John Day River Subbasin
Fish Habitat EnhancementProject

Annual Report
2002

DOE/BP-00005632-2

March 2003

This Document should be cited as follows:

Powell, Russ, James Jerome, Kenneth Delano, "John Day River Subbasin Fish Habitat Enhancement Project", Project No. 1984-02100, 26 electronic pages, (BPA Report DOE/BP-00005632-2)

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208

This report was funded by the Bonneville Power Administration (BPA), U.S. Department of Energy, as part of BPA's program to protect, mitigate, and enhance fish and wildlife affected by the development and operation of hydroelectric facilities on the Columbia River and its tributaries. The views in this report are the author's and do not necessarily represent the views of BPA.

John Day River Subbasin Fish Habitat Enhancement Project

2002 ANNUAL REPORT

By

Russ M. Powell, Fish Habitat Biologist
James P. Jerome, Fish Habitat Technician
Kenneth H. Delano, GSWCD Engineer

Oregon Department of Fish and Wildlife
P.O. Box 515
John Day, Oregon 97845

Funded by
U.S. Department of Energy
Bonneville Power Administration
Division of Fish and Wildlife

Contract No. 00005632
Project No. 8402100

Mr. John Baugher, C.O.T.R.

March 2003

TABLE OF CONTENTS

ABSTRACT

Work undertaken in 2002 included: 1) Seven new fence projects were completed thereby protecting 6.0 miles of stream 2) Completion of 0.7 miles of dredge tail leveling on Granite Creek. 3) New fence construction (300ft) plus one watergap on Indian Creek/ Kuhl property. 4) Maintenance of all active project fences (58.76 miles), watergaps (56), spring developments (32) and plantings were checked and repairs performed. 5) Restoration and Enhancement projects protected 3 miles of stream within the basin. 6) Since the initiation of the Fish Habitat Project in 1984 we have 67.21 miles of stream protected using 124.2 miles of fence. With the addition of the Restoration and Enhancement Projects we have 199.06 miles of fence protecting 124.57 miles of stream.

INTRODUCTION

Background:

This project was initiated on July 1, 1984, under the Bonneville Power Administration (BPA) contract number DE A179-84 BP17460 and allows for initial landowner contacts, agreement development, project design, budgeting, and implementation for anadromous fish habitat improvement on privately owned lands within the John Day Basin. . The primary goal of ***"The John Day Basin Fish Habitat Enhancement Project"*** is to access, create, improve, protect, and restore riparian and instream habitat for anadromous salmonids, thereby maximizing opportunities for natural fish production within the basin. This project provided for implementation of Program Measure 703 (C)(1), Action Item 4.2 of the Northwest Power Planning Council's Columbia River Basin Fish and Wildlife Program (NPPC, 1987), and continues to be implemented as offsite mitigation for mainstem fishery losses caused by the Columbia River hydro-electric system.

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 3). 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 one mile upstream of the John Day Dam. The largest tributary, the North Fork, enters the mainstem of the 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 of the 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 of the John Day River originates from Cougar Mountain southwest of the town of Burns and drains the south side of Aldrich Mountain. Then it flows into the mainstem of the John Day River near the town of Dayville at RM 212.

The Bonneville Power Administration under contract number DEA 179-84 BP17460 provides funding for this endeavor. This funding is 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. The John Day Fish Habitat program primarily relies on restoring natural vegetation, floodplain connectivity and groundwater interactions, using riparian fencing in streams that have been impacted by livestock grazing. This method has proven to be effective in protecting and restoring streams (Beschta and others, 1991; Chaney and others, 1993). This program is coordinated with other fish habitat improvement programs on BLM and Forest Service and Tribal lands within the basin, and for these restoration activities to be successful, they must be coordinated across many jurisdictional and ownership boundaries; Section 7, Action Item 7.6C of the Northwest Power Planning Council's Columbia River Basin Fish and Wildlife Program (NPPC, 1994).

TABLE 1. New project implementation completed in 2002.

Stream/ Landowner	Canyon Cr./ Larson	Grub Cr./ McDaniel	Granite Cr./Kerns/ USFS	Indian Cr./ Oxbow	Canyon Cr./Ken Olson	Canyon Cr./Tuttle/ Baucum/ Still	Little Beech and Beech Cr./ Meredith	Mainstem John Day River/Mc Neil	Totals
Stay alignment						2.2 Miles			2.2 Miles stay wiring
# Plants			10,500 plants 150 # seed						10,500 plants 150#seed
Stream Length Protected	1.4Mile	.5 Miles	.7 Miles	.5 Miles	.5 Miles		2.6 Miles		6.2 Miles stream Protected
Spring/solar Development	One	One					One	One	Four
Cost for Labor/ Materials	$11,176 Partial	$12,261	$8,125 plants, $200 seed, $53,055.85 Dredge tail leveling	$8,186	$8,117	$1,490.60	$30,462	$1,960	$135,034

Specific areas that were added to the project during FY 2002 were:

- Construction of (1.1 miles) on Canyon Creek and (0.3 miles) on Berry Creek /Mr. Gordon Larson property. The fence construction on Canyon Creek is only on the east side of the creek, Highway 395 is the West boundary. Combining Berry/Canyon Creek the fence will protect 1.2 miles of creek. There was also one solar development installed. Contractor had an accident so project completion will not be until spring of 2003.
- Placement of one cattle guard on Canyon Creek/Larson property.
- There was 1.0 mile of fence built on Grub Creek/McDaniel property, protecting 0.5 miles of stream. Installed one solar spring development.
- The leveling of 0.7 miles of dredge tails by Harney County Gypsum construction on Granite Creek was completed in October, 2002. **Appendix 1**.
- Construction of 1.0 miles of riparian fence on Indian Creek/Oxbow ranch property protecting 0.5 miles of stream was completed by Stinnett Construction.

- Webb Construction Built 0.85 miles of fence on Canyon Creek/Olson property protecting 0.5 miles of stream.
- A contract was awarded to Mr. Ray Winegar to put wire supports on stays in order to hold them in place on three existing riparian leases on Canyon Creek helping to protect 1.1 miles of stream.
- The pounding of structure posts (1200) on the Beech/Little Beech Creek /Meredith project was completed by project personnel in winter of 2001; 5.3 miles of fence was constructed in 2002 by Webb Construction protecting 2.6 miles of stream. One spring development was also placed within this property to help alleviate cattle pressure from riparian fence.
- One spring development was installed on the Mainstem John Day River/McNeil property with an enclosure fence built around the perimeter to protect the water source.

Table 2. Cooperative fencing agreements (R & E projects) signed with landowners in 2002.

Location	Landowner	Date	Year	Activity	Expenditure	Funds
Lake Cr.	Krueger	3/2/02	2002	2.0 miles fence	$6,200	OWEB
Johnny Cr.	Kelly	3/15/02	2002	0.2 miles fence	$800	OWEB
Lower JDR	Mikkalo	3/28/02	2002	2.4 miles fence	$6,200	OWEB
Mainstem JDR	Komning	4/8/02	2002	0.15 miles fence	$380	OWEB
Laycock Cr.	McDonald	7/8/02	2002	0.75 miles fence	$3,750	OWEB
Laycock Cr.	Brusman	9/6/02	2002	0.5 miles fence	$3,000	OWEB

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 streamside 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, and 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 biologists 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 through the ten-year Restoration and Enhancement program. Providing fence materials and assist with fence layout, along with help in initial construction and giving of technical advice will accomplish this. 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 leases.

Beginning in 1993 the ODFW Fish Habitat Enhancement Program was broken down into four main activities:

1. **IMPLEMENTATION - Prework**
2. **IMPLEMENTATION - Onsite**
3. **OPERATIONS and MAINTENANCE**
4. **MONITORING and EVALUATION**

IMPLEMENTATION - Prework:

This is one of the most time-consuming and important phases of the program in which landowner relations and goals of the project are established and work activities are scheduled. Prior to project construction the following activities are conducted:

Project Planning

Project planning includes design, layout and mapping of all work to be done onsite, landowner coordination, development of contracts and contract specifications, and obtaining necessary work permits.

Project Preparation

Prior to signing leases or construction contracts, all lease boundaries and work sites must be identified, staked, and agreed upon by the landowner and/or contractor. Work sites may include easements or right-of-ways, fences, livestock watering gaps, instream structures, offsite water developments, planting, and miscellaneous lease or construction related areas.

Riparian Lease Development and Procurement

Riparian lease development and procurement includes meeting with landowners and/or their legal representatives specifically for the purpose of developing an acceptable lease or cooperative agreement text. Lease documents must be signed, notarized, and filed in the county courthouse.

Field Inventories

These may include prework stream surveys and photographic documentation to provide baseline information on habitat condition and potential for improvement prior to any onsite implementation.

IMPLEMENTATION - Onsite:

Onsite implementation activities are the primary responsibility of ODFW personnel with technical oversight being provided by the Grant County Soil and Water Conservation District. The actual on-the-ground work phase of the program may include any or all of the following:

Instream Work

During late summer and early fall (instream work window) when stream flows are lowest, instream structures may be installed in streams at locations pre-selected by fishery biologists and/or hydrologists. Instream structures will be installed to specifically address the factors limiting fish production in each stream reach. Structures of various types may be used to provide optimum pool/riffle ratios, raise stream water tables, collect spawning gravels, and increase the amount of large woody debris, thereby increasing quantity and quality of spawning and rearing habitats. Hard rock structures may be necessary under some circumstances, but bioengineered or other "soft" structures will be the primary methods used to stabilize stream banks. Boulders may be used to create small rearing pools and hiding cover and also may be used as anchor points for cabling large woody debris.

In some cases such as in artificially channelized reaches, more intensive work may be needed to restore a channel back to functioning at its full potential. Work in these reaches will be conducted based on Rosgen (1996) natural channel design to restore streams back into their natural dimension, pattern and profile.

Planting

During the early spring, shrub and/or tree species may be planted at pre-selected locations along streams within project areas. Since high summer water temperatures are a major limiting factor, plantings will be made to provide stream shade, thereby reducing summer water temperatures and increasing salmonid utilization of streams. The maximum shade attainable for most streams in project areas is estimated at 80 percent.

Plantings may also be done in areas of poor bank stability as a preferred alternative to the more costly rock structures. Plantings will be done only after riparian fences have been installed to ensure their protection. During the fall, areas disturbed during implementation activities will be seeded to stabilize soils and discourage weed growth.

Fencing

Degradation of streamside vegetation by domestic livestock has been a major problem within project areas. To provide protection from livestock, and thereby promote rapid recovery of existing and planted vegetation, fences will be constructed along riparian zones within project areas. When negotiating fence locations with landowners, preference will be given to projects where fences are located well outside the normal flood-prone area.

Offsite Water Developments

In an attempt to reduce the number of water gaps in riparian fences (thereby reducing fence construction and maintenance costs), and to encourage livestock utilization of vegetation away from riparian areas, offsite water sources will be developed.

Miscellaneous Implementation Activities

Cooperator signboards denoting riparian enhancement projects as cooperative efforts between BPA, ODFW and private landowners will be installed at highly visible sites along completed riparian enhancement project areas.

OPERATIONS AND MAINTENANCE:

Operations and maintenance activities will begin the year following implementation and include:

Landowner Coordination

Ongoing coordination and cooperation between landowners and ODFW is a vital element to ensure long-term project success after the initial implementation is completed.

Fence Maintenance

Biannual inspections of all project areas will be made. Following these inspections, all fence maintenance will be done. Stream cross fences and/or water gap cross fences may be installed or removed during these inspections or at any time during the year to meet landowner needs and ensure maximum recovery within the projects.

Instream Maintenance

Annual inspections of all instream structures will be done in combination with fence maintenance inspections. Instream structures are generally expected to provide long lasting benefits with low maintenance. Instream structure maintenance will be done on a case-by-case basis, depending on impact of the structure failure on riparian recovery, streambank stability and/or landowner needs.

Revegetation
Replanting and/or seeding of project areas may be necessary to produce adequate stream shading, bank stability, or cover within the 15-year lease period. Events such as severe flooding and bank erosion, or when recovery is unacceptably slow due to lack of parent stock may result in a decision to replant an area.

Miscellaneous Operations & Maintenance Activities
These activities include vehicle, ATV, and equipment maintenance and repair. Installing or replacing project signs, and efforts to control wildlife damage.

MONITORING AND EVALUATION:

Whenever possible, some level of monitoring will be established prior to project implementation and will continue beyond the term of the lease agreement if the landowner is willing. Individual projects will be monitored using one or more of the following methods:

Photopoint Establishment
Photopoint establishment will include locating and placing permanent markers at sites from which photographs can be taken at regular intervals. These photographs are a primary and inexpensive means of documenting physical and biological changes along streams. Also associated with photopoint establishment is development of a photopoint notebook for each project area. These notebooks contain maps of all photopoint locations, instructions on taking the photographs, and labeled slides and prints.

Photopoint Picture Taking
Standardized pictures will be taken from pre-selected photopoints prior to implementation of any project area and for the next two years immediately following the 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.

Habitat Monitoring Transect Establishment
Within selected project areas permanent habitat monitoring transects will be established. Specific measurements will then be taken along each transect to record channel morphology and vegetative characteristics. These measurements will be repeated at regular intervals and compared with original measurements as a means of quantitatively measuring environmental changes through time.

Habitat Monitoring Transect Data
Immediately after establishing habitat monitoring transects, baseline data will be collected. Data collection will be done on the first year following completion of implementation activities and thereafter at approximately 5 year intervals.

Thermograph Data Collection and Summarization
Thermograph data will not be recorded, collected, summarized, or graphed on a regular basis. The purpose of this type of monitoring is to detect changes in stream water temperatures that may occur over the years within fenced-off recovering riparian areas. Currently the Fish Habitat program has no projects that include enough concurrent fence mileage, where the effects of fencing can be evaluated.

Miscellaneous Monitoring and Evaluation
Miscellaneous monitoring and evaluation activities may include Chinook salmon and steelhead redds counts, juvenile fish population surveys, streambank stability surveys, and evaluating riparian vegetative recovery and/or planting success.

RESULTS AND DISCUSSIONS: FIELD ACTIVITIES

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

Implementation – Prework:

Project Planning

Design and Layout

A map of the fence location on Canyon Creek/Larson property was completed.

The technician worked on lease maps for the Beech Creek/Meredith and Grub Creek/ McDaniel properties.

The project construction map on Canyon & Berry Creek/Larson property was completed.

Personnel worked on project map for Indian Cr. /Corwin property.

Mapping of all vicinity maps for projects to be completed in 2003 was completed.

Landowner Coordination

Project personnel attended a meeting with landowner John Thoming (May 16) at Grub Creek to discuss details of a Riparian Lease Agreement. The biologist and technician met with Jim Thoming (brother to John) on June 10 to discuss the same project on Grub Creek. Jim was concerned about the lease agreement duration. He thought that the lease was too long of a rest period (15 years). Project personnel explained the requirements of the agreement to him, after which he was satisfied. Both parties surveyed the potential project area, afterward the fish habitat personnel were told to write up a Riparian Lease Agreement, to fence and protect approximately 3 miles of Grub Creek.

Project personnel met with Allen Mullin regarding a spring development site along the mainstem of the John Day River.

The technician met with Gordon Larson to discuss Berry and Canyon Creek Riparian Lease Agreement. Both parties agreed on fence alignment and a lease is to be signed.

Program personnel met with Mr. Ken Olson/Canyon Creek to discuss details of the riparian project.

The technician and biologist met with Ron Rollins at his property on Granite Creek to explain the goal of the dredge tail leveling project. He was in favor of getting the project completed in 2003.

The technician also contacted Don Pettrocini/Granite Creek who was also willing to have the dredge tail leveling project completed on his property in 2003.

Developing Contracts and Contract Specifications

A contract for fence repair was written for three projects on Canyon Creek (J Bar L, Still, and Baucum properties).

The biologist made revisions to the "Contract Specifications for Granite Creek Dredge Pile Leveling Contract" that is to be started and completed in August 2002.

The technician developed a riparian lease and map for the Indian Creek/Oxbow property.

Obtaining Work Permits

Project personnel purchased a wood permit to cut gate ends; approximately 175 gate ends were cut for future projects.

The technician finished and submitted a DSL permit to rock watergap approaches and structure posts on Mountain Cr. /Brown property to be completed in 2003.

The biologist finished and submitted a DSL permit to help stabilize 250 feet of vertically cut banks with juniper rip-rap on Indian Creek/Corwin property.

The biologist started gathering information to start a biological assessment for instream work to be completed on Indian Cr. /Corwin property in 2003.

Project Preparation

The landowner was dissatisfied with the fence alignment on the Indian Cr. /Olson property. It was restaked to meet both his approval and the fish habitat programs needs.

Staking of the Canyon Cr. / Olson property was completed.

Program personnel staked out 90% on Thoming/Grub Creek project (landowner had some concerns so staking was halted). After landowner consideration the staking and ribbons were removed from the Grub Cr. /Thoming property. The 6.8 mile fence project was not satisfactory to Mr. Thoming and may be resumed at a later date in time.

Preliminary fence staking was completed on Berry Cr. /Larson and Indian Cr. /Olson projects.

Project personnel staked the remaining fence on Canyon Creek/Larson property.

Riparian Lease Development & Procurement

The Lease Agreement with the Indian Cr. /Olson property was filed with Grant County Court.

Project personnel met with Mr. Ed Grinegar to discuss a possible project on the Mountain Creek property he had just acquired. He said he would consider the project proposal and get back to us.

The technician met with Ken Olson on Canyon Creek. He also wants to start a project in winter of 2002.

A Riparian Lease Agreement was signed by Sam McDaniel to fence a 0.5 mile section of Grub Creek.

The biologist met with Mr. Gail Corwin on his Indian Creek property to discuss the Riparian Lease for 2003. A Riparian lease and project area map was provided to Mr. Corwin. After further negotiations he is willing to start a riparian project on his property in 2003.

The biologist met with Mr. Victor Pike who owns property along the John Day River to discuss a riparian project. The only problem concerning the project is that he wanted a 100 year lease. He was told that the BPA would not agree to that long of a lease. He was advised that he could put a covenant on the lease to include another 85 years of maintenance to be completed by the landowner.

Lease map for Indian Cr. /Olson was finished and the landowner was satisfied with the fence alignment.

Field Inventories

Contracts for fence and watergap materials and delivery were written, announced and awarded by ODFW.

There were 35 pre-work photos taken of the Granite Creek dredge tail leveling project.

Fence and instream construction contracts, specifications, and project site maps for 2002 were written and awarded by GSWCD.

All 2002 construction sites were staked and flagged for the contractors by ODFW personnel.

Implementation - On site:

Fencing

Project personnel pounded 120 structure posts for approximately 1.5 miles of fence on the Beech Cr. /Meredith project.

The seasonal technician and biologist rebuilt 4 structures and 300 foot of mainline fence on Cottonwood Cr. /Hettinga property.

Project personnel put in a temporary electric water gap on Beech Creek/ Meredith property to allow for cattle watering.

The seasonal technician built 11 new escape gates to replace existing gates not properly functioning on Indian Cr. /Kuhl property.

Seasonal technician replaced three structures and rebuilt one watergap on Pete Baucum's boundary crossing.

The technician met with contractors on both Beech Creek/Meredith and Indian Creek/Olson to check on their progress. Measurements of completed fence on both projects were taken to allow contractors to receive partial payments.

Two hundred feet of barbed wire fence was built along with a watergap on Indian Creek/Kuhl property.

The technician set 80 structure posts on the Little Beech Creek/Meredith property which completes approximately 1.5 miles of fence posts set.

Project personnel installed watergaps on Fox Cr. /Hiatt property.

The watergaps on the Phipps Meadow/Moeller project were repaired and installed.

Upon most pastures being 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.

Offsite Water Developments

Project personnel developed a water site on the John Day River/McNeil property; a ram pump system was installed. Mr. Brian Adams (fence contractor) was contracted to build an enclosure fence around the spring development.

Project personnel developed a spring on the Little Beech Cr. /Meredith property.

The technician also completed a solar development site on the Grub Cr. /McDaniel property.

Test holes were dug to see if a spring could be developed on the McDaniel/Grub Creek property. With the current drought situation, no measurable amount of water was located.

Miscellaneous Implementation Activities

The Granite Creek dredge tail leveling project was completed and the disturbed areas were seeded with 200lbs of Mountain and Meadow brome and Prairie June grass seed mixture.

OPERATIONS AND MAINTENANCE:

Landowner Coordination

Several calls from Sam McDaniel regarding the fence project on Grub Creek were answered.

Many of the landowners were contacted throughout the year in regards to timing of their cattle movements, watergap installation and removal, and weed control.

The seasonal technician contacted every landowner and coordinated watergap installation and general fence maintenance.

All landowners were contacted and asked about watergap removal. Most watergaps were removed or raised to prevent icing/flooding, with some being left in to water livestock throughout the winter.

Instream Maintenance

The seasonal technician rebuilt four structures and moved fencing away from a vertical bank on Mainstem John Day River/Jacobs property. He also strategically placed six large pieces of cottonwood to help alleviate bank pressure.

Fence Maintenance

The technician checked the mainline fence for damage on Camp Cr. /Hiatt and Cottonwood Cr. / Hettinga property.

Project personnel spent time looking for springs that could be developed on Little Beech and Beech Creek/Meredith property and also on Grub Creek/McDaniel property.

The technician completed fence maintenance on the West Grub Cr. /Mullin and John Day River/Jacob properties. The watergap at the mouth of West Grub Creek/Mullin property was repaired due to cattle pressure.

An electric fence was installed on a 200-foot section of Indian Creek/Kuhl property until project personnel could build a permanent 200-foot barbed wire section and cross fence.

Habitat personnel removed thirty head of cattle out of the riparian area on Mountain Creek/Brown property. Fence maintenance was then completed along with watergap installation.

The project fence was cut and the private property vandalized on Granite Creek/Kerns property. The fence was rebuilt by ODFW personnel.

Miscellaneous Operations & maintenance activities

Service on all project vehicles was completed.

The seasonal technician replaced 70% of the smooth wire twists that hold the hog panels on the cross fences with quick snaps. This should save hours of time when installing and removing the hog panels from project areas.

The biologist looked into the cost of having a well drilled (150ft) on Fox Cr. /Johns property. The well would also supply water to another adjacent landowner to help alleviate cattle watering problems.

Seasonal habitat technician preformed maintenance on the HD10 Shaver post pounder.

Program personnel removed a fish trap no longer in use and extended the by-pass pipe on Indian Cr. /Corwin property.

The technician and biologist went to Five Mile Creek and cut 8 pieces of 1" rebar from the artificial dam, which may have been a problem with fish passage.

The T-bases for cattleguard placement were hauled to Canyon Cr. /Larson property.

The seasonal technician installed new decking and side rails on the utility trailers. A wood sealer was applied to protect the boards. The wheel bearings were also maintained on both trailers.

MONITORING AND EVALUATION:

Photopoint Picture Taking

A total of five photopoints were established on the Beech Creek/Meredith property.

Program personnel took post-work photographs from 14 permanent markers on the Granite Creek dredge tail leveling project.

There were two permanent photopoints established on Berry Creek and two on Canyon Creek/Larson property.

The seasonal technician established 61 permanent photopoints on existing projects, with T-133 steel posts, where original photos could be found. The photopoint descriptions on project areas were also written and logged into the computer.

Thermograph Data Collection and Summarization

Two new Stow-A-way thermographs were put into place on Cottonwood Creek to replace the Ryan thermographs that had expired. The thermograph data on Cottonwood Creek was retrieved and downloaded. The upper thermograph was not initiated properly so no useable data was collected. The fish habitat program is currently looking into different options for thermographs.

Miscellaneous Monitoring Activities

The technician met with the Grande Ronde Basin technician and EBA personnel to complete a Steelhead Redd count on Meadow Cr. /Warn property.

Streambank stability data from Little Beech Creek, January 15, 2003.

	Bank Class/Feet	Total bank	Percentage
Covered/Stable	CS/4466	9474	47.14 %
Uncovered/Stable	US/2539	9474	26.79 %
Uncovered/Unstable	UU/1879	9474	19.83 %
Covered/Unstable	CU/590	9474	6.24 %

	Class	**Class Feet**	**Total Bank**	**%**
Total Stable	**CS + US**	**7005**	**9474 X 100**	**73.94 % Stable**
Total Covered	**CS + CU**	**5056**	**9474 X 100**	**53.38 % covered**

Data derived from this survey shows that this tributary to Beech Creek is in good condition with a 73.94 % stable banks and 53.38 % covered streambanks. This survey will be completed again after 5 years of recovery to compare changes in composition.

Aerial flights were completed on all project areas within the July-September quarterly.

The last flight with Mr. Bill Krayer to look over project areas was taken on 10-17-02. Bill has retired. He had flown for the last 10 years for the ODFW fish habitat program.

PROGRAM ADMINISTRATION

RESULTS AND DISCUSSION II.

Reports and Data Summaries

The 2001 fish habitat annual report was written and submitted to BPA.

The January-March, April-June, July-September, and October-December 2001 quarterlies, and January-March and April-June, July-September, and October-December 2002 quarterly reports were written and submitted to BPA.

The biologist finished the Statement of Work (SOW) and Master Budget for the 2003 work period.

Mr. Tim Fisher of Fisher Fisheries, who is working on behalf of Bonneville Power Administration, wanted information on the John Day Fish habitat project which the biologist provided.

Monthly expenditure summaries were completed.

Budgets/Purchases

Miscellaneous field supplies, lumber, culverts and cattle guard quotes were sent out for bids.

Four thousand stays and 250 half rounds were delivered to the fish habitat stock pile at the screens yard from Don Kandle.

Request for bids were sent out to various vendors for barbed wire, t-posts, and wood posts.

A new Dell computer was purchased and installed for the fish habitat program.

Bids for fencing supplies were sent out, all items were received at the John Day screens material yard.

A Bradco backhoe attachment was purchased and fitted for the John Deere tractor.

Program Development

The biologist finished a report for FCRPS Bi-Op measure 153 which is BPA's effort to document compliance with NOAA fisheries.

The biologist worked on lease renewal options and criteria for renewing expired projects which was then forwarded to the BPA contracting officer.

Personnel

The technician (Russ Powell) from the Grande Ronde fish habitat program came over to look at the new projects that are currently in construction. He was also looking into the fish habitat biologist position, currently not filled within the John Day fish habitat program.

The new fish habitat biologist (Russ Powell) was hired and started working on June 1, 2002, for the John Day fish habitat program. Russ had been the technician with the Grande Ronde fish habitat program in La Grande for eight and a half years.

A meeting was attended by Mr. John Baugher of BPA with fish habitat personnel in John Day. A tour of the upper John Day Basin projects was then taken to look at existing projects and potential project areas.

The seasonal technician, Lonnie Goin Jr., was rehired June10 and his term ended on November 30.

Monthly safety meetings were attended by project personnel at the screen shop, which included a fork lift operator test.

Contract Administration

A pre-bid tour of the Grub Creek/McDaniel property was given with five contractors attending the tour. The project was awarded to Carl Stinnett Construction.

A pre-bid tour on Canyon Creek / Oxbow ranch property was given with only one contractor attending. Webb Construction was awarded the contract.

Project personnel along with the NRCS District manager worked on the fence contact for the Indian Cr. /Olson property. A pre-bid tour was given of the Indian Cr. /Olson property with three contractors attending and the bid was awarded to Carl Stinnett Construction.

Inventory of the fish habitat program materials, tools, and equipment was taken and put into a data base program.

Different options were written and sent to the COTR on how to keep expired leases in a proper functioning condition.

A pre-bid tour on Granite Creek dredge tail leveling project was attended by four contractors. The bid was awarded to Harney County Gypsum construction out of Burns, Oregon.

A pre-bid tour of the Larson/Canyon and Berry Creek projects was given with one contractor attending the meeting; Mr. Mark Webb was awarded the fencing contract.

A pre-bid tour of the Canyon Creek/Olson project was given with one contractor attending the meeting. Mr. Mark Webb was awarded the fencing contract.

Miscellaneous Administrative Activities

The GSWCD wrote, published, announced, awarded, administered and made payments for the Canyon Cr./Larson, Grub Cr./McDaneil, Granite Cr., Indian Cr./Oxbow, Canyon Cr./Olson, Canyon Creek stay alignment, Little and Main Beech Creeks/Meredith, and Mainstem Spring development construction contracts. ODFW personnel designed, staked, procured materials and inspected the contracts from December to February.

INTERAGENCY COORDINATION & EDUCATION

Interagency Coordination

The habitat biologist spoke with CiCi Brooks of the NRCS about the CREP program.

A table summarizing herbicide applications on leased project lands was provided to BPA.

The biologist met with assistant District Biologist and Jim Dovenburg to discuss alternate water sources.

The biologist and technician went to East Birch Creek to talk with Mike Montgomery (fish habitat technician, Pendleton) about instream structures he was installing (J-Hooks/Cross Vanes).

Project personnel went to Bear Creek in the Grande Ronde Basin and met with Mr. Vance McGowan (fish habitat biologist, La Grande) who is starting a channel relocation project using the Dave Rosgen methodology.

The biologist helped the assistant District Fish Biologist with electro shocking of Congo Gulch a tributary of Clear Creek.

Program personnel helped the assistant District Fish Biologist remove a 7 foot log jam at the Murderers Creek falls that was blocking fish passage the last three years.

The biologist was on the interview committee in which to hire an office specialist for the district.

The seasonal technician assisted Al Hemmington of Corvallis Fish Research to complete transects on Rail Creek.

Meetings were held with both weed masters of Grant and Wheeler Counties to discuss problem weed areas within the fish habitat program's leased areas.

ODFW personnel assisted employees of the City of John Day with the removal of several large cottonwoods that potentially could have been bridge hazards at high flows on the Mainstem of the John Day River.

Project personnel inspected the cabling of trees along Camas Creek that was completed by ODFW employees and Forest Service personnel.

Details of the 2002 budget were discussed with GCSWCD Manager, Northeast Region Manager, and project personnel.

Project personnel helped with the backpack stocking of 100 lbs. of brook trout into Jump Off Joe Lake, which is at the headwaters of the North Fork of the John Day River.

Education

- The biologist and technician attended a McKenzie Watershed Council meeting in Eugene, Oregon, to learn more about fish habitat programs.
- The biologist attended a Skillpath Seminar on how to deal with employees.
- The biologist went to Pagosa Springs, Colorado and took the Level II Wildland Hydrology class.
- The technician attended the level I Wildland Hydrology training in Lubrecht Forest, Montana.
- Project personnel attended monthly safety meetings at the screen shop.

- The biologist helped with the Town Hall Meeting held in John Day on the topic of wolf expansion into Oregon.

- Display boards with pictures and details explaining the Fish Habitat Program were presented at the Second Annual Fair put on by the SWCD in Monument on January 9th.

- Project personnel attended a Hazmat training workshop in La Grande, Oregon.

- Project personnel went to DSL meeting in La Grande, Oregon.

LITERATURE CITED

Beschta, R. L., Platts, W.S., and B. Kaufman. 1991. Field review of fish habitat improvement projects in the Grande Ronde and John Day River basins of eastern Oregon.

Chaney, Elmore, and Platts. 1993. Managing Change: Livestock Grazing on Western Riparian Areas, U.S. Environmental Protection Agency, 31 pp.

McGowan, Vance, 2002. Personal communication. ODFW District, LaGrande, OR.

Neal, Jeff, 2002. Personal communication. ODFW District, John Day, OR

Northwest Power Planning Council. 1987. Columbia River Basin Fish and Wildlife program Portland, Oregon.

Northwest Power Planning Council. 1994. Columbia River Basin Fish and Wildlife program Portland, Oregon.

Rosgen, D. 1996. Applied River Morphology. Wildland Hydrology, Pagosa Springs, Colorado.

Unterwegner, Tim 2002. Personal communication. ODFW District, John Day, OR.

Appendix 1

This photograph shows work being performed on Granite Creek in September, 2002. This picture depicts the most commonly used practice, where a hole is excavated outside of the project area. Trees that were not used for stream restoration were placed into the excavated hole. The top soil is then placed to the side, to later be spread over the disturbed area.

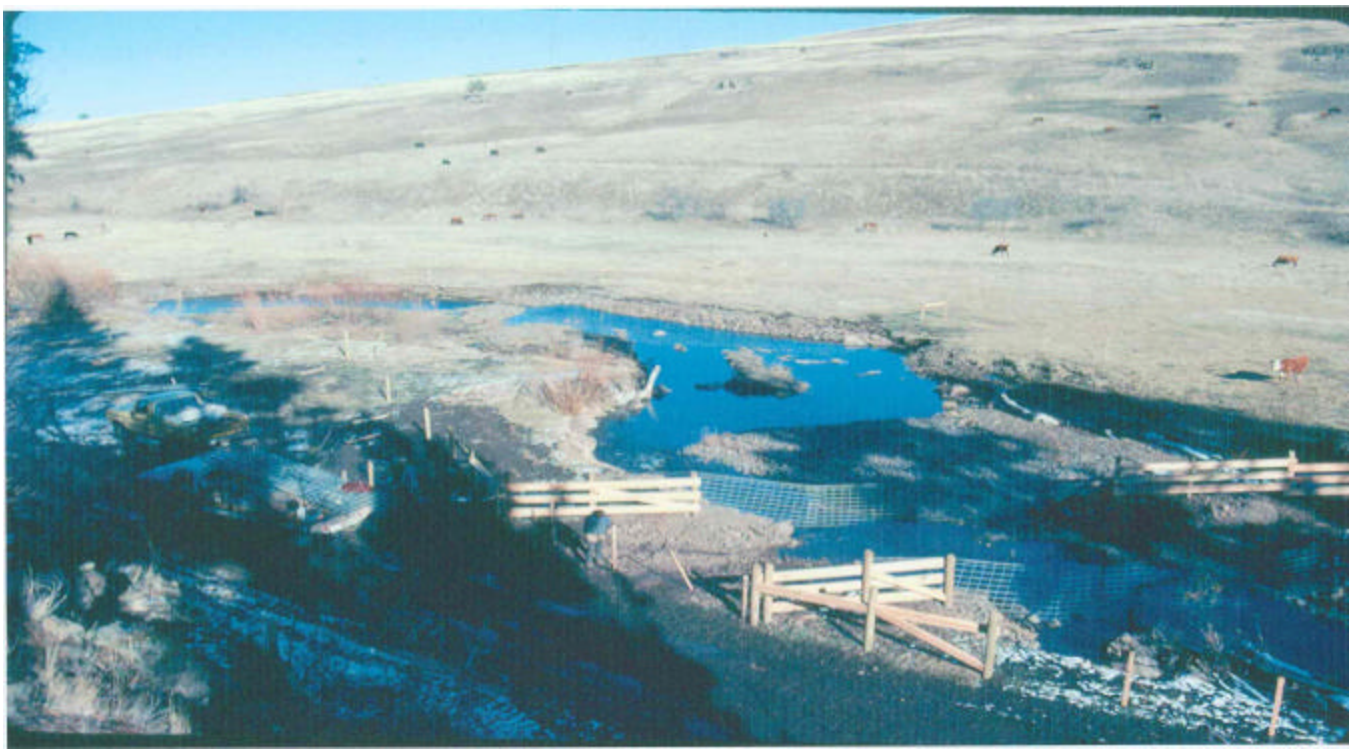
This photo shows the D8 cat pushing larger materials such as cobble and boulders into the previously dug hole. As the D8 cat is pushing the larger material the fines/soil are continually being dropped out over the entire area. Fines/soils along with the top soil excavated from the hole will later be spread out over the entire area, **which the next photograph on page 19 demonstrates**.

Here is the last photo in the series taken on Granite Creek in September 2002. This photo demonstrates how the top soil was spread out over entire area. The area was then seeded with Mountain and Meadow brome and Prairie June grass seed mixture. The riparian and uplands will be planted with native seedlings in the spring of 2003.

Appendix 2

Indian Creek, Kuhl property in April 10, 1998. Only a moderate amount of vegetation is evident, due to over grazing.

Indian Creek, Kuhl property photo taken on July 10, 2002. After 4 years of recovery a dense canopy of willows and alders has developed.



Long Creek, Carter Ranch property, December 1990. The fencing project was completed in the spring of 1991.

Long Creek, Carter Ranch property, August 2002. This willow and alder recovery is slow due to the high elevation with a short growing period. The photo shows that the channel is narrowing and deepening after 12 years of recovery.