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John Day River Sub-basin Fish Habitat Enhancement Project

2008 ANNUAL REPORT

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I. ABSTRACT

Work undertaken in **2008** included: **1)** Seven new fence projects were completed thereby protecting approximately 10.97 miles of streams with 16.34 miles of riparian fence; **2)** Renewal of one expired lease was completed thereby continuing to protect 0.75 miles of stream with 1.0 mile of riparian fence. **3)** Maintenance of all active project fences (106.54 miles), watergaps (78), spring developments (33) were checked and repairs performed; **3)** Planted 1000 willow/red osier on Fox Creek/Henslee property; **4)** Planted 2000 willows/red osier on Middle Fork John Day River/Coleman property; **5)** Planted 1000 willow/red osier cuttings on Fox Creek/Johns property; **6)** Since the initiation of the Fish Habitat Project in 1984 we have 126.86 miles of stream protected using 211.72 miles of fence protecting 5658 acres.

II. INTRODUCTION

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.

A.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 in-stream habitat for anadromous salmonids, thereby maximizing opportunities for natural fish production within the basin. This project provided for implementation of Program Measure 703 ©(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 main stem fishery losses caused by the Columbia River hydro-electric system.

III. DESCRIPTION OF PROJECT AREAS

The John Day River drains 8,010 square miles of land in east central Oregon and is the third largest drainage in the state. 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 (See Figure 1).

FIGURE 1.

John Day River Fish Habitat Projects

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.

Projects Completed in John Day Subbasin 2008

Stream/ Landowner	JDR/ Jacobs	JDR/ Mabe	JDR/ Latosky	Laycock Cr./Holliday	Mountain Cr./Collins	Eight mile Cr./ Leach	Hay Creek/ Campbell	JDR/ Nance	Total
Miles of Stream Length Protected	0.80	0.75	0.75	2.90	2.10	0.65	2.50	0.52	10.97
Miles of fence built	1.43	0.89	0.89	3.71	3.56	1.12	3.92	0.82	16.34
Spring/solar Development	None	None	None	Three	One	None	None	None	Four
Miles of fence Renewal	2.60	None	None	None	None	None	None	0.82	3.42
Cost Labor/Materials for New	\$13,299	\$8277	\$8277	\$34,503	\$33,108	\$10,416	\$36,456	\$7,626	\$151,962
Renewal	\$25,000							\$4,560	\$29,560
Springs				\$12,500	\$1,965				\$14,465

(Note: The total cost for the projects completed in 2008 does not include ODFW personnel service time.)

PROJECT OVERVIEW 2008

- Construction of 1.43 miles of riparian fence on John Day River /Jacobs's property. Completed maintenance on 2.60 miles of renewal riparian fence John Day River/Jacob's property.
- Construction of 0.89 miles of riparian fence on John Day River and Southfork John Day River confluence/Mabe property.
- Construction of 0.89 miles of riparian fence on John Day River and Southfork John Day River confluence/Latosky property.
- Construction of 3.71 miles of riparian fence on Laycock Creek/Holliday property tributary of the John Day River.
- Construction of 3.56 miles of riparian fence was completed on Mountain Creek/Collins property a tributary of the John Day River.
- Construction of 1.12 miles of riparian fence on Eight Mile Creek/Leach property a tributary of the Middle Fork John Day River.
- Construction of 3.92 miles of riparian fence was completed on Hay Creek/Campbell property a tributary of the lower John Day River.
- Reconstruction of 0.82 miles of riparian fence was completed on John Day River/Nance property.
- One solar spring development was installed on Bob Collins property on Mountain Creek.
- Three gravity spring developments were installed on Laycock Creek/Ken Holliday property.
- There were photopoints taken on previously established project areas, and also on new projects.
- Cultural surveys were completed by BPA personnel on all fence projects
- There was a total of 1000 willow/red osier cuttings planted on Fox Creek/Henslee property by the local Warm Springs Confederated Tribe of Oregon personnel.
- A total of 2000 willow/red osier cuttings where planted on Middle Fork John Day/Coleman property.
- There was a total of 1000 willow/red osier cuttings planted on Fox Creek/Johns property.
- Steelhead surveys were completed on Cottonwood Creek and Lake Creek.

Table 2. Summary of completed projects since the initiation of the program, 1984-2008.

Landowner	Year	Stream	AGREEMENT	Miles	Acres	Fence	Spring
	Built		STATUS	Protected	Leased	Miles	Developments
Lower Mainstem John Day River							
Hettinga/Barenburg	1990	Cottonwood Creek	EXPIRED 1/8/2005	0.50	15.0	1.00	0
Brown	1992	Mountain Creek	EXPIRED 2/4/2007	3.00	37.0	5.10	6
Jones	1992	Mountain Creek	EXPIRED 12/23/2007	3.20	35.0	5.30	0
Greniger	1992	Mountain Creek	EXPIRED 11/15/2007	1.10	12.0	2.30	0
Collins	1998	Mainstem John Day River	ACTIVE (R&E project) Expires 7/1/2008	1.25	6.0	1.25	0
Misner	1998	Mainstem John Day River	EXPIRED 5/1/2008 R&E project	0.80	3.0	0.80	0

Buche	1999	Mainstem John Day River	ACTIVE (R&E project) Expires 6/6/2009	0.67	3.0	0.67	0
Belknap	2001	Mainstem John Day River	ACTIVE (R&E project) Expires 5/1/2011	1.00	5.0	1.00	0
Twickenham Livestock	2002	Mainstem John Day River	ACTIVE (R&E project) Expires 9/1/2012	0.33	1.0	0.33	0
Krueger	2002	Lake Creek	ACTIVE (R&E project) Expires 5/28/2012	1.10	320.0	2.50	0
Kelly	2002	Johnny Creek	ACTIVE (R&E project) Expires 3/15/2012	1.00	15.0	2.00	0
Hoover	2003	Lake	ACTIVE Expires 5/28/2018	5.30	143.0	8.10	0
Lang	2004	Squaw Creek	ACTIVE Expires 6/22/2019	0.75	320.0	2.00	1
Mascall	2005	Cottonwood Creek	ACTIVE Expires 7/11/2020	1.30	42.0	2.50	2
Collins	2005	Mountain Creek	ACTIVE Expires 10/26/2019	1.60	28.0	3.20	1
Mascall	2006	Cottonwood Creek	ACTIVE Expires 4/26/2021	0.92	14.0	1.78	1
Ritner	2007	Mainstem John Day River	ACTIVE Expires 5/07/2022	0.50	13.0	0.50	0
Mascall	2007	Cottonwood Creek	ACTIVE Expires 5/7/2022	1.20	36.0	2.30	0
Collins	2008	Mountain Creek	Active Expires 5/25/2023	2.10	58.0	3.56	1
Campbell	2008	Hay Creek	Active Expires 5/25/2023	2.50	73.0	3.92	0
<u>Subtotals</u>				<u>30.12</u> Miles	<u>1179</u> Acres	<u>50.11</u> Fence	<u>12</u> Spring
				Protected	Leased	Miles	Developments

Upper Mainstem John Day River

Coombs	1985	MJDR	EXPIRED 6/27/2000	0.40	8.0	0.60	0
Emmel	1985	MJDR	EXPIRED 4/04/2000	1.20	24.0	2.50	0
Nance	1985	MJDR	EXPIRED 6/27/2000	0.40	10.0	0.80	0

Holmstrom	1985	MJDR	EXPIRED 9/05/2000	1.20	15.0	1.50	0
Fields	1986	MJDR	EXPIRED 7/02/2001	0.60	15.0	1.00	0
McNeil	1986	MJDR	EXPIRED 5/21/2001	2.10	35.0	4.10	2
Smith	1987	MJDR	EXPIRED 7/23/2002	0.85	12.0	1.80	0
Carter	1987	MJDR	EXPIRED 4/27/2002	2.00	39.0	4.10	2
Jacobs/Lawrance	1988	MJDR	EXPIRED 7/13/2003	0.7	22	1.43	0
Hill	1988	Canyon Creek	-	0.00	0.0	0.00	0
Holliday	1989	MJDR	EXPIRED 5/10/2004	0.37	25.0	0.70	0
Rawlins	1989	Canyon Creek	EXPIRED 11/30/2004	2.40	33.0	3.70	1
Still	1990	Canyon Creek	EXPIRED 11/29/2005	0.37	9.0	0.70	0
Cosgrove/Olson	1990	Canyon Creek	EXPIRED 12/12/2005	0.50	10.0	1.00	0
Baucum	1990	Canyon Creek	EXPIRED 11/29/2005	0.62	9.0	1.40	0
Tuttle	1990	Canyon Creek	EXPIRED 12/12/2005	0.44	6.0	1.10	0
Page	1991	Cummings Creek	EXPIRED 9/2004, sold to Riggs 3/2005	0.75	35.0	1.50	0
Stanfill	1995	Canyon Creek	EXPIRED 7/7/2005 R&E project	0.70	12.0	1.43	0
Napier	1995	Canyon Creek	ACTIVE Expires 12/1/2010	0.40	32.0	0.50	0
<u>Subtotals</u>				<u>15.3</u>	<u>329</u>	<u>28.43</u>	<u>5</u>
Upper Mainstem John Day River				Miles	Acres	Fence	Spring
				Protected	Leased	Miles	Developments
Thomsen	1998	Dry Creek	ACTIVE (R&E project) Expires 12/1/2008	2.00	2080.0	4.00	0

Kuhl	1998	Indian Creek	ACTIVE Expires 2/17/2013	1.43	24.0	2.86	0
McNeil	1999	Grub Creek	ACTIVE Expires 11/15/2009	1.75	35.0	3.26	2
Winegar	1999	Indian Creek	ACTIVE (R&E project) Expires 2009	0.3	2.0	0.30	0
Forrest/CTWSRO	2001	MJDR	ACTIVE ongoing CTWSRO	2.80		5.50	0
Meredith	2001	Beech Creek	ACTIVE Expires 8/1/2016	2.60	49.0	5.20	2
McDaniel	2001	Grub Creek	ACTIVE Expires 12/1/2010	0.50	16.0	1.02	1
Olson/Oxbow	2001	Indian Creek	ACTIVE Expires 11/1/2016	0.60	9.0	1.20	0
Patterson	2001	Beech Creek	ACTIVE (R&E project) Expires 2012	0.50	6.0	0.50	0
McDonald	2002	Laycock Creek	ACTIVE (R&E project) Expires 7/8/2012	0.40	5.0	0.75	0
Brushman	2002	Laycock Creek	ACTIVE (R&E project) Expires 9/6/2012	0.25	1.5	0.50	0
Larson	2002	Canyon Creek	ACTIVE Expires 8/15/2017	0.90	17.0	1.40	2
Pike	2003	MJDR	ACTIVE Expires 5/28/2018	0.70	10.5	0.70	0
Corwin	2003	Indian Creek	ACTIVE Expires 5/22/2018	0.50	8.0	0.80	0
ODFW	2006	MJDR	-	0.50	28.0	0.00	0
Jacobs	2007	MJDR	ACTIVE Expires 11/7/2017	1.20	28.0	1.70	0
Jacobs	2007	MJDR	ACTIVE Expired 2003 (UM-9), Renewed 2007, Expires 11/7/2017	0.70	22.0	1.43	0
Dovenberg	2007	Widows Creek	ACTIVE Expires 5/7/2022	1.75	49.0	2.80	0
Holliday	2008	Laycock Creek	Active Expires April 11,2023	2.90	152.0	3.71	3
Jacobs	2008	MJDR	Active Expires April 11,2018	0.80	24.0	1.43	0
		<u>Subtotals</u>		<u>23.08</u>	<u>2566</u>	<u>39.06</u>	<u>10</u>
North Fork John Day River				Miles Protected	Acres Leased	Fence Miles	Spring Developments

McGirr	1985	Fox Creek	EXPIRED 5/22/2000	2.40	38.0	4.80	4
Bentley	1985	Deer Creek	EXPIRED 5/17/2000	1.20	33.0	2.40	2
Johns	1985	Fox Creek	EXPIRED 5/17/2000	(6.6)	(134)	(12.2)	15
Burns	1985	Deer Creek	EXPIRED 1994 Landowner buy out	6.50	37.0	13.00	0
Burns	1985	Deer Creek	-	0.00	0.0	0.00	0
Buckhorn Ranch	1987	Five- Mile Creek	-	0.00	0.0	0.00	0
Pendleton Ranches	1990	Camas Creek	EXPIRED 1/1/2005	2.80	45.0	5.50	0
Henslee	1994	Fox Creek	ACTIVE Expires 12/20/2009	0.80	13.0	1.70	2
Gerstner	1999	Fox Creek	EXPIRED 10/2/2005 R&E project	0.71	25.0	1.06	0
Kerns	1999	Granite Creek	ACTIVE Expires 4/1/2009	1.80	45.0	0.40	0
Kerns/USFS	2002	Granite Creek	ACTIVE Expires 9/2/2012	0.50	48.0	0.00	0
Pedracini	2003	Granite Creek	ACTIVE Expires 6/24/2013	0.50	35.0	0.00	0
Rollins	2003	Granite Creek	ACTIVE Expires 6/24/2013	0.50	24.0	0.00	0
Nansen	2004	Cottonwood Creek	ACTIVE Expires 8/18/2018	4.50	228.0	7.10	1
Cole	2004	Cottonwood Creek	ACTIVE Expires 12/16/2018	0.55	6.0	1.10	1
Engle	2004	Cottonwood Creek	ACTIVE Expires 1/21/2019	4.00	123.0	5.20	2
Habberstad	2005	Cottonwood Creek	ACTIVE Expires 6/17/2020	0.50	10.0	1.10	0
Habberstad	2005	Cottonwood Creek	ACTIVE Expires 6/17/2020	2.55	54.0	2.70	1
Engle	2006	Cottonwood Creek	ACTIVE Expires 4/26/2021	0.70	26.0	1.23	1
Habberstad	2006	Cottonwood Creek	ACTIVE Expires 6/17/2020	2.75	49.0	3.69	1
Habberstad	2007	Cottonwood Creek	ACTIVE Expires 5/7/2022	1.10	43.0	0.90	1
Campbell	2007	Wall Creek	ACTIVE Expires 5/7/2022	0.70	29.0	1.40	0
Johns	2007	Fox Creek	ACTIVE Expires 5/7/2022	1.90	34.0	3.50	1

Johns	2007	Fox Creek	ACTIVE Expired 2000 (NF-3), Renewed 2007 Expires 5/10/2017	6.60	134.0	12.20	0
<u>Subtotals</u>				<u>36.96</u>	<u>945</u>	<u>56.78</u>	<u>32</u>
Middle Fork John Day River				Miles	Acres	Fence	Spring
				Protected	Leased	Miles	Developments
Carter	1989	Long Creek	EXPIRED 11/13/2004	1.20	14.0	1.70	0
Courchesne	1989	Long Creek	EXPIRED 11/27/2004	0.80	7.0	1.60	0
Nature Conservancy	1991	MFJDR	EXPIRED 4/1/2006	3.50	160.0	9.83	0
Oxbow Ranch/ CTWSRO	1993	MFJDR	EXPIRED 1/12/2008	3.50	28.0	7.90	0
Coleman	1995	MFJDR	ACTIVE Expires 12/14/2010	1.80	34.0	2.60	0
O'Rorke	1997	Camp Creek	ACTIVE Expires 7/31/2012	0.50	10.0	1.63	0
Walton	2001	Granite Creek	ACTIVE (R&E project) Expires 2011	0.75	14.0	1.50	0
Foster	2005	MFJDR	ACTIVE Expires 11/2/2019	0.50	123.0	0.70	0
CTWSRO	2005	MFJDR	-	0.90	37.0		0
Zaitz	2006	Big Boulder Creek	ACTIVE Expires 10/13/2021	1.80	24.0	0.30	0
Ussery/Leach	2006	8-Mile Creek	ACTIVE Expires 4/26/2021	2.60	58.0	4.02	0
Leach	2008	8-Mile Creek	Active Expires 5/26/2023	0.65	10	1.12	0
<u>Subtotals</u>				<u>18.50</u>	<u>519</u>	<u>32.9</u>	<u>0</u>
South Fork John Day River				Miles	Acres	Fence	
				Protected	Leased	Miles	
St. Clair	1996	SFJDR	EXPIRED 2006 R&E project	0.30	12.0	0.66	1
ODFW	1999	South Fork Deer Creek	ACTIVE ongoing ODFW	1.00	35.0	2.00	0
Johnson	2007	SFJDR	-	0.10	0.0	0.00	0
Latosky	2008	SFJDR	Active expires May 25, 2023	0.75	43.0	0.89	0
Mabe	2008	SFJDR	Active expires May 25, 2023	0.75	30.0	0.89	0

<u>Subtotals</u>	<u>2.90</u>	<u>120</u>	<u>4.44</u>	<u>1</u>
GRAND TOTALS	<u>126.86</u>	<u>5658</u>	<u>211.72</u>	<u>60</u>

IV. 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:

A. IMPLEMENTATION – Pre-work

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:

1. 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.

2. 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.

3. 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.

4. 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.

B. 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:

1. In-Stream 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.

2. 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.

3. 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.

4. 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.

5. 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.

C. OPERATIONS AND MAINTENANCE

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

1. Landowner Cooperation

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

2. 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.

3. In-stream 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.

4. Re-vegetation

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.

5. 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.

D. 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:

1. Photo-point Establishment

Photo-point 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.

2. Photo-point 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.

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 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.

4. 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.

5. 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.

6. 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.

V. RESULTS AND DISCUSSION: FIELD ACTIVITIES

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

A. IMPLEMENTATION – Pre-work

1. Project Planning

a. Design and Layout

- The riparian fence design and layout of the John Day River/Jacobs property was completed.
- The riparian fence design and layout of the John Day River/Mabe property was completed.
- The riparian fence design and layout of the John Day River/Latosky property was completed.
- The riparian fence design and layout of Laycock Creek/Holliday property was completed.
- The riparian fence design and layout of Mountain Creek/Collins property was completed.
- The riparian fence design and layout of Eight Mile Creek/Leach property was completed.
- The riparian fence design and layout of Hay Creek/Campbell property was completed.

b. Project coordination

- The biologist and technician met with landowner Alan Jacobs to discuss details of the fencing projects (new fence and rebuild) on the Upper John Day River.
- The biologist met with landowner Jim Mabe to discuss details of the fencing project development on the John Day River and South Fork John Day River.
- The ODFW staff met with Joe Latosky on his John Day River property to discuss details of a new riparian fence project.
- The biologist and technician met with landowners Ken and Pat Holliday to discuss details of the riparian fencing project on Laycock Creek and three spring developments.
- The biologist and technician met with landowner Bob Collins to discuss details of the fencing project on Mountain Creek and re-construction of an old windmill to a solar water site.

Figure 2. Landowner coordinating spring development (Mountain Creek/Collins property).

- The Habitat biologist and technician met with landowner Doug Leach to discuss details of the new riparian fencing project on Eight Mile Creek.
- The biologist met with landowner Mac Campbell to discuss details of the fencing project on his Hay Creek property.

c. Developing Contracts and Contract Specifications

- An OWEB grant was initiated by ODFW fish habitat and Grant soil and Water District for work year 2009.
- Six landowners signed the 15 year Cooperative Agreement for the fish habitat program in 2008.
- Bonnie Nance signed a 10 year renewal for a Cooperative Agreement on a previously expired lease on the Upper Mainstem John Day River.

d. Obtaining Work Permits

- The cultural surveys for riparian fence projects to be installed (approximately 16.34 miles) were completed by Nicole Brannon of Bonneville Power Administration (BPA) personnel in order to get SHIPO clearance for riparian fencing.
- The technician completed a notice of continuation of operation permit from the Oregon State Forestry in 2008.

2. Project Preparation

- Staking with landowner approval was completed on a 3.0 mile section of Laycock Creek/Holliday property.

- Staking of the Collins property on Mountain Creek was completed.

3. Riparian Lease Development and Procurement

- Cooperative agreements were written and distributed to the seven landowners for approval and signatures for 2008 work period.

4. Field Inventories

- There was a bank stability survey completed on Cottonwood Creek on the unfenced portion of the creek directly upstream of the riparian project completed in 2005.
- Project personnel assisted the District Fish personnel with instream placement of large wood on the Les Zaitz project on Big Boulder Creek a tributary of Middle Fork John Day River.
- The fish habitat personnel completed redd counts on Cottonwood Creek and Lake Creek.

B. IMPLEMENTATION- Onsite

1. Fencing

- Project personnel staked approximately 1.2 miles of riparian fence on Eight Mile Creek/ Leach property.
- Ryan Capon Contracting was awarded the riparian fencing contract on Eight Mile Creek/ Leach property.
- Project personnel gave pre-bid tour of Laycock Creek/Holliday property with Cody Cole, Ryan Capon, Rocky Perkins and Jason Kehrberg (GSWCD Manager) in attendance. The contract was awarded to Cole Construction.
- The seasonal technician finished maintenance on Beech and Little Beech Creek/Meredith property.
- Project personnel completed spring 2008 fence maintenance and installation of watergaps on program projects.

2. Off Site Water

- ODFW personnel installed solar panels on an existing wind mill to create a water development on Mountain Creek/Collins property.
- Perkins Construction installed three gravity spring developments on Laycock Creek/Holliday property.

3. Miscellaneous Implementation Activities

- The Fish Habitat Biologist installed various instream structures (large wood) to help create pools and deflect water into the thalweg to alleviate hydraulic pressure on stream banks on Big Boulder/Zaitz property.
- Fish Habitat technician and Screens and Passage personnel were combined to help each of the programs because of the close proximity of all the projects.
- One solar spring float was reconfigured on Mountain Creek/Bob Collins property.
- The solar pump site on Grub Creek/Helle property was taken out due to malfunctions over a three year period, a well casing was drilled and a 3.5 gpm pump will be installed in 2009.

C. OPERATIONS AND MAINTENANCE

1. Landowner Cooperation

- The landowners were contacted to complete a mid summer walk through of existing project areas.
- Coordination with all landowners regarding watgap installation and fence maintenance was undertaken.
- Several landowners were contacted regarding watgap needs throughout the summer to accommodate cattle movements to different pastures.

2. Re-vegetation

- Confederated Tribes of Warm Springs personnel planted 2000 willow/red osier cuttings on Middle Fork John Day River/Coleman property.
- Confederated Tribes of Warm Springs personnel planted 1000 willow/red osier cuttings on Fox Creek/ Johns property.
- Confederated Tribes of Warm Springs Fox Creek/Henslee property.

3. Fence Maintenance

- Spring and fall walk through of project areas to assess and repair damages were completed on all riparian enclosures.
- Most water gaps were removed and/or raised to prevent icing/flooding, with some being left in to water livestock throughout the winter.

4. Miscellaneous Operations & Maintenance Activities

- Maintenance on project ATV's and trailers was completed.
- Maintenance on over 100 miles of riparian fence was conducted.
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D. MONITORING AND EVALUATION

1. Photo-point Establishment

- Permanent photo-points (30) were established on new projects within the 2008 work period.

2. Photo-point Picture Taking

- Photo-points (5) on the Lake Creek/ Hoover project were retaken.

3. Habitat Monitoring Transect Establishment

- No habitat transects were established in 2008.

4. Thermograph Data Collection and Summarization

- No thermograph data has been collected due to the fact that in the past the thermographs have not been reliable.

5. Miscellaneous Monitoring & Evaluation Activities

- Project personnel a bank stability survey on Cottonwood Creek / Mascall property on a ½ mile section of unfenced creek directly upstream to the USFS boundary of the riparian project completed in 2005.

VI. RESULTS AND DISCUSSION: PROGRAM ADMINISTRATION

A. REPORTS AND DATA SUMMARIES

- Quarterly progress reports for the John Day Basin Fish Habitat Enhancement program were prepared and submitted to BPA by the PISCES system.
- The Statement of Work and Master budget for 2009 was finalized.
- Work was completed for a streambank pilot project with Oregon Trout funds.

B. BUDGETS/PURCHASE

- The biologists worked on budget and Statement of Work (SOW) for work period 2009 for BPA.

C. PROGRAM DEVELOPMENT

- The biologist has many contacts with numerous agencies (USFS, BLM, Grant Soil and Water, Tribal and NRCS specialists) discussing different issues associated with riparian fencing and land ownership issues.

D. PERSONNEL

- No personnel changes occurred.

E. CONTRACT ADMINISTRATION

- The pre-bid tour on the John Day River/Jacobs riparian fence was attended by several contractors. The bid was awarded to Ryan Capon of Canyon City.
- The pre-bid tour on the John Day River/Mabe riparian fence was attended by several contractors. The bid was awarded to Rocky Perkins of Dayville.
- The pre-bid tour on the John Day River/Latosky riparian fence was attended by several contractors. The bid was awarded to Rocky Perkins of Dayville.
- The pre-bid tour on the Laycock Creek/Holliday riparian fence was attended by several contractors. The bid was awarded to Cody Cole of Monument.
- The pre-bid tour on the Mountain Creek/Collins riparian fence was attended by several contractors. The bid was awarded to Pat Baxter of Prineville.
- The pre-bid tour on the Eight Mile Creek/Leach riparian fence was attended by several contractors. The bid was awarded to Ryan Capon of Canyon City.

F. MISCELLANEOUS ADMINISTRATIVE ACTIVITIES

- The biologist helped the Grande Ronde biologists on a week of salmon spawning surveys on the Minam River (approximately a 70 mile horseback ride).
- A meeting was held with Lorraine Vogt (NRCS) to discuss CREP riparian fence projects to be installed in 2008 work period.
- Project technician helped Hines district fish biologist in a large scale rotenone treatment project on McDermitt Creek.
- Biologist attended a three day float on the lower John Day River with ODFW district (LaGrande and John Day), fish research and ODFW personnel for Salem Headquarters. Various discussions and talks were given related to river conditions.

VII. INTERAGENCY COORDINATION & EDUCATION

A. INTERAGENCY COORDINATION

- ODFW staff gave a presentation to the Monument Soil and Water District monthly meeting to show projects that have been completed within the North Fork John Day River drainage at the Monument Senior Center.
- Wrote letter of support for the North Fork watershed council.
- The Fish Habitat personnel and the District Fish Biologist (Tim Unterwegner) finished a summary response report for the ISRP/NOAA committee. The report should help to address ISRP concerns about the fish habitat program and the benefits to riparian enhancement to future fish populations of the John Day River Subbasin.
- A collaboration meeting sponsored by the CTWSRO was attended with projects hashed over for the next years working group discussed.
- Technician helped on concrete pour on upper South Fork John Day River ditch system screens and passage program.
- Program personnel attended Intensively Monitored Watershed (IMW) meeting on the Middle Fork John Day River projects scheduled for the next few years.
- The technician attended a meeting at the TEC center to coordinate projects with the OYCC crews.
- The biologist overseen the instream placement of large wood structures on Big Boulder Creek/ Zaitz property.
- Fish habitat cut junipers on the wildlife area.
- Coordination with the Grant County Weed Department to spray noxious weeds was conducted on the John Day River/Mabe property and Lake Creek/Hoover property.
- Habitat personnel helped plant fruit trees next to Flat Creek a tributary of the John Day River.
- The biologist and technician attended several Grant Soil and Water District monthly meetings and Monument Soil and Water meetings to let the committees know projects to be completed within their geographic areas.
- Biologist spoke with Chris Jordan ISEMP of the Fish Research center and discussed ways to incorporate his research program into the John Day Fish Habitat program for M & E purposes.
- Program personnel met with Soil and Water personnel from Wheeler County on a project on 30 mile Creek/Kinzua Golf Course for riparian project in 2009.
- Fish habitat personnel assisted with burning of upland area above Indian Creek.

B. EDUCATION

- Monthly safety meetings and committee meetings were attended at the Screens and Passage office.
- Program personnel attended the annual NE Region meeting in John Day, Oregon.
- The fish habitat personnel attended Hazardous Material training at the John Day Screen Shop.
- Fish Habitat personnel attended chainsaw training put on by certified instructor.
- The Habitat biologist and technician attended a Wolf training in La Grande.
- ODFW staff attended a forklift/overhead crane training at the John Day Screen Shop.
- The fish habitat biologist attended a GIS training in Pendleton, Oregon.
- The fish habitat personnel conducted a tour for Mr. John Baugher (BPA COTR) and Nancy Leonard (NOAA) of project completed within the 2008 work period.

- A John Day high school student (Brett Alley) came out and completed a job shadow with fish habitat personnel.
- Fish habitat program overseen an OYCC group on Big Boulder Creek (Channel relocation project) on laying/staking out coconut fabric and installing blanket wraps to control bank erosion. Erosion blanket control sites were later planted with native plant cuttings.

Figure 3. OYCC crew laying out fabric for bank stabilization/sedimentation related issues on Big Boulder Creek.

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