raft and canoe the river during the summer months. There was no opposition to the approval of the application at the public hearing and the permit was issued on September 10, 1998.

Applications for the North Fork Clearwater River, Little North Fork Clearwater River, and Kelly and Cayuse creeks were submitted in 1998, but no action has been scheduled on the applications at this time. Public information meetings and hearings may be scheduled later in the year 2000.

Billingsley Creek

Instream flow applications for three reaches of Billingsley Creek will be presented to the Idaho Water Resources Board (IWRB) in July 1999. An application was originally filed for one reach in 1991, but has been delayed because the IWRB and the local public requested additional reaches of the creek be studied for recommendations. Studies were completed in 1997, but the IWRB requested additional flow measurements be taken to reconcile the recommendations with water availability. The applications are to provide

spawning and rearing habitat for fish, waterfowl habitat, aesthetics, and recreation. The requested flows range from 5 to 100 cfs and vary throughout the year according to water availability.

Public support of the applications has been good in past years. Informational meetings and a public hearing will likely be scheduled for late 1999 or 2000.

North Fork Payette River

An application for an instream flow water right on the North Fork Payette River from Upper Payette Lake downstream to Box Creek will be presented to the IWRB in July 1999. The requested flows range from 35-60 cfs and are for the protection of fish habitat, aquatic life, and water quality. The flow application is the result of the Big Payette Lake Water Quality Council's request to develop recommendations for the river above Big Payette Lake. IDFG headquarters and regional personnel conducted a study in 1996 and results were reported in a report on the water quality of Big Payette Lake (DEQ 1997). The instream flow study portion of the technical report is excerpted in Appendix 1. Action on this application will likely be taken later this year or early in 2000.

Weiser River

IDFG headquarters and regional personnel conducted an instream flow study of the Weiser River in 1997. The assessment area began at the confluence with the West Fork Weiser River and ended at the Goodrich Bridge. Based on the modeled output, flows ranging form 45 to 150 cfs generally appear to provide suitable rearing habitat for all life stages of rainbow trout throughout the assessment area. However, this recommendation is based on an assessment of depth and velocity changes resulting from changes in discharge. Additional temperature data collected by regional staff need to be reviewed along with the model output before a final recommendation for a flow regime can be made. A copy of the instream flow needs assessment is attached (Appendix 2).

Warm River

In 1984, the IWRB filed an instream flow water right application for the Warm River from State Highway 47 upstream to Warm River Springs (approximately eight miles). The purpose of the filing was to preserve fish and wildlife habitat and recreation. The application was approved in November 1988, with the provision that additional studies would be needed to better quantify the instream flow needs for fisheries. Because of staff changes and limited manpower, the additional data were not collected until 1998. Headquarters staff collected habitat, flow, and fisheries data. Modeling demonstrated

that the original flow request (141 cfs) provides a minimally acceptable level of protection, while flows of 200 cfs or greater would provide much better protection of aquatic resources. The Proof of Beneficial Use report is included as Appendix 3.

Bruneau and Jarbidge Rivers

The IWRB filed instream flow applications for the Bruneau and Jarbidge rivers in 1994 at the request of Idaho Rivers United. IDFG strongly supported these applications. Following public meetings in 1997 and 1998, the IWRB chose to withdraw the applications, citing the following considerations.

1. Threat to the rivers in terms of significant future increases in consumptive uses appears remote.

2. Uncertainty regarding the outcome of the Snake River Basin Adjudication (SRBA), particularly with regards to additional water rights to cover current springtime irrigation use.

3. Enforcement of the water rights could be difficult without additional gauging stations.

4. Organized resistance to the applications by local water users.

The full text of the IWRB resolution to withdraw the applications is included in Appendix 4. IDFG found their rationale for withdrawing the applications specious and contrary to previous actions taken by them on other instream flow applications. Threats to the river from future consumptive uses is not one of the criteria the Director of the Idaho Department of Water Resources (IDWR) must consider when reviewing instream flow applications according to Idaho Code (I. C. 42-1503). Uncertain future consumptive uses have never been cited as a reason to forego an instream flow water right in the 20-year history of the instream flow program. Uncertainty in the SRBA as to the outcome of unrecorded, springtime floodwater uses is a problem for many water users in the Snake River basin. However, the flow requests were based on gauge data from the Bruneau River and a hydrologic analysis of the Jarbidge River, which took into account all existing uses in the Bruneau and Jarbidge rivers, including springtime floodwater uses. The IWRB already holds dozens of instream flow water rights on streams without gauging stations and enforcement of those instream flow rights has not been recognized as a problem. In addition, the Director of IDWR has the authority to require additional flow measurement if necessary.

In the opinion of IDFG, the overriding factor for withdrawing the applications was the local opposition to the applications. While IDFG recognizes the IWRB and IDWR must be responsive to such opinion, we also believe they have an equal responsibility to all the

people of Idaho to manage the state's water resources for both consumptive and nonconsumptive uses.

Instream Flow Council

As reported in Reid et al. (1998), a new organization, the Instream Flow Council (IFC), was formed in 1997, to assist state and provincial fish and wildlife management agencies in developing and administering effective instream flow programs to restore, maintain, and enhance aquatic ecosystems. The Western Region IFC meeting was held in Boise, Idaho in May 1999. The two standing committees, a policy committee and a methods and technical standards committee, also met in Boise prior to the regional meeting. The committees will continue to meet throughout 1999 and provide draft proposals to the governing council for review in early 2000. The regional meeting allowed western state representatives to discuss important instream flow issues and what approaches work in their own states. The meeting provided a forum for discussion of many ancillary instream flow issues such as managed recharge projects and water quality criteria development. The next national IFC meeting will likely be scheduled for spring 2000.

Snake River Basin Adjudication

The Snake River Basin Adjudication (SRBA) Court decided two major issues in 1998. The first issue dealt with the reservation of instream flows by the USFWS for the Deer Flat National Wildlife Refuge. The SRBA Court ruled that the executive orders creating the refuge did indeed reserve land described as "islands" as a "sanctuary for migratory birds." The United States argued that the word "island" mandated an implied federal reserve water right to insure that reserved land would be surrounded by water at all times or the primary purpose of the reservation would be entirely defeated. However, the Court ruled that while the orders conjures up "images of water," it was likely only a "fortuitous nonlegal description of the land that comprised the reservation." It further concluded that the intention of Congress was to reserve only the land, since no water was mentioned in the legal description of the refuge. Additionally, the Court ruled that the Deer Flat Refuge was established for multiple purposes and none of them clearly necessitated water in order for the purposes to be fulfilled.

The second issue before the Court was whether the United States is entitled to prove the factual necessity of an instream flow federal reserve water right for channel maintenance under the Organic Act. The State of Idaho argued that the United States was estopped from re-litigating whether stream channel maintenance is a primary purpose under the Organic Act, claiming the issue had already been decided against the United States in an earlier proceeding. The U.S. Supreme Court has ruled that the doctrine of collateral estoppel is generally inapplicable against the federal government because of its unique interests involving questions of "substantial public importance and breadth." The SRBA

Court ruled that the issue of the United States' Organic Act claims in the west will have precedential effect on thousands of federal water right claims and federal reserve water rights are an area of law that "greatly requires further evolution and analysis." Therefore, the issue of collateral estoppel would not apply.

The SRBA Court further concluded that the United States is entitled to prove, as a factual matter, that an instream flow claim for channel maintenance in the National Forests is necessary to assure favorable conditions of water flows, as provided by the Organic Act. Finally, they can prove the minimum quantity necessary to fulfill the reservation.

The SRBA Court has appointed a mediator to attempt to resolve the dispute between the State of Idaho and the Nez Perce Tribe over the tribal reserved water right claims. The mediation is concurrent with ongoing litigation of the claims. It is hoped that a mediated settlement can be achieved before the cases go to trial in late 2000.

Both of these decisions were released during December 1998, shortly before Judge Daniel Hurlbutt resigned from the SRBA Court. Judge Barry Wood has been appointed as his replacement. Both of these decisions have been appealed to the state Supreme Court.

Department Water Rights, Protests, and Water Planning

I worked with regional staff on several water right protests in 1998 and early 1999. Many have been resolved with the applicants and the protests have been withdrawn. One unresolved protest involves the issuance of a new water right from the South Fork Snake River for irrigation purposes. The applicant proposes to pump water from the river up to the bench to irrigate approximately 5 acres of land. While the amount of water would not cause a significant reduction in flow in the river, the Comprehensive State Water Plan for the South Fork Snake River (IWRB 1996) designates this section of the river as Recreational, which prohibit the construction of new diversion works in the river. Our primary concern is that approval of this application violates the letter and intent of the plan and sets a precedent that devalues all such comprehensive water plans and renders them meaningless. Further, approval of the application will likely result in many more such applications, as additional dryland farms are sold and subdivided into ranchettes. The cumulative impacts of these diversions could negatively impact many of the goals outlined in the plan and would encourage, rather than minimize, adverse effects of development along the river corridor.

IDFG personnel also provided comments on the Payette River Basin Plan regarding proposed instream flow requests and other water management activities could affect fish, wildlife, and their habitat. The plan was approved by the 1999 session of the Idaho Legislature and an instream flow application for the North Fork Payette River has been submitted by the IWRB. We anticipate a public information meeting and a hearing on the application will be conducted in late fall or early winter this year.

Literature Cited

Division of Environmental Quality. 1997. Technical Report on the Water Quality of Big Payette Lake: An Integrated Watershed and Lake Assessment.

Idaho Water Resource Board. 1996. Comprehensive State Water Plan, South Fork Snake River Basin.

APPENDIX 1

Instream Flow Study and Recommendation for Minimum Summer Discharge in the Upper North Fork Payette River

(excerpted from: Technical Report on the Water Quality of Big Payette Lake: An Integrated Watershed and Lake Assessment, December 1997; by Division of Environmental Quality, Boise)

by

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Abstract

In 1996 summer discharge was modeled in the upper North Fork Payette River to assess availability of habitat for all life stages of rainbow trout and for kokanee spawning. Data were collected at four sites in the river between Upper Payette Lake and Payette Lake. Instream Flow Incremental Methodology was applied using Riverine Habitat Simulation programs to analyze data. We recommend a minimum of 35 cfs be released from Upper Payette Lake Dam from July 1 through September 7, to maintain a natural population of rainbow trout.

Introduction

The Lake Reservoir Company holds 3,000 acre feet of storage in Upper Payette Lake for use downriver near the town of Payette. This Irrigation storage is typically released from Upper Payette Lake in late summer so that the company could meet other requirements for irrigation, Payette Lake levels and stream flows below Lardo dam. This study was prompted by a concern that the needs of fisheries resources in the river below Upper Payette Lake have not regularly been met under past management of releases, and the needed resource flows had not been quantified. . Figure 1 shows river discharge at the USGS gauge downstream from Fisher Creek for the period of record. The gauging station began operating October 1, 1994.

Methods

Four reaches were identified in the North Fork of the Payette River from Upper Payette Lake Dam to slack water above Payette Lake based on gradient and frequencies of four habitat types (pools, riffles, runs, and pocketwater): I – Upper Payette Lake Dam to Pearl Creek, II – Pearl Creek to Brush Creek, III – Brush Creek to Fisher Creek, and IV – Fisher Creek to Box Creek (Figure 2). In July, 1996 one study site was established in each reach. Each study site consisted of two or three transects. The downriver transect at each site was selected just above a hydraulic control that influenced water velocities and depths of the entire site. Streambed elevations were measured along each transect to 0.01 feet relative to a benchmark established at each site. Water surface elevation was measured for each transect on three occasions, at relative high, intermediate, and low discharges. Water velocities were measured at the downriver transect of each site on all three occasions. Velocities were measured at all other transects at the intermediate discharge only. Water surface elevation and velocities were measured on July 8 - 9, July 18 - 19, and August 7; at discharges of 310 cfs, 135 cfs, and 27 cfs, respectively (as measured by the USGS Gauge below Fisher Creek).

The computer-based Riverine Habitat Simulation (RHABSIM) program, developed by Thomas R. Payne (Payne and Associates 1995), was used to model the relationship between discharge and available fish habitat. This program is a modification of the Physical Habitat Simulation (PHABSIM) program, a part of the Instream Flow Incremental Methodology (IFIM) developed by the Midcontinent Ecological Science Center, U.S. Geological Survey, Fort Collins, Colorado. This group was formerly known as the Instream Flow Group and was under the administration of the U.S. Fish and Wildlife Service. The reader should consult Instream Flow papers No. 11 (Milhous et al. 1984) and No. 26 (Milhous et al. 1989) for a more in-depth discussion of the methodologies of the programs. I used habitat suitability curves from Cochnauer and Elms-Cockrum (1986) for rainbow trout, and Foster and Bennett's (1995) habitat suitability curves for spawning kokanee to quantify available fish habitat for a given discharge.

Summer water temperatures were monitored with a Hobo electronic temperature recorder (model HTI -5 to +35°C) placed in the river at the USGS gauging station downriver from Fisher Creek.

Fish density and length information was collected at each site by snorkeling on July 24. Five snorkelers moved abreast upstream from the downriver to the upriver transect, recording species, number and length of all salmonids seen. Discharge at the USGS gauge was 111 cfs.

Frequency of pools, riffles, runs, and pocketwater was determined by a "50 pace survey" on July 18 - 19, at a discharge of 135 cfs. To conduct the survey a person, taking uniform steps, walks down the river, and stops at every 50th pace, recording the habitat type at that specific location.

Results and Discussion

Quantity of habitat available for several life history stages of rainbow trout for the range of discharges measured are presented in Figure 3 and Appendix A. Habitat availability for spawning kokanee was also determined for Reach IV, below Fisher Creek. All reaches show similar trends in available habitat as discharge increases.

The two categories of juvenile rainbow trout (<4" and 4-8") are the most sensitive, and the most conflicting, life history stages with respect to quantity of habitat that is available with changing discharge. As discharge increases depths become more suitable for 4-8" fish, then velocities begin to limit habitat when flows exceed 100 cfs. Conversely, conditions are more suitable for fry and yearling trout at low flows because velocities are low and depth >0.5 feet does not limit use.

Peak spawning of kokanee in the river occurs by September 7 (Bennett and Frost

1995). During the two years of their study Bennett and Frost observed kokanee migration onto spawning grounds coincided with increased flows (caused by evacuation of upriver reservoirs), that peaked at an average of 114 cfs. Kokanee continued to spawn through mid-October as flows decreased to 14 cfs. This decrease in flows did not result in a significant number of dewatered redds; and redds that were subsequently dewatered appeared to remain moist throughout incubation. Bennett and Frost stated: (Fry and alevin) "survival in dewatered redds was similar to survival in areas that were watered throughout the incubation period." The authors recommended, however, that "reservoir evacuation should occur over an extended period of time and not be limited to short releases of large amounts of water and should be completed by the end of the first week in September."

To maximize habitat available for 4-8" trout without severely reducing habitat for smaller juveniles, and to provide adequate habitat for kokanee spawning, we recommend a minimum discharge of 35 cfs from Upper Payette Lake, to provide 60 cfs at the USGS gauging station below Fisher Creek from July 1 through September 7. We recommend that the Lake Reservoir Company consider this minimum release from Upper Payette Lake in the management of their reservoir storage, realizing that the avalability of water for this flow is subject to annual water supplies, irrigation demand, and the possible consequences to other uses downstream. The IDFG will also pursue a stream resource maintenance flow, to be held by the Idaho Water Board. This will not effect senior water rights, but will indicate a desire for the maintenance of resource flows in the future.

This flow will maintain the fisheries resources in the upper North Fork Payette River (Figure 4). Available habitat for rainbow trout is higher at lower discharges in the upper reaches vs. lower reaches. This seems reasonable, as critical depth would be maintained in the narrower upper river at lower discharges. The discharge relationship developed from our data shows that approximately 35 cfs released from Upper Payette Lake during summer will provide 60 cfs to the river below Fisher Creek (Figure 5). After September 7 flows should be decreased to base flows to avoid dewatering of kokanee redds. Management of water releases into Fisher Creek from Granite Reservoir was not considered in this study. At this time we leave recommended changes in release management of Granite Lake and Box Lake to the Lake Reservoir Company so they can coordinate releases from the reservoirs to best meet the competing water needs.

Habitat availability for spawning rainbow trout was included merely for interest. An analysis of substrate would be necessary to actually quantify spawning habitat. Spring discharge typically exceeds optimum depths and velocities for spawning rainbow trout.

Water temperatures in the river in 1996 did not exceed 21°C (70°F) and therefore were not limiting to rainbow trout (Scott and Crossman 1979) (Figure 6). We will continue to monitor summer river temperature until data are collected over an adequate range of weather and water conditions.

Fish species observed during the snorkeling survey included rainbow trout, cutthroat trout, mountain whitefish, largescale sucker, sculpin, and dace. Densities were dominated by juvenile rainbow trout (Figure 7). Total densities of naturally produced trout ranged from a high of 4.4 fish/100m^2 at the upper reach to a low of 0.02 fish/100m^2 (one fish observed) in Reach IV. Density of rainbow trout ≥6" were less than one fish/100m^2, low compared with other similar sized rivers throughout Idaho (Schill 1991).

Approximately 5,000 catchable sized rainbow trout (>9") are stocked annually throughout the upper North Fork Payette River from June through August. Another 10,000 rainbow trout are stocked in Upper Payette Lake. We know that some of these fish go downriver. Splake also leave the lake.

Three hatchery reared rainbow trout were observed during snorkeling, and only in the two upper reaches. A few splake were observed during our snorkeling survey of the upper reach, but were outside of the measured area, so densities were not calculated.

In addition to rainbow trout, three juvenile cutthroat trout (4-5") were observed in Reach II; five whitefish (8-10") were observed in Reach I, and three 12" whitefish were counted in reach III. Non-salmonid fishes were noted as present, but not counted.

Habitat frequency data shows the paucity of pools (5% of the total distance) in the upper North Fork Payette River (Figure 8). Autumn pool frequency in a stream between 35% and 65% is considered ideal for adult rainbow trout (Raleigh et al. 1984). Our survey to determine frequency of habitat was conducted at a discharge approximately three fold higher than average fall base flows, but given the relatively steady gradient of the river we do not expect pool frequency to increase significantly with reduced discharge.

Though no data were collected regarding riparian or instream cover, abundance of large woody debris in the river channel appears to be low. Fallen trees left in the river could increase pool abundance and depth, increase macro invertebrate production, provide velocity refuge for all trout life histories, and could provide sorting of sediment to provide spawning gravels (Hunter 1991).

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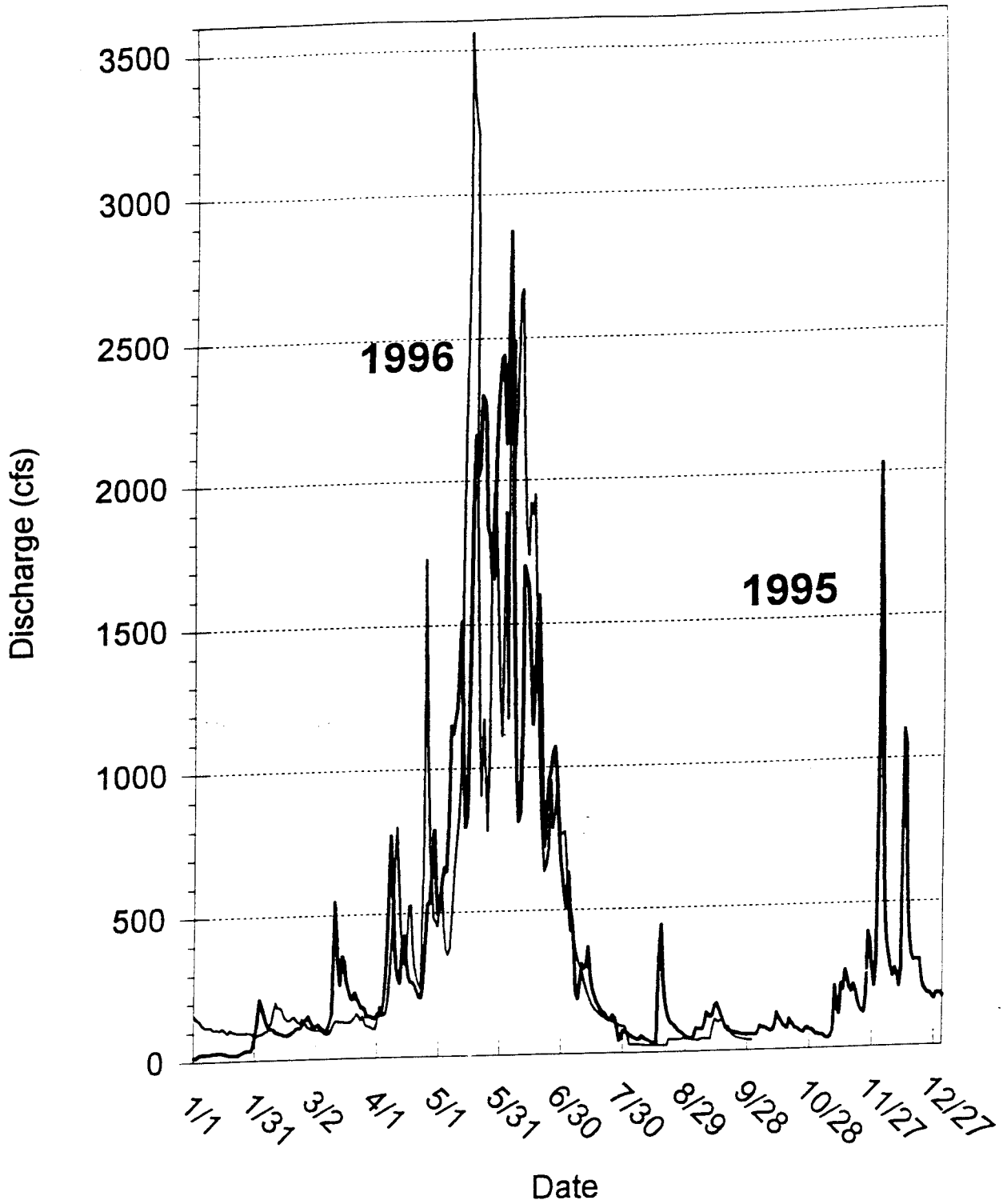


Figure 1. Discharge in the North Fork Payette River at the USGS Gauge below Fisher Creek, 1995 and 1996.

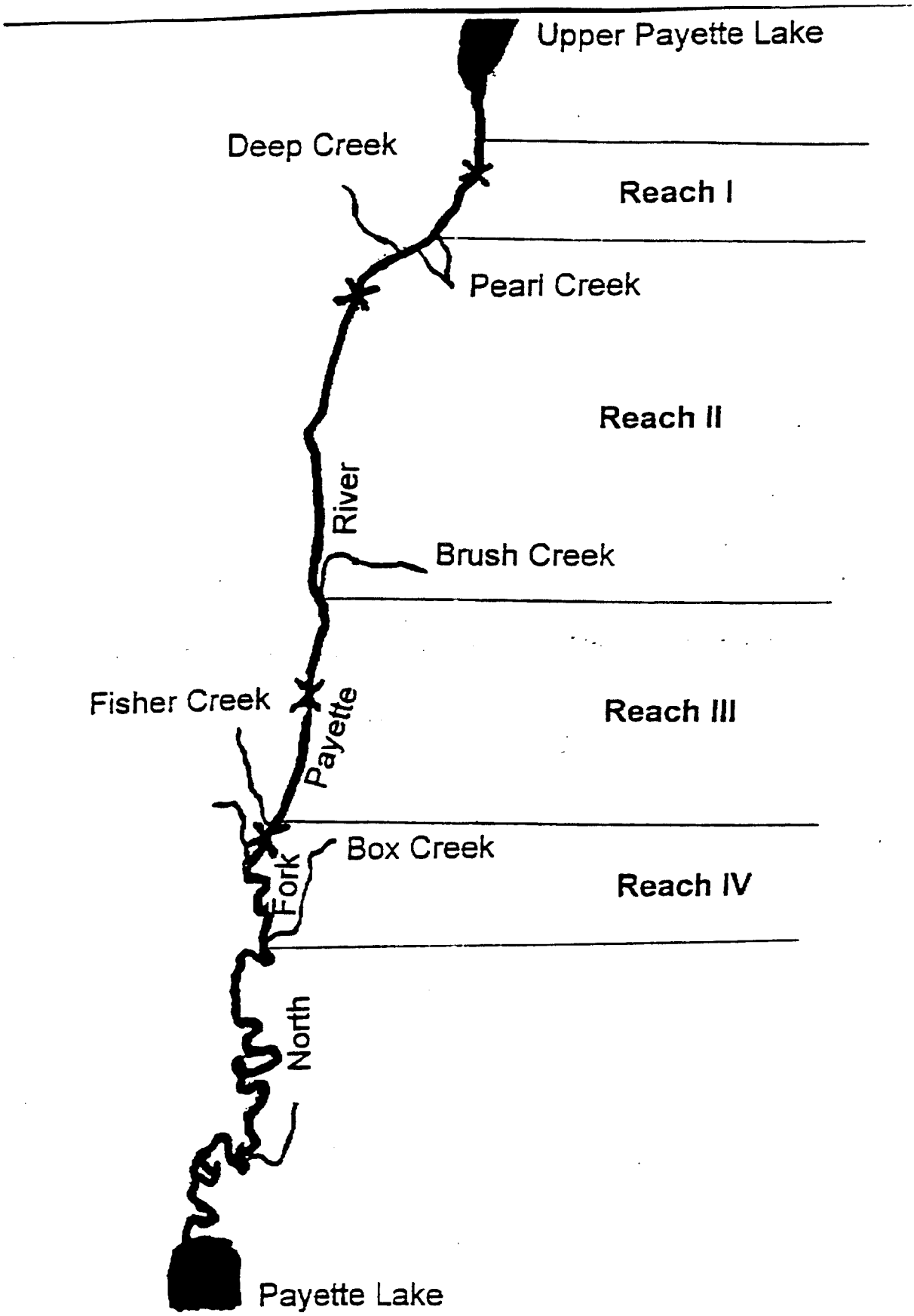


Figure2.MapoftheupperNorthForkPayetteRiverwithstudyreaches.Studysitesaremarked (X).

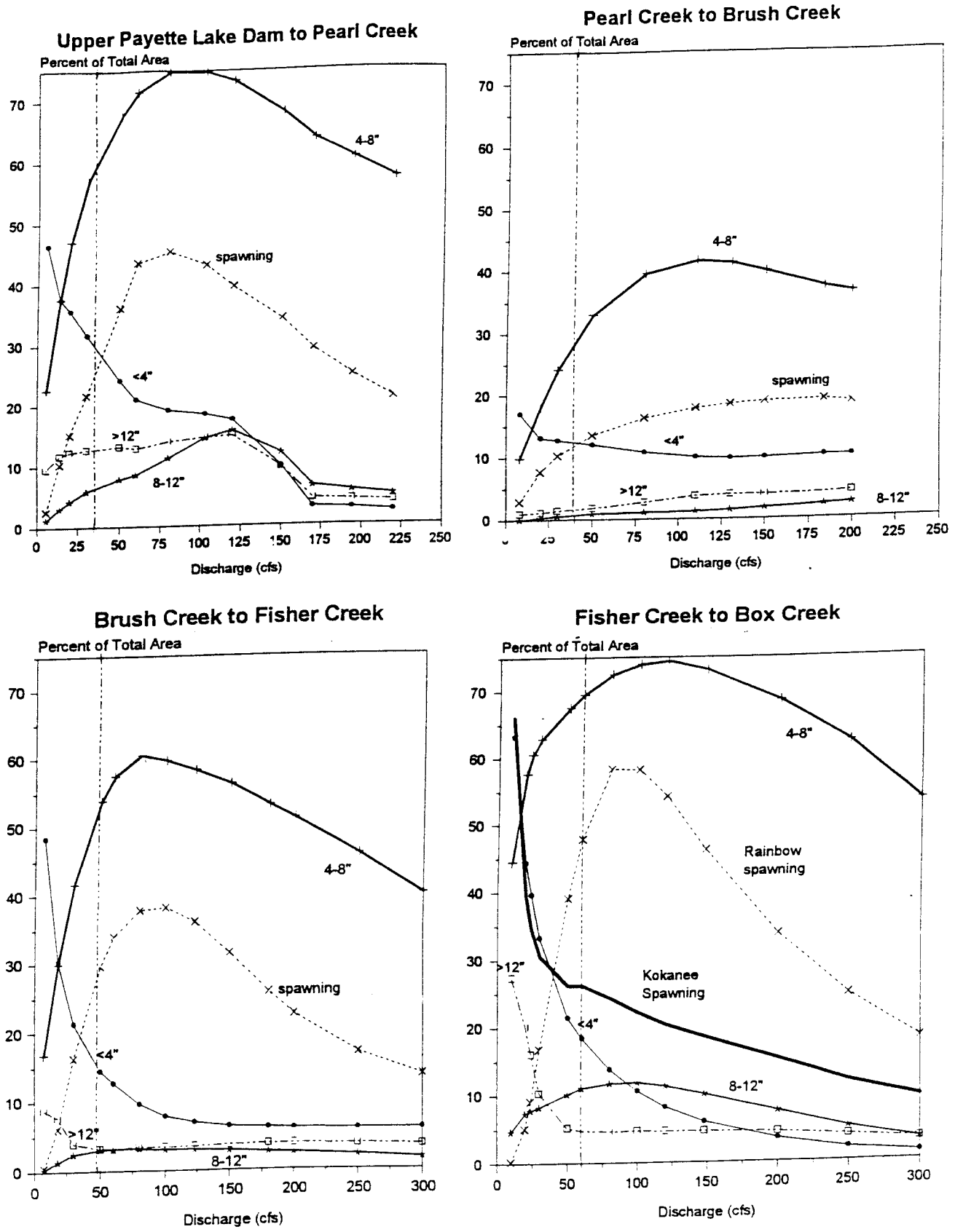


Figure 3. Habitat available to rainbow trout and spawning kokanee at various discharges in the upper North Fork Payette River, expressed as a percent of the total area of each study site. Vertical line in each chart represents recommended minimum discharge for that reach.

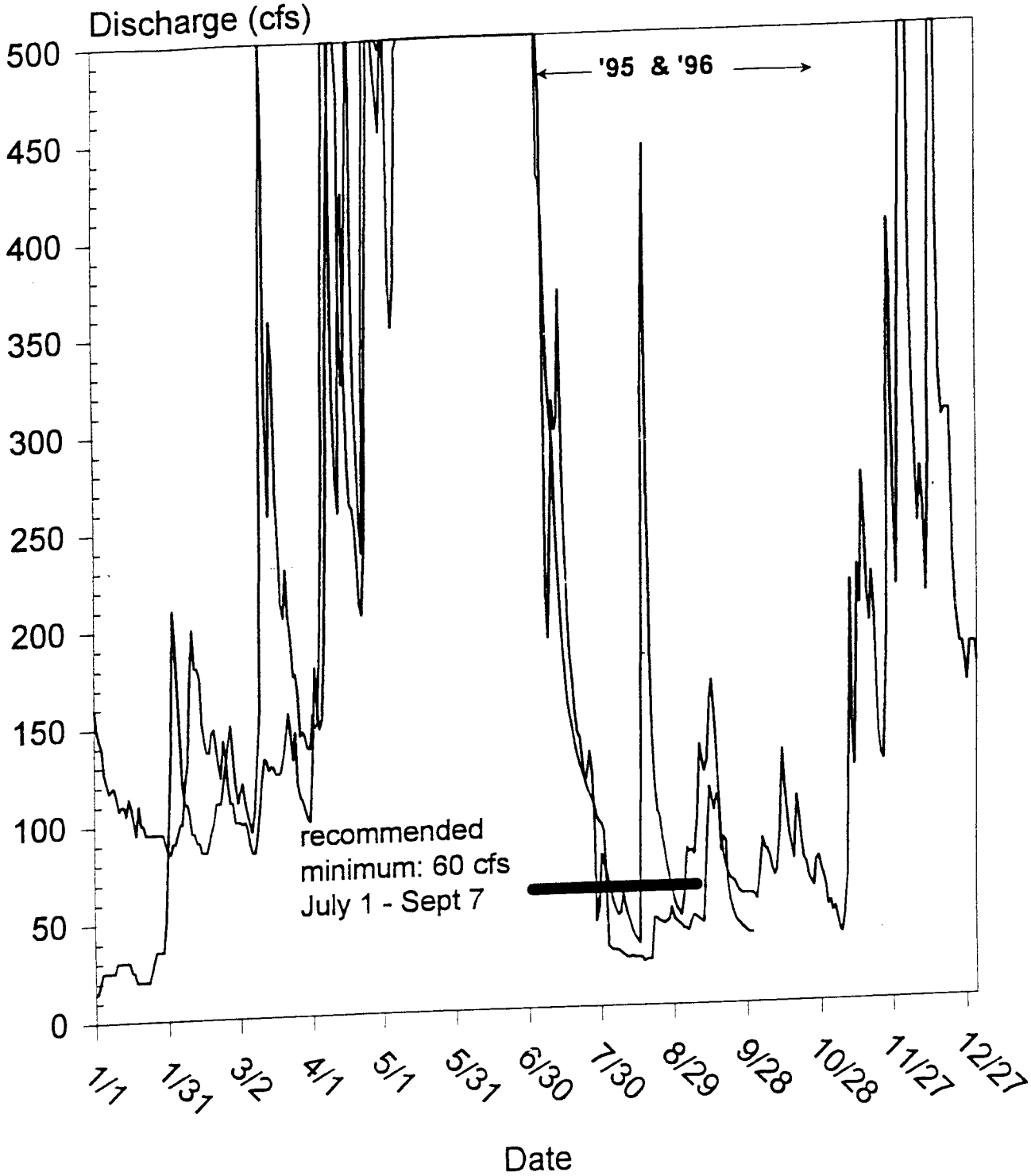


Figure 4. Recommended summer discharge for upper North Fork Payette River, as measured at the USGS gauge below Fisher Creek.

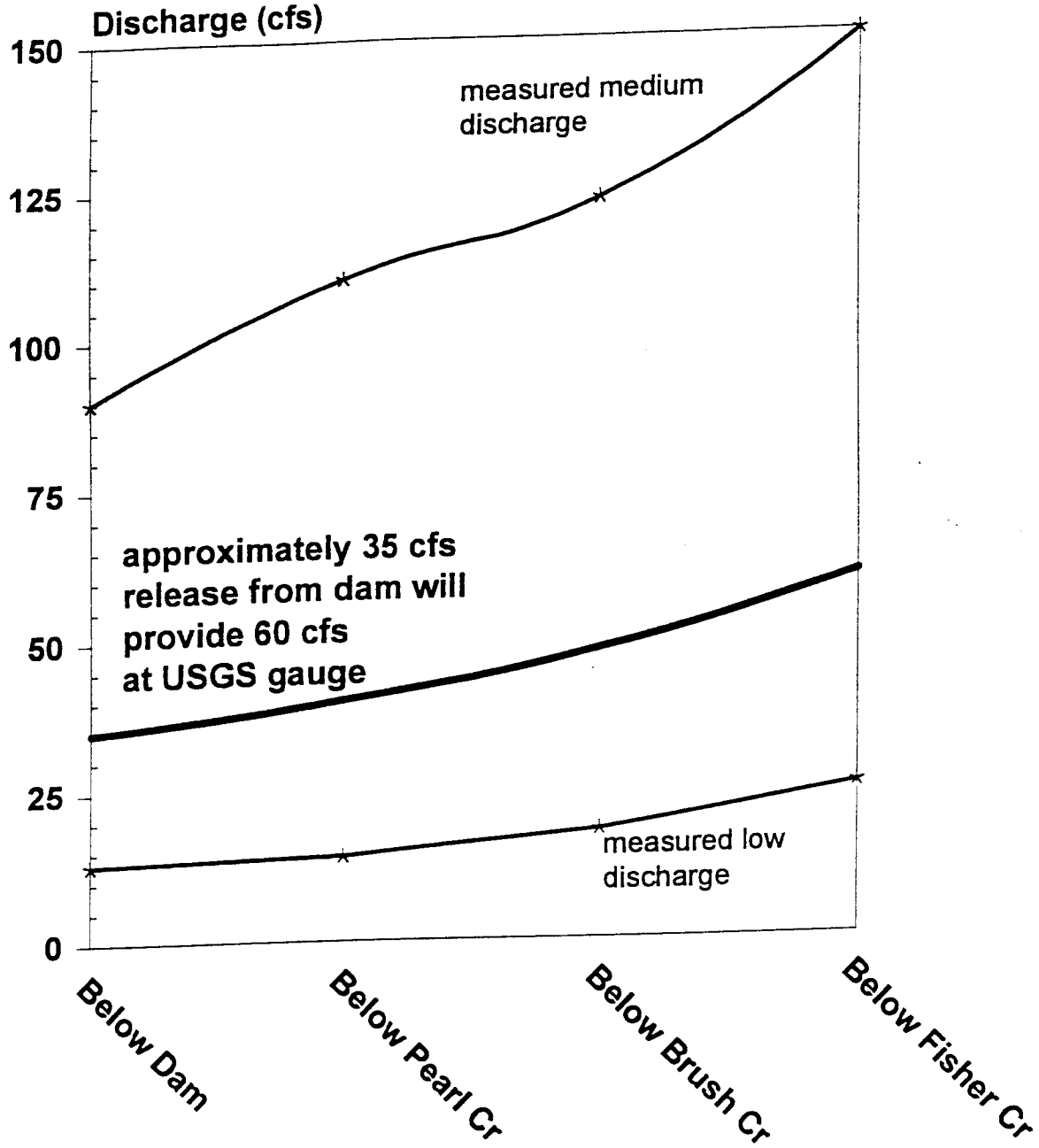


Figure 5. Discharge relationships among all reaches of the upper North Fork Payette River.

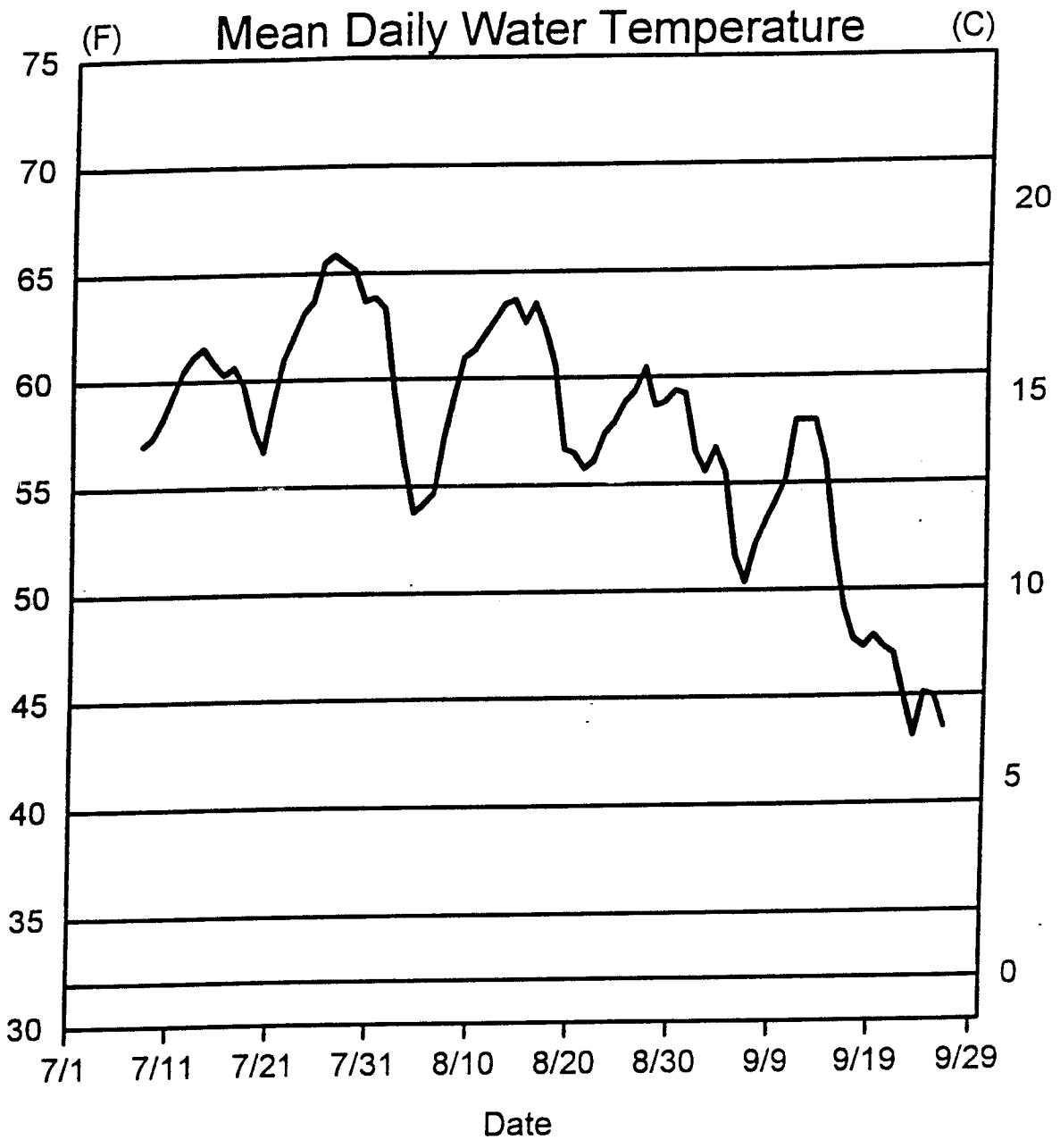


Figure 6. Summer water temperatures in the North Fork Payette River at the USGS Gauge, 1996.

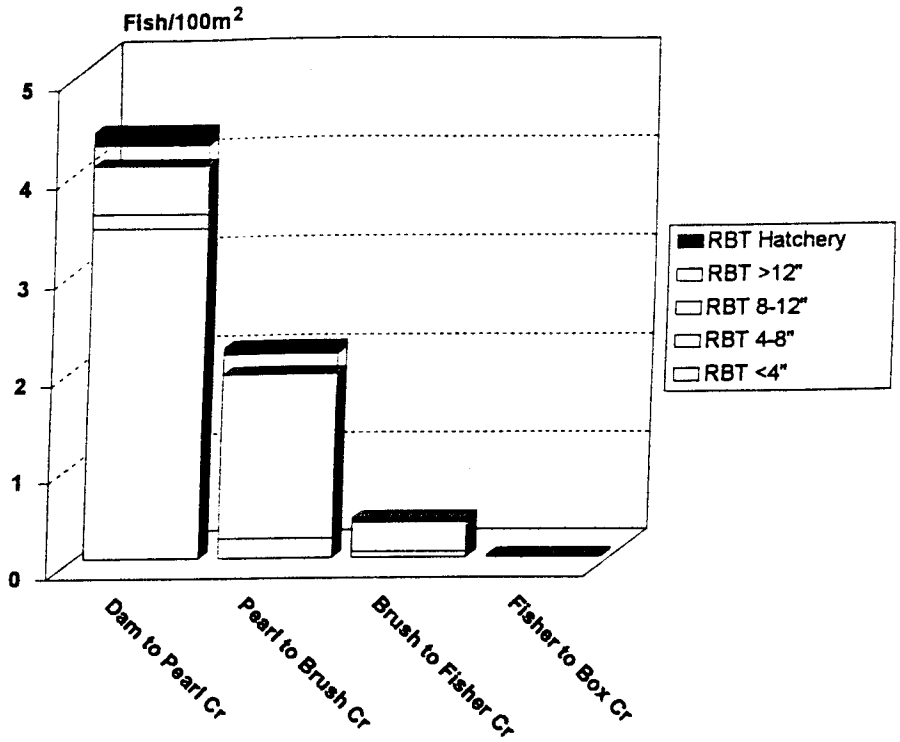


Figure 7. Densities of rainbow trout in study reaches of the upper North Fork Payette River, 1996

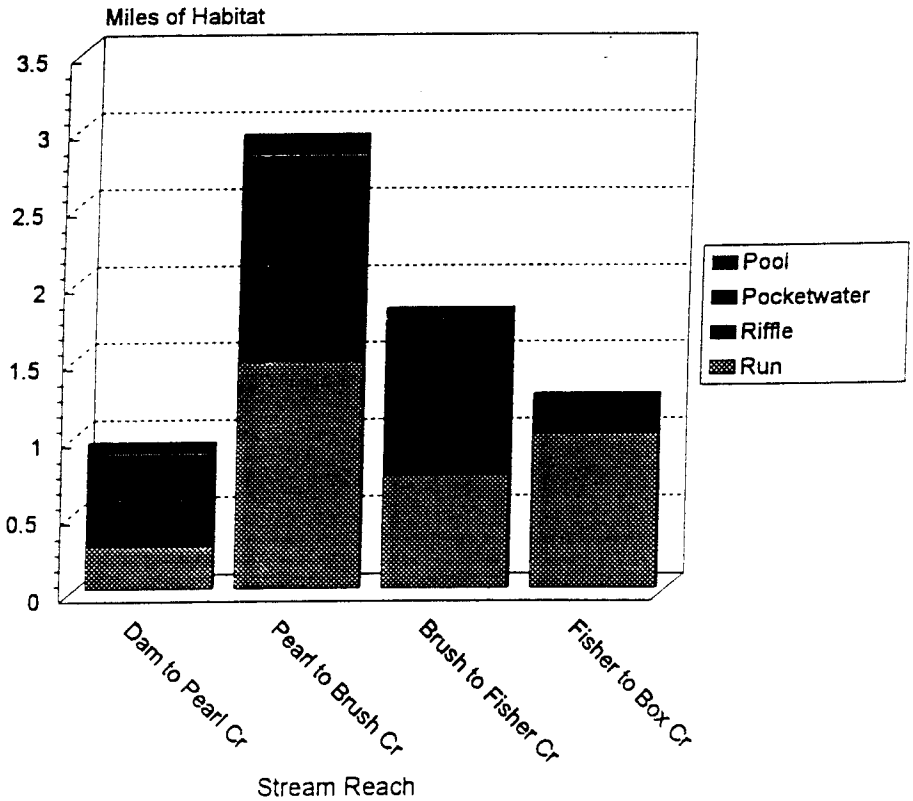


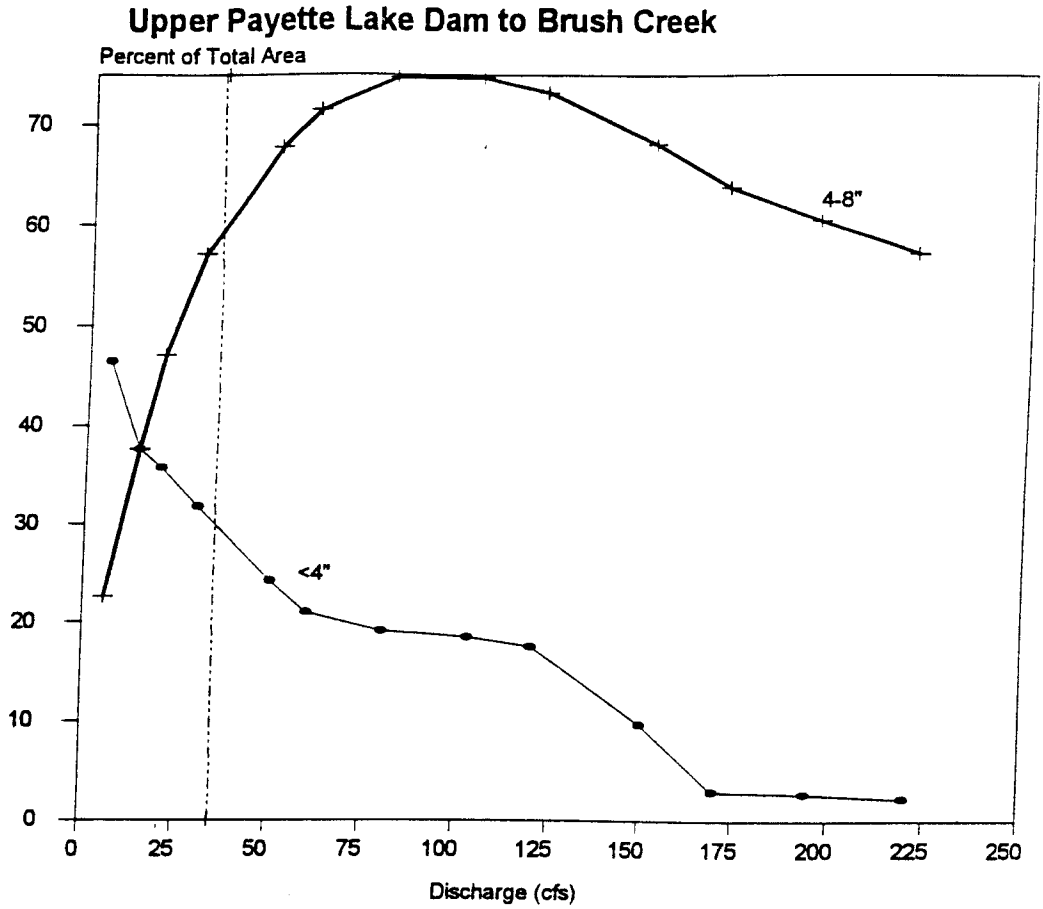
Figure 8. Quantity of habitat types in the upper North Fork Payette River.

Reach I – Upper Payette Lake Dam to Pearl Creek							
Discharge (cfs)	Total Surface Area of Study Site	Available Habitat as Percent of Total Surface Area					
		Rainbow Trout					Kokanee
		<4"	4-8"	8-12"	>12"	Spawning	Spawning
6	42,563	46.44	22.58	1.18	9.50	2.56	–
14	51,081	37.64	37.60	3.02	11.68	10.28	–
20	52,087	35.73	47.06	4.19	12.31	15.21	–
30	53,266	31.74	57.14	5.84	12.66	21.70	–
50	55,154	24.16	67.78	7.79	13.12	36.19	–
60	55,957	20.96	71.49	8.51	12.82	43.69	–
80	57,358	19.08	74.74	11.14	13.93	45.47	–
103	58,750	18.41	74.71	14.40	14.55	43.16	–
120	59,536	17.43	73.25	15.65	14.85	39.58	–
150	60,443	9.65	68.09	11.89	9.59	34.21	–
170	61,195	2.94	63.76	6.38	4.31	29.17	–
194	62,441	2.72	60.49	5.61	4.11	24.73	–
220	63,244	2.23	57.16	4.92	3.87	20.88	–

Reach II – Pearl Creek to Brush Creek							
Discharge (cfs)	Total Surface Area of Study Site	Available Habitat as Percent of Total Surface Area					
		Rainbow Trout					Kokanee
		<4"	4-8"	8-12"	>12"	Spawning	Spawning
8	39,142	17.00	9.8	0.00	0.94	2.84	–
20	51,017	13.10	17.92	0.26	1.08	7.64	–
30	55,175	12.70	24.04	0.51	1.40	10.24	–
50	60,778	11.91	32.85	0.84	1.74	13.45	–
80	63,497	10.67	39.42	1.05	2.67	16.16	–
110	64,928	9.85	41.51	1.18	3.64	17.74	–
130	66,460	9.68	41.16	1.39	3.87	18.37	–
150	67,622	9.77	39.74	1.69	3.90	18.79	–
184	69,220	10.09	37.14	2.17	4.05	18.96	–
200	69,908	10.08	36.37	2.36	4.23	18.62	–

Reach III – Brush Creek to Fisher Creek							
Discharge (cfs)	Total Surface Area of Study Site	Available Habitat as Percent of Total Surface Area					
		Rainbow Trout					Kokanee
		<4"	4-8"	8-12"	>12"	Spawning	Spawning
7	56,661	48.37	16.80	0.23	8.77	0.41	–
18	62,019	30.27	29.92	1.32	7.67	6.13	–
30	65,278	21.32	41.59	2.43	3.91	16.24	–
50	67,519	14.43	53.8	3.06	3.20	29.61	–
60	68,042	12.63	57.43	3.13	3.15	33.91	–
80	69,550	9.57	60.42	3.10	3.36	37.69	–
100	70,380	7.81	59.63	2.99	3.40	38.05	–
123	71,250	6.91	58.19	2.95	3.47	35.92	–
150	71,417	6.32	56.12	2.81	3.63	31.32	–
180	71,584	6.10	52.95	2.57	3.74	25.65	–
200	71,688	5.99	50.98	2.41	3.75	22.43	–
250	71,918	5.89	45.58	2.06	3.63	16.80	–
300	72,125	5.90	39.70	1.64	3.49	13.57	–

Reach IV – Fisher Creek to Box Creek							
Discharge (cfs)	Total Surface Area of Study Site	Available Habitat as Percent of Total Surface Area					
		Rainbow Trout					Kokanee
		<4"	4-8"	8-12"	>12"	Spawning	Spawning
10	70,086	63.18	44.48	4.65	27.34	0.25	66.04
20	72,632	44.36	57.58	7.31	20.14	5.08	39.48
24	73,684	39.66	60.49	7.77	16.06	9.09	34.59
30	75,782	33.27	62.80	8.22	10.30	16.81	30.53
50	80,090	21.45	67.46	10.11	5.20	39.10	26.18
60	80,762	18.44	69.43	11.04	4.76	47.86	26.12
80	81,523	13.73	72.41	11.69	4.62	58.26	24.23
100	82,147	10.58	73.93	11.78	4.70	58.17	22.19
120	82,680	8.17	74.36	11.24	4.66	54.17	20.36
148	83,329	6.01	73.06	10.04	4.64	46.17	18.58
200	84,360	3.48	68.46	7.45	4.43	33.66	15.24
250	85,169	2.00	62.29	5.06	3.88	24.66	11.77
300	85,860	1.21	53.39	3.16	3.18	18.00	9.38



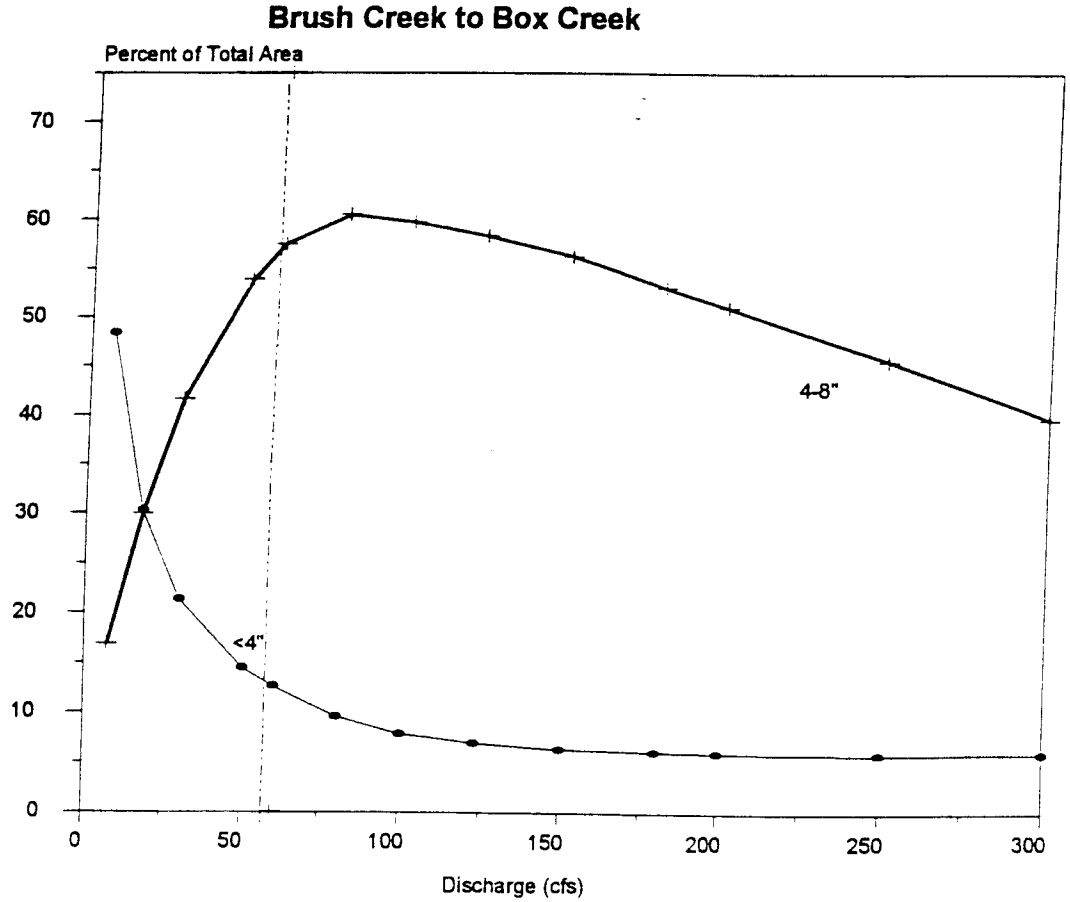


Figure . Habitat available for juvenile rainbow trout at various discharges in the upper North Fork Payette River, expressed as a percent of the total area. The vertical line in each chart represents the recommended minimum discharge for that reach (35 cfs from Dam to Brush Creek and 60 cfs from Brush Creek to Box Creek).

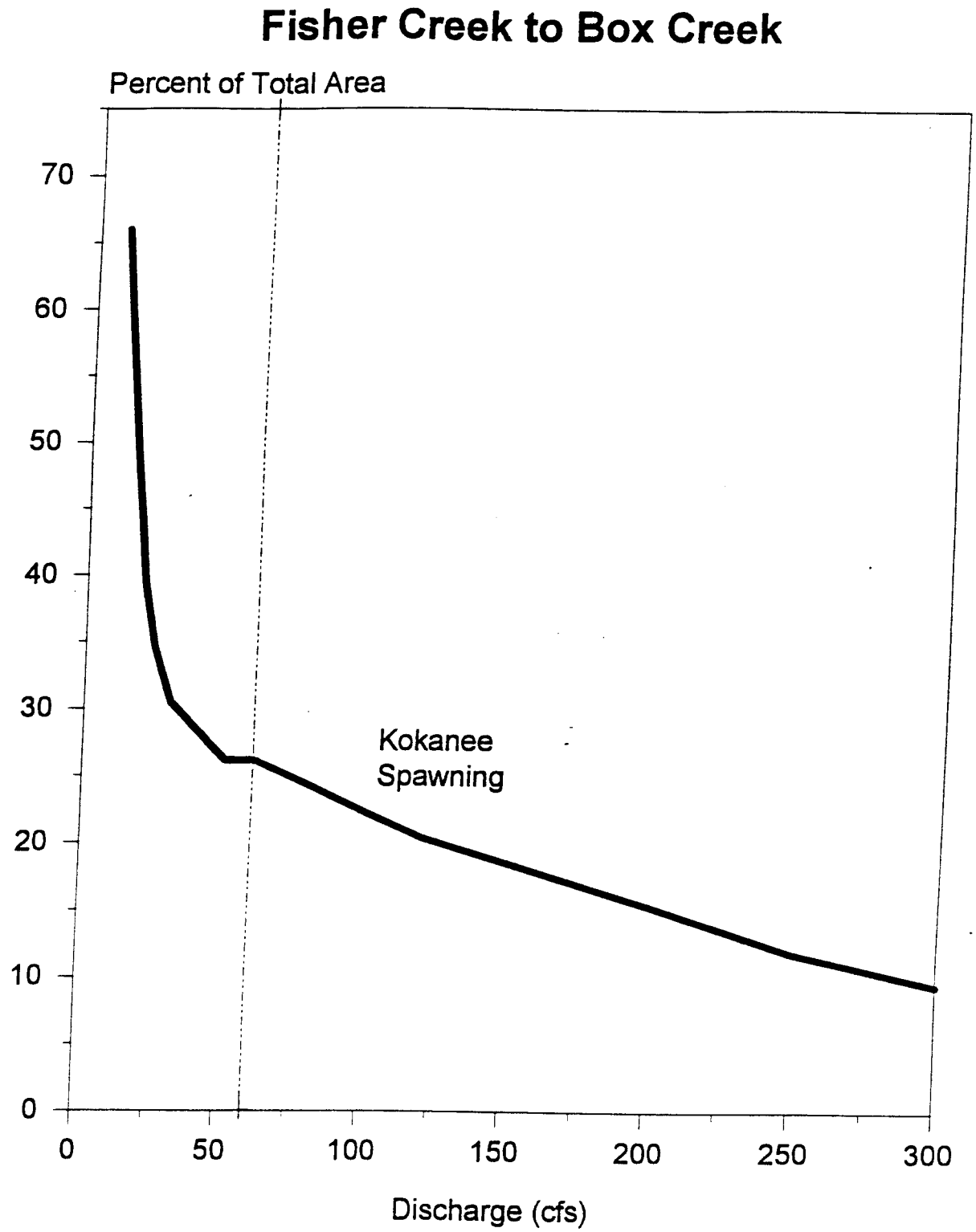


Figure . Habitat available for kokanee spawning at various discharges in the upper North Fork Payette River, expressed as a percent of the total area from Fisher Creek downstream to Box Creek. The vertical line represents the recommended minimum discharge of 60 cfs.

APPENDIX 2

Weiser River Instream Flow Needs Assessment

Cindy Robertson
Fishery Staff Biologist
Idaho Department of Fish and Game

April 1999

Boise, ID

Weiser River Instream Flow Needs Assessment

INTRODUCTION

The Weiser River lies in southwestern Idaho, draining from the Seven Devil Mountains on the north and west, the Cuddy Mountains to the west, and the West Mountains to the east. The river flows in a southwesterly direction for about 112 miles before it drains into the Snake River. It drains a area of approximately 1660 square miles and has an average annual runoff of 742,000 acre-feet of water. Most of the runoff comes during the spring, with low flows occurring during the remainder of the year.

The Weiser River has no mainstem storage reservoirs, but private irrigation districts have constructed four reservoirs on tributary streams. All were constructed for irrigation and they typically fill during the high spring runoff period and become low during the late summer and early fall. From the mouth of the river upstream to the Galloway Dam site, the river supports a marginal warmwater fishery. From the dam site up to Cambridge, the river supports a limited rainbow trout and smallmouth bass fishery. Upstream from Cambridge, rainbow trout and whitefish dominate the fishery.

METHODS

Idaho Department of Fish and Game personnel conducted an instream flow needs assessment of the Weiser River from the confluence with the West Fork Weiser River downstream to the Goodrich Bridge during the summer and fall, 1997. Three study reaches were identified: (1) West Fork Weiser River downstream to the confluence with Hornet Creek; (2) Hornet Creek downstream to the confluence with the Middle Fork Weiser River; (3) Middle Fork Weiser River downstream to the Goodrich Bridge (Figure 1). Reaches were delineated by changes in stream size (changes in inflow), channel slope, and riparian vegetation quantity and composition. Data collection was limited to sections that were shallow enough to use hand-held equipment. Reach 3 could not be evaluated because the river was too deep for hand-held equipment to be used.

Study sites within reaches 1 and 2 were selected where the habitat was representative of the reach, the river was accessible, and shallow enough to wade (Henderson ranch and Salsbury ranch sites, respectively). Within each study site, multiple cross-sections were placed across representative habitat types (e.g. riffles, runs, or pools). Water depth, mean water column velocity, substrate type, bed elevations, and water surface elevations were measured at each cross section on three different dates from July 29 to October 20, 1997.

Measured discharge ranged from 50 to 80 cfs at the upper site (Henderson ranch) and 72 to 102 cfs at the lower site (Salsbury ranch). Flows were highest in July and lowest in October.

The RHABSIM (Riverine Habitat Simulation) program was used to model the relationship between stream flow and usable rearing habitat for three life history stages (fry, juvenile, and adult) of rainbow trout (Oncorhynchus mykiss). Simulated flows ranged from 30 to 255 cfs for the lower site and 45 to 100 cfs for the upper site. Model output in square feet of Weighted Usable Area (WUA) per 1000 feet of stream versus simulated discharge is shown in tables 1 and 2.

RESULTS

Figures 2, 3, and 4 show the relationship of WUA to discharge for the upper study site. Generally, WUA increases with increasing discharge for all life stages of rainbow trout. However, the relationship of usable habitat to discharge declines between 45 and 60 cfs and, in fact, is lowest at 60 cfs for all life stages. I believe this is likely a reflection of the velocity distributions of the calibration flows used in the model. Measured velocities across the channel were typically greater at 60 cfs than those measured at greater flows and generally were greater than the preferred range of velocities for rainbow trout. A similar response was predicted for rainbow trout fry habitat in the lower reach at flows

between 30 and 72 cfs (Figure 5). At the lower site, habitat generally increased with increasing flows for juvenile and adult rainbow trout (Figures 6 and 7).

DISCUSSION

Based on model output, flows of 45 cfs should provide suitable rearing habitat for all life stages of rainbow trout throughout Reach 1. It provides as much, and for adult fish, more habitat than flows up to 80 cfs (Table 1). However, caution must used in interpreting these data. Warm water temperatures are suspected of limiting fish production in the river and the model does not account for water temperature differences associated with changes in discharge, only changes in velocity and depth. McCall office personnel collected temperature data at the study sites during the time the habitat study was conducted. These data should be reviewed along with the model output to determine the overall habitat suitability provided by 45 cfs of water. If greater flows contribute to lower water temperatures, the recommendation for a flow regime should be adjusted accordingly.

For the lower reach, flows between 72 and 150 cfs generally provide adequate quantities of usable rainbow trout habitat to the model. Again, temperature data should be reviewed along with the model output to determine the appropriate flow regime for maintaining or enhancing fish habitat values.

Table 1. Weighted Usable Area versus discharge for rainbow trout in Reach 1 (Henderson Ranch site).

Simulated discharge (cfs)	Total Surface Area (sq.ft.)	Weighted Usable Area (sq. ft./1000 ft.)			Percent of Total Habitat		
		Fry	Juvenile	Adult	Fry	Juvenile	Adult
45	40,991.90	2643.26	16,343.34	7540.00	6.45	39.87	18.39
60	41,653.40	1713.46	13,373.25	5424.70	4.11	32.11	13.02
70	43,051.10	2215.07	16,302.54	6019.18	5.15	37.87	13.98
80	44,467.82	3111.26	19,710.50	7303.32	7.00	44.33	16.42
100	45,451.01	3740.13	18,995.27	7643.72	8.23	41.79	16.82

Table 2. Weighted Usable Area versus discharge for rainbow trout in Reach 2 (Salsbury Ranch site).

Simulated discharge (cfs)	Total Surface Area (sq.ft.)	Weighted Usable Area (sq. ft./1000 ft.)			Percent of Total Habitat		
		Fry	Juvenile	Adult	Fry	Juvenile	Adult
30	51,767.66	8659.41	17,002.99	5956.45	16.73	32.84	11.51
72	58,759.46	6777.75	34,443.73	14,931.09	11.53	58.62	25.41
102	61,283.59	6964.26	37,415.52	20,385.07	11.36	61.05	33.26
150	65,488.71	8656.32	35,125.68	22,112.76	13.22	53.64	33.77
200	68,545.74	10,804.63	31,406.80	19,583.98	15.76	45.82	28.57
255	70,540.94	12,350.79	27,795.74	18,118.07	17.51	39.41	25.68

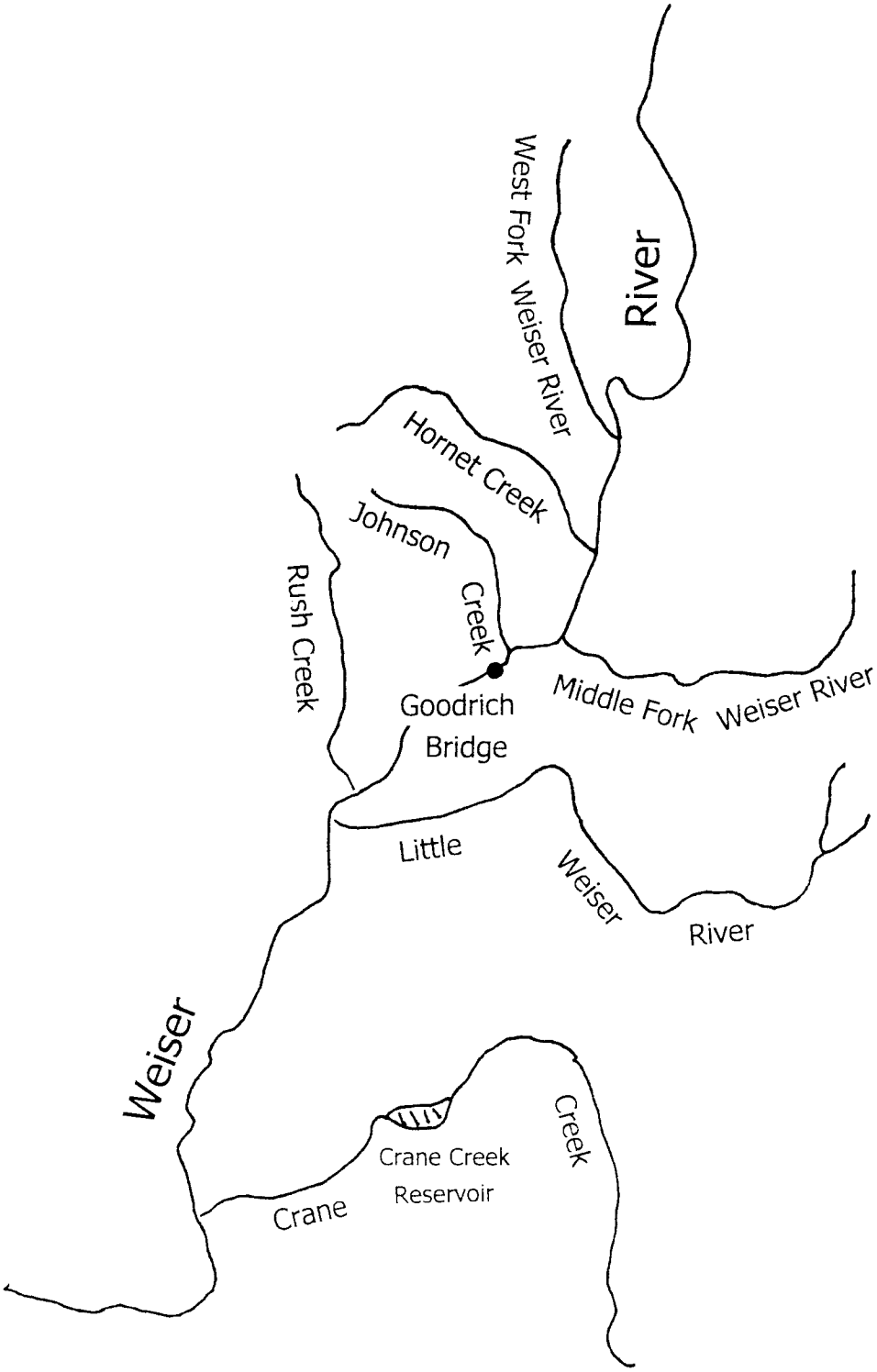


Figure 1. Map of Weiser River drainage, showing location of study reach boundaries.

Figure 2. Weighted Usable Area (WUA) versus simulated discharge for rainbow trout fry in upper reach (Henderson Ranch site).

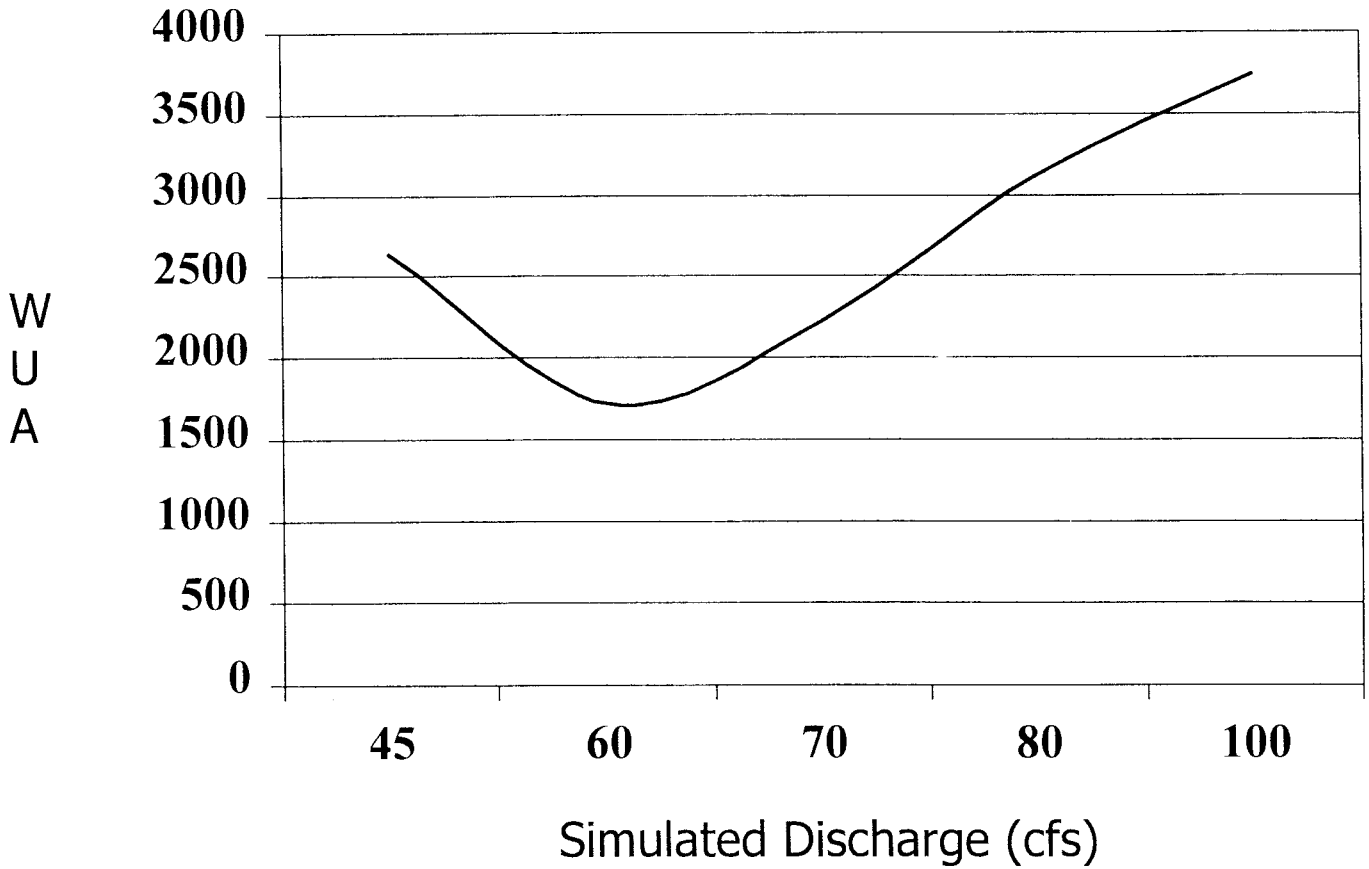


Figure 3. Weighted Usable Area (WUA) versus simulated discharge for rainbow trout juveniles in upper reach (Henderson Ranch site).

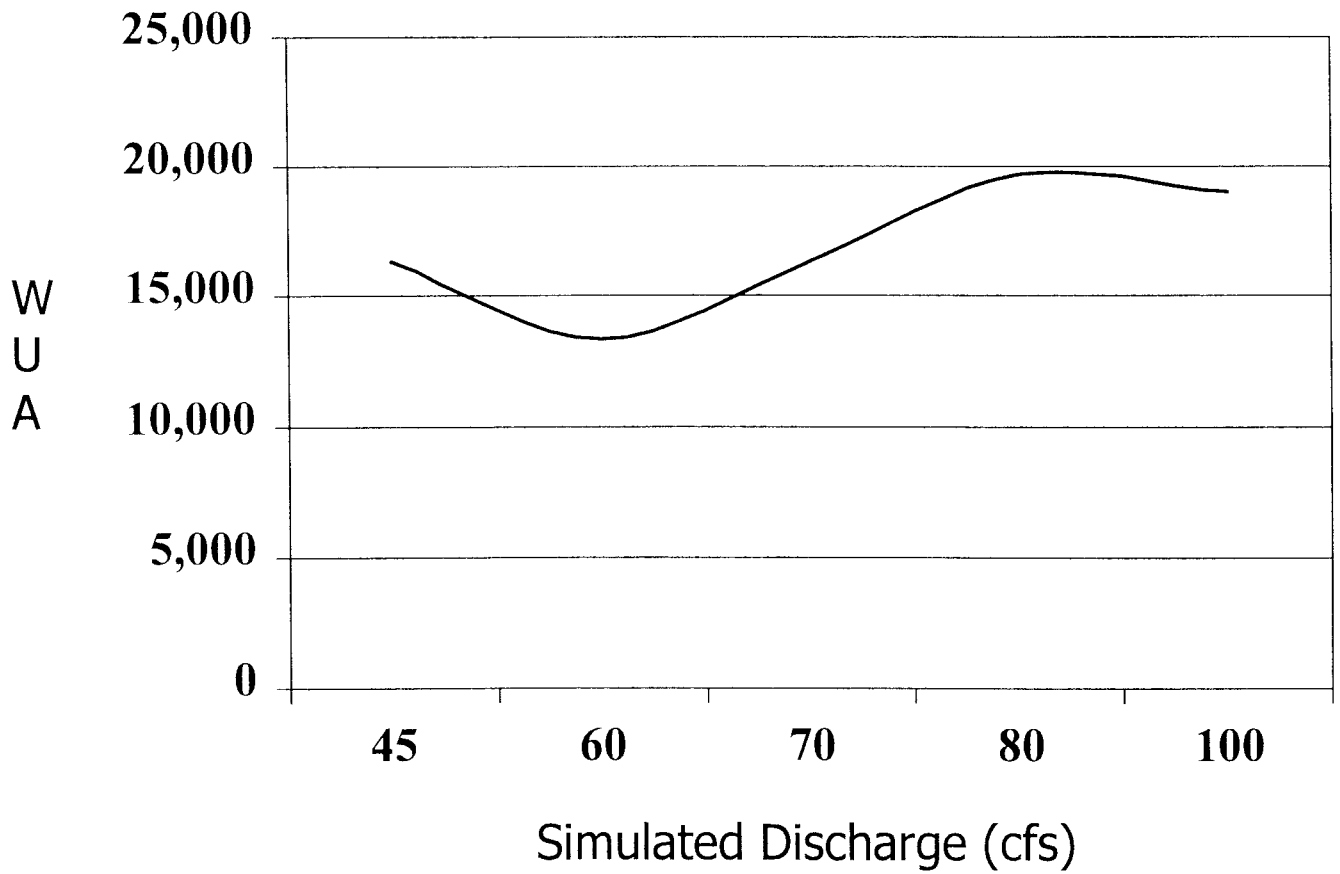


Figure 4. Weighted Usable Area (WUA) versus simulated discharge for rainbow trout adults in upper reach (Henderson Ranch site).

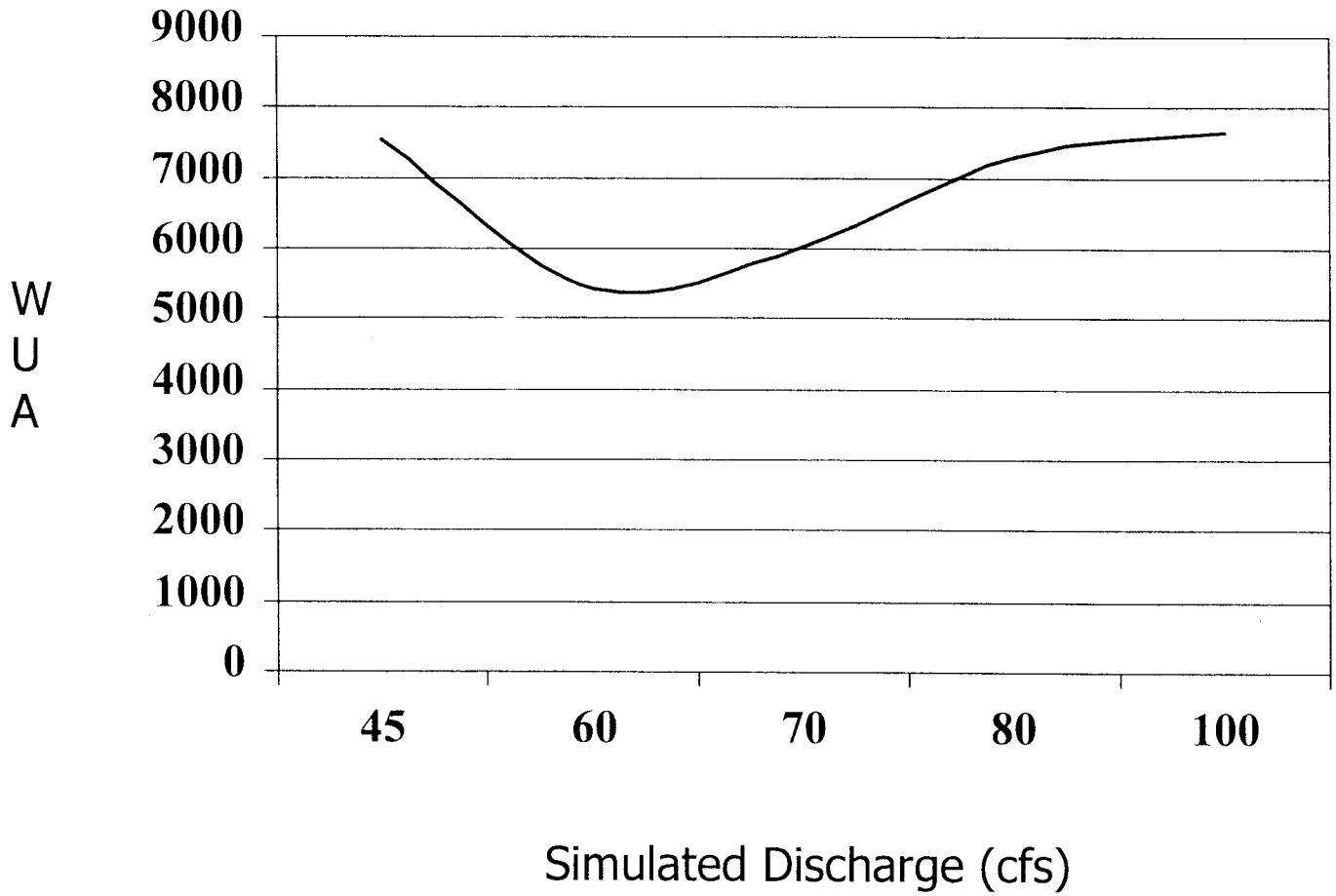


Figure 5. Weighted Usable Area (WUA) versus simulated discharge for rainbow trout fry in lower reach (Salsbury Ranch site).

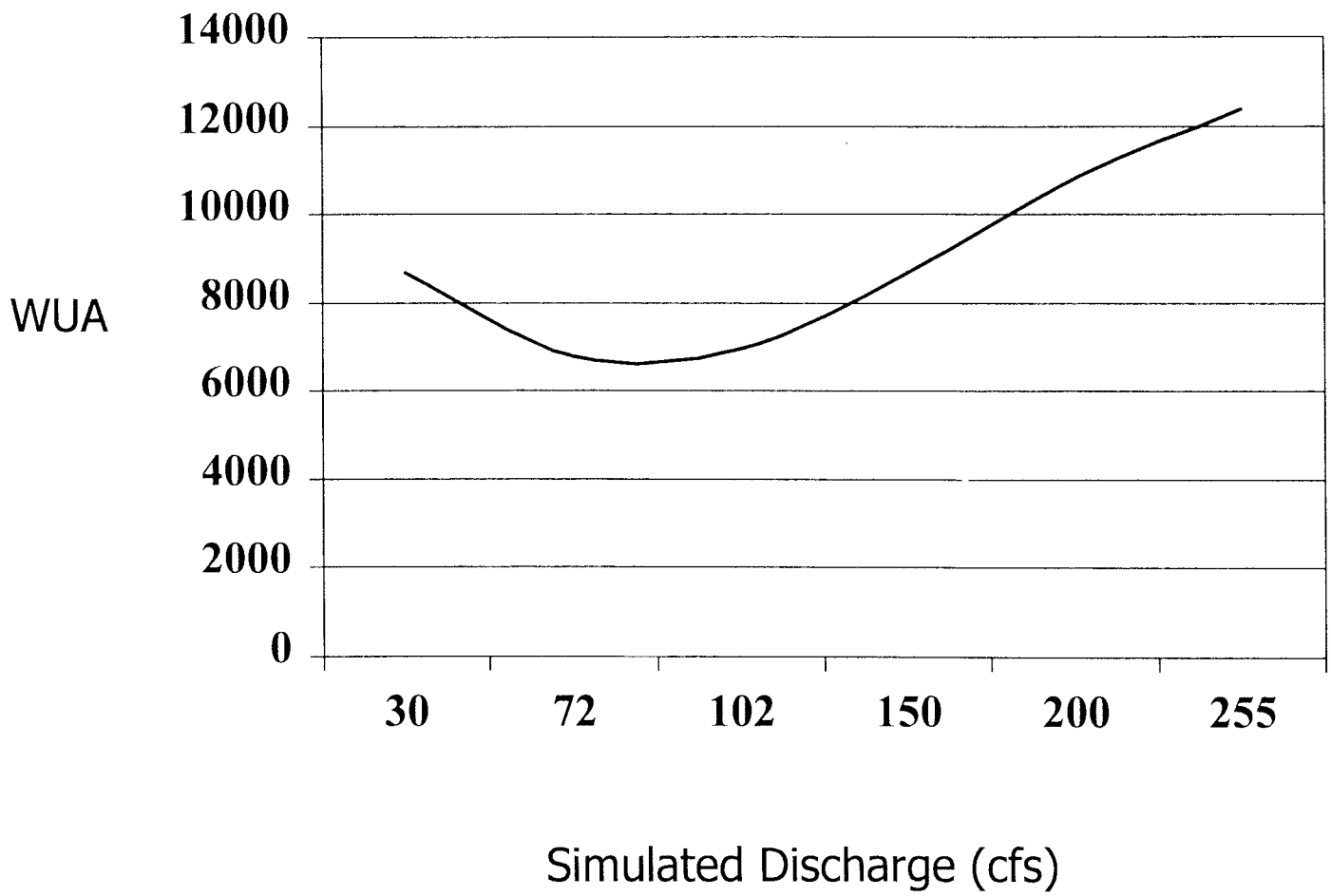


Figure 6. Weighted Usable Area (WUA) versus simulated discharge for rainbow trout juveniles in lower reach (Salsbury Ranch site).

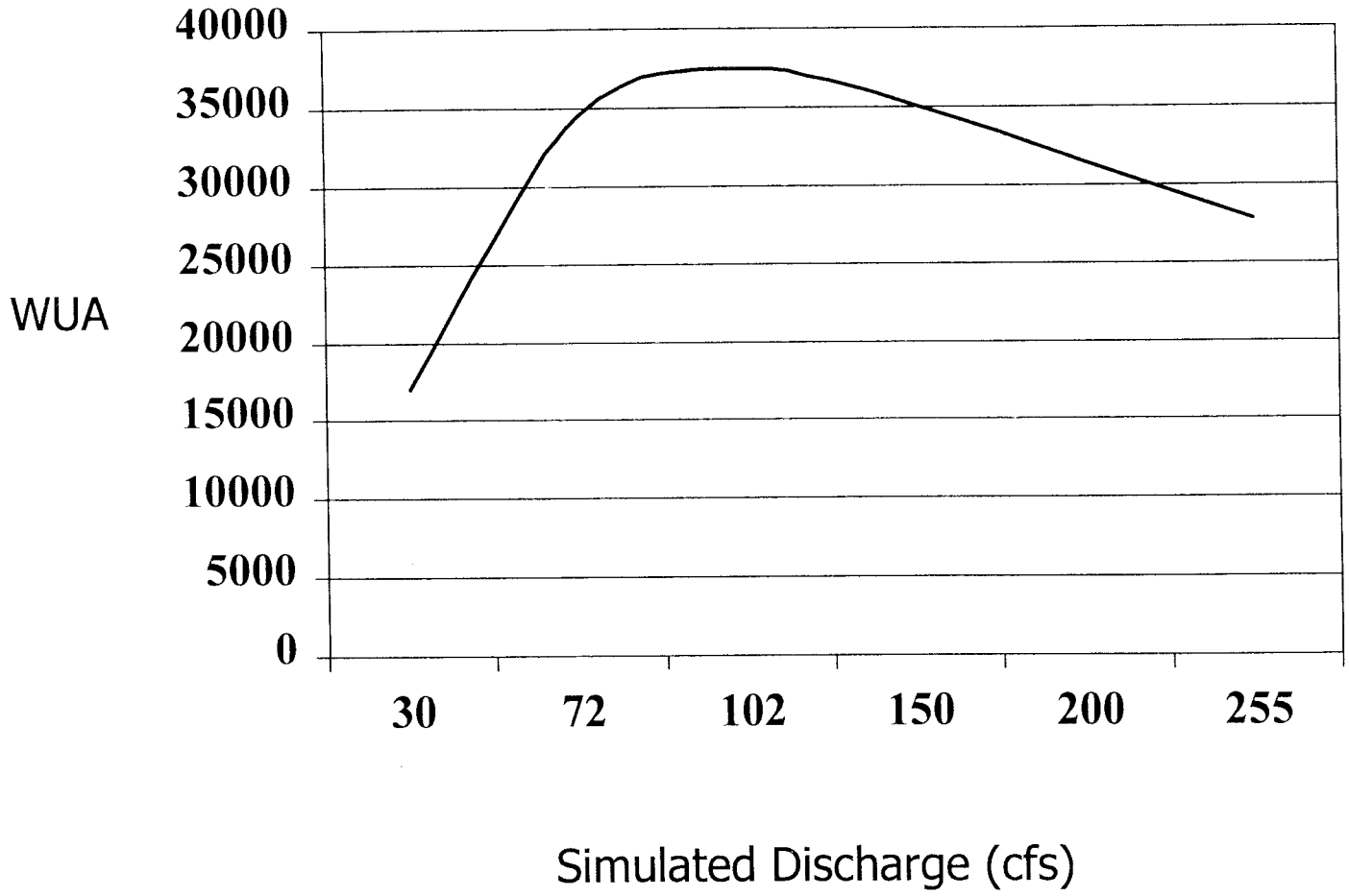
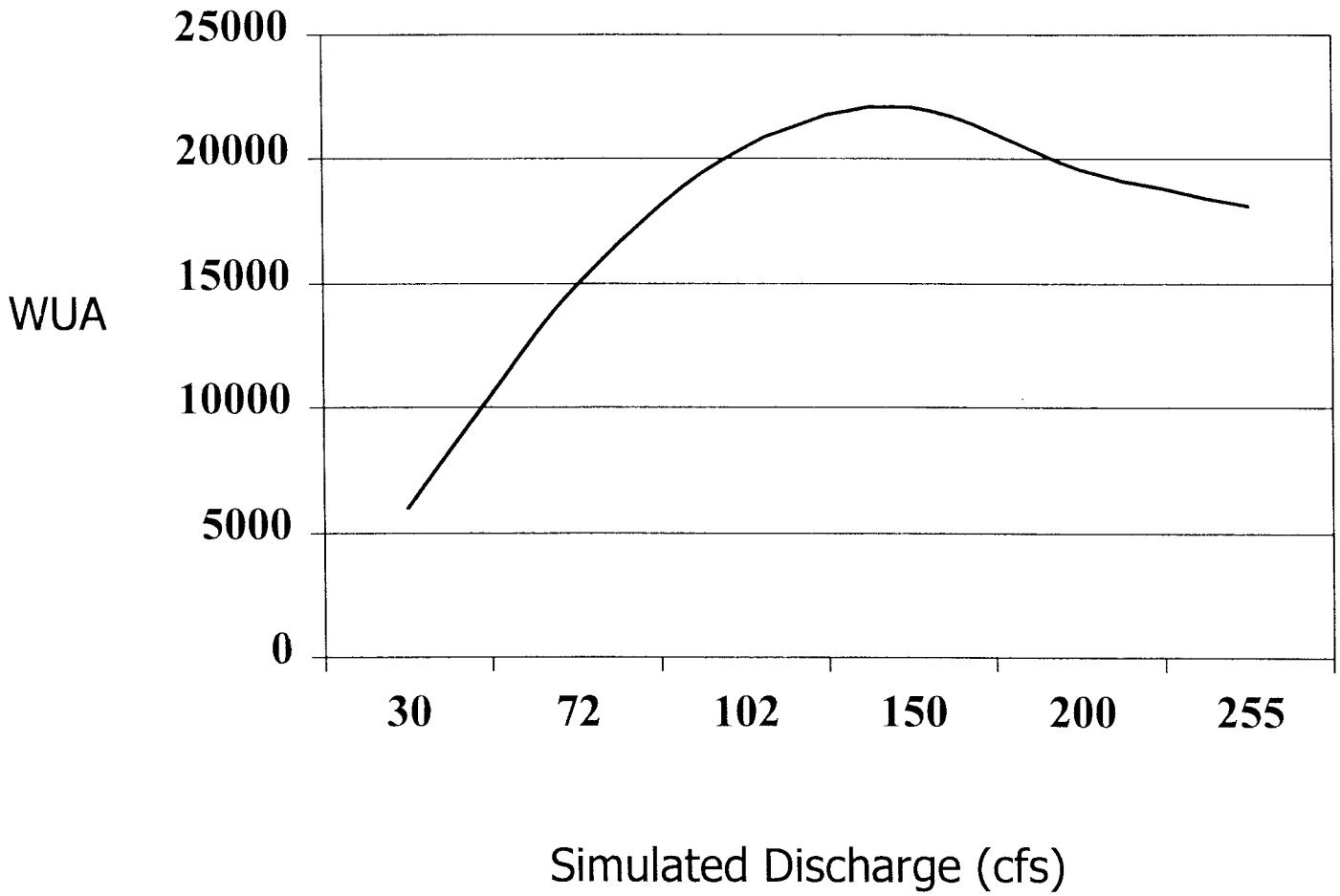


Figure 7. Weighted Usable Area (WUA) versus simulated discharge for rainbow trout adults in lower reach (Salsbury Ranch site).



Proof of Beneficial Use for Warm River (21-07355)

Idaho Department of Fish and Game conducted fish population and habitat assessment surveys on the Warm River, Idaho, during July and August, 1998. The eight mile stretch of river between Warm River Spring and the Warm River Campground was divided into approximately four equal-length reaches. With each reach, we selected a representative site, ranging in length from 75 to 120 yards (Figure 1). Data were collected on fish species composition; stream bed substrate composition; water velocity and depth; and water temperature and cover components.

Fish species identification and percent composition data were collected by snorkeling. Stream bed substrate composition and cover components were visually estimated. Water column depth and velocity were measured at a single transect within each site with a Swoffer model 2100 flow meter and handheld wading rod (Table 1). Water temperature was measured with a handheld thermometer at the time of the snorkeling survey. Site 2 was located in a high gradient, boulder/cascade habitat type that was too difficult and dangerous to snorkel. Only water depth and velocity data were obtained at this site.

We observed rainbow trout, brown trout, brook trout, mountain whitefish, and sculpin. Rainbow trout were observed throughout the entire study area, but were not the dominant species at any site. Mountain whitefish were observed only at site 1 and brook trout were found only at site 4, near the old Warm Springs Hatchery. Brown trout outnumbered rainbow trout at sites 1 and 3, but were not found at site 4 (Figure 2).

Cobble and boulder were the dominant substrate types at all sites (Figure 3). Hiding cover for fish consisted largely of boulders, submerged aquatic vegetation, and undercut banks. Overhanging vegetation provided only minimal cover. Water temperatures ranged from 53° F to 61° F (Table 2).

We used RHABSIM ver. 2.0 software to model fish habitat availability for at a variety of flows. Rainbow and brown trout were selected as target species and simulated flow regimes ranged from 100 cfs to 350 cfs. The hydraulic data calibration data set was collected during August 1998, when river flows measured approximately 250 to 300 cfs. The results of the habitat simulation runs are displayed in figures 4 through 7. In most cases, the habitat/flow relationship is greatest at flows equal to or greated than 200 cfs. Flows of less than 200 cfs would provide the greatest habitat availability for rainbow trout juveniles and brown trout fry. One should keep in mind that the RHABSIM models used only account for the relationship beteween two physical habitat variables (velocity and depth) and flow. It does not take into account more dynamic and difficult to model biological variables, such as fish age class

variability, food production potential, or species interactions, such as competition and predation. These factors are not directly related to stream flow characteristics and thus cannot be incorporated into the RHABSIM models.

The current, licensed instream flow water right for 141 cfs only provides a marginally acceptable level of protection of the aquatic environment in this eight-mile reach of Warm River. Flows of 200 cfs or more would provide better protection for the aquatic resources, while the natural flow regime would be considered optimum.

Table 1. Transect hydraulic data for study sites on Warm River, Idaho.

	Site Number			
	1	2	3	4
Transect width (ft)	88	71	95	95
Avg. velocity (fps)	1.95	1.62	1.82	1.65
Avg. Depth (ft)	1.61	2.07	1.44	1.60
Length (yds)	120	NS	90	75
Discharge (cfs)	309	282	273	257

Table 2. Water temperatures and cover components for study sites on Warm River, Idaho.

	Site Number			
	1	2	3	4
Overhanging veg.	N	ND	N	N
Undercut banks	N	ND	Y	Y
Large woody debris	Y	ND	Y	Y
Submerged veg.	Y	ND	Y	Y
Boulders	Y	ND	Y	Y
Temperature (°F)	61	60	57	53

Y= yes; N=no; ND= no data

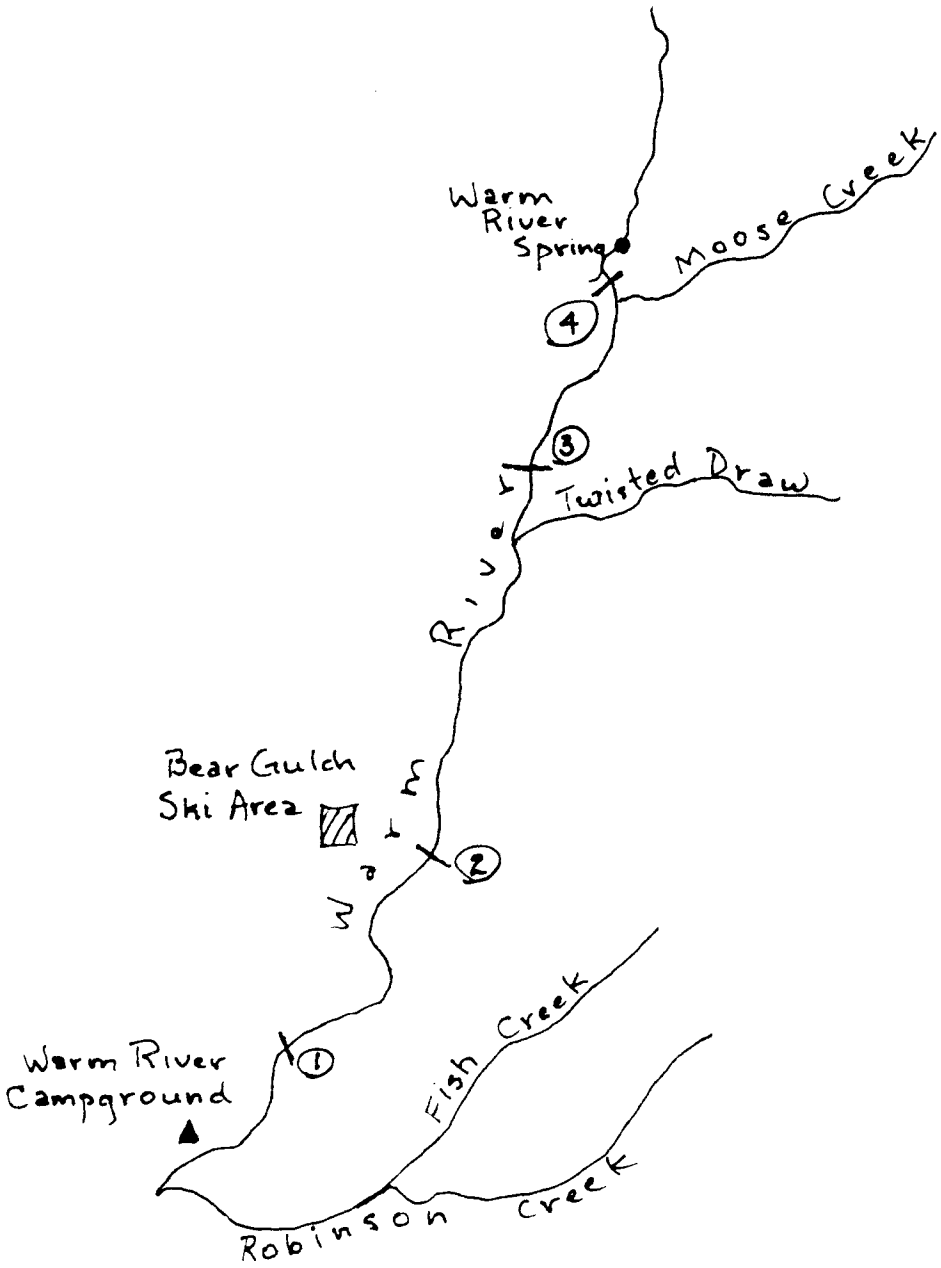


Figure 1. Location of study sites, Warm River, Idaho, August 1998. Study sites denoted by numbers. Map not to scale.

Figure 2. Percent fish species composition, Warm River, Idaho, by study site

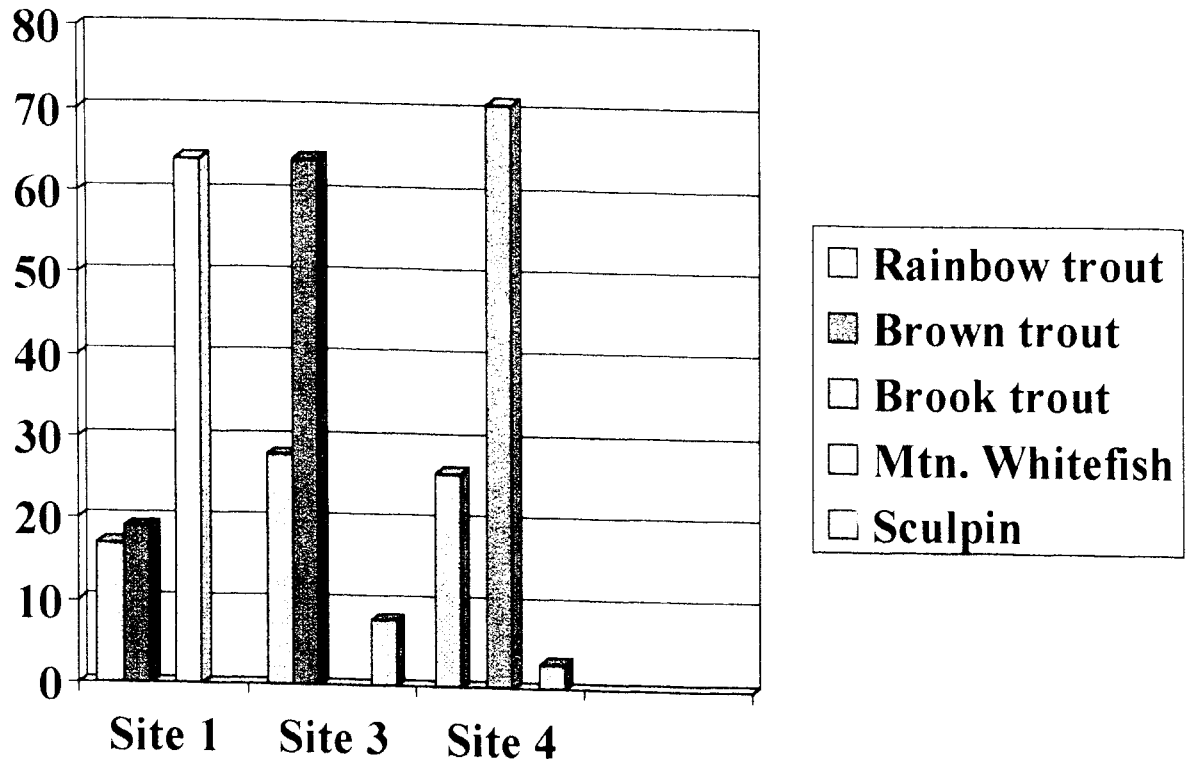
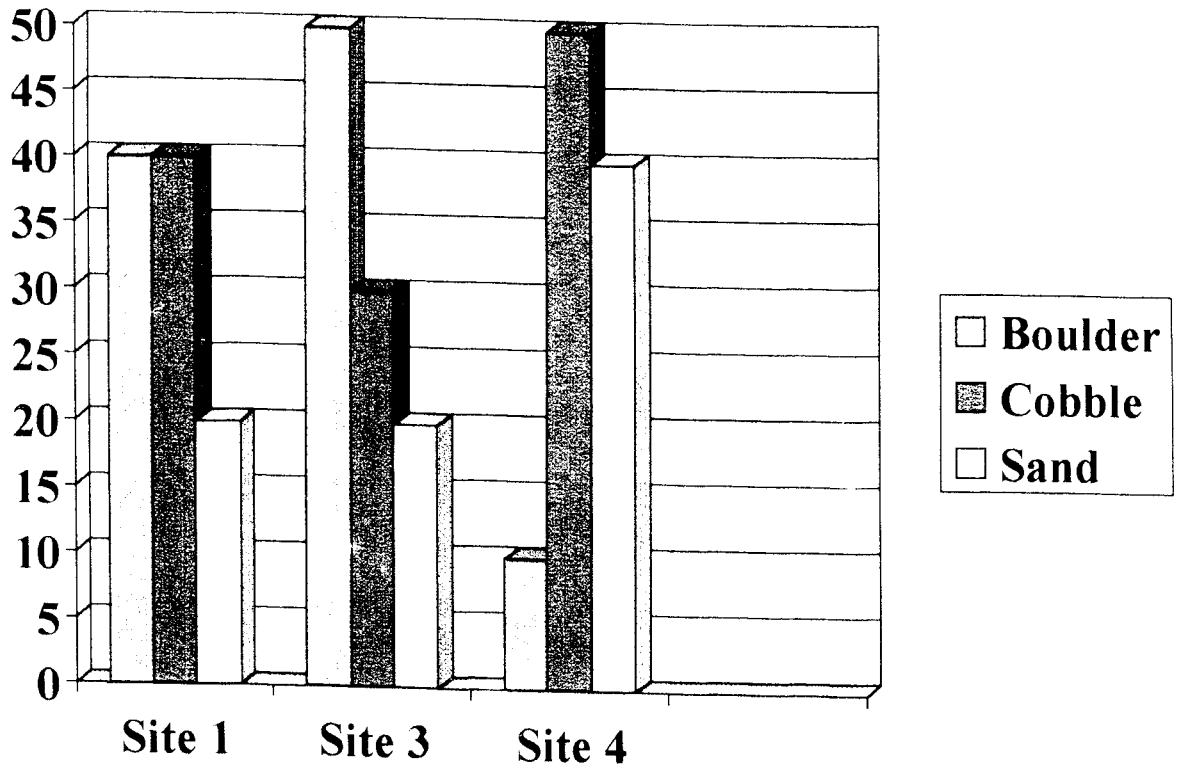
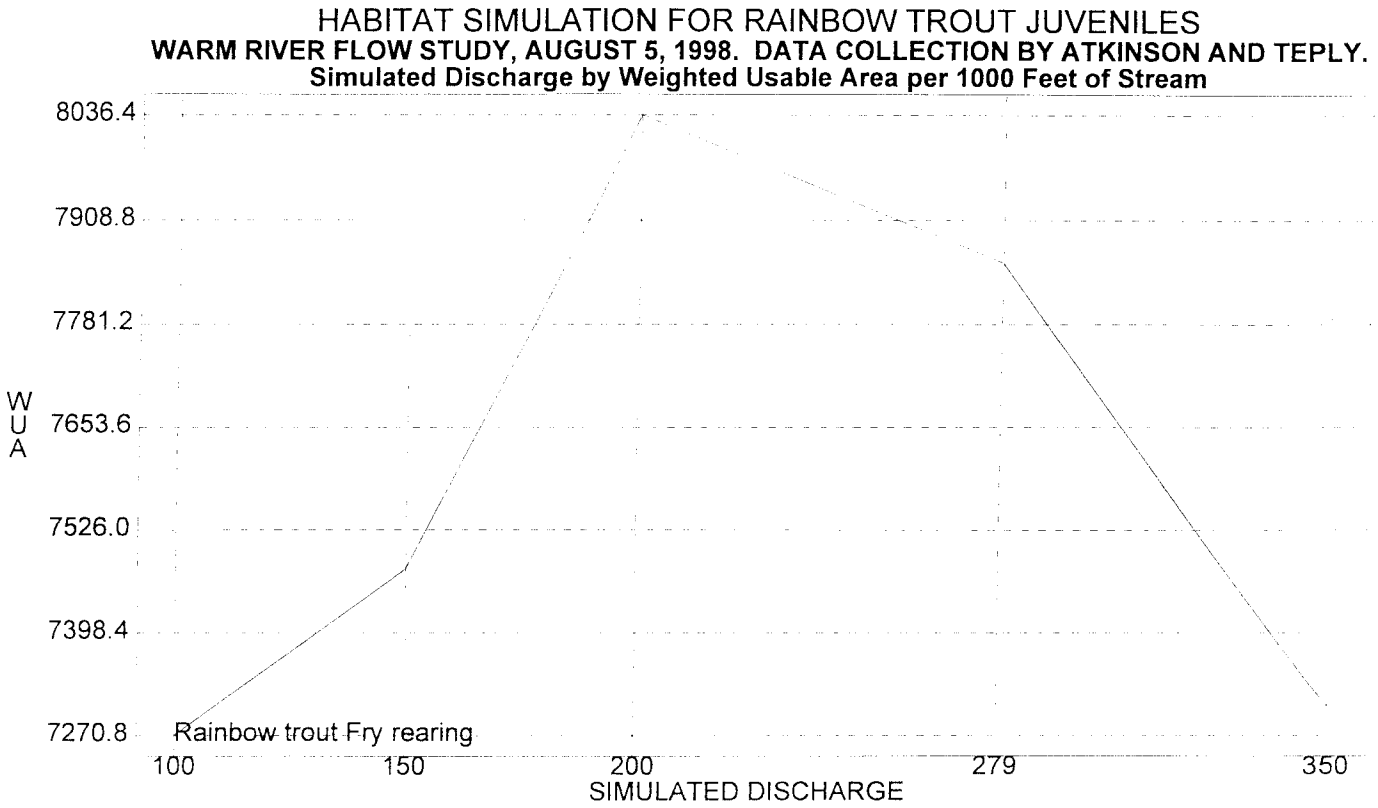
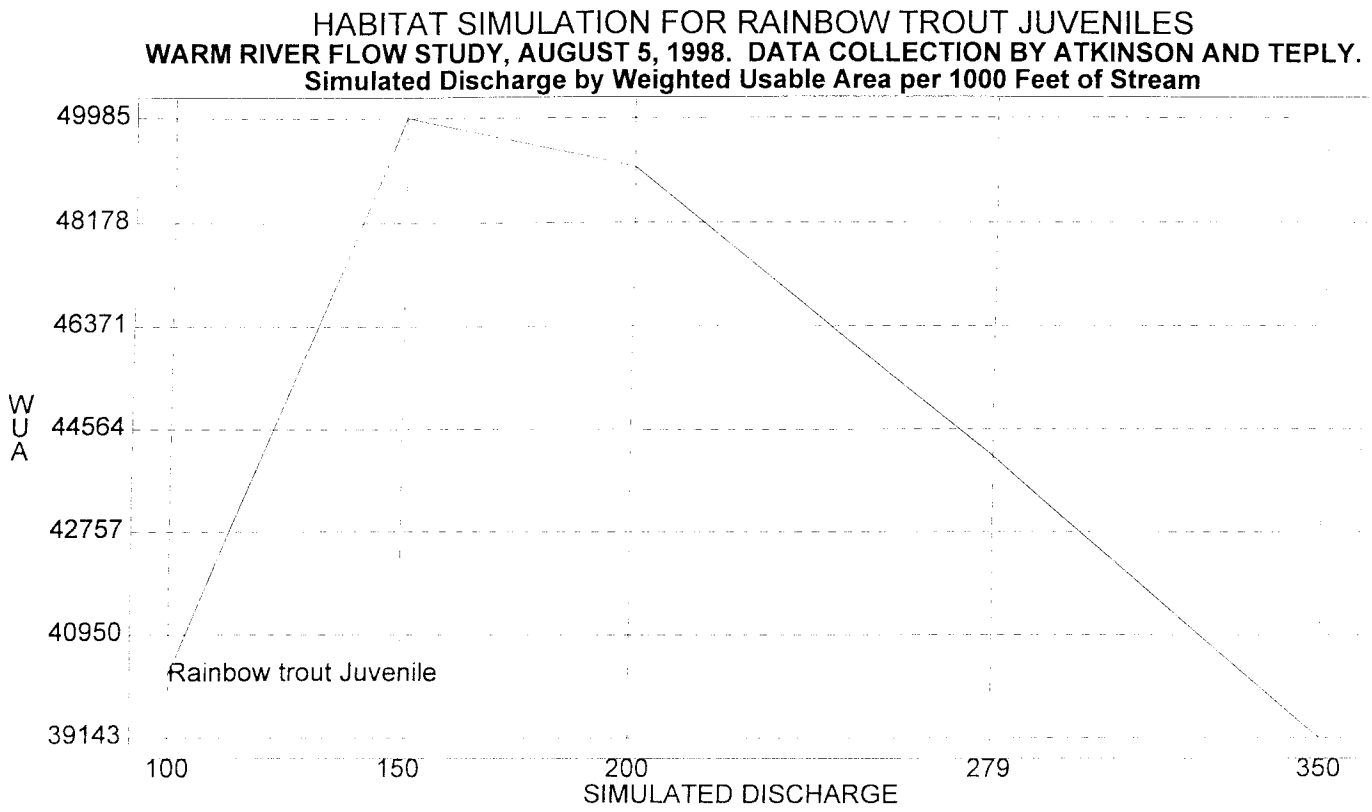
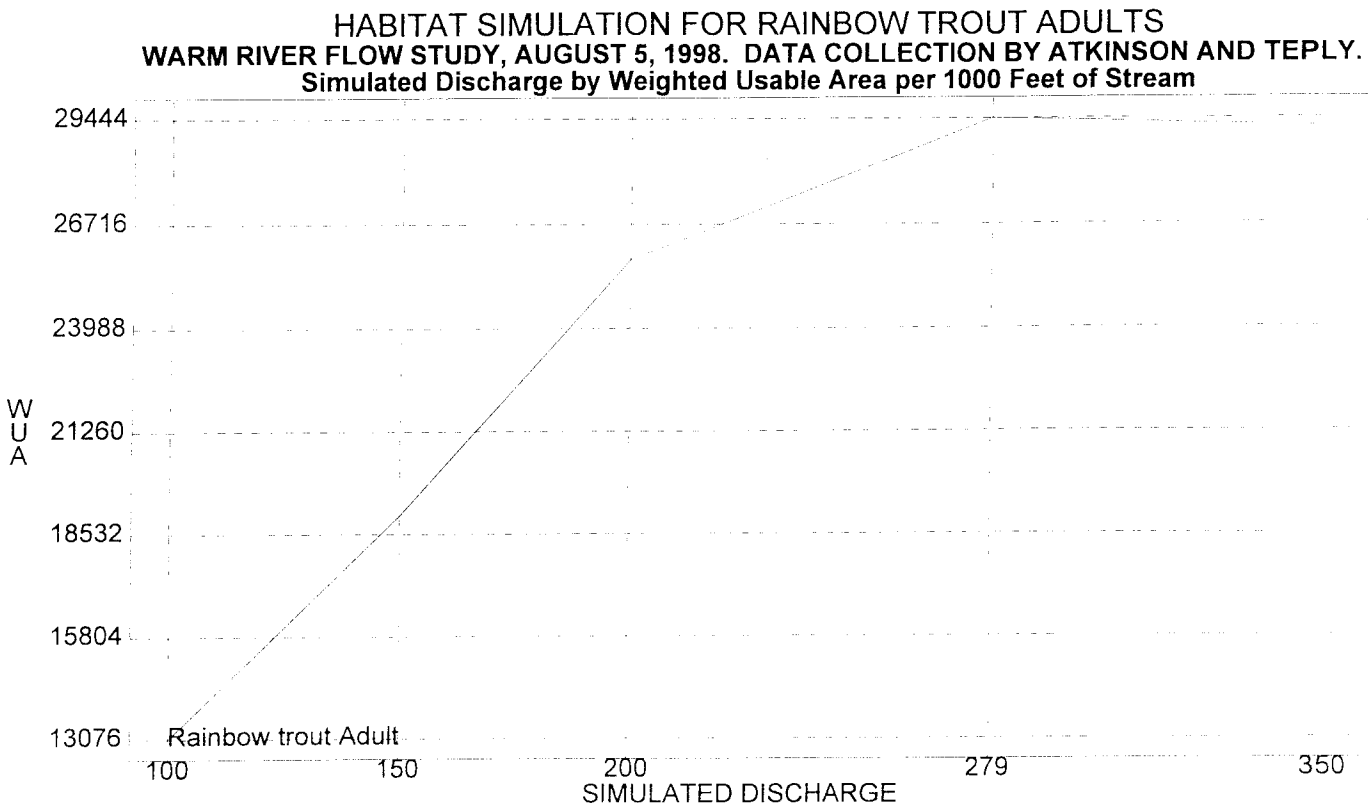


Figure 3. Percent stream bed composition, by study site, Warm River, Idaho.

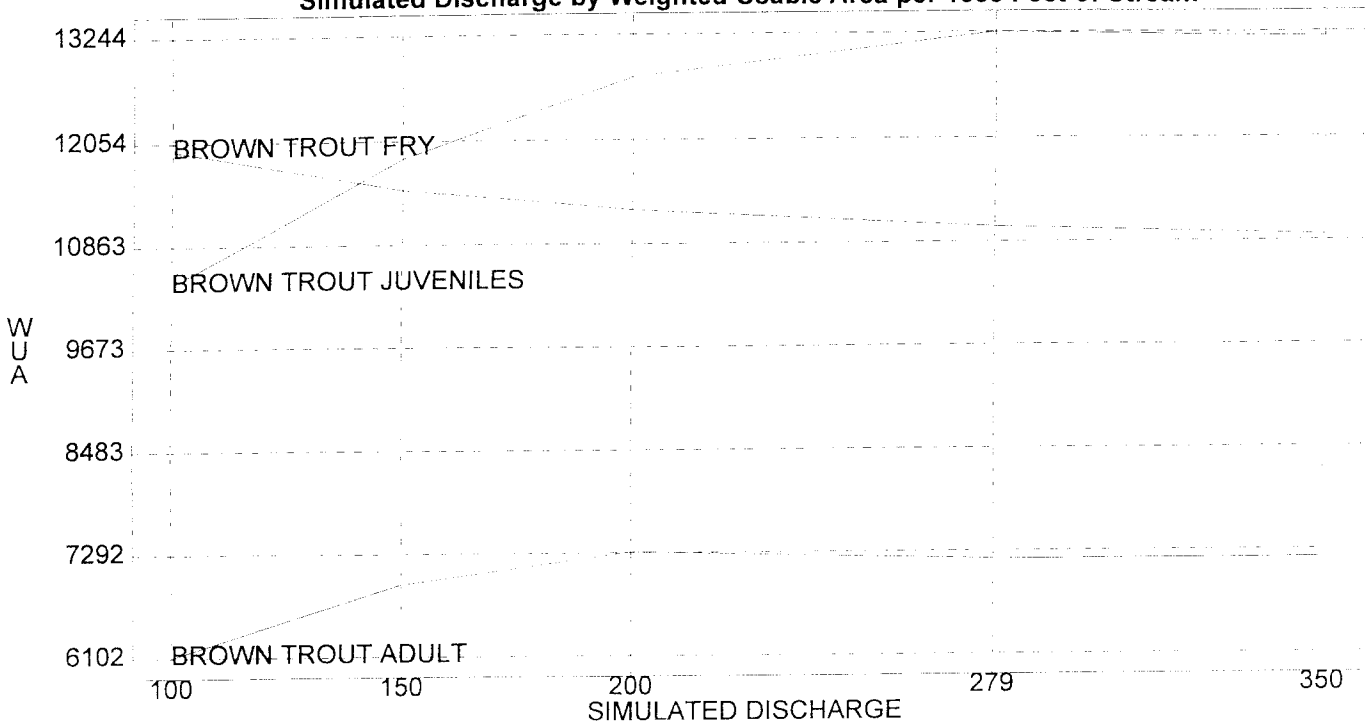



HABITAT SIMULATION FOR RAINBOW TROUT JUVENILES
WARM RIVER FLOW STUDY, AUGUST 5, 1998. DATA COLLECTION BY ATKINSON AND TEPLY.
Simulated Discharge by Weighted Usable Area per 1000 Feet of Stream
8036.4
7908.8
7781.2
7653.6
7526.0
7398.4
7270.8
WUA
Rainbow trout Fry rearing
100
150
200
279
350
SIMULATED DISCHARGE


HABITAT SIMULATION FOR RAINBOW TROUT JUVENILES
WARM RIVER FLOW STUDY, AUGUST 5, 1998. DATA COLLECTION BY ATKINSON AND TEPLY.
Simulated Discharge by Weighted Usable Area per 1000 Feet of Stream
49985
48178
46371
44564
42757
40950
39143
WUA
Rainbow trout Juvenile
100
150
200
279
350
SIMULATED DISCHARGE


HABITAT SIMULATION FOR RAINBOW TROUT ADULTS
WARM RIVER FLOW STUDY, AUGUST 5, 1998. DATA COLLECTION BY ATKINSON AND TEPLY.
Simulated Discharge by Weighted Usable Area per 1000 Feet of Stream
29444
26716
23988
21260
18532
15804
13076
WUA
Rainbow trout Adult
100
150
200
279
350
SIMULATED DISCHARGE

WARM RIVER FLOW STUDY, AUGUST 5, 1998. DATA COLLECTION BY ATKINSON AND TEPLY.
Simulated Discharge by Weighted Usable Area per 1000 Feet of Stream



BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF MINIMUM STREAMFLOW APPLICATIONS 51-7353 AND 51-7354, FOR THE BRUNEAU AND JARBIDGE RIVERS	))))	A RESOLUTION

WHEREAS, the Idaho Water Resource Board filed Minimum Streamflow Applications for Permit 51-7353 and 51-7354 for the Bruneau and Jarbidge Rivers at the request of Idaho Rivers United in 1994; and

WHEREAS, the Board held two public meetings and attended a local Land Use Planning Committee meeting in Owyhee County to evaluate public support and hear citizens input; and

WHEREAS, a large majority of those attending the meetings were opposed to the Minimum Streamflow Applications and the following four valid issues were presented as unresolved:

1. Threat to the rivers in terms of significant future increases in consumptive use appears remote.
2. Uncertainty remains about the outcome of the Snake River Basin Adjudication, particularly regarding additional water right applications necessary to cover current springtime irrigation use.
3. Enforcement could be difficult. Checking actual flows would require one or more additional stream gages and monthly readings. If minimum stream flows were not met, extensive further measurement of upstream diversions would be necessary to determine whether over-use or low flows were the cause. As requested minimum flows are based on 50% exceedence, this could be a continuing enforcement task.
4. Organized resistance by well-informed local water users at public meetings in March and December 1998 indicate essentially unanimous opposition.

NOW THEREFORE BE IT RESOLVED that, having examined the applications, the available information and input from the public, the Board hereby withdraws Applications for Permit 51-7353 and 51-7354 for Minimum Streamflows.

PASSED AND APPROVED this 11TH day of December 1998.

_____
CLARENCE PARR, Chairman
Idaho Water Resource Board

ATTEST _____
J. DAVID ERICKSON, Secretary

JOB PERFORMANCE REPORT

State of:	**Idaho**	**Name:**	**STATEWIDE COORDINATION AND SUPERVISION**
Project No.:	**FW-7-R-5**	**Title:**	**Statewide Responsive Management**
Subproject No.:	**I**	**Job No.:**	**3**

Period Covered: July 1, 1998 to June 30, 1999

ABSTRACT

Responsive Management staff was involved in collecting and disseminating human dimensions information, processing information requests, and providing technical services to both Idaho Department of Fish and Game (IDFG) and non-IDFG folks. A public opinion survey was conducted to gauge support for three legislative bills regarding future funding of the IDFG. I actively participated in Idaho Power Company's Recreation/Aesthetics Work Group as part of their Hells Canyon Complex relicensing process. Finally, I attended the 1999 Organization of Wildlife Planners (OWP) annual conference at the National Conservation Training Center in West Virginia May 16-20 (although conference expenses were paid out of non-PR funding).

Author:

Michele Beucler
Wildlife Mitigation Specialist

OBJECTIVES

To monitor the state's demographics, economic trends, and public opinions regarding fish and wildlife so that the human element can be integrated into IDFG regulations, policies, and way of doing business.

To provide information and technical assistance to staff members regarding surveys, public involvement strategies, and other human dimension projects.

METHODS

New information on human dimensions was collected through personal contacts, information requests, attending meetings and conferences, and reviewing literature. I also subscribe to a peer-reviewed journal and three listservers relating to the human dimensions of fish and wildlife management. Finally, I called on the OWP network several times for information.

Information was disseminated by responding to verbal and written requests, circulating pertinent information to appropriate people, providing factoids for the IDFG internal newsletter and other media outlets, and giving presentations to various teams.

Technical services, such as developing questionnaires and participating on interagency work groups, were provided upon request and/or when needed.

RESULTS

I helped develop the survey instrument for a public opinion survey regarding a proposed fee increase, an annual fee adjustment, and general fund appropriation. A private research firm conducted the survey and results were released during the legislative session.

The results indicated that hunting and fishing is important to a majority of Idahoans – 70 percent of Idahoans 18 years and older have hunted or fished in the past five years. Most of those who hunted or fished at least once in the past five years were between 18 and 44 years of age, and 41 percent were women. Only 17 percent of Idaho men and 44 percent of women have not hunted or fished in the past five years. Almost 41 percent of

respondents had gone hunting at least once in the past five years. Among those that hunted in the past five years, the average number of years hunting was almost four out of five. Sixty-five percent of respondents had fished at least once in the past five years; the average number of years fishing was 3.82 out of five years.

Respondents had varied levels of support for the proposed fee increase, the annual fee adjustment, and general fund appropriation. When asked whether they would pay more in license fees to maintain current fish and wildlife programs, Idahoans were nearly evenly split between support (45 percent) and opposition (40 percent). When asked about a license fee increase averaging $12 per person, sportsmen were more likely opposed (60 percent) than supportive (34 percent) although only 52 percent of the overall sample was opposed. A majority of Idahoans (62 percent) strongly supported a license fee structure that would be adjusted annually according to the actual cost of IDFG operations; less than 25 percent of the respondents were opposed to this proposal. Most Idahoans (60 percent) favored the use of general fund monies to pay for fish and wildlife programs that benefit everyone, and only 28 percent were opposed. A general fund appropriation equivalent to $2 per citizen was supported by 66 percent and opposed by 25 percent of the respondents. In general, women and younger age groups were more supportive of all three proposals compared to other demographic strata.

Further analyses of those data were conducted at the request of a consortium of private sportsmen/conservation groups that is considering initiating a voter referendum.

This survey afforded the opportunity to estimate participation rates over a five-year period. Participation rates most often are estimated using annual license sales. However, many people may not buy a license every year. We asked survey respondents in how many of the last five years had they hunted and/or fished. Based on responses to those questions, we concluded that many people do not buy a license every year. Therefore, annual participation rates may underestimate the actual number of participants over a greater period of time. In other words, assuming that every license-buyer buys a license every year is inappropriate.

I continued to participate in the U.S. Bureau of Reclamation s Snake River Resources Review (SR^3) Economics Technical Work Group to represent fish and wildlife economics. I also began participating on Idaho Power Company's (IPC) Recreation/Aesthetics Work Group for Federal Energy Regulatory Commission's relicensing process for IPC's Hells Canyon Complex. I provided input on study designs for recreational use surveys, site condition analyses, and carrying capacity studies. Ultimately, protection, mitigation, and enhancement measures will be recommended for the impacts of dam operations on wildlife-based recreation.

I responded, in a timely manner, to information requests from IDFG staff and others (e.g., U.S. Fish and Wildlife Service Management Assistance Team).

I attended the 1999 Annual OWP Conference at the National Conservation Training Center in Shephardstown, West Virginia. The conference theme was "Ethics and Values of Fish and Wildlife Management." Although my attendance was paid for by non-PR dollars, the agenda was directly applicable to the Responsive Management program.

GOALS FOR THE NEXT CYCLE

Provide technical assistance for future surveys or focus groups designed to gauge public support for IDFG's proposed license fee increase, annual fee adjustment, and general fund appropriation. I also will participate in developing and implementing the action plan for success in passing these legislative bills.

Provide references, information, and interpretation of the human dimensions of predator control to the IDFG Wildlife Bureau.

Continue to represent the interests of hunters, anglers, and wildlife watchers in IPC's Hells Canyon Relicensing Recreation Work Group forum and the Bureau of Reclamation's SR^3 Economics Work Group forum.

JOB PERFORMANCE REPORT

State of:	Idaho	**Name:**	STATEWIDE TECHNICAL ASSISTANCE
Project:	FW-7-R-5	**Title:**	Panhandle Region Technical Assistance
Subproject:	II	**Job No:**	1

Period Covered: July 1, 1998 to June 30, 1999

ABSTRACT

During the calendar year, I provided written comments on 227 issues, developments, or proposals that would potentially affect fish and wildlife habitat in the Panhandle Region. In addition, I attended 249 meetings or site visits. Forest management, stream and lakeshore alterations, and land development issues are still requiring significant amounts of time and effort, but implementation of the Governor's bull trout plan and participation in the Avista Corporation (formerly Washington Water Power) relicensing effort on the lower Clark Fork required the most significant amounts of effort. Major emphasis was placed on bull trout, participation in relicensing activities, and on Idaho Department of Lands (IDL) and U. S. Forest Service (USFS) timber sale programs. I also worked cooperatively with fish management staff on fish data collection efforts in order to improve the knowledge base on which to base comments.

Author:

Chip Corsi
Environmental Staff Biologist

OBJECTIVES

1. Influence land use decisions in the Panhandle Region to protect or improve fish and wildlife habitat.

2. Provide other agencies, organizations, or individuals with technical guidance, assistance, advice, or comments on projects and activities or developments that might affect or are associated with fish and wildlife habitat in the region.

3. Participate in finalizing a settlement agreement between IDFG, Washington Water Power, and other stakeholders in the Clark Fork relicensing process.

4. Play a lead role in developing bull trout Problem Assessments for the Panhandle Basin, and in developing a bull trout conservation plan for Lake Pend Oreille.

5. Comment on NEPA documents, FERC documents, stream channel and lakeshore alteration proposals, land use planning, and other environmental impacts.

6. Coordinate with other Idaho Department of Fish and Game (IDFG) personnel and volunteers to meet workload demands. Continue to seek opportunities to improve monitoring and baseline data collection abilities, and conduct field reconnaissance of project sites to improve the quality of responses.

7. Continue to work closely with other agencies, the public, and industry representatives to prevent or reduce impacts to fish and wildlife.

METHODS

I used personal contacts, project and document review, and field inspections as a basis for providing technical guidance on projects, activities, or proposals that could affect fish and wildlife resources in the Panhandle Region. I participated as regional representative in negotiations with Washington Water Power and other stakeholders for the relicensing of the lower Clark Fork dams. I chaired the Panhandle Bull Trout Technical Advisory Team. Electrofishing (two pass removal) was used to estimate fish population numbers in Trapper Creek (tributary to Upper Priest Lake).

RESULTS

During the project year, I provided written comments on 227 habitat-related issues. In addition I attended 249 meetings or site visits to review problems or examine proposals and projects (Table 1). As in previous years, the greatest number of contacts were with IDL, Idaho Department of Water Resources (IDWR), the USFS, and on city or county planning and zoning issues, with a significant increase in Division of Environmental Quality (DEQ) contacts relating to the bull trout issue, and in FERC issues as a result of the Washington Water Power relicensing. The total number of contacts decreased last year due to the time demands of bull trout plan implementation and relicensing.

The relicensing process for the WWP lower Clark Fork River projects was initiated in 1995, and in 1998 required extensive participation in the Fisheries and Water Quality working groups as negotiations towards a settlement agreement were finalized. I also participated in several subgroups to the Fisheries and Water Quality groups, including the fish passage subgroup. By December 1998 a Settlement Agreement had been negotiated and agreed to by IDFG. Significant outcomes for Idaho fish and wildlife resulting from the Settlement agreement include the following:

- A stream habitat protection and restoration program for Idaho tributaries to the lower Clark Fork River and Lake Pend Oreille worth $400,000 annually for the term of the 45-year license.

- Increased minimum flow release from Cabinet Gorge Dam (from 3,000 cfs to 5,000 cfs).

- A project to maintain and stabilize flows in a mile long side-channel of the lower Clark Fork River to improve fish habitat.

- $125,000 annually for the term of the license to support enforcement and education programs for bull trout in Idaho and Montana.

- A native salmonid restoration program, initially focused on providing fish passage at the dams, funded for over $40 million over the course of the license. Any funds not used to provide for fish passage will be used to restore native salmonid habitat in the lower Clark Fork/Pend Oreille basin.

- By 2002, a program for abatement of gas supersaturating problems created by spill at the Cabinet Gorge facility.

- $192,500 annually to be spent in Idaho and Montana for protection and enhancement of wildlife habitat.

Table 1. Summary of technical assistance contacts by Panhandle Region Environmental Staff Biologist during the period January 1998 through December 1998.

Agency /Group	Written	Meetings/Site Visits	Total
US Forest Service	44	16	60
Idaho Department of Lands			
-Timber	19	4	23
-Navigable Waters	35	2	37
-Mining	3	2	5
Idaho Department of Water Resources	48	9	57
US Army Corps of Engineers	10	11	21
City/County Planning and Zoning	38	4	42
Bureau of Land Management	2	1	3
Division of Env. Quality	2	35	37
Coeur d'Alene Basin Groups	0	6	6
FEMA	1	0	1
Idaho Transportation Department	1	8	9
US EPA	0	2	2
Fed. Highway Admin.	0	1	1
US Fish and Wildlife Service	0	5	5
Timber Industry	4	1	5
Utilities/FERC	9	52	61
Panhandle Area Council	2	0	2
Nat. Res. Cons. Service	1	0	1
Media	0	5	5
School/Conservation/Sportsmen Groups	1	31	32
Individuals	1	7	8
County Road and Bridge Depts.	0	1	1
Other States/Provinces	1	7	8
In House	2	35	37
Developers	8	7	15
University	0	2	2
Totals	304	226	530

- A program to reduce erosion in the Clark Fork delta and/or mitigate loss of habitat associated with the operation of Cabinet Gorge Dam.

The Pend Oreille Bull Trout Problem Assessment was accepted by the Panhandle BAG in December 1998 after several drafts and reviews. Roads were the most commonly identified threat to tributary watersheds, but dams, illegal harvest, exotic species, timber harvest, and urbanization were also identified as posing significant threats to important bull trout habitat.

IDL foresters continue to be receptive to IDFG comments on habitat issues. I work closely with the IDL fisheries biologist on identifying migration barriers, defining Class I streams, and other issues.

Considerable salvage activity continued on USFS lands but was confined primarily to activities along existing roads, and some road obliteration or decommissioning will occur at the close of sales. The net result will be a reduction in road mileage on the forest. Landscape planning is underway and some large projects requiring EISs were proposed and commented on, including projects in the St. Joe basin and the Kootenai river basin.

Reconstruction of Forest Highway 9 from Murray to Thompson Pass began in 1995 and was completed in 1998. Mitigation included conversion of old tailings piles to wetlands and a fish pond, which is now being used by the public.

I continued to provide technical input on restoration activities associated with the clean up of mine waste in the Coeur d'Alene basin.

Monitoring in Trapper Creek (Upper Priest Lake tributary) showed bull trout continuing to persist, but no fry were detected this year. The estimated density was the lowest recorded in eight consecutive years of monitoring, and lack of fry may have been a function of low spawning activity. The previous lowest estimated bull trout density was in 1996, when fry densities were low and spawning activity was limited the previous fall. Eight bull trout redds were counted in 1998, as compared with three in 1997 (Joe DuPont, Idaho Dept. of Lands, personal communication), five in 1996, two in 1995, and four in both 1994 and 1993. The low and apparently volatile numbers of bull trout in Trapper Creek are likely indicative of a population at risk (Rieman and McIntyre 1993). Estimated cutthroat trout densities at the lower site and in the East Fork were similar to those found in 1997, but the estimated density of cutthroat trout at the upper site was lower than what has been typically observed in the past (Table 2). One mature brook trout was sampled at the lower site, and then removed from the stream.

Table 2. Estimated densities of bull trout and westslope cutthroat trout (fish/100m 2) from Trapper Creek sampling sites.

		Year							
Species	Location	1991	1992	1993	1994	1995	1996	1997	1998
Cutthroat	Below E. Fork	4.3	3.8	1.3	4.5	3.8	4.8	2.9	6.4
	Above Lower Bridge	7.3	15.2	*	26.5	15.2	20.8	*	12.8
	East Fork	*	14.6	13.2	20.5	21.4	13.6	11.7	20.5
Bull Trout	Below E. Fork	5.1	3.0	4.5	8.3	3.7	2.9	4.0	2.4

Table 3. Population estimates by size class for various size classes (in mm) of bull trout collected from the lower Trapper Creek site, Upper Priest Lake drainage, Idaho.

	Population estimate (95% CI)		
Year	30 - 79	80 - 139	> 139
1992	12 ($0 \leq N \leq 19$)	24 ($9 \leq N \leq 33$)	1 (N/A)
1993	36 ($29 \leq N \leq 44$)	15 ($8 \leq N \leq 22$)	1 (N/A)
1994	63 ($22 \leq N \leq 103$)	37 ($22 \leq N \leq 53$)	0
1995	5 ($3 \leq N \leq 7$)	38 ($29 \leq N \leq 47$)	1 (N/A)
1996	10 ($\pm$ 0)	24 ($24 < N < 25$)	1 (N/A)
1997	32 ($21 < N < 42$)	14 ($10 < N < 18$)	2 (N/A)
1998	0	29 ($14 < N < 43$)	0

LITERATURE CITED

Reiman, B.E., and J.D. McIntyre. 1993. Demographic and habitat requirements for conservation of bull trout. U.S. Forest Service, General Technical Report INT-302.

JOB PERFORMANCE REPORT

State of:	Idaho	**Name:**	STATEWIDE TECHNICAL ASSISTANCE
Project:	FW-7-R-5	**Title:**	Clearwater Region Technical Assistance
Subproject:	II	**Job No.:**	2

Period Covered: July 1, 1998 to June 30, 1999

ABSTRACT

During the 1998-99 project year, comments and technical input were provided on proposals, issues, and developments that might affect fish and wildlife resources in the Clearwater Region. The primary issues were completion of bull trout assessments, U.S. Forest Service (USFS) land management and implementation of the Clearwater Elk Initiative, input and site visits to Idaho Department of Water Resources (DWR) stream alteration proposals, Idaho Department of Transportation (IDT) projects affecting streams, developing a proposal for habitat mapping and protection of private lands in central Idaho, outfitter amendments and requests, internal coordination and information gathering, commenting on community development projects, and assisting with fisheries and wildlife monitoring and public meetings.

Authors:

Gregg Servheen
Natural Resource Staff Biologist

Wildlife Biologists

Jay Crenshaw, Sam McNeil, Steven Nadeau, George Pauley, Jim White, Miles Benker, and Jeff Gould

Fisheries Biologists

Tim Cochnauer, Jody Brostrom, and Ed Schriever

OBJECTIVES

1. Provide fish and wildlife technical assistance and information to state, federal, and local government agencies.

2. Coordinate Idaho Department of Fish and Game (IDFG) input on proposed developments, mitigation, and impacts to fish and wildlife resources.

3. Provide written responses and documentation on IDFG positions and policy related to local fish and wildlife issues.

4. Provide internal input and comment on how IDFG policies, rules, regulations, and positions will affect other natural resource management agencies and private elements.

5. Support IDFG fish and wildlife management efforts by participating in fish and wildlife surveys and interdisciplinary teams.

METHODS

Letter and document review; meetings, personal, e-mail, and phone contacts; written responses; and field inspections were used to provide fish and wildlife input and internal coordination.

RESULTS

For the second consecutive year, the number of comments has declined from the previous year. This is because of a conscious effort to increase informal and undocumented technical assistance using e-mail. Declining comments are also because changes such as declines in USFS land management project activities and increased participation in larger more programmatic coordination and technical assistance programs like Kamiah's Project Impact, the Clearwater Elk Initiative, and watershed assessments and projects.

Projects of Note

County Planning

Developed and submitted for funding a proposal for a conservation strategy for county planning in the five central Idaho counties. The proposal included developing a watershed approach using

GIS in county planning. In cooperation with and support from the Natural Resource Conservation Service (NRCS), University of Idaho, Latah and Nez Perce counties and the Idaho Fish and Wildlife Foundation, the proposal was submitted to the Bullitt Foundation but it was not funded. This effort will continue to proactively address changing land use patterns on the private lands in the Clearwater basin.

Data Gathering

Significant time was spent assisting in fish and wildlife monitoring and other IDFG programs. These included elk sightability aerial surveys, hunter check station surveys, stream snorkel surveys, hook and line fish surveys, and hunter and fishermen license checks.

Cumulative Watershed Effects Analysis

In cooperation with the Idaho Department of Lands (IDL) and the USFS, we implemented three Cumulative Watershed Effects (CWE) analysis on three priority 1 bull trout streams in the North Fork of the Clearwater River. Field technicians were trained on CWE at the IDL Coeur d'Alene office and watershed assessments on Lake/Goose, Long, and Rock/Lightning creeks were completed during two weeks in 1998. The USFS is running their WATBAL watershed model on these same watersheds for comparison. Field data will be transferred to IDL and input into GIS. The data and maps will be used to make management recommendations on road and stream improvements in these watersheds.

Clearwater Elk Initiative

The IDFG is a cooperator with the Clearwater and Nez Perce national forests, the IDL, Potlatch Corporation, the Army Corps of Engineers, Rocky Mountain Elk Foundation (RMEF), University of Idaho, Bureau of Land Management, and sportsmen in the Clearwater Elk Initiative. The Clearwater Elk Initiative has focused on three primary efforts. These include small scale prescribed fire projects, a large-scale NEPA effort to select and treat vegetation for improving elk habitats on the North Fork of the Clearwater River, and a programmatic change in fire suppression on approximately 500,00 acres in the North Fork of the Clearwater River. IDFG has committed two full-time biologists to the NEPA effort for eight months to assist the Clearwater Forest in this project. The Clearwater has completed their new fire management plan on the North Fork but has not been able to make it effective yet this fire season. Several prescribed fire projects in partnership with RMEF funding have been completed. The IDFG needs to play a more active role in the Clearwater Elk Initiative in seeking expansion to include the entire Clearwater basin.

Bull Trout and Water Quality

Bull trout conservation efforts comprise the single largest project of the first half of this report year. Working with the Division of Environmental Quality (DEQ), the Clearwater Basin Technical Advisory team, and the Clearwater Basin Advisory Group, the technical advisory team completed all six sub-basin assessments they were responsible for (North Fork of the Clearwater, Lochsa/Selway, South Fork Clearwater, Lower Salmon/Snake River, Mid-Salmon, and lower Clearwater). Since these assessments were completed, bull trout conservation efforts under the Governor's plan have slowed as DEQ begins developing a WAG and conservation plan for the North Fork of the Clearwater River.

EPA Wetlands Grant

In cooperation with the University of Idaho, the IDFG successfully submitted a funding proposal to the EPA wetlands protection program. This project will develop a technique using terrain analysis and digital soil information for predicting areas where historic wetlands may have occurred. Based on these maps, soil cores would be taken at selected sites to determine the accuracy of the technique and to identify the species of plants that occurred in these historic wetland areas. In addition, the project will develop a school and Internet program on wetland information and education emphasizing wildlife habitats, wetland development, and conservation. The project will assist the HIP program's work with private landowners that want to develop wetlands and wildlife habitats by helping prioritize and identify potential wetland development sites.

Table 1. Summary of Technical Consultation.

	Type of Contact		
Agency or Group	Written	Meetings/Site Visits	Total
US Forest Service	53	17	70
ID Dept of Lands	6	19	25
ID Dept of Water Resources	29	14	43
US Bureau of Land Management	0	2	2
Municipal	5	3	8
Army Corps of Engineers	32	4	36
ID Dept of Transportation	2	10	12
Power Companies	0	0	0
Bonneville Power Administration	0	0	0
Clearwater Econ. Dev. Assoc.	0	0	0
Farm Services Administration	0	0	0
Professional	0	5	5
Idaho Parks & Recreation	0	2	2
National Resource Conservation Service	1	0	1
Public Advisory Groups	0	0	0
Fed. Energ. Mgt. Authority	0	0	0
Fed. Energy Reg. Comm.	0	0	0
University of Idaho	9	8	17
Idaho Outfitters and Guides Board	24	6	30
Idaho Dept of Environ. Quality	38	195	57
Nez Perce Tribe	0	0	0
Timber Industry	0	2	2
In House	21	30	51
Counties	0	1	1
Public/Individual	3	5	8
Total	223	147	370

Table 2. Summary of technical assistance provided by Clearwater Region, 1985-1998[1]

Agency	Report year												
	1985	1980-85	1986	1987	1988	1989	1990	1992	1993	1995	1996	1997	1998
Idaho Dept of Water Resources	----	----	----	----	----	----	----	----	----	----	138	50	43
US Bureau of Land Management	4	----	4	1	2	4	----	----	----	----	5	1	2
US Army Corps of Engineers	1	7	3	2	----	1	----	----	1	----	9	24	36
US Forest Service	10	5	12	14	39	12	2	10	11	10	122	93	70
Idaho Department of Lands	2	8	3	----	2	2	1	1	2	----	38	6	25
ID Department of Transportation	3	5	2	----	----	----	----	----	----	----	20	26	12
Potlatch Corporation	2	4	3	3	2	3	2	2	4	----	----	2	----
Bonneville Power Administration	----	7	1	----	----	----	----	----	----	----	3	2	----
University of Idaho	----	3	1	----	1	----	----	----	----	----	7	3	17
Municipal	----	4	2	2	----	----	----	----	----	----	14	9	8
Port of Lewiston	----	2	1	----	----	----	----	----	----	----	----	----	----
Counties	----	----	2	----	----	----	----	2	----	----	9	17	1
US Bureau of Reclamation	----	3	----	----	----	----	----	----	----	----	----	----	----
Nez Perce Tribe	----	2	1	1	----	----	----	----	----	----	1	2	----
Private	----	1	----	----	----	----	----	----	----	----	----	----	----
SCS/ASCS/NRCS/FSA	----	1	2	2	1	1	----	----	2	----	6	4	1
Federal Energy Reg. Comm.	----	1	----	----	----	----	----	----	----	----	9	5	----
US Fish & Wildlife Service	----	3	----	----	----	----	----	2	----	----	----	----	----
ID Outfitters & Guides Lic. Board	----	3	2	2	1	1	1	1	1	----	9	22	30
Forest Industry	----	----	1	----	1	1	1	1	----	----	3		2
Power Companies	----	----	----	2	----	----	----	----	----	----	4	1	----
Columbia River Intertribal Fish.	----	----	----	----	1	----	----	----	----	----	----	----	----
Rocky Mountain Elk Foundation	----	----	----	----	----	----	----	1	----	----	----	1	----
Public/Individuals	----	----	----	----	----	1	1	----	5	----	12	17	8
Idaho Parks & Recreation	----	----	----	----	----	----	----	----	2	----	2	1	2
Public Advisory Group	----	----	----	----	----	----	----	----	----	----	----	0	----
Clearwater Economic Dev. Assoc.	----	----	----	----	----	----	----	----	----	----	13	0	0
Idaho Dept of Environmental Quality	----	----	----	----	----	----	----	----	----	----	96	75	57
Federal Energy Mgt Authority	----	----	----	----	----	----	----	----	----	----	----	5	0
Internal	----	----	----	----	----	----	----	----	----	----	----	73	51
Professional	----	----	----	----	----	----	----	----	----	----	----	----	5
Total	**22**	**59**	**40**	**29**	**50**	**26**	**8**	**20**	**28**	**10**	**520**	**439**	**370**

[1] Technical assistance was summarized from previous reports.

JOB PERFORMANCE REPORT

State of:	Idaho	**Name:**	STATEWIDE TECHNICAL ASSISTANCE
Project:	FW-7-R-5	**Title:**	Southwest Region Technical Assistance
Subproject:	II	**Job No.:**	3

Period Covered: July 1, 1998 to June 30, 1999

ABSTRACT

During the project year, the Southwest Region environmental staff biologist provided technical comments or review on 496 documented occasions. Additionally, I attended another 124 meetings or site visits for a total of 620 technical guidance contacts. The majority of contacts were with state and federal agencies dealing with a variety of land and water management issues having potential effects on fish and wildlife habitats. During the project year, important issues were urban planning and development, stream channel and wetland alterations, forest and range management, mining, water quality, and bull trout conservation planning. As in previous years, I participated in a number of interagency committees and work groups that required considerable time and effort.

Author:

Scott A. Grunder
Environmental Staff Biologist

OBJECTIVE

To provide technical support and assistance to local governments, private entities, the public, and state and federal agencies in matters pertaining to fish and wildlife resources within the administrative boundaries of the Southwest Region of the Idaho Department of Fish and Game (IDFG).

METHODS

I used personal contacts, field inspections, other agency expertise, and literature reviews to provide technical assistance on projects, activities, or proposals that could affect fish and wildlife resources in the Southwest Region. Technical reviews were generally coordinated with other IDFG staff. I provided comments by written or verbal response or electronic mail. I attended many inter- and intra-agency meetings to discuss and resolve fish and wildlife habitat issues and angler- and hunter-based recreation matters.

RESULTS

During the project year, I provided technical assistance, support, and review on about 496 occasions and attended 124 meetings and/or site visits (Table 1). As in past years, the majority of my time was directed towards coordinating activities with state and federal agencies.

Native Fish Watershed Advisory Group

I continued my active participation as co-facilitator and technical advisor for the Native Fish Watershed Advisory Group (NFWAG) in the Southwest Basin of Idaho. Since the inception of the NFWAG in early 1997, the primary focus has been the conservation and recovery of the federally listed bull trout. Since the last project year, the group has had a number of major accomplishments to report.

The IDFG's Engineering Bureau completed construction of a long anticipated fish ladder at Kirby Dam. This was prompted initially by a strong recommendation from the NFWAG. This is viewed as one of the most significant conservation actions for bull trout in the entire Southwest Basin.

The technical advisors to the NFWAG and a host of volunteers completed a relatively comprehensive survey of road culverts in the Boise River key watersheds. The objective was to document the potential for existing road culverts to be passage barriers for fish.

Table 1. Summary of technical guidance contacts of the Southwest Region environmental staff biologist during the period July 1, 1998 to June 30, 1999.

Agency/Group	Written	Meetings/ Site Visits	Totals
US Forest Service	26	15	41
Bur. of Land Management	9	1	10
US Army Corps of Engineers	28	3	31
Bureau of Reclamation	3	3	6
US Fish & Wildlife Service	1	0	1
Federal Highway Admin.	1	0	1
Bonneville Power Admin.	1	0	1
US Environ. Protection Agency	0	1	1
Idaho Dept. of Lands	17	2	19
Idaho Div. of Environ. Quality	3	18	21
Idaho Dept. of Transportation	13	0	13
Idaho Dept. of Water Resources	264	8	272
Idaho Dept. of Parks & Rec.	1	3	4
Office of the Attorney General	1	3	4
City/County Governments	69	10	79
Consultants/Private Entities	24	7	31
Citizen/Sportsmen/Conservation Groups/Schools/Other Agencies	10	11	21
Basin & Watershed Groups	2	20	22
Hydropower Relicensing Efforts	0	5	5
Media Contacts	5	0	5
Intradepartment	17	14	31
US Military	1	0	1
TOTALS	496	124	620

As per the direction of the NFWAG, I prepared a proposal for a brook trout removal and suppression effort in the Pikes Fork drainage (Grunder 1998). In August 1998, an interagency effort was undertaken using electrofishing gear to remove brook trout from the stream in an effort to promote recovery of bull trout in the drainage. The results of this project are described in Meyer (1999).

The technical group of the NFWAG officially completed problem assessments for all of the bull trout key watersheds in the Southwest Basin, as well as the South Fork Salmon River. These were provided to the NFWAG for review and to the Office of the Governor. I personally authored the problem assessment for the Hells Canyon Group of key watersheds (Grunder 1999) and co-authored the problem assessment for the Bear Valley key watershed (Lamansky and Grunder 1999).

The technical group took committee members of the NFWAG and others on a field tour of the Gold Fork and Squaw Creek key watersheds located in the Payette River Basin.

Field reviews are an important forum for educating NFWAG members about legacy effects and current threats to bull trout in key watersheds.

Rural and Urban Development

Rural and urban subdivision development continued at a brisk pace during the project year in southwestern Idaho. There were several large planned unit developments (PUD) that I reviewed and consulted on during the past year. These included Hidden Springs in the Dry Creek drainage, Harris Ranch located at the base of the eastern Boise Front, Hillsdale Estates in the Star Foothills, and the Crosstimber Ranch in Boise County. These large PUDs include clustered housing developments, large acreages of open space, and restrictive convenants. The IDFG has long been an advocate of such "wildlife-friendly" development practices.

During the project year, the Ada County Board of Commissioners instituted a new requirement in the revised Comprehensive Plan. All new proposed subdivisions must first get a review by the IDFG regarding potential wildlife issues and concerns associated with the property. While this has increased my workload, working in concert with the Conservation Data Center has minimized the effort and increased efficiency.

I also participated in a new effort led by the City of Boise to develop a comprehensive Open Space Management Plan for the Boise Front. This should have positive long-term consequences for wildlife, recreation, parklands, agencies, and landowners.

Elk Creek Livestock Grazing Allotment

I assisted in writing a funding proposal to the Bonneville Power Administration for a proposed project to protect critical fish habitat in the Elk Creek drainage of the Bear Valley Creek Basin. The overall goal of the project is to protect critical spawning, rearing, and migratory habitats in the drainage for wild spring/summer chinook salmon, steelhead trout, bull trout, and westslope cutthroat trout. The proposal cites compensating the current permittee for his grazing permit and permanently closing the Elk Creek Allotment to livestock grazing. The Elk Creek Allotment covers about 48,000 acres of national forest system lands. The project was recommended as a high priority for funding and I anticipate its implementation next project year.

LITERATURE CITED

Grunder, S. A. 1998. A proposal for brook trout removal and suppression to aid in recovery of bull trout in the Crooked River Drainage, Idaho. A Report Submitted to the Southwest Basin Native Fish Watershed Advisory Group. Idaho Department of Fish and Game, Southwest Region Office, Nampa, Idaho.

Meyer, K. 1999. Assessment of the 1998 brook trout removal efforts in the Pikes Fork of the Crooked River. A Report Submitted to the Southwest Basin Native Fish Watershed Advisory Group. Idaho Department of Fish and Game, Research Section, Nampa, Idaho.

Lamansky, Jr., J.A. and S. A. Grunder. 1998. Bear Valley Creek Key Watersheds Bull Trout Problem Assessment. Southwest Basin Native Fish Watershed Advisory Group. Boise, Idaho.

Grunder, S.A. 1999. Hells Canyon Group Key Watersheds Bull Trout Problem Assessment. Southwest Basin Native Fish Watershed Advisory Group. Boise, Idaho.

JOB PERFORMANCE REPORT

State of:	Idaho	**Name:**	STATEWIDE TECHNICAL ASSISTANCE
Project:	FW-7-R-5	**Title:**	Magic Valley Technical Guidance
Subproject No.:	II	**Job No.:**	4
Period Covered:	July 1, 1998 - June 30, 1999		

ABSTRACT

During the period covered by this report, the Magic Valley Region environmental staff biologist provided comment, technical review, and support on approximately 372 occasions to other federal, state, local governments, individuals, and private organizations. Assistance included both written and verbal conveyance of anticipated effects to fish and wildlife populations or their associated habitats and recommendations to minimize or mitigate impacts.
Significant activities which required extensive amounts of time included: participation on local watershed advisory groups, stream channel alterations, coordination of hydropower related reviews, new water rights and transfers, aquifer recharge, implementation of The State of Idaho Bull Trout Conservation Plan, state and federal land management activities (grazing, mining, timber harvest, and national defense), and technical assistance pertaining to urban development. All activities were coordinated and reviewed with the appropriate regional staff and state office personnel for accuracy, thoroughness, and adherence to Idaho Department of Fish and Game (IDFG) policy.

Author:

David E. Parrish
Environmental Staff Biologist

OBJECTIVES

To provide and coordinate fish and wildlife related technical assistance and comment to other government agencies (state, federal, and local), organizations, or private individuals. Also, to fulfill IDFG's responsibility to coordinate with "sister" State of Idaho agencies such as Division of Environmental Quality (DEQ), Idaho Department of Lands, Idaho Transportation Department (ITD), and Idaho Department of Water Resources in the collection of fish and wildlife population status and habitat data along with providing technical feedback on water quality.

METHODS

The Magic Valley Region environmental staff biologist used numerous "tools" to form comments and furnish recommendations on a variety of land and water management proposals. State office and regional staff, field inspections, literature searches, resource professionals from other agencies, and professional expertise were some of the sources used, in conjunction with IDFG policy, to formulate responses.

RESULTS

The majority of input provided by the environmental staff biologist is to other state, federal, and local government agencies. The following is a breakdown of entities that were provided technical guidance, either through on-site meetings or project review by the environmental staff biologist. Each contact represents a meeting or written response:

U.S. Forest Service (USFS)	24
Bureau of Land Management (BLM)	16
National Parks Service (NPS)	1
U.S. Fish and Wildlife Service (USFWS)	6
U.S. Army Corps of Engineers (COE)	18
Federal Energy Regulatory Commission (FERC)	19
United States Air Force (USAF)	3
Bureau of Reclamation (BOR)	6
Environmental Protection Agency (EPA)	4
Natural Resource Conservation Service (NRCS)	8
Idaho Dept. of Water Resources (IDWR)	114
Idaho Dept. of Health and Welfare Division of Environmental Quality (DEQ)	54
Idaho Dept. of Lands (IDL)	8
Idaho Dept. of Transportation (IDT)	14
County/City Government/Private Development	44
Idaho Power Company (IPCO)	24
State of Idaho EMS Communication	9
Total	372

MAJOR PROJECTS OF INTEREST

Hydropower

On-going coordination of fish and wildlife staff review and comment for relicensing Idaho Power Company's (IPCO) projects at Upper Salmon, Lower Salmon, Bliss, Shoshone Falls, and Malad projects constituted the largest commitment of time. Review of additional information request data (AIRs) from both IPCO and the Federal Energy Regulatory Commission, continuing development of protection, mitigation, and enhancement measures (PM&Es), public meetings, coordination of staff input, and drafting of written responses consistent with IDFG policies were activities coordinated by the environmental staff biologist. All final correspondence was routed through the appropriate personnel in Natural Resource Policy Bureau or the regional supervisor for signature. Participation on IPCO organized technical committees for aquatic, terrestrial, recreation, and aesthetics, was diminished as the agencies' focus turns to relicensing of down-river projects.

Document review, agency meetings, technical workshops, on-site reviews or inspections, and drafting of comments were technical assistance items completed for the following projects:

Name (Federal Energy Regulatory Commission Number)

Upper Salmon Falls (2777)	Lower Salmon Falls (2061)
Bliss (1975)	Shoshone (2778)
Sahko (11060)	Fisheries Development (7885)
Auger Falls (4797)	Shorock (9967)
Koyle Ranch (4052)	Ravenscroft (4055)
Milner (2899)	Malad (2726)
Crossroads (11468)	Slaughterhouse Gulch (6375)
Troutco (6208)	Mud Creek (4767)
Snedigar Ranch (5731)	Y8 Project (6630)

Water Quality Related Activities

The environmental staff biologist participated on technical assistance committees (TACs) for the Wood River, Rock Creek (Mid-Snake River), Walcott, Southwest Basin Native Fish, and Bruneau Watershed Advisory Groups (WAGs). Furnishing of IDFG fish and wildlife population and habitat data for incorporation into sub-basin assessments, along with draft and final document review, were our primary roles. The sub-basin assessments are then used to draft total

maximum daily load plans (TMDL) for the watersheds. The TMDL for the Rock Creek sub-basin is in the early implementation phase while the remainder of the watersheds is still developing sub-basin assessments.

Coordination, training, and field participation with DEQ s Beneficial Use Reconnaissance Program (BURP) personnel was performed during the year. Fisheries data will be summarized in the Magic Valley Region Fisheries Management Federal Aid Report for the period July 1997 – June 1999.

Technical assistance was provided on several wetland development projects within the region. The environmental staff biologist functions on a three-member management committee with the Twin Falls Canal Company and IPC to oversee continued research at the Cedar Draw Wetland Research and Demonstration Facility. Present research is to evaluate nutrient and sediment reductions in agricultural drains using native wetland plant materials.

Consultation and technical assistance was provided to ITD in the development of the Clear Lakes Grade wetland bank. Rough construction was completed this year with planting of native riparian and terrestrial vegetation scheduled for the fall of 1999.

Fisheries Mitigation

Little Wood River - An ammonia spill into the Little Wood River, near Richfield, Idaho, resulted in the loss of approximately 64,000 fish throughout 13 miles of stream. The environmental staff biologist in coordination with IDFG regional fisheries staff, Environmental Protection Agency, and the U.S. Dept. of Justice conducted inventories and collected evidence which lead to a guilty plea by local cheese producer, Avonmore, Inc. Mitigation includes $46,000 for IDFG to re-populate the river with fish and modify irrigation diversions to provide for fish passage, $50,000 to the local Wood River Resource Conservation District for fish habitat/bank stabilization projects, and $50,000 to the Bureau of Land Management (BLM) for development of wetland habitat along the Little Wood River. All projects will be implemented during the next fiscal year with technical assistance provided by IDFG personnel.

Minidoka Dam Restoration – We continue to work with the Bureau of Reclamation (BOR) to identify water quality or habitat improvement projects to mitigate for lost fish and fishing opportunities associated with re-construction of the powerhouse at Minidoka Dam. Negotiation between BOR and private landowners within the Fall Creek drainage for riparian easements and fencing agreements were not successful during the year so new projects will need to be identified. The $150,000 identified to fund fish mitigation will "roll over" into the next fiscal year. The environmental staff biologist continues to provide technical assistance on this on-going mitigation project.

Bull Trout Conservation Plan

IDFG environmental staff biologists and DEQ continue to work closely with the Southwest Basin Native Fish WAG to develop problem assessments and conservation plans. Within the Magic Valley Region, a problem assessment was completed for the Jarbidge River key watershed and accepted by the WAG. Implementation of actions such as increased educational signing, fish passage evaluations, and increased enforcement are recommendations implemented as a result of the assessment.

The Boise River Key Watersheds Bull Trout Problem Assessment, published and accepted by the Native Fish WAG, last year, is a comprehensive inventory of existing habitat data and population information for the entire Boise River drainage. On-going implementation of projects identified in the document, including culvert surveys, and planning for repair of the Feather River culverts to provide fish passage continued during the year.

Stream Alterations

Technical assistance to IDWR and U.S. Army Corps of Engineers (COE) in their implementation of the Stream Channel Protection Act and Clean Water Act, respectively, required a considerable amount of time and travel. Approximately 77 permit applications were reviewed and commented on for IDWR with an additional 13 applications reviewed for the COE. Approximately 95 percent of all applications reviewed were in the Wood River watershed. Additionally, comments were also provided to Blaine County to satisfy their local Stream Channel Protection Act ordinance.

Urban Development

Urban growth and consultation on infrastructure development grants to local governmental agencies continued at the same pace as the past two years. Of the 44 contacts, 17 were to review subdivision proposals and assess impacts on fish and wildlife while 16 requests were for environmental impacts associated with development grant applications. Documents were received from Blaine, Camas, Jerome, Twin Falls, Elmore, Gooding, and Minidoka counties along with the towns of Twin Falls, Jerome, Bliss, Glenns Ferry, and Malta. The environmental staff biologist responded to or solicited appropriate staff input to address pertinent fish and wildlife related habitat issues.

Land Management Activities

Totals of six timber harvest/vegetative management projects were reviewed and comment provided to the appropriate federal land management agency. The Mountain Home District of the Boise National Forest proposed the greatest number of acres treated and removal of the largest volume of timber. Emphasis on "forest health" rather than maximizing merchantable timber was apparent on all proposals with controlled burning and long-term watershed restoration activities associated with each project. Mitigation recommendations focused on impacts to big game winter range, sage grouse nesting and brood-rearing habitat, timing to minimize impacts on nesting migratory neotropical bird species, and minimization of disruption to hunting and other recreational activities.

BLM request for comment on the issuance of temporary non-renewable AUMs, grazing season extensions, grazing allotment renewals, and fire rehabilitation efforts constituted the majority of contacts for that agency. Conflicts with hunting activities, critical winter wildlife areas, water quality as it relates to riparian health and use of native plant materials for range rehabilitation were the most common items discussed.

Level 1 Team Participation

In an attempt to streamline federal Endangered Species Act consultation between the USFWS and other federal agencies, Level 1 teams were formed to evaluate project impacts on federally listed fish and wildlife species. The Magic Valley Region environmental staff biologist participated in seven review sessions designed to evaluate project impacts on habitat and populations for listed threatened and endangered plant and animal species along with other special state or federal agency designated species of concern. First priority was to eliminate impacts through project modification with the second option being appropriate mitigation suggested for the decision document.

Projects reviewed during the reporting period include: OP-House timber sale, Fairfield District snowmobile trail grooming expansion, various trail re-construction projects and bridge replacements, outdoor special use permits for large group events, livestock allotment plans, and the Sublett Forest Health Plan.

Aquifer Recharge

Technical assistance was provided for: 1) State of Idaho Snake Plain Aquifer recharge study, 2) Mile 31 recharge proposal, 3) Raft River recharge proposal, and 4) Little Wood recharge project. Assistance included recommendations on timing of recharge activities to minimize negative impacts on fish and wildlife habitat, flows needed to support sustainable fisheries below Milner

Dam and the Raft River projects, and identification of both positive and negative impacts resulting from large-scale recharge of local aquifers. IDWR will publish a final report summarizing their findings as to the feasibility and mitigation requirements for implementation of large-scale recharge activities during the fall of 1999. Included will be recommended flow limits to protect fish and wildlife along with biological justification, provided by IDFG personnel.

Acknowledgments

It's important to note that with the massive amount of demand placed on input from IDFG, local knowledge of the resources is critical to providing the best possible response for conservation of fish and wildlife. Much of the knowledge behind the responses comes from local conservation officers, wildlife habitat biologists, wildlife population biologists, fisheries management personnel, regional supervisor, key members of the public, and resource specialists with other local agencies. Without the support and assistance provided by all of these individuals, the workload for this position would be insurmountable.

JOB PERFORMANCE REPORT

State of:	Idaho	**Name:**	STATEWIDE TECHNICAL ASSISTANCE
Project No.:	FW-7-R-5	**Title:**	Southeast Region Technical Guidance
Subproject No.:	2	**Job No.:**	5

Period Covered: July 1, 1998 to June 30, 1999

ABSTRACT

The Southeast Region Environmental Staff Biologist (ESB), with support from wildlife, fisheries and habitat staff, provided technical assistance to public and private organizations in the form of field inspections, meeting attendance, project document reviews, and verbal and written response on about 379 occasions. The four largest issues in the Southeast Region during FY 1999 included Bear River re-licensing, managed recharge, selenium/phosphate mining, and the initiation of the amendment process on the Caribou National Forest and the Curlew National Grasslands plans. Underlying these issues is the potential ESA listing of the sage grouse and Bonneville and Yellowstone cutthroat trout. In addition, population expansion from the Wasatch Front in Utah continues to impact winter range and other important wildlife habitats in southern counties. The Idaho Department of Fish and Game (IDFG) continues to review proposed subdivisions and provide recommendations to counties to protect important wildlife habitats. Finally, numerous Watershed Advisory Groups (WAGs) and several Basin Area Groups (BAGs) meetings, from the Senate Bill 1284 process, were attended.

Authored by:

H. Jerome Hansen
Environmental Staff Biologist

OBJECTIVES

To provide technical assistance to city, county, private, and state and federal entities in matters relating to fish and wildlife habitat.

METHODS

Technical assistance was provided through reviews of permit applications, project plans, National Environmental Policy Act documents, site inspections, and meeting attendance.

RESULTS

The major categories for technical assistance in the Southeast Region during this report period were water-related issues, followed by Forest Service projects, county planning and zoning issues, selenium/mining issues, and Bear River re-licensing by FERC (Table 1). Numerous BAG and WAG meetings were attended as part of the Senate Bill 1284 process, to improve water quality in Idaho's streams and rivers.

Table 1. Summary of technical assistance provided by the Southeast Region ESB 1998-1999.

Agency/Entity	Technical Comments or Review	Meetings/Site Visits	Total
Idaho Department of Water Resources	80	17	97
Forest Service	33	20	53
FERC/Bear River Re-licensing	16	17	33
County P&Z	31	17	48
Mining/Selenium	13	21	34
Idaho Department of Transportation	7	10	17
BLM	12	9	21
Corps of Engineers	3	6	9
Idaho DEQ	7	4	11
WAGS/BAGS	2	19	21
City of Pocatello	2	6	8
NRCS	1	2	3
Idaho Department of Lands	5	2	7
Other	7	10	17
Totals	219	160	379

Managed Recharge

As part of conjunctive management of groundwater and surface water in the Snake River Basin, the Idaho Department of Water Resources (IDWR) has been exploring the concept of diverting Snake River flows at various locations above Thousand Springs, in order to help re-charge the aquifer. Because existing canals must be used, diversions are proposed to take place in the winter months, at the time of year the canals are not being used for irrigation. Diversions are being proposed near Hells Half Acre, which will reduce winter flows in the stretch of the Snake River above American Falls Reservoir. Adequate winter flows are essential to juvenile trout survival. We continue to work with IDWR on identification of flows needed to ensure that the aquatic community is protected in the Snake River.

Caribou National Forest Plan Amendments

The Caribou National Forest has initiated plan amendment processes on both the Curlew National Grasslands and the rest of the Caribou National Forest. Forest personnel prepared an Analysis of Management Situation (AMS) for both the Curlew and the rest of the Forest. The relationship between sage grouse habitat and grazing and prescribed burning practices on the Curlew continues to be one of the key issues. The ESB is working closely with other IDFG staff to ensure that sage grouse habitat is protected and improved in the future. Primary issues on the rest of the Caribou National Forest include on-going prescribed burning practices and future timber harvest, livestock grazing, and road density and associated impacts on cutthroat trout, big game, and other wildlife species.

Planning and Zoning

People continue to move into Bear Lake, Franklin, and Oneida counties to escape the higher costs and crowding in northern Utah along the Wasatch Front. The ESB, in coordination with other IDFG staff, prepared and provided a map of important wildlife habitats to Franklin County. The ESB has also attended county planning meetings and has provided recommendations on a number of proposed subdivisions impacting big game winter range and other wildlife habitat.

In addition, the ESB and the Regional Land Manager have talked to Bear Lake County Commissioners about the potential for using Conservation Easements to protect key winter range. The ESB helped put on a meeting between the Teton Valley Land Trust and representatives of the Southeast Idaho Mule Deer Foundation, to learn about the use of Conservation Easements and to explore the development of a Southeast Idaho Regional Land Trust.

Bear River Hydro Re-licensing

Pacificorp operates four Bear River hydroelectric projects that initiated the Federal Energy Regulatory Commission re-licensing process in 1995. The projects include Oneida, Soda Point and Grace/Cove (two projects that operate under one license). Current project licenses will expire on October 1, 2001. During the report year, Pacificorp released the draft license application. Several miles of the Bear River have been de-watered over the last several decades by operation of the hydroelectric system. The ESB has worked with personnel from the IDFG and other agencies to develop appropriate responses and to recommend appropriate Protection, Mitigation, and Enhancement measures (PM&Es) for the projects. One of the IDFG's primary goals is to provide adequate minimum flows in all sections of the river, in addition to reduced ramping rates, tributary and riparian enhancements, and arrangements for future passage if needed.

Selenium/Phosphate Mining

During the last year, the Interagency/Industry Selenium Working Group has continued to grow and expand the focus of studies. Water, vegetation, and sediment sampling has shown the presence of selenium to be widespread in association with several old mine dumps and associated facilities. The ESB has worked with other IDFG personnel and the selenium workgroup to electroshock fish and develop elk sampling protocols, as concern for the welfare of fish and wildlife continues to grow. Numerous meetings and related conference calls have been attended. Annual reports and work plans have been reviewed.

The ESB has also reviewed plans, drafted comments and attended meetings regarding the following phosphate mining issues:

Dry Valley Mine Expansion
Dry Valley Mine Wetland Mitigation
South Rasmussen Ridge Mine
Central Rasmussen Ridge Mine Exploration

Idaho Department of Transportation

The ESB has been involved in numerous bridge replacement and road modification projects in the last year. Plans to widen U.S. 89 between Montpelier and Geneva continue. Idaho Department of Transportation is beginning planning for the long-term widening U.S. 30 (from McCammon to the Wyoming border) and U.S. 91 (from Downey to the Utah border) into four-lane highways. Issues surrounding all of these projects include wetland impacts, big game

migration barriers and direct mortality from collisions, direct loss of wildlife habitat, water quality and fisheries impacts, and adequate mitigation.

Committee Participation

The Southeast Region ESB participated on and cooperated with the following committees:

Portneuf River Watershed Council
Bear River Basin Water Quality Task Force
Bear River Basin Advisory Group
Blackfoot River Watershed Advisory Group
Palisades Interagency Work Group
Mining Industry and Interagency Selenium Working Group
City of Pocatello Highway Pond Working Group

Senate Bill 1284 Implementation

Implementation of SB 1284 established BAGs for the Bear and Upper Snake rivers. Blackfoot and Portneuf watershed groups have developed and are active in reviewing and prioritizing 319 (water quality improvement) projects. The ESB regularly attended the Watershed meetings and provided technical assistance.

JOB PERFORMANCE REPORT

State of: Idaho **Name:** STATEWIDE TECHNICAL ASSISTANCE

Project: FW-7-R-5 **Title:** Upper Snake Technical Assistance

Subproject No.: II **Job No.:** 6

Period Covered: July 1, 1998 - June 30, 1999

ABSTRACT

During the period covered by this report, the Upper Snake Region environmental staff biologist provided comment, technical review, and support on approximately 323 occasions to federal and state agencies, local governments, individuals, and private organizations. Assistance included both written and verbal conveyance of anticipated effects to fish and wildlife populations or their associated habitats and recommendations to minimize or mitigate impacts.

Significant activities that required extensive amounts of time included: participation on local watershed advisory groups, stream channel alterations, coordination of hydropower-related reviews, new water rights and transfers, aquifer recharge, Snake River Resources Review, implementation of The State of Idaho Bull Trout Conservation Plan, and state and federal land management activities. Activities were coordinated and reviewed with the appropriate regional staff and state office personnel for accuracy, thoroughness, and adherence to Idaho Department of Fish and Game (IDFG) policies.

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OBJECTIVES

Provide and coordinate fish and wildlife related technical assistance and comment to other government agencies (state, federal, and local), organizations, and private individuals. Protect and/or enhance fish and wildlife habitat.

METHODS

Document review, literature research, field inspection, and consultation with appropriate policy, management, and research personnel were used to provide comments and recommendations on actions proposed by private entities, local governments, and state and federal agencies.

RESULTS

The Upper Snake Region environmental staff biologist provided review and comments for the following entities on the listed number of occasions. Each contact represents a meeting or written response:

U.S. Forest Service (USFS)	27
Bureau of Land Management (BLM)	11
National Parks Service (NPS)	2
U.S. Fish and Wildlife Service (USFWS)	5
U.S. Army Corps of Engineers (COE)	28
Federal Energy Regulatory Commission (FERC)	26
Bureau of Reclamation (BOR)	22
Environmental Protection Agency (EPA)	4
Natural Resource Conservation Service (NRCS)	4
Idaho Dept. of Water Resources (IDWR)	87
Idaho Division of Environmental Quality (DEQ)	33
Idaho Dept. of Lands (IDL)	8
Idaho Dept. of Transportation (IDT)	22
County/City Government/Private	44
Total	323

MAJOR PROJECTS

Major projects worked on included IDWR's managed recharge proposals; USBR's Snake River Resources Review and recommendations for flows on the Henrys Fork and South Fork Snake River; flow and temperature recommendations for the Island Park Dam and spillway modification; Bonneville Power Administration's Palisades wildlife mitigation program, which included acquisition of 2,600 acres of river bottom habitat and 3 ¼ miles of river shoreline at Deer Parks; bull trout planning including completion of Little Lost problem assessment and Gamett's Little Lost fishery report; Targhee National Forest revised summer travel plan; Henrys Fork Watershed Council coordination; and obtaining a $40,000 grant for Sheridan Creek habitat improvement.

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