

John Day River Subbasin Fish Habitat Enhancement Project

**Annual Report
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John Day River Sub basin Fish Habitat Enhancement Project

2000 ANNUAL REPORT

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ABSTRACT

During 2000, 3 new projects were completed thereby adding 4.6 miles of stream to the program. Protection for these reaches required the construction of 3.2 miles of riparian fence and 1 livestock watering sites. 5,750 pounds of grass and shrub seed were planted for re-vegetating ground disturbed during construction. Stream temperatures were monitored on the Middle Fork of the John Day. All project fences, watergaps, spring developments and plantings were checked and repairs performed where needed. We now have 70 miles of stream protected using 111 miles of fence.

INTRODUCTION

This project, initiated July 1, 1984, under Bonneville Power Administration (BPA) contract number DE A179-84 BP17460 allows for initial landowner contacts, agreement development, project design, budgeting, and implementation for an anadromous fish habitat improvement program on privately owned lands within the John Day Basin.

The purpose of the John Day Fish Habitat Enhancement Program is to enhance production of indigenous wild stocks of spring Chinook and summer steelhead within the sub basin through habitat protection, enhancement and fish passage improvement. The John Day River system supports the largest remaining wild runs of spring chinook salmon and summer steelhead in northeast Oregon.

DESCRIPTION OF PROJECT AREA

The John Day River drains 8,010 square miles of land in east central Oregon and is the third largest drainage in the state (Figure 1). The sub basin includes a major part of Gilliam, Grant, and Wheeler counties and portions of Crook, Harney, Jefferson, Morrow, Sherman, Umatilla, Union, and Wasco counties.

The mainstem John Day River flows 284 miles from its source in the Strawberry Mountains to its confluence with the Columbia River just above the John Day Dam. The largest tributary, the North Fork, enters the mainstem John Day River at Kimberly (RM 184) and extends 112 miles to its headwaters in the Elkhorn Mountains near the town of Granite. The Middle Fork John Day River originates just south of the headwaters of the North Fork and flows roughly parallel to it for 75 miles until they merge at RM 31 of the North Fork. The South Fork originates from Snow Mountain near the town of Burns and drains the south side of the Aldrich Mountains. It flows into the mainstem near the town of Dayville at RM 212.

figure 1

Funding for this endeavor is provided by the Bonneville Power Administration under contract number DE A 179-84 BP17460. This funding provides for private land leasing, stream habitat inventory, planning and design work, contract development, budgeting, fish passage improvement, fence construction, instream habitat placement, vegetation enhancement, construction review and maintenance. These activities are for anadromous fish habitat improvement on private lands within the John Day Basin. This program is coordinated with other fish habitat improvement programs on BLM and Forest Service lands within the basin.

Specific areas that were added to the project during FY 2000 were: 1.8 miles of Granite Creek near the town of Granite, 0.3 miles of Indian Creek near the town of John Day and 2.5 miles of the Middle Fork near the town of Ritter.

METHODS AND MATERIALS

The overall project goal is to rehabilitate and improve anadromous fish spawning and rearing habitat thereby contributing to the Northwest Power Planning Council's interim goal of doubling anadromous fish runs in the Columbia River Basin. The quality and quantity of instream and riparian cover is severely reduced in many John Day basin streams. This condition will be directly improved utilizing three complementary approaches: 1) fencing riparian areas, 2) constructing instream structures, and 3) planting stream side vegetation. These methods have proven effective in restoring stream habitat condition when properly applied.

Streams requiring rehabilitation in the John Day basin were first prioritized in 1983, again in 1987 by ODFW biologists in cooperation with the United States Forest Service (USFS), the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and the Grant County Soil and Water Conservation District (GSWCD). Problem identification was based on previous habitat evaluations in the basin and field biologist's knowledge of present conditions and problems. Streams were prioritized based on 1) severity of habitat degradation, 2) location within the basin, 3) fish species present, 4) landowner acceptance and cooperation, 5) ongoing habitat improvement projects in the area, 6) anticipated fish benefits, and 7) logistical constraints.

In 1996 a modification of program direction was decided upon. More emphasis will be placed on encouraging landowners to build and maintain their own riparian fences. This was accomplished by providing fence materials, assisting with fence layout, assisting with initial construction and giving technical advice. Project personnel will continue to lease and build fences on high priority streams if landowners will not build them. Personnel will also continue to maintain project fences under previous lease.

Beginning in 1993 the ODFW Fish Habitat Enhancement Program was broken down into four main activities: Implementation, Operation and Maintenance (O&M), Monitoring and Evaluation (M&E) and Interagency Coordination and Education (IC&E). The following are descriptions of each of these activities.

IMPLEMENTATION

All implementation activities will be accomplished in two phases: prework and on site implementation.

Prework

This is the most time consuming and important of the two phases because it lays the foundation for all implementation activities. Prework activities include the following four stages:

1. Riparian Lease Development and Procurement. This activity entails working closely with landowners to develop riparian leases of cooperative agreements that satisfy both the needs of the landowner and the objectives of the BPA habitat enhancement program.
2. Project Planning. Project planning includes design and layout of all work to be done on site, development of contract specifications, contract development for proposed work, and obtaining the necessary work permits.
3. Project Preparation. This activity includes locating sites for all structural improvements, surveying, and staking proposed work areas.
4. Field Inventories. This activity includes walk-through surveys to evaluate current instream and riparian conditions.

Duties within the prework phase are divided between ODFW and GSWCD personnel. It is the responsibility of the GSWCD to assist with all four stages of prework activities including preparation of draft leases, initial landowner contacts, contract documents and materials procurement specifications. Lease negotiations with the landowners is a shared responsibility between GSWCD and ODFW. The ODFW is responsible for working with the GSWCD and for reviewing/editing all draft documents prior to final document preparation. Additionally, the ODFW provides biological oversight on all projects.

On site Implementation

The second phase, on site implementation, involves on-the-ground construction. On site implementation activities are the primary responsibility of ODFW with technical oversight being provided by GSWCD. All on site implementation activities fall into five major categories:

1. Instream structures Instream structures will be installed at locations predetermined by project personnel to address limiting factors in each stream reach. Instream structures will be constructed in late summer and early fall. Logs, boulders and large organic debris (LOD) will be used to create pools and habitat diversity. Rock jetties and riprap will be used to stabilize stream banks, protect riparian fences and expedite stream bank re-vegetation.

2. Planting Vegetative planting will consist of trees, shrubs and grasses. Areas that have ample native vegetative stock will not be planted except for the disturbed ground which will have grasses replanted.
3. Fencing In order to meet the riparian recovery objectives discussed in the John Day River Fish Habitat Improvement Implementation Plan, riparian enclosure fencing will be constructed to protect vegetation from livestock. Fencing will be constructed in those areas where riparian damage has occurred or is a potential in the future.
4. Off-site water developments In an attempt to reduce the number of watergaps in riparian fences (thereby reducing fence construction and maintenance costs), and to encourage livestock utilization of pastures away from riparian areas, off site water sources will be developed.
5. Photopoint establishment Photopoint establishment includes locating and placing permanent markers at sites from which photographs can be taken at regular intervals, thereby depicting riparian changes through time. Also associated with photopoint establishment is the development of a photopoint notebook for each project area.
6. Miscellaneous Field Activities Many additional activities may be required to complete a fish habitat improvement project.

OPERATIONS AND MAINTENANCE (O&M)

Operation and maintenance are defined by the Bonneville Power Administration as follows:

"Operations is the act of running equipment or facilities to produce a specific product or service. Operations includes both the fixed and variable costs of such activities..."

"Maintenance consists of the activities and materials necessary to keep equipment, roads, fences and buildings in good working order. Maintenance involves either routine, preventative, servicing or repair and replacement of defective or wearing parts or equipment, structures, roads, fences, etc. ..."

Operation and maintenance activities will begin on all project areas no later than the year immediately following completion of on site implementation activities on each project. Predominate maintenance activities will include, but not be limited to, maintenance of riparian fences, maintenance and/or retrofitting of instream structures and re-vegetating key riparian areas.

Maintenance activities are the primary responsibility of the ODFW who will inspect completed project areas and plan, implement and evaluate needed maintenance activities; the GSWCD will provide technical support.

1. Fencing Following completion of implementation a biannual inspection of all project fences will be made. Following these inspections all fence maintenance will be done. Stream cross fences and/or watergap cross fences will be either put in or removed during these inspections or subsequent maintenance.
2. Instream Following completion of implementation an annual inspection of project instream structures will be made. Following these inspections, any structures found failing to protect the riparian fence line, valuable meadows or buildings are documented for maintenance funds. This documentation includes photographs, site plans and estimated costs. If maintenance funds are obtained then repairs are performed the following year.
3. Revegetation Following completion of implementation some sites require additional plantings of grasses, shrubs or trees. This may be done in subsequent years after soil changes have occurred. This is done to insure the quickest vegetative recovery possible on each site.
4. Miscellaneous Cooperator sign boards denoting riparian enhancement projects as cooperative efforts between BPA, ODFW and private landowners will be installed at high visibility sites along completed riparian enhancement project areas.

MONITORING AND EVALUATION (M&E)

To monitor the progress of this program it will be necessary to evaluate the physical condition of the streams and riparian habitat prior to, during, and upon completion of on site implementation in each project area. Additionally stream temperatures will be monitored using thermographs which will be located within selected project areas. The ODFW, GSWCD and Monument High School students will jointly monitor and evaluate these changes as time and funding permits.

2. Photopoint Picture Taking Standardized pictures will be taken from pre-selected photopoints prior to implementation on any project area and then during the spring and fall for two years immediately following completion of a project. Once these initial photos are obtained the frequency of photopoint picture taking may diminish to once every two to three years.
3. Habitat Monitoring Transect Establishment Within selected project areas permanent habitat monitoring transects will be established. Specific measurements will then be taken along each transect. These measurements will be repeated at regular intervals and compared with original measurements as a means of quantitatively measuring environmental changes through time.

4. Habitat Monitoring Transect Data Immediately after establishing habitat monitoring transects, baseline data will be collected. Data collection, following the establishment of baseline data, will be done on the first year following completion of implementation activities and then at approximately 5 year intervals.
5. Thermograph Data Collection and Summarization Thermographs have been installed within and/or adjacent to selected project areas. These thermographs will then be monitored on a regular basis to detect changes in water temperatures.
6. Miscellaneous Field Activities Steelhead redds are counted in index areas on two of our recovering streams. These counts will be used to document changes in adult spawner returns to our treated areas.

Waterfowl and other bird species are counted yearly within two index areas. These counts will monitor change in bird species abundance as woody vegetation replaces grass.

Shrub and tree heights are measured on two index areas to document growth rates of each different species.

Fish populations are counted in two index areas to document change in juvenile abundance.

RESULTS AND DISCUSSIONS: I. FIELD ACTIVITIES

All implementation activities were accomplished in two phases: Prework and On site Implementation.

Implementation - Prework

1. **Riparian Lease Development and Procurement** The project biologist met with a landowner on Cummings Creek who expressed an interest in fencing two streams. The upper end of his property needs relief from grazing but was purchased within a partnership. The biologist learned that the partners don't want a fence close to their cabins and that they preferred building a property line fence. They were told we will not build a property line fence, because it is more than a quarter mile from the stream. We would only build fences around several headwater springs on the property if they decided against fencing all streams. No decision has been forwarded at this time.

The project technician met with Leif Olsen of the Oxbow Ranch who controls 6.6 miles of Indian and Strawberry creeks. He said the ranch is interested in fencing these streams and wants us to start in 2001. A lease is being prepared.

The biologist met with Mr. John Forrest who owns 3.75 miles of the Middle Fork. He also wants us to fence in 2001. A lease, maps and construction contract are being prepared.

The biologist attended two conference calls concerning a perpetual easement purchase of all streams on the Holliday Ranch. A proposal was prepared for additional BPA funding, approved and we are now negotiating an easement document.

A cooperative agreement was prepared for fencing 3/4 miles of Granite Creek, a Middle Fork tributary with the Walton Ranch. Fence lines were staked and the State Department of Transportation(ODOT) is preparing a map of the fence. This fence will be cooperatively implemented with ODOT as mitigation for a highway bridge.

A cooperative fencing agreement was signed with Ron Burnett who owns 2.5 miles of the Middle Fork.

2. **Project Planning** Plans and designs were continued for leveling dredge tailings on an additional 0.5 miles of Granite Creek. The property was mined with a floating dredge in the late 1940's leaving hundreds of cone shaped piles behind. These piles confine the creek to a straight, narrow, high velocity channel resulting in poor habitat, no riparian vegetation and very little off-channel rearing. The project proposes to restore a floodplain by removing the tailing piles, allowing the creek to flow over portions of the floodplain previously occupied by tailing piles and to open blocked side channels. Project initiation will occur in July of 2001.

Mapping, design and layout of 2000 fence construction and tailing leveling was completed.

Wetlands alteration permits were obtained from the Oregon Division of State Lands for wetlands affected by the tailings restoration project.

An Environmental Impact Statement was approved for federal lands affected by the tailings restoration project.

The Granite Creek cultural resources survey was approved by the State Office of Historical Preservation which granted clearance to move tailing piles and consolidate mining artifacts.

3. **Project Preparation** Contracts for fence and watergap materials delivery were written, announced and awarded by ODFW.

Fence construction materials were received from various vendors and placed in the materials storage yard.

Fence and tailings removal contracts, specifications and project site maps were written and awarded by GSWCD.

The Granite Creek equipment rental contract was announced for bids. Seven were received with Harney County Gypsum of Burns, OR submitting the low quote of \$92.00/hr. for 3 excavators and a Dozer.

A personal services contract was written and awarded to Ed Calame for construction consulting. Ed advised the project biologist on construction startup, equipment efficiency and recording. Contract amount was for \$250/day.

All 2000 construction sites were staked and flagged for the contractors.

5000 lbs. of grass seed was purchased for re-seeding disturbed sites after construction.

Implementation - On site

1. Instream Structures

The Granite Creek dredge tailings leveling contract began on July 31. Three John Deere 790 excavators and a D8 dozer moved tailings from the edges of the stream back 250 feet to create a floodplain for the stream. Work progressed upstream moving about 5,000 cubic yards per day. As the tailings were removed a flat plain was shaped back from the stream. Soil was then spread over this plain to a depth of 6 inches and seeded with grasses, sedges and riparian shrubs. The existing trees and wetlands were left unaltered. Work progressed for 44 days and was suspended on the 13th of October. In total 220,000 cubic yards of material were removed from 1.8 miles of stream at a cost of \$152,000.

Ed Calame of Pendleton assisted us with construction oversight on the Granite Creek project through a personal services contract.

Thirty juniper trees were placed on the Canyon Creek/Tuttle property for bank stabilization. Our fence had been undercut along 150 feet of bank. The fence was moved back 20 feet and the trees were placed to prevent further erosion.

2. **Planting** 5000 lbs of grass seed were planted on Granite Creek immediately following construction. Species included; Idaho fescue, sheep fescue, giant wild rye, mountain brome, ladak alfalfa, small burnett, sweet clover, Carex sedge and cow parsnip. 750 lbs. of riparian shrub seed was also planted including; red osier dogwood, thin leaf alder and snow berry. Diffuse knapweed and Scotch Thistle were eliminated by herbicide. It is critical to the recovery of this site to establish vegetation as quickly as possible for preventing noxious weed takeover, minimizing erosion and promoting soil deposition.

June Davis of Lostine assisted us with selecting and planting native riparian trees and shrubs on the Granite Creek project.

150 plum, 125 pine, 60 aspen and 60 cottonwood trees were planted within the fences on Grub Creek. Small juniper trees were cut and placed over the seedlings to protect them from deer and elk.

3. **Fencing** Construction was completed on 0.66 miles of riparian fence, one watergap and 4 gates on the Indian Creek/Winegar property. The landowner constructed and will maintain all improvements for 10 years. He was paid \$2,400.

2.5 miles of fence materials were given to Ron Burnett for excluding 5.0 miles of the Middle Fork. He began construction of the fence and completed 2.5 miles of it by November 30. Mr. Burnett will construct the remainder next year and will maintain it for 10 years.

4. **Photopoint Establishment** Twenty eight photopoints, including 4 video sites, were established to document and monitor the recovery of the Granite Creek tailing leveling project.

5. **Miscellaneous** Eight bird houses were placed within the water development fences on the Grub Cr./McNeil fence.

Table 1. New project implementation completed in 2000.

Stream	Granite Cr.	Indian. Cr.	Middle Fk.
Landowner -	Kerns	Winegar	Burnett
Stream length	1.8 mi.	0.3 mi.	2.5 mi.
Fence construction	0 mi.	0.66 mi.	2.5 mi.
Fence removal	0 mi.	4	3
Livestock gaps	0	1	0
Cross fences	0	4	2
Instream structures	0	30 Bldrs.	0
Water developments	0	0	0
Planting	750 lbs shrubs 5000 lbs grass	0	0
Photopoints	28	0	0

OPERATIONS AND MAINTENANCE (O&M)

In 2000, temperatures were warmer than average and very little precipitation fell throughout the winter and early summer resulting in moderate grass growth and low stream flows. The summer was very hot and dry. Livestock pressure on our fences and watergaps was moderate. Cattle were found within our fences on 5 occasions from July to October. Cattle broke into the Hiatt/Fox Cr. and Jones/Mountains Creek fences but all other areas received no trespass. Many problem watergaps were replaced with solar watering sites within the last 3 years. This has improved our ability to control cattle trespass.

1. **Fencing** Lonnie Goin was hired as our fence maintenance technician on Mar. 1st. He began removing debris and repairing damaged fences, watergaps and off-site water developments. All project fences in the basin were inspected and watergaps were installed on each property.

Bids were received and a flight services contract was awarded in May to Mr. Bill Kraye of John Day. Enclosure inspection flights were taken once per week beginning on June 6 and ending on October 10.

One quarter mile of fence was replaced on the Fox Cr./McGirr property. This section was used as a winter feedlot and the cows had ribbed the wires until they broke.

One third mile of fence was replaced on the Mainstem/Fields property. This section of old fence was incorporated when the new riparian fence was built but has since rotted out.

290 feet of fence were replaced on the Canyon Cr./Tuttle, and the Mt. Cr./Brown properties that were undercut by bank erosion.

200 feet of fence were replaced on the Mainstem/Nance property that were attached to rotted cottonwood trees.

A wind blown cottonwood was removed from the Mainstem/McNeil fence and another two from the Indian Cr./Kuhl fence.

A 70 foot section of fence on the Mainstem/Holliday property was repaired after the ranch installed an irrigation return drain through it.

Beaver fell two trees into the river on the Mainstem/Holmstrom property. The trees were pulled from the water and secured to the bank. The city of John Day has asked that we not allow large trees to drift downstream of this area. They are concerned the trees will form a logjam and cause flooding in severely channelized sections downstream, within the city limits.

Beaver fell a tree over our fence on the Still/Canyon Cr. property. We removed a portion of the tree and rebuilt 60 feet of fence.

Two beaver felled trees were removed from the Cottonwood Cr./Bahrenburg fence.

Seven beaver dams appeared on the Stanfill and Still properties on upper Canyon Creek last fall. The landowners were concerned about flood damage caused by the dams but they have agreed to leave them if we repair any damages. So far flooding has not damaged any property and 5 of the dams remained after spring runoff.

After most pastures had been retired for the winter we removed our watergaps, solar pumps and stream cross fences. Where livestock were still present we lifted the cross fences above spring floodwater levels.

2. **Instream** No Instream_repairs were made this year.
3. **Off-site water developments** All nine solar pump watering stations were installed and checked periodically throughout the summer. Three extra solar pump baffles were purchased so quick repairs can be made if necessary.

All fourteen spring developments were checked and cleaned throughout the summer.

4. **Revegetation** None this year.
5. **Miscellaneous maintenance activities** The fish ladder on Deer Creek was checked in March and found to be operating as designed.

The access road to the fish ladder on Fivemile Creek was washed out in 1997. Repairs cannot be made until access is restored. Ladder repair will cost app. \$15,000 including access restoration. The ladder site was checked for debris in March. Only one steelhead redd was found above the ladder this year.

The project post driver's hydraulic system was rebuilt after several internal seals had began leaking.

The decking on the project trailer was repaired.

MONITORING AND EVALUATION (M&E)

1. **Photopoint Picture Taking** Eighteen photopoints were re-taken and duplicated on the Courchesne and Johns properties.

Twenty four photopoint pictures were retaken and catalogued on Fox Creek.

2. **Habitat Monitoring Transect Establishment and Data Summarization** Two habitat monitoring transects were established on the Granite Creek/Kerns property for monitoring the future recovery of this site.

3. **Thermograph Data Collection and Summarization** Four thermographs were deployed on the Nature Conservancy/Middle Fork this year. They were located at the upper property boundary, the lower property boundary and the mouth of Big Boulder Creek. Results show that during July and August the TNC/Middle Fork average maximum temperature at the upper end of the property was 22.1°C. At the lower property boundary maximum temperatures averaged 24.6°C. Table 2 shows a comparison of the Middle Fork's maximum water temperature profile for the last 7 years. Spring Chinook in the Middle Fork do best when the maximum water temperature does not exceed 21°C. This temperature was exceeded for 11 weeks in 2000 as compared to 6 weeks in 1999. (Table 2)(Appendix A)

Table 2. Maximum temperature averages for July and August on the TNC MIDDLE FORK.

	1994	1995	1996	1997	1998	1999	2000
Upper bndry	25.3°	21.5°	22.5°	21.9°	22.7°	20.8°	22.1°
Lower bndry	24.6°	21.6°	22.9°	22.4°	23.3°	21.6°	24.6°

4. **Miscellaneous Monitoring Activities** Steelhead spawning ground surveys were conducted in May to obtain data by counting spawning nests (redds) visible on gravel bars after adult steelhead have spawned. In 2000 water clarity was good for redd counting. Fox Creek had 21.6 redds per mile. Steelhead counts throughout the rest of the basin averaged 2.3 redds per mile.(Table 3)

In Fivemile Creek, one steelhead redd was found this year. The fish ladder was damaged during floods in 1987 and proved to be a passage barrier to adult steelhead.(Table 3)

Table 3. Six year summary of redd counts within Project areas.

Stream	Miles	Project Type	Redds Counted						
			1988	1990	1992	1994	1996	1998	2000
Fox Cr.	3	1987 Habitat Improvement.	6	3	36	15	37	16	54
Fivemile	2	1987 Barrier removal	4	6	5	3	8	4	1

A study of hardwood species growth rates was initiated on Indian Creek by the Blue Mountain Junior High science class. Five different species were tagged, measured and recorded by students. These same plants will be re-measured next year and the students will report on each species growth.

RESULTS AND DISCUSSION II. PROGRAM ADMINISTRATION

1. **Reports and Data Summaries** Quarterly progress reports and the 1999 Annual Report were submitted to BPA during 2000.

Implementation summaries were completed on all improvements made on Granite Creek and sent to the Oregon Watershed Enhancement Board for recording.

All thermograph data was summarized and graphed. (Appendix A)

Stream temperatures and steelhead redd counts were summarized. (Tables 2 and 3 respectively)

2. **Budgets/Purchases** The 2000/01 project proposal was submitted to CBFWA.

The 2001/02 work statement and budget were prepared and sent to BPA requesting \$164,389.00 in contractual services and totaling \$440,000.00

\$19,538 worth of construction materials for project implementation and maintenance were purchased.

A 6 wheel ATV and a 16" chainsaw were purchased as Capital/Sensitive items.

A course fee of \$4,500 was paid to Wildland Hydrology of Pagosa Springs, Colorado for the biologist.

Monthly purchasing summaries were submitted to the program leader throughout 2000.

3. **Program Development** A "Sub-basin summary" for the John Day basin was prepared by Tim Unterwegner, district fish biologist, and submitted to CBFWA.

BPA has requested the project incorporate CREP funding into our riparian projects. The biologist has left this task to the landowners in the past. None have taken advantage of the program to date however new incentives have been added.

Advantages of CREP include:

- the NRCS can pay up to 110% of all installation costs for riparian improvements.

- landowners can receive yearly payments of up to \$100 per acre for improving their riparian areas.

- the NRCS holds lease to the affected acreage and enforces compliance.

- the landowners must install and maintain their own riparian improvements.

Disadvantages of CREP include:

- all riparian improvements made under previous lease agreement with another agency are not eligible for payments. (No rewarding of good stewardship)
- riparian areas that already have trees are not eligible. (No protecting the good)
- the landowner must construct his own fence, pay for it up front and then receive reimbursement. (ODFW cannot contribute materials)

Reimbursement rates for fence (\$2,500/mile) and off-site water developments (\$500) are below actual installation cost. Landowners must come up with the difference.

The biologist will continue to meet with the Grant County NRCS to find ways to meld this program with CREP. At present it appears that major changes will have to occur in both programs to make them cooperative.

Project leases began expiring in April. 11 leases containing 33.8 miles of fence will expire within the next 2 years. We have asked the landowners to continue maintenance of their fences and can provide them with materials if they sign a cooperative agreement.

4. Personnel

The Program coordinator position was vacated in April. The John Day District Fish Biologist, Tim Unterwegner, has assumed the duties.

Lonnie Goin Jr. accepted our fence maintenance technician position on March 1st. Lonnie continued the maintenance duties until the 30th of November.

Merit ratings, updated position descriptions and work plans were written for the biologist, technician and seasonal fence maintenance technician.

Training seminars attended were: First Aid/CPR and the annual American Fisheries Society conference in Eugene.

The biologist attended a 2 week hydrology class in Colorado. Dave Rosgen of Wildland Hydrology taught the class which covered river measuring techniques and the interpretation of those measurements.

Monthly safety meetings were attended by all program personnel.

5. Contract Administration The GSWCD wrote, published, announced, awarded, administered and made payments for the Granite Creek dredge tailing leveling contract. ODFW personnel designed, staked, procured materials for and inspected the contract from July to October.

INTERAGENCY COORDINATION/EDUCATION

1. **Interagency Coordination** A 3 month cooperative agreement was developed between ODFW and the Grant County Soil and Water Conservation District (GSWCD) for FY 2000. The agreement required the GSWCD to develop and administer the tailings leveling contract on the Granite Cr./Kerns property and the Winegar/Indian Creek property.

The tailing leveling project on Granite Creek was closely coordinated with the Umatilla National Forest. Forest personnel wrote the environmental impact statement, obtained ESA clearance from NMFS, provided us with native grass seed and maps.

Plans and summaries of the Granite Creek Tailings Leveling project were sent to the Environmental Protection Agency. They used the information to write an EA for mining on Granite Creek. The plans will be used to develop reclamation strategies and requirements.

Four fisheries professors from Oregon State University were studying John Day riparian areas this summer. They were documenting the differences of channel morphology, water temperature and fish populations between degraded and recovered riparian areas. The biologist assisted them with gaining entry on private land including the Canyon Creek/Rawlins and Mainstem/Emmel properties to compare this projects sites to others that are un-recovered. Results are to be published in 2001.

The John Day office of the Oregon Dept. of Forestry allowed us to continue after all other construction operations were shut down due to extreme fire conditions. They allowed us to continue because we were working on bare rock. Without this exception we would have only completed 10 days of work instead of 44.

The biologist worked with the Confederated tribes of the Warm Springs and Umatilla, the basin's watershed councils and the basin's Conservation Districts to write a basin summary for CBFWA.

2. **Education**

The biologist accompanied 24 local high school students on a field trip to High Lake. He taught them about fish population dynamics within a closed lake system.

The biologist accompanied 6 local junior high students on a field trip to the Indian Cr./Kuhl property. They set up a vegetation recovery study within this fenced riparian area. The students tagged and measured the heights of 30 willow, 30 creek birch, 30 alder 30 cottonwood and 30 rose trees. The measurements will be repeated every year to document the relative growth rates of each species.

The biologist helped a local junior high science class measure hardwood growth rates on the Indian Cr./Kuhl property.

The biologist attended a monthly meeting of the Heppner chapter of the Northwest Steelheaders.

LITERATURE CITED

APPENDIX A

TNC Middle Fork Thermograph Chart

APPENDIX B

Appendix C
Mountain Creek fish species composition chart.